MEMORANDUM

TO: Chapel Hill Planning Board
    Chapel Hill Parks and Recreation Commission
    Chapel Hill Bicycle and Pedestrian Advisory Board
    Chapel Hill Greenways Commission
    Chapel Hill Community Design Commission
    Chapel Hill Transportation Board

FROM: Gene Poveromo, Development Manager
       Judy Johnson, Senior Planner

SUBJECT: Charterwood – Application for Special Use Permit Application
         (File No. 9880-24-4842)

DATE: February 22, 2011 (Bicycle and Pedestrian Advisory Commission)
       March 1, 2011 (Planning Board)
       March 10, 2011 (Transportation Board)
       March 16, 2011 (Parks and Recreation Commission)
       March 16, 2011 (Community Design Commission)
       March 23, 2011 (Greenways Commission)

PURPOSE

The attached staff memorandum includes background information on an application for a Special Use Permit, submitted by WCA Partners, LLC. The application proposes to construct approximately 210,000 square feet of floor area with 5 buildings and 87 residential units on 14.3 acres of gross land area at 1641 Martin Luther King Jr. Boulevard, just south of Weaver Dairy Road Extension.

The western portion of the Special Use Permit will be encumbered by a Planned Development Housing proposal. The remainder of the proposed Special Use Permit is planned to be rezoned to the Mixed Use-Village District. For the Planning Board’s consideration, a rezoning application accompanies the Special Use Permit application.

The Planning Board, Transportation Board, Community Design Commission, Greenways Commission, Parks and Recreation Commission, and Bicycle and Pedestrian Advisory Board are asked to make a recommendation to Council on this application. A Public Hearing on this application has been tentatively scheduled for April 18, 2011.

RECOMMENDATION

Staff Recommendation: That the advisory boards recommend that the Council adopt Resolution A, approving the application with conditions, if the accompanying rezoning application is approved.
ATTACHMENTS

1. Staff Report
2. Resolutions A and B
3. Summary of Community Design Commission and Town Council Concept Plan Review comments and Applicant’s response to Concept Plan Review
4. Northern Area Task Force Report (excerpt)
5. Applicant’s updated daily vehicle trips calculation
6. Traffic Impact Analysis Executive Summary
7. NCDOT letter dated February 10, 2011
8. Applicant’s materials
9. Area Map
STAFF REPORT

SUBJECT: Charterwood at 1641 Martin Luther King Jr. Boulevard - Special Use Permit
Planned Mixed-Use and Planned Housing Development Application
(File No. 9880-24-4842)

DATE: February 22, 2011

INTRODUCTION

Attached for consideration is an application for a Special Use Permit submitted by WCA Partners, LLC. The application is for a mixed-use development on a 14.3-acre site located on the west side of Martin Luther King Jr. Boulevard immediately south of Chapel Hill Fire Station #4. The proposed development is comprised of 87 dwelling units, 30,000 square feet of office space, 25,000 square feet of retail space, and a 100-room hotel. The site, also known as the Altemueller property, currently has the historic family home that the applicant proposes to preserve. A second home on the site is proposed to be removed. The site, identified as Orange County Parcel Identifier Numbers 9880-24-4842 and 9880-24-6787 is zoned Residential-2 (R-2) with 1.2 acres located within a Resource Conservation District (RCD) overlay district.

The Special Use Permit application is accompanied by an application for a Zoning Atlas Amendment to rezone approximately 6.4 acres of the site from Residential-2 (R-2) to Mixed Use-Village (MU-V). The application also includes a Planned Development-Mixed Use overlay zone for the Mixed Use-Village district as well as a Planned Development-Housing overlay zone for the remaining Residential-2 district.

BACKGROUND


January 28, 2009 Community Design Commission Concept Plan Review of the project.

February 16, 2009 Town Council Concept Plan Review of the project.

February 2, 2010 Charterwood Rezoning and Special Use Permit applications submitted.

September 16, 2010 Charterwood Special Use Permit accepted as a complete application.

Existing Development

Location: The 14.3-acre site is bounded on the east by Martin Luther King Jr. Boulevard and on the north by the Town’s Fire Station No. 4 and Weaver Dairy Road Extension. To the west is the existing Northwoods V neighborhood. The site is located in the Residential-2 (R-2) zoning district and partially in the Resource Conservation District.
Existing Structures: The 14.3-acre site includes two vacant single-family dwelling units and various accessory structures including garages and sheds. The applicant is proposing to preserve and renovate the Altemueller farm house. The remaining structures are proposed to be removed.

Surrounding Neighborhood: The Town Fire Station No. 4 (to the north of the site) is zoned Office/Institutional-2 (OI-2), and the Northwoods V development (to the west of the site), is zoned Residential-1 (R-1). The property immediately to the south of the site is the Risgbee Mobile Home Park and is zoned Residential-2 (R-2). The property located to the east (across Martin Luther King Jr. Boulevard) is zoned Mixed Use-Office/Institutional-1 (MU-OI-1).

NCDOT Stormwater Basins: During the widening of Martin Luther King Jr. Boulevard, NCDOT constructed two stormwater management basins visible from Martin Luther King Jr. Boulevard. The applicant is in negotiations with the North Carolina Department of Transportation to acquire these parcels and incorporate this land in the design for Charterwood. The proposed plans are designed as if the applicant obtains ownership and control of the two NCDOT parcels.

Vehicular, Bicycle, and Pedestrian Circulation: Vehicular access to the site is currently from two driveways located on Martin Luther King Jr. Boulevard in the vicinity of Westminster Drive. There are currently sidewalks on both sides of Martin Luther King Jr. Boulevard along this section. Kenilworth Place is currently stubbed-out from the Parkside neighborhood to the western property line.

Transit Bus Stops, Routes: Extensive transit service is provided to this site and a bus stop is located along the Martin Luther King Jr. Boulevard frontage.

Vegetative Cover, Significant Trees: The site consists of a mix of mature hardwoods and pines and forest underbrush.

Easements: There is a perpetual Southern Bell Telephone and Telegraph easement at the southeastern corner of the site, with frontage on Martin Luther King Jr. Boulevard. There are two North Carolina Department of Transportation rights-of-way along the Martin Luther King Jr. Boulevard frontage that currently serve as drainage basins.

Topography, Drainage: The site slopes generally from the east to west with the highest point located near the Martin Luther King Jr. Boulevard frontage. The steepest slopes are located in the eastern portion of the site, within the two North Carolina Department of Transportation stormwater features. Many of these steep slopes are associated with the roadway and storm drainage improvements resulting from the construction of Martin Luther King Jr. Boulevard. The Resource Conservation District occupies approximately 1.2 acres of the site. The majority of the site (outside of the Resource Conservation District) has slopes less than 10 percent. The portion of the site that is located within the RCD also includes Jordan Buffer area.

Utilities, Infrastructure: Waterlines are available along the frontage of both Martin Luther King Jr. Boulevard and Weaver Dairy Road Extension. There is a sanitary sewer line crossing Martin Luther King Jr. Boulevard at the intersection with Westminster Drive. There are overhead electrical lines along the west side of Martin Luther King Jr. Boulevard.
Proposed Development

Development Description: The proposal involves both residential and commercial uses as part of the Special Use Permit application. The applicant proposes to construct five commercial buildings and 87 dwelling units totaling approximately 210,000 square feet. The applicant is proposing two points of access from Martin Luther King Jr. Boulevard, one a full movement intersection at the Westminster Drive intersection; the second a right-in/right-out only access located between Weaver Dairy Road Extension and Westminster Drive.

The applicant is proposing to renovate and restore the existing Altemueller farm house and is exploring different uses for this structure. A greenway trail, from the Martin Luther King Jr. Boulevard frontage to Lonebrook Drive, is also proposed as part of the application. A second greenway trail is proposed through the southern portion of the site connecting to existing Kenilworth Place in the Northwoods V neighborhood. The internal streets are proposed to be public with the exception of proposed alleys and parking lots.

Refuse and recycling services will include either residential roll-out carts or commercial dumpster areas.

Existing vegetation is to serve as the required landscape buffers along the northern, western, and southern property lines and is proposed to be augmented as necessary. Along the Martin Luther King Jr. Boulevard, the eastern property line, a modification to regulations for minimum buffer requirement is proposed for 420 linear feet and the remaining 1,000 linear feet is proposed to meet the required Type C buffer and contain both existing and new trees and other landscape material.

Demolition: The applicant proposes to deconstruct the one of the two existing single-family dwelling units and all of the accessory structures on the site.

Off-Site Improvements: The applicant proposes to extend the proposed greenway from the western property line of the site to Lonebrook Drive. This off-site improvement will be located on Town of Chapel Hill open space.

Modifications to the Regulations: The applicant is seeking modification to the following regulations: (1) landscape buffers (Section 5.6.2); and (2) parking lot landscaping placed between parking spaces and buildings (Section 5.9.6(a)).

EVALUATION

The Town staff has reviewed this application for compliance with the themes from the Comprehensive Plan, the standards of the Land Use Management Ordinance, and the Design Manual, and offers the following evaluation:

Comprehensive Plan: The following are themes from the Comprehensive Plan:

1. Maintain the Urban Services/Rural Buffer boundary;
2. Participate in the regional planning process;
3. Conserve and protect existing neighborhoods;
4. Conserve and protect the Town’s existing natural setting;
5. Identify areas where there are creative development opportunities;
6. Encourage desirable forms of non-residential development;
7. Create and preserve affordable housing opportunities;
8. Cooperatively plan with the University of North Carolina at Chapel Hill;
9. Promote the vitality of downtown;
10. Work toward a balanced transportation system;
11. Complete the bikeway/greenway/sidewalk systems;
12. Provide quality facilities and services; and
13. Develop strategies to address fiscal issues.

For additional information on how this proposed development addresses these and other goals, objectives, and strategies of the Comprehensive Plan, please refer to the applicant’s Statement of Justification (see attachments).

**Land Use Plan:** The Land Use Plan, a component of the Comprehensive Plan, designates the subject site as a Development Opportunity Area and refers to the Northern Area Task Force Report. For information about the report, see below.

**Northern Area Task Force Report:** The Northern Area Task Force Report was adopted by the Town Council on January 14, 2008 as a component of the Comprehensive Plan and applies to this property. A copy of the portion of the study related to this site is attached to this report.

The Northern Area Task Force Report identifies this site within Focus Area 3 (South of Weaver Dairy Road) area. The report includes several specific recommendations for this site including:

- Transit-friendly development;
- Mixed-Use, 8-15 DU/acre minimum gross density for residential developments (density should be measured as an aggregate of all the property in this portion of the focus area).
- Retain the Altemueller farmhouse and tree group as an active focus space for the community. Adaptively reuse the farmhouse. Protect the natural and cultural heritage of the site. Because of the environmental constraints impacting the property, it will be developed at a lower density than the adjoining property on the east site of Martin Luther King Jr. Boulevard.
- Landscaped and shaded streetscape;
- Extend greenway along Weaver Dairy Road Extension to Martin Luther King Jr. Boulevard.

[Northern Area Task Force Report, page 20]
In support of these recommendations, the applicant offered the following descriptions of the proposed development:

“The Charterwood development meets and, in many instances, exceeds these criteria for transit-oriented development and the concept of sustainable development. An important point with respect to the characteristics of the Charterwood development is the balancing of neighborhood concerns with the objectives of achieving a transit-supportive density of 8 dwelling units per acre.

We believe our density proposal is appropriate; we are proposing a “village-scale” modest program for development that protects the adjoining neighborhoods, the site’s natural attributes and heritage, and achieves a reasonable, but lower-density of development than what was recommended in the Northern Area Task Force Report. On a per net developable acreage basis, the Charterwood residential density is approximately 8 units per acre.”

Applicant’s Response

We believe that the proposed development achieves multiple goals of the Town’s Comprehensive Plan, including complementing adjoining development, providing diversity of housing types, and preserving clusters of significant trees. We believe the development, as submitted, is generally in compliance with the Northern Area Task Force Report with lower intensity proposed to both reflect the environmental constraints of the site and to protect the adjacent residential development.

Concept Plan/Special Use Permit Application Comparison

A Concept Plan proposal for this project was reviewed by the Community Design Commission on January 28, 2009, and by Town Council on February 16, 2009. The summary of Community Design Commission comments and the minutes of the Town Council meeting are attached. The Council comments and the applicant’s response are addressed in the pertinent sections of this staff report. Please see the attached applicant’s responses to the Town Council and Community Design Concept Plan comments (see attachments).

Ordinance Requirements

Zoning and Special Use Permit: The applicant proposes to rezone 6.4 acres of the site to the Mixed Use-Village (MU-V) zoning district (see accompanying memorandum). This zoning district and the Planned Development-Mixed Use designation and associated mix of uses are required in order for the applicant to provide a development consistent with the adopted goals of the Northern Area Task Force Study that the Council adopted as part of the Comprehensive Plan in 2008. The applicant proposes to retain the Residential-2 (R-2) zoning district for a portion of the site (approximately 7.93 acres) with a Planned Development-Housing designation to allow a mix of residential types including single-family and multi-family dwelling units that will abut single-family homes in the Northwoods V neighborhood.

Residential-2 and Planned Development Housing: Within the Residential-2 (R-2) zoning district subarea, the applicant is proposing 31 dwelling units with 21 single-family units and 10 townhomes. These structures are proposed to conform to the height regulations associated with Residential-2 (R-2) zoning. A Planned Development-Housing requires a minimum land area of five acres and permitted uses include single-family dwelling units, duplexes, as well as a multi-
family dwelling units. The underlying zoning district setbacks apply to the perimeter of the planned development. The development is subject to the intensity regulations of the underlying zoning district (Residential-2 in this case) although the floor area ratio is not applicable for single-family dwelling units.

**Mixed Use-Village and Planned Development-Mixed Use:** The Mixed Use-Village (MU-V) zoning district and Planned Development-Mixed Use designation are proposed to include approximately 60 condominiums/townhomes, 30,000 square feet of office space, 25,000 square feet of retail space, and a 100-room hotel in five buildings that range in height from two to four stories as seen in the following table.

**Land Uses Permitted in the Mixed-Use/Planned Mixed Use District:** The Special Use Permit applicant is seeking authorization for the following mix of land uses within the Mixed Use-Village/Planned-Mixed Use portion of the site: Bank, including drive-through; Bank ATM, Walk-up and Drive-through; Barber shop/beauty salon; Business, convenience; Business, general; Business, office-type; Business, wholesale; Child/adult day care facility; Clinic, College or university; Fine arts educational institution; Hotel/Motel; Manufacturing, light; Personal Services; Places of worship; Public service facility; Publishing and/or printing; Recreation facility, commercial; Research activities, Multi-family Dwelling Units and associated customary incidental uses.

If college or university use is proposed, we recommend inclusion of our standard stipulation regarding continued payment of taxes. We have included this stipulation in Resolution A. In order to provide adequate on-site parking, Resolution A also limits the percentage of restaurant type us 50% or less that the non-residential floor area.

The below chart describes the use, floor area and building height for the 5 building proposed within the Mixed-Use Village/Planned-Mixed Use district;

<table>
<thead>
<tr>
<th>Bldg</th>
<th>Max. Floor Area</th>
<th>Proposed Land Use</th>
<th>Proposed # of Res. Units</th>
<th>Proposed Height (in feet)</th>
<th>Floors (above grade)</th>
<th>Setback from right-of-way (in ft)</th>
<th>Vehicular Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>30,000 sf</td>
<td>Mix of use</td>
<td>0</td>
<td>34’</td>
<td>2</td>
<td>6.8’</td>
<td>Surface only</td>
</tr>
<tr>
<td>B</td>
<td>60,000 sf</td>
<td>Mix of use</td>
<td>36</td>
<td>53’</td>
<td>4</td>
<td>7’</td>
<td>36 spaces beneath</td>
</tr>
<tr>
<td>C</td>
<td>36,000 sf</td>
<td>Residential</td>
<td>24</td>
<td>46’</td>
<td>3</td>
<td>200’</td>
<td>26 spaces beneath</td>
</tr>
<tr>
<td>D</td>
<td>60,000 sf</td>
<td>Hotel or mix or use</td>
<td>0</td>
<td>55’</td>
<td>4</td>
<td>20’</td>
<td>45 spaces beneath</td>
</tr>
<tr>
<td>E</td>
<td>20,000 sf</td>
<td>Mix of use</td>
<td>0</td>
<td>44’</td>
<td>3</td>
<td>50’</td>
<td>20 spaces beneath</td>
</tr>
</tbody>
</table>
Building D: In order to respond to future tenant market demands, the applicant has requested flexibility for the type of use and building mass for Building D. Although the current proposal anticipates a 4-story, 60,000 square foot hotel or mix or uses, the applicant seeks the option to allow other non-residential type uses for this site. We understand the applicant also seeks flexibility for a building that could be less intense that a 4-story, 60,000 square foot structure. For example, during the final plan process the applicant might propose a smaller building that includes a decreased building footprint as well as generally changes to access, circulation and parking within this portion of the site.

Section 4.5.4 of the Land Use Management Ordinance anticipates that an approved Special Use Permit might include changes to a site plan during final plan review, that are different from the site plan reviewed and approved by the Council. The ordinance allows the Town Manager to administratively approve such changes as long as the changes do not result in:

“...substantial changes in the location of principal and/or accessory structures or structural alterations significantly affecting basic size, form, style, ornamentation and appearance of structures as shown on the plans approved by the Town Council...”

We recommend that flexibility for Building D be allowed as regulated by Section 4.5.4 of the Land Use Management Ordinance. As required by the ordinance, any substantial changes in the location of principal and/or accessory structures or structural alterations significantly affecting basic size, form, style, ornamentation and appearance of structures as shown on the plans approved by the Town Council would require additional Town Council approval of a Special Use Permit Modification. Resolution A includes this stipulation.

If Building D is to be developed as a hotel or office/retail spaces, we recommend that the bufferyard along this frontage be a 20 foot Type “C” landscape buffer with no vehicular parking between the building and Martin Luther King Jr. Boulevard. We would expect patio areas and entrances to the building to be included in the buffer area and pedestrian access from the proposed transit stop. The hotel as proposed shows 28 surface parking spaces and 45 structured parking spaces. We recommend that any office/retail or housing alternative provide a similar ratio of surface to structured parking areas. We have included these as stipulations in Resolution A.

Floor Area Percentage-Mix of Uses: The Land Use Management Ordinance requires that the Mixed Use-Village (MU-V) portion of the site include office, commercial, and residential uses. The mix of floor area within the Mixed Use-Village portion of the site shall contain at least 25 percent of the floor area devoted to residential uses and at least 25 percent of the floor area devoted to commercial/office uses. This has been included as a stipulation in Resolution A.

Modifications to the Regulations: As proposed, the Special Use Permit application does not comply with the following standards in the Land Use Management Ordinance: 1) landscape buffers (Section 5.6.2); and 2) parking lot screening (Section 5.9.6(a));

1) Landscape Buffer Modification: A 20 foot Type “C” buffer is required along the Martin Luther King Jr Boulevard frontage. The applicant is requesting a modification to the regulations for portions of the development that do not comply with the minimum buffer
width. The applicant is requesting the modification for approximately 420 linear feet in front of Building A. The modification to the buffer regulation would permit a buffer of between 15 to 18 feet in width and that the buffer would contain sidewalks connecting the public sidewalk to buildings, patios, and other retail hardscape amenities, and landscaping materials including trees, shrubs, and ground cover.

The applicant states that “…this arrangement and design puts the pedestrian and walking as the primary emphasis of this zone. It also provides a high quality, attractive pedestrian environment, with components including vegetation, seating, and accessibility as elements of the proposal. With this design, visual and functional access to the high level of transit service along Martin Luther King, Jr. Boulevard is reinforced.” [Applicant’s statement]

A 30 foot Duke Energy easement is located along the frontage of Martin Luther King Jr. Boulevard. The Land Use Management Ordinance requires that bufferyards are to be located outside of any easements. The applicant is proposing to provide additional plantings within the Duke Energy easement and the NCDOT right-of-way that satisfy the landscaping policies of those organizations.

2) Parking Lot Screening Modification: With respect to the ordinance standard requiring landscaping between parking areas and adjacent buildings, the applicant is not proposing to provide a 5-foot wide planted landscape strip between the internal parking area and building façade, as required by Section 5.9.6.

We recommend that the applicant either comply with the requirements and standards of the recommended Mixed Use-Village zoning district or ask the Council to modify the requirements of the Land Use Management Ordinance for each of the noted items.

Residential Density: The Northern Area Task Force Report states the area should be a mixed-use development with a residential densities of 8 to 15 dwelling units per an acre minimum gross density measured as an aggregate of this focus area.

The development, as proposed, has a density of approximately 8 units per acre. This figure is calculated based on the area of the site dedicated to residential land uses outside of the Resource Conservation District and land set aside for the preservation of the farmhouse.

Although, as proposed, the project’s density is at the low end of the residential densities recommended by the Northern Area Task Force, we believe that there are other competing goals and objectives within the Comprehensive Plan that should be considered including the desire to protect the adjacent residential area. For additional discussion on this topic, please refer to the Northern Area Task Force discussion in this report.

Intensity Standards (floor area): Using the Residential-2 (R-2) floor area ratio of 0.093, with exception for the area within the Resource Conservation District, the maximum floor area allowed on within the Residential-2 (R-2) portion of the site is 99,978 square feet. Although the proposed 21 single-family dwelling units within the Planned Development-Housing (PD-H) are not subject to the floor area limit, the proposed multi-family dwelling units are. The applicant is proposing floor area for the multi-family dwelling units of approximately 29,000 to 40,000
square feet, thereby meeting the floor area intensity standards.

Within the 6.4 acres of the site proposed to be rezoned to Mixed Use-Village (MU-V), the floor area ratio is 1.2 and the maximum floor area allowed is 334,000 square feet. The applicant is proposing a potential maximum square footage for this subarea of up to 210,000 square feet. This is a floor area ratio of about 0.75. We have included a stipulation in Resolution A that would limit floor area in this area to 210,000 square feet.

**Dimensional Standards (setbacks):** The setback requirements within the Planned Development-Housing (PD-H) portion of the site are those of the underlying Residential-2 (R-2) zoning and apply only to the perimeter of the site. In this case that is the edge of the Northwoods V neighborhood and the Town Fire Station property. In these locations the minimum setback is 11 feet (13 feet for solar) from the property line.

The setbacks requirements within the Planned Development-Mixed Use (PD-MU) portion of the site are the underlying Mixed Use-Village (MU-V) zoning district setbacks. Within the Mixed Use-Village (MU-V) subarea, there is only a solar setback of 20 feet. The Mixed-Use Village does not specify a minimum setback (0 setback) along the street or interior lot lines. This solar setback is along the northern property line of the side abutting the Fire Station property. All of the structures proposed within the PD-MU land area meet the setback standards.

**Dimensional Standards (height):** The primary and secondary building heights in the Residential-2 (R-2) zoning district are 29 feet and 50 feet and in the Mixed Use-Village (MU-V) zoning district are 60 feet and 114 feet. The applicant is proposing to meet the primary and secondary height limitations of both zoning districts.

Please refer to checklist of Project Fact Sheet requirements for additional information about Ordinance requirements (see attachment).

**Affordable Housing**

*Inclusionary Zoning Ordinance:* The Town of Chapel Hill has enacted an Inclusionary Zoning Ordinance that mandates a set aside percentage for affordable housing for new developments that propose five or more units to provide 15% (10% in the Town Center) of the units at prices that are affordable to low- to moderate-income households. The Ordinance goes into effect on March 1, 2011, and applies to applications that have been submitted to the Town but have not been approved by the appropriate body (such as the Planning Board or the Town Council) by March 1, 2011. This application is subject to the Inclusionary Zoning Ordinance.

**Staff’s Recommendation:** The applicant proposes to construct seventy-five market-rate units. Thus, the affordable housing requirement (15%) is for 11.25 affordable units. We recommend that the applicant provide 15% of the units according to the Inclusionary Zoning Ordinance. Specifically, at least one half, or six (6) units, should be priced so that they are affordable to households earning 65% or less of the area median income, and five (5) units priced so they are affordable to households earning 80% or less than the area median income. A payment of $21,250 (.25 x current payment-in-lieu rate of $85,000) to the Town’s Affordable Housing Fund would satisfy the affordable housing fractional payment-in-lieu requirement. Traditionally, we
ask that these funds be paid to the Town prior to the issuance of a Zoning Compliance Permit. If the Council approval includes the above staff recommendation, the applicant has requested to provide payment to the Town prior to issuance of the first Certificate of Occupancy.

In acknowledgement of the Council’s past practices and discussions, we recommend that the applicant provide 15% of the units according to the Inclusionary Zoning Ordinance. This has been included as a stipulation in Resolution A.

At a November Work Session, the Council also authorized the staff to move forward with the development of an Affordable Housing Strategy. We expect that the development process will include discussion of many key issues related to affordable housing, including the need for affordable housing for households earning greater than 80% of the area median income. We expect to complete a draft of the Strategy in June, 2011. Therefore, we note that our recommendation could be revised based on the Council’s action.

Applicant’s Alternate Proposal: The Inclusionary Zoning Ordinance allows the Council to approve alternatives to development of affordable housing. Specifically, the Council can approve an alternative if it determines that the alternative provides “an equivalent amount of Affordable Dwelling Units in a way that the Town Council or Planning Board determines better achieves the goals, objectives and policies of the Comprehensive Plan than providing them on-site.”

The applicant is proposing an alternative method of meeting the affordable housing requirement that would provide eight units affordable to households earning less than 80% of the area median income, two units to households earning 100% of the area median income and two units affordable to households earning 105% of the area median income. Though different from the Council’s current affordable housing requirement outlined in the Inclusionary Zoning Ordinance, we believe that this alternate proposal would begin to address the documented need for workforce middle-income housing in the community.

The applicant proposes to partner with the Community Home Trust to oversee the affordable units. The Community Home Trust Board of Directors is currently reviewing its organizational charter to determine if they are willing and able to serve households earning up to 105% of the area median income. If they make this change, we believe that it would be reasonable for this entity to oversee the affordable units in this development. The organization’s model is designed to protect the long-term affordability of units and identify buyers of the property.

The applicant proposes pricing of the affordable and middle-income units to be set by Town Policy and the Inclusionary Zoning ordinance standards. If the Council accepts the proposed alternative, we recommend that the pricing of the units be approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

The Council held an Affordable Housing Work Session in November, 2010 and discussed developing a policy that would specify when on-site affordable units would be preferred. Based on the information provided by the applicant and the Council’s preliminary discussion at the Work Session, the applicant proposal is consistent with the Council’s preference to provide affordable units on-site.
Access and Circulation

Traffic Impact: The Town’s traffic consultant prepared the Traffic Impact Analysis (TIA) for this development. The TIA (see attachment) examined the no-build and build-out scenarios and analyzed the transportation impacts of developing the property with 35 townhome/condo units, 30 single-family homes, 20,000 square feet of specialty retail and 15,000 square feet of general office space, and a 100 room hotel. The predicted effects on traffic focused on Martin Luther King Jr. Boulevard and Weaver Dairy Road.

The analysis predicted a total of 2,308 vehicles trips per day. Of these trips, the TIA indicated 124 vehicles trips would occur during the morning peak hour, 189 vehicle trips during the mid-day peak, and 212 vehicle trips during the afternoon peak hour. These figures assumed a 6-12% internal trip capture rate and a 20% reduction for transit, pedestrian, and bicycle use.

Recently, that applicant submitted new documentation indicating that the potential number of daily trips could increase from 2,308 trips per day to 2,805 trips per day (see attached letter). This documentation also increased the number of residential units from 65 units (35 townhomes/condos, 30 single-family) to 87 units (56 townhomes/condos, 31 single family).

The Town granted the request for a TIA exemption for the following reasons:

a) The initial TIA for this project was conducted in February 2010.
b) The revised proposal does not propose changes to the access/circulation.
c) The revised proposal does not generate more than 500 additional trips on MLK Jr Blvd.
d) Given the improvements the developer committed to making, redoing a study will not provide any significantly different result or recommendation for transportation.
e) The request meets the Town guidelines for TIA exemption.

We recommend that the applicant provide a detailed table of traffic generation for each proposed land use prior to issuance of a Zoning Compliance Permit. As land uses change over time, it will be necessary for the applicant to submit an updated trip generation summary table and possibly Traffic Impact Analysis or an exemption request for Town Manager approval. We have included this as a stipulation in Resolution A.

Traffic Signal Improvements: The Town’s traffic consultant stated that the additional traffic generated by this application could be addressed with the following improvement:

- Traffic signal upgrades to accommodate the fourth leg of the Martin Luther King Jr. Boulevard and Westminster Drive intersection and installation of pedestrian signals and crosswalks on all four approaches.

Resolution A includes this stipulation.

Because the signal upgrade at the main site driveway and Martin Luther King Jr. Boulevard will require that several signals along the corridor are retimed and updated to maximize traffic progression, Resolution A also includes the following stipulation:
• Retimed traffic signal at the Martin Luther King Jr. Boulevard and Homestead Road. The signal upgrade at the main site driveway and Martin Luther King Jr. Boulevard will require all signals along the corridor to have timings updated to maximize traffic progression.

**Martin Luther King Jr. Boulevard Improvements:** The Town’s traffic consultant stated that the additional traffic generated by this application could be addressed with the following improvement:

• A northbound left-turn lane in the median at the Martin Luther King Jr. Boulevard and Westminster Drive intersection to accommodate site-related traffic. As part of the signal upgrade at this location activate a protected left-turn signal phase for the northbound and southbound left-turn movements.

Resolution A includes this stipulation.

Based upon the TIA, town and NCDOT policies and the Complete Streets concepts, we recommend that prior to the issuance of a Certificate of Occupancy, the applicant improve the Martin Luther King Jr. Boulevard frontage with improvements, constructed to the North Carolina Department of Transportation standards, including:

• Provide crosswalks at the Martin Luther King Jr. Boulevard and Westminster Drive intersection on all four legs of the intersection.

• Provide improvements to the site approach to the Martin Luther King Jr. Boulevard and Westminster Drive intersection including at least 100 feet of driveway length and two exit lanes to be designated as left-turn/through and right-turn only.

These recommendations have been included in Resolution A.

**Bus pull-off and shelter:** The Town’s traffic consultant stated that the additional traffic generated by this application could be addressed with the following improvements:

• Provide a bus pull-off, bus stop, and amenities (bench, shelter, trash receptacle, and lighting) along Martin Luther King Jr. Boulevard south of the Martin Luther King Jr. Boulevard and Westminster Drive intersection on the western side of the Martin Luther King Jr. Boulevard.

Resolution A includes this stipulation.

The Mixed Use-Village section of the Land Use Management Ordinance (Section 3.5.1(d)(6)) states that the applicant shall provide a bus stop consistent with the design criteria of the Town Code of Ordinance and that the stops shall be located within one-half mile of all dwelling units or office buildings. We believe that the existing Martin Luther King Jr. Boulevard, right-of-way
is sufficient to accommodate the proposed bus pull-off although the location of the bus shelter would be located within an easement. We also recommend that the applicant provide these improvements prior to issuance of a Certificate of Occupancy. These have been included as stipulations in Resolution A.

**Vehicular Access:** Vehicular access to the site is proposed at two locations on Martin Luther King Jr. Boulevard. The northern vehicular access point would provide a right-in/right-out access to eleven single-family lots as well as one non-residential building of 20,000 square feet. The main entrance, at the Martin Luther King Jr. Boulevard and Westminster Drive intersection would provide full access to the remaining site. Some of the internal drives are proposed to be publicly maintained.

The Town’s traffic consultant stated that the additional traffic generated by this application could be addressed with the following improvements:

- A roadway design within the site for the interior site approach to the Martin Luther King Jr. Boulevard and Westminster Drive intersection that includes at least 100 feet of street length and two exit lanes to be designated as left-turn/through and right-turn only.

This improvement has been incorporated into the proposed site design.

**Kenilworth Place connector:** The Town’s traffic consultant stated that the additional traffic generated by this application could be addressed with the following improvements:

- Close existing Martin Luther King Jr. Boulevard driveway to the Rigsbee Mobile Home Park located immediately south of the site. Construct a new driveway to this property as part of the extension of Kenilworth Place.

The applicant proposes a pedestrian/bicycle connection to Kenilworth Place rather than a full roadway connection to the Northwoods V neighborhood.

Consistent with Town policy, we recommend that the applicant dedicate a public right-of-way between Kenilworth Place to the proposed public street in Charterwoods. We recommend that this right-of-way extend to the property to the south (Rigsbee Mobile Home Park). We also recommend that the applicant construct a public street, meeting Town standards within this dedicated right-of-way. This has been included as a stipulation in Resolution A.

Resolution A does not include a stipulation requiring the closure of the Martin Luther King Jr Blvd driveway to the Rigsbee Mobile Home Park, as recommended by the Town’s traffic consultant. We believe this action can be reconsidered at such time that the Rigsbee Mobile Home Park site is proposed for redevelopment.

If the Council chooses not to require the applicant to construct the roadway connection between Charterwood and Kenilworth Place it will be necessary for the applicant to provide a cul-de-sac or other means for vehicles to turn around at the end of the southernmost internal public street. The proposed location and design for the vehicular turn-a-round is subject to review and approval of the Town Manager prior to issuance of a Zoning Compliance Permit.
**Internal Private Alleys:** The applicant has proposed to provide private alleys along the rear of the townhome lots as well as along the rear of the single-family lots 12 through 21. These alleys are consistent with neo-traditional and transit friendly design principles that place garages and parking to the rear of lots and permit a more pedestrian friendly and visually appealing streetscape. We recommend that if private alleys are approve and constructed, that a note be included on the plans and plats indicating that the Town service vehicles will not be responsible for any pavement damage in these alleys and if the alleys are blocked or impassable, municipal services will not be provided until these conditions are corrected.

We are also recommending that if the proposed private alley behind the single-family lots 12 though 21 is approved, that the applicant provide a turnaround at the northern end of the proposed alley. These have been included as stipulations in Resolution A.

**Vehicular Parking Mixed-Use Village:** The Land Use Management Ordinance requires a minimum of 356 parking spaces and a maximum of 463 parking spaces for the Mixed Use-Village portion of the site. The Mixed Use-Village section of the Land Use Management Ordinance (Section 3.5.1(d)(4)) states:

> “Off-street parking requirements shall be 50% of the minimum parking requirements listed in the Parking and Loading Standards section of the ordinance.”

The Mixed Use-Village zoning district acknowledges the desired shared parking aspect of mixed use development and applies a reduced minimum parking standard. The district establishes minimum parking requirements at 50% of the standard requirements. We believe establishment of a reduced minimum requirement is desirable.

In light of this standard, the applicant is proposing to provide 282 parking spaces including 12 handicap spaces for the mixed use portion of the site including: 127 structured parking spaces beneath buildings B, C, D, and E, and 155 surface parking spaces associated with the commercial buildings. Approximately 45% of the proposed spaces are proposed to be in structures rather than surface parking.

The development proposes 120,000 square feet of non-residential floor area and 56 residential units. The following floor area allocations are proposed: 25,000 square feet retail, 35,000 square feet office, and 60,000 square feet hotel use.

<table>
<thead>
<tr>
<th>Proposed Uses</th>
<th>Maximum vehicular parking</th>
<th>Minimum vehicular parking</th>
<th>50% of minimum vehicular parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential (59 units)</td>
<td>103</td>
<td>83</td>
<td>42</td>
</tr>
<tr>
<td>Office (35,000 sq. ft.)</td>
<td>140</td>
<td>100</td>
<td>50</td>
</tr>
<tr>
<td>Retail (25,000 sq. ft.)</td>
<td>125</td>
<td>83</td>
<td>42</td>
</tr>
<tr>
<td>Hotel (60,000 sq. ft.)</td>
<td>125</td>
<td>90</td>
<td>45</td>
</tr>
<tr>
<td>Total (187,567 sq. ft.)</td>
<td>493 spaces</td>
<td>356 spaces</td>
<td>179</td>
</tr>
</tbody>
</table>
We believe the applicant’s proposal complies with the Ordinance and is reasonable in providing an appropriate number of parking spaces. Resolution A would authorize a minimum of 179 vehicle parking spaces and a maximum of 493 vehicle parking spaces in the Mixed Use-Village subarea.

**Multi-Family Parking in the Residential-2 District:** The multi-family residential component in the Residential-2 portion of the site requires a minimum of 14 parking spaces and a maximum of 23 spaces for the proposed 10 townhomes. The applicant is proposing to provide 20 parking spaces, mostly garage and driveway spaces, as well as 10 additional surface parking spaces. Resolution A would authorize a maximum of 23 parking spaces, including garage and driveway spaces, in the Residential-2 subarea.

**Loading Zone:** Although off-street loading zones are required for all retail and business uses, the Mixed Use-Village section of the Land Use Management Ordinance provides the exception for loading areas to overlap automobile parking bays where it can be demonstrate that hours of peak operation do not conflict with delivery schedules. The applicant is not proposing any loading zones associated with the project. We recommend that prior to the issuance of a Zoning Compliance Permit the applicant provide additional information regarding the coordination of potential delivery schedules and parking demands. This has been included as a stipulation in Resolution A.

**Handicapped Parking and Access:** Resolution A requires the applicant to comply with Americans with Disabilities Act standards, North Carolina Accessibility Code, and Town standards for handicapped parking and access.

**Pedestrian Access:** There are currently sidewalks along both sides of Martin Luther King Jr. Boulevard frontage of this site. For information on a proposed internal greenway, please refer to the discussion under Greenway in this report.

**Streetscape:** The [NC 86/ Martin Luther King Jr. Boulevard Corridor Study](#) recommend a 7 foot planting strip between the sidewalk and the edge of pavement. The applicant is proposing a planting strip of between 2 feet (south of the main driveway entrance) to greater than 7 feet. We recommend the applicant provide a minimum of a 7 foot planting strip with tree lawn, as well as canopy trees, to buffer the sidewalk along Martin Luther King Jr. Boulevard frontage. We recommend that applicant provide sufficient space to include the canopy trees outside the public right-of-way and outside of utility easements to assure that a treed edge can be maintained in the event of future work within the right-of-way. This recommendation has been stipulated in Resolution A.

**Complete Streets:** The Town Council adopted a Complete Streets policy on February 14, 2011. It is attached to this report. As part of this adopted policy, the Town has committed to implementing a Complete Streets policy that provides for the needs of motorists, transit riders, bicyclists and pedestrians and promotes healthy and active neighborhood. Complete Streets designs incorporate bicycle and pedestrian features with appropriate landscaping. Transit service is accommodated through the provision of bus stops and safe pedestrian access. We have
included a stipulation in Resolution A addressing these policies as they affect this segment of Martin Luther King Jr. Boulevard.

**Greenway:** The Town’s adopted [Greenways Master Plan](#) shows a proposed greenway along Upper Booker Creek, to the west of the site with a connection to Weaver Dairy Road. The applicant is proposing an east-west connection to the proposed Upper Booker Creek trail along the northern portion of the site. The proposed trail would provide access from Martin Luther King Jr. Boulevard through the site to Lonebrook Drive. This off-site improvement will be located on Town of Chapel Hill open space.

We believe the applicant’s proposal is appropriate. We recommend that the greenway path be 10-feet wide feet the northern portion of the site and that the greenway and all construction related activities, including grading, be located outside of the regulated 50 foot Jordan Buffers and Resource Conservation District associated with an intermittent stream. We recommend that the trail location be located to follow the proposed sanitary sewer line and be constructed to avoid specimen trees as much as possible. We recommend that the final design and location of this greenway be reviewed and approved by the Town Manager prior to the issuance of a Zoning Compliance Permit. For additional information, please refer to the Recreation portion of this staff report. We have included this as a stipulation in Resolution A.

**Bicycle Parking and Circulation:** The application shows four designated bicycle parking areas with a combined capacity of approximately 50 bicycle parking spaces. The proposal also includes secured bicycle parking areas within the parking structures as well as in surface parking. The Land Use Management Ordinance requires a minimum of 70 bicycle parking spaces. We recommend that the applicant provide bicycle parking spaces that comply with Land Use Management Ordinance requirements as well as the Town’s Class I and Class II Design Manual standards. We have included this as a stipulation in Resolution A.

**Transportation Management Plan:** A Transportation Management Plan is stipulated in Resolution A.

**Landscape Buffers, Architecture, Public Art**

**Buffers:** Following are the Land Use Management Ordinance standards for landscape bufferyards on this site, and the bufferyards proposed by the applicant:

<table>
<thead>
<tr>
<th>Location</th>
<th>Buffer Required</th>
<th>Proposed Buffer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Property Line</td>
<td>20 ft Type C</td>
<td>20 ft Type C (or alt buffer adj to South Bell site)</td>
</tr>
<tr>
<td>Western Property Line</td>
<td>20 ft Type C</td>
<td>25 ft Type C (existing vegetation as well as enhancement plantings)</td>
</tr>
<tr>
<td>Eastern Property Line (Martin Luther King Jr. Boulevard)</td>
<td>30 ft Type D</td>
<td>420 linear feet modification to regulations; 1,000 linear feet 20 ft Type C</td>
</tr>
<tr>
<td>Northern Property Line (Town property)</td>
<td>20 ft Type C</td>
<td>20 ft Type C - existing vegetation (or alt buffer for stormwater/easements)</td>
</tr>
</tbody>
</table>
We recommend that all buffer areas be graded at a maximum slope of 3 to 1. We recommend that all buffers be located outside of utility easements and stormwater features. If the applicant proposes to place stormwater features or easements within the required buffers, we recommend that the applicant request an alternate buffer. We have included these as stipulations in Resolution A.

**Buffer along Northern Property Line:** The applicant proposes to use existing vegetation augmented as necessary with new materials along these property lines to satisfy the buffer requirement. Unless the applicant obtains alternate bufferyard approval from the Community Design Commission, we recommend that utility easements and stormwater features be located outside the proposed buffer. We have included these as stipulations in Resolution A.

**Buffer along Southern Property Line:** The applicant proposes to use existing vegetation augmented as necessary with new materials along this property line to satisfy the buffer requirement. We recommend that buffer be extended continuously along the Southern Bell easement along the Southern property line. We also recommend that any utility easements including any stormwater management features be located outside the proposed buffer as well as the construction limit lines in this buffer be adjusted to provide for the preservation of existing rare and specimen trees. It may also be necessary to request an alternate buffer if the proposed greenway will be located within the proposed buffer. We have included these as stipulations in Resolution A.

**Buffer along Western Property Line:** The applicant proposes to increase the buffer to 25 feet in width and has worked with the adjoining property owners and initiated a program to design landscape enhancement plantings within this wider buffer. We have included this proposal as a stipulation in Resolution A.

**Buffer along Martin Luther King Jr. Boulevard:** Section 5.6.6 of the Land Use Management Ordinance provides standards for buffers and provides the ability to reduce the required buffer one grade of intensity if the development is designed such that there is no parking between the buildings located on the site and the adjacent street. The site plan submitted indicates no parking in this area and the required bufferyard along Martin Luther King Jr. Boulevard and the bufferyard has been reduced from the required 30-foot Type “D” buffer to a 20-foot Type “C” buffer.

The Ordinance requires that utility easements, including those associated with overhead utilities and stormwater management improvements, be located outside of the required buffers. The section of development between Buildings A and B and Martin Luther King Jr. Boulevard is constrained by a 30 foot Duke Energy easement which overlaps a portion of the NCDOT right-of-way. The applicant is requesting a modification to regulations for the required buffer for approximately 420 linear feet of the Martin Luther King Jr. Boulevard frontage in front of Buildings A and B. (Please refer to the Modification from Regulations section of this memorandum for additional information.)

We recommend that the applicant provide sufficient space for the planting of canopy trees in this area. Specifically, Resolution A stipulates that the 420 linear feet proposed with a modification
to regulations include a minimum of a 15 foot width with a tree lawn and canopy tree plantings outside of the public right-of-way and any utility easements. As part of this design, we also recommend that the applicant consider the installation of sidewalk, patios and other hardscape in these areas. We recommend that the applicant provide detailed plans indicating the amounts and types of hardscape or intrusions proposed into the buffer. We have included these as stipulations in Resolution A.

The proposed buffer between Building D and Martin Luther King Jr. Boulevard is currently proposed as a 20 foot Type “C” buffer. Because the proposed bus shelter and bus pull-off is located in front of Building D, we recommend that the approval of this Special Use Permit allow the encroachment of the sidewalk, through the buffer, to the bus shelter location. We have included these as stipulations in Resolution A.

The remaining Martin Luther King Jr. Boulevard is shown with a 20 foot Type C buffer.

**Additional Tree Preservation:** We recommend that if possible the area along the southwest edge of the site be revised to accommodate preservation of more of the rare and specimen trees in this area. Of particular note are two of the three largest white oaks in this area which appear to be in good condition. We also are concerned with the amount of land disturbance to the root zone of the 31” white oak tree in the central tree save area and believe it is unlikely to survive the proposed construction. We have included this as a stipulation in Resolution A.

**Landscape Protection Plan:** We have included our standard stipulation in Resolution A requiring Town Manager approval of a Landscape Plan, including landscape maintenance schedule, prior to issuance of a Zoning Compliance Permit.

**Landscape Screening and Shading Plan:** The applicant has requested a Modification to Regulation for landscape standards associated with landscape areas between parking areas and buildings. Please refer to the Modifications to Regulations section of this memorandum for additional information.

**Tree Canopy Plan:** The site is currently heavily wooded and includes a significant number of notable trees. In order to fully evaluate this application in light of the revised Tree Ordinance requirements requiring a minimum tree canopy for all new development approved by a Special Use Permit, it will be necessary for the applicant to provide a plan calculating the existing tree canopy coverage on the site and the tree canopy coverage proposed to be retained. In addition a planting plan showing the number and location of proposed canopy trees should be provided to determine if the newly required canopy coverage standards will be met. We have included this as a stipulation in Resolution A. We believe the proposed project will comply with the new tree canopy regulations.

**Building Elevations, Lighting, and Alternate Buffers:** Resolution A stipulates building elevations lighting plans and alternate buffers be approved by the Community Design Commission.

**Public Art:** This application does not provide for any public art. Resolution A does not include a public art requirement.
Recreation

Recreation Space – Greenway to Lonebrook Dr: The Land Use Management Ordinance requires 23,276 square feet of recreation space and the applicant is proposing 26,576 square feet of recreation space in the form of a 10-foot wide greenway trail/bicycle path through the northern portion of the site from Martin Luther King Jr. Boulevard to Lonebrook Drive. Resolution A prohibits land disturbance associated with the construction of the greenway within the Resource Conservation District and the Jordan Riparian Buffer areas. We recommend that the maintenance of the bicycle/pedestrian path be the responsibility of the property owner.

We also recommend that where feasible the path be provided within a 15-foot wide public greenway easement and that the easement be recorded at the Orange County Register of Deeds, and grant an easement in perpetuity to the Town of Chapel Hill. We have included these as stipulations in Resolution A.

Environmental

Land Disturbance: Approximately 522,100 square feet (or 84% of the net land area) is proposed to be disturbed as part of this site redevelopment. The applicant has stated that land disturbance will be kept to the minimum possible, especially near the tree preservation areas. For additional information on this subject, please refer to the discussion on Significant Trees.

Impervious Surface: Town standards in the Land Use Management Ordinance set a maximum percent of impervious surface after development at 70% of the site for non-residential or mixed-use developments. There is currently 10,115 square feet of impervious surface on the site (1.7% of the site’s Gross Land Area), of which 8,305 square feet will be removed. The application proposes new impervious surface of 300,581 square feet for a total of 302,391 square feet (44% of the gross land area). As part of the Stormwater Report for this application, the applicant is proposing to limit impervious surface for the single-family lots as per the allocation table in the report. We recommend that the allocation table be included as part of the final plat documents and that as part of every application for a Zoning Compliance Permit or Building Permit, that the applicant provide an updated cumulative total of impervious surface. We have included these recommendations as stipulations in Resolution A.

Steep Slopes: The site has areas of moderate slopes (10-15%) and steeper slopes (>15%) that are located within the site’s Resource Conservation District (RCD) areas. The steepest slopes on the property (>25%) occur within the North Carolina Department of Transportation property and are man-made slopes as part of the construction of these stormwater basins. The remainder of the property is primarily with slopes of less than 10%.

Watershed Protection District: The proposed development is located outside the Watershed Protection District.

Jordan Lake Buffers and Resource Conservation District: 1.2 acres of the site in the northwest portion of the site lies within the Resource Conservation District (RCD) associated with an intermittent stream. The newly adopted Jordan Lake Riparian Buffer standards also apply to this same 100 feet wide intermittent stream buffer. We recommend that no land disturbance except that permitted by the RCD and Jordan Lake Buffer rules that allow for the
maintenance of healthy vegetation occur within this buffer. We also recommend that no lot lines encroach into the RCD. These recommendations have been stipulated in Resolution A.

**Wetlands:** There are no identified wetlands on the site.

**Stormwater Management:** The stormwater plan for this project encompasses two NCDOT stormwater basins. These basins are presently located on state owned property. We understand that the applicant has been negotiating to acquire these parcels and incorporate these structures into the stormwater management plans. A letter from NCDOT concerning this matter is attached.

Because post submittal changes have been made to the plan, the initial stormwater impact statement is not consistent with the stormwater management plan. This is not unusual as revisions are typically made to an initial application submittal as an applicant proceeds through the review process. We anticipate changes to the stormwater management plan may be required during the final plan review. It is not uncommon for minor changes to occur during final plan review. If any final plan changes are significant, the applicant may be required to return to the Council for review and approval of modification to the approved Special Use Permit site plan.

We have included our standard stipulation in Resolution A requiring that the applicant demonstrate compliance with the stormwater management requirements of the Land Use Management Ordinance to provide for 85 percent total suspended solids removal for any additional suspended solids that are the result of the new development, the retention of any increase in stormwater runoff volume for 2-year storm for a period of 2-5 days, and the control of any increase in the stormwater runoff rate for the 1-year, 2-year, and 25-year storms prior to issuance of a Zoning Compliance Permit. This project must comply with the stormwater management requirements of the Land Use Management Ordinance. We have included this as a stipulation in Resolution A along with stipulations 48 through 58.

**Erosion Control:** Resolution A required Orange County approve an erosion and sediment control plan.

**Lighting:** Resolution A includes a stipulation requiring compliance with Section 5.11 including the submission of a lighting plan.

**Noise:** Resolution A includes a stipulation requiring the applicant to provide information about how the project construction will comply with the Town’s Noise Ordinance.

**Energy Management:** The applicant is proposing to apply for certification of Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) for Charterwood. This designation takes a bigger view of the benefits of a well-planned community that promotes the reduction of carbon foot-printing and energy consumption by facilitating alternative forms of transportation in compact mixed-use developments. The applicant believes that Charterwood will qualify for this designation due to the following:

- Location that is close to a town center;
• Area with good transit service;
• Infill Site;
• Site adjacent to existing development;
• Location where alternatives to auto dependence are promoted;
• Location where housing and jobs are in proximity;
• Location where mixed use and smart development is promoted.

We have included our standard Energy Management Plan stipulation in Resolution A.

**Utilities and Services:**

**Refuse Management:** Refuse and recycling services for the Residential-2 (R-2) subarea is proposed with roll-out carts either in the rear or in the front of each lot. In the Mixed Use-Village (MU-V) subarea, three screened dumpster areas are proposed. The applicant states that roll-out recycling carts would be located within each building and that refuse and recycling collection services shall be contracted for with private collection companies.

It appears that the current design does not contain sufficient space for conventional Town dumpster collection service. We recommend that the design be revised prior to approval of a Zoning Compliance Permit to provide designs acceptable to the Town for public collection services if they are ever needed. This is a standard stipulation for all developments. In addition, it will be necessary for the site to comply with the Town of Chapel Hill and Orange County requirements for corrugated cardboard collection and disposal. Refuse and recycling collection services are proposed to be private. It will also be necessary to provide accessible grease traps and collection facilities, to be approved by OWASA and the Town Manager for any proposed restaurant uses.

We recommend that all driveways and alleys proposed to accommodate refuse collection vehicles be constructed of heavy-duty pavement. We have included these as stipulations in Resolution A.

**Solid Waste Management Plan:** We have included our standard stipulation in Resolution A requiring Town Manager approval of a Solid Waste Management Plan prior to issuance of a Zoning Compliance Permit.

**Utility Plans:** Final utility/lighting plans to be approved by all applicable utility providers. We have included a stipulation to this effect in Resolution A.

**Overhead Power Lines:** All proposed or relocated utility lines other than 3-phase electric power distribution lines be located underground. We have included a stipulation to this effect in Resolution A.

**Sewer Line Construction:** All public water/sewer plans be approved by OWASA. We have included a stipulation to this effect in Resolution A.

**Miscellaneous**
Construction Management and Traffic and Pedestrian Control Plans: A Construction Management Plan and Traffic and Pedestrian Control Plan and compliance with the Town’s Noise are included as stipulations in Resolution A.

Deconstruction/Demolition Plan: Some of the existing buildings on the site are proposed to be deconstructed and demolished. A stipulation has been included in Resolution A requiring a Deconstruction/Demolition Plan.

Schools Adequate Public Facilities Ordinance: The proposed development is subject to the provisions of the Schools Adequate Public Facilities Ordinance. We have included this as a stipulation in Resolution A.

Fire: The proposed development is subject to NC Fire Code, fire protection as required by Town Ordinance, and NFPA 13. We have included these as stipulations in Resolution A.

Special Use Permit Findings: For approval of a Special Use Permit, the Council must make the following findings, as set forth in Article 4.5.2 of the Land Use Management Ordinance:

(a) That the use or development is located, designed, and proposed to be operated so as to maintain or promote the public health, safety, and general welfare;

(b) That the use or development complies with all required regulations and standards of this Chapter, including all applicable provisions of the Land Use Management Ordinance;

(c) That the use or development is located, designed, and proposed to be operated so as to maintain or enhance the value of contiguous property, or that the use or development is a public necessity; and

(d) That the use or development conforms with the general plans for the physical development of the Town as embodied in the Land Use Management Ordinance and in the Comprehensive Plan.

Upon review of the application and information that has been submitted to date, as well as the stipulations included in Resolution A and the requested modification to the regulations, our preliminary conclusion is that these findings can be made.

CONCLUSION

Based on information available at this stage of the application review process, we believe that the proposal, with the requested modifications and the conditions in Resolution A, meets the requirements of the applicable sections of the Land Use Management Ordinance and Design Manual; the Northern Area Task Force Report; and is consistent with and fulfills the purposes of the Comprehensive Plan, if the associated rezoning is approved.

Resolution A would approve the application with conditions. Resolution B would deny the application.
<table>
<thead>
<tr>
<th>SPECIAL USE PERMIT</th>
<th>STAFF EVALUATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Permitted</td>
<td>X (with Rezoning)</td>
</tr>
<tr>
<td>Minimum Gross Land Area</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Lot Width</td>
<td>X</td>
</tr>
<tr>
<td>Maximum Floor Area</td>
<td>X (with Rezoning)</td>
</tr>
<tr>
<td>Minimum Recreation Space</td>
<td>X</td>
</tr>
<tr>
<td>Impervious Surface Limits</td>
<td>X</td>
</tr>
<tr>
<td>Minimize Land Disturbance in RCD</td>
<td>X (with stipulations)</td>
</tr>
<tr>
<td>Minimum # Vehicular Parking Spaces</td>
<td>X</td>
</tr>
<tr>
<td>Maximum # Vehicular Parking Spaces</td>
<td>X</td>
</tr>
<tr>
<td>Minimum # Bicycle Parking Spaces</td>
<td>X</td>
</tr>
<tr>
<td>Minimum # Loading Spaces</td>
<td>X (with stipulations)</td>
</tr>
<tr>
<td>Minimum # Handicapped Spaces</td>
<td>X</td>
</tr>
<tr>
<td>Maximum # Dwelling Units</td>
<td>X (with Rezoning)</td>
</tr>
<tr>
<td>Minimum Street Setbacks</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Interior Setback</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Solar Setback</td>
<td>X</td>
</tr>
<tr>
<td>Maximum Height Limit</td>
<td>X</td>
</tr>
<tr>
<td>Minimum Landscape Bufferyards</td>
<td>X (with modification)</td>
</tr>
<tr>
<td>Steep Slopes</td>
<td>X</td>
</tr>
<tr>
<td>Parking Lot Screening</td>
<td>X (with modification)</td>
</tr>
<tr>
<td>Public Water and Sewer</td>
<td>X</td>
</tr>
<tr>
<td>Adequate Public School Facilities</td>
<td>X (with stipulations)</td>
</tr>
</tbody>
</table>

N/A = Not Applicable

Prepared: February, 2011
A RESOLUTION APPROVING AN APPLICATION FOR A PLANNED DEVELOPMENT-HOUSING AND PLANNED DEVELOPMENT MIXED-USE SPECIAL USE PERMIT FOR CHARTERWOOD (FILE NO. 9880-24-4842)

BE IT RESOLVED by the Council of the Town of Chapel Hill that it finds that the Charterwood Special Use Permit proposed by WCA Partners, LLC, on property identified as Orange County Property Identifier Numbers 9880-24-4842 and 9880-24-6787, if developed according to the Site Plan dated August 21, 2009 and revised May 27, 2010, August 5, 2010, September 30, 2010, January 7, 2011, and February 16, 2011 and the conditions listed below would:

1. Be located, designed, and proposed to be operated so as to maintain or promote the public health, safety, and general welfare;
2. Comply with all required regulations and standards of the Land Use Management Ordinance;
3. Be located, designed, and operated so as to maintain or enhance the value of contiguous property; and
4. Conform with the general plans for the physical development of the Town as embodied in the Land Use Management Ordinance and in the Comprehensive Plan.

BE IT FURTHER RESOLVED by the Town Council of Chapel Hill that it finds, in this particular case, that the following modification satisfy public purposes to an equivalent or greater degree:

1. Modification of Section 5.6.2 to modify the minimum landscape bufferyards requirement for approximately 420 linear feet along Martin Luther King Jr. Boulevard to a minimum width of 15 feet outside of all rights-of-ways and utility easements.
2. Modification of Section 5.9.6 to provide relief for installing a 5-foot wide landscaping strip between parking spaces and buildings.

These findings are based on a determination that public purposes are satisfied to an equivalent or greater degree because the applicant is providing affordable housing, infill housing, multi-modal transportation accessibility, structured and shared parking, and pedestrian focus. The proposed development is serviced by transit, bike lanes and a sidewalk and pedestrian system, and thereby offers the opportunity to arrive at the site via alternative means of transportation.

Stipulations Specific to the Development

1. **Construction Deadline**: That construction begin by (three years from the date of Council approval) and be completed by (five years from the date of Council approval).
2. **Land Use Intensity:** This Special Use Permit authorizes with:

<table>
<thead>
<tr>
<th></th>
<th>R-2</th>
<th>MU-V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Land Area</td>
<td>345,430 sq. ft.</td>
<td>278,348 sq. ft.</td>
</tr>
<tr>
<td>Total Floor Area</td>
<td>78,000 sq. ft.</td>
<td>210,000 sq. ft.</td>
</tr>
<tr>
<td>Maximum Impervious Surface Area</td>
<td>57,800 sq. ft.</td>
<td>244,591 sq. ft.</td>
</tr>
<tr>
<td>Minimum Vehicular Parking Spaces</td>
<td>14</td>
<td>179</td>
</tr>
<tr>
<td>Maximum Vehicular Parking Spaces</td>
<td>23</td>
<td>493</td>
</tr>
<tr>
<td>Minimum Bicycle Parking Spaces</td>
<td>3</td>
<td>70</td>
</tr>
<tr>
<td>Max. Number of Dwelling Units</td>
<td>31</td>
<td>*56</td>
</tr>
<tr>
<td>Minimum Affordable Dwelling Units</td>
<td>15% of unrestricted dwelling units</td>
<td>15% of unrestricted dwelling units</td>
</tr>
<tr>
<td>Minimum Recreation Space</td>
<td>9,499 sq. ft.</td>
<td>14,083 sq. ft.</td>
</tr>
</tbody>
</table>

* dwelling units may be increased with an approved Traffic Impact Exemption

3. **Permitted Land Use Category:** That the following land uses are permitted within the Mixed Use-Village/Planned Mixed-Use Development portion of the site: Bank, including drive-through; Bank ATM, Walk-up and Drive-through; Barber shop/beauty salon; Business, convenience; Business, general; Business, office-type; Business, wholesale; Child/adult day care facility; Clinic, College or university; Fine arts educational institution; Hotel/Motel; Manufacturing, light; Personal Services; Places of worship; Public service facility; Publishing and/or printing; Recreation facility, commercial; Research activities, Multi-family Dwelling Units and associated customary incidental uses. The following land uses are permitted within the Residential-2/Planned Housing - Development portion of the site: Dwelling units (single-family, two-family, and Multi-Family) and associated customary incidental uses.

4. **Mix of Uses and Phasing: Mixed Use Village:** That the mix of floor area within the Mixed Use-Village portion of the site shall contain at least twenty-five (25) percent of the floor area devoted to residential uses and at least twenty-five (25) percent of the floor area devoted to office/commercial uses. That all required use categories (residential, office/commercial) shall be included in the first phase of the project, if phased.

5. **Convenience-Business: Eating/Drinking Establishments:** That the Convenience-Business: Eating/Drinking Establishment (restaurant/bar) land use category shall not exceed 50% of the non-residential floor area.

6. **Compliance with Section 4.5.4:** That the Town Manager may authorize site plan adjustments, associated with the location of principal and/or accessory structures or structural alterations, as permitted by Section 4.5.4 of the Land Use Management Ordinance.
Substantial changes in the location of principal and/or accessory structures or structural alterations significantly affecting basic size, form, style, ornamentation and appearance of structures, as shown on the plans approved by the Town Council, shall require additional Town Council approval of a Special Use Permit Modification.

7. **NCDOT Properties**: That prior to issuance of a Zoning Compliance Permit, the applicant submit a recombination plat for the two NCDOT parcels for review and approval by the Town Manager. If the properties are not acquired, it will be necessary for the applicant to provide revised plans and related materials based on the revised property lines, indicating compliance with the Land Use Management Ordinance, for review and approval of the Town Manager prior to issuance of a Zoning Compliance Permit.

8. **Taxation**: That during any time this property is exempt from ad valorem property taxes (college or university), the owner shall make annual payments-in-lieu of property taxes, the amount to be determined based on a valuation determined by the Orange County Tax Supervisor and the applicable year’s established city and county tax rate.

**Affordable Housing**

9. **Affordable Housing Plan**: That the applicant submit an Affordable Housing Plan to be incorporated into an Affordable Housing Performance Agreement to be executed by the applicant, the Town Manager (or designee), and the non-profit agency that provides the following affordable housing contribution:
   a. 15% the market rate units is 11.25 units (75 units X 15%)*
   b. The applicant will construct 11 units on-site that will be affordable to households according to the requirements of the Inclusionary Zoning Ordinance.*
   c. The applicant will provide a payment of .25 multiplied by per unit payment amount established annually by the Council. As of January, 2011, the per unit payment is $85,000 X .25 = $21,250.*
   d. The payment shall be made to the Town’s Affordable Housing Fund.
   e. Payment must be received prior to issuance of the first Certificate of Occupancy.

*(calculation is based on the applicant’s proposal to provide 76 market rate units)

In addition to the affordable housing contribution, the Affordable Housing Plan shall provide the information required in section 3.10.4 of the Land Use Management Ordinance and listed here:

a) General information about the nature and scope of the covered development.
b) For Applicants that request an alternative to on-site provision of affordable housing, evidence that the proposed alternative will further affordable housing opportunities in the Town to an equivalent or greater extent than compliance with the otherwise applicable on-site requirements of this Section.
c) The total number of market rate units and Affordable Dwelling Units in the development.
d) The number of bedrooms and bathrooms in each Affordable Dwelling Unit.
e) The approximate square footage of each Affordable Dwelling Unit.
f) The approximate location within any multifamily residential structure, or any subdivision of land, of each Affordable Dwelling Unit.

g) The pricing for each Affordable Dwelling Unit or Lot. The pricing of each unit or lot shall be determined at time of approval of the Zoning Compliance Permit. At the time of sale this price may be adjusted if there has been a change in the median income or a change in the formulas used in this ordinance.

h) The order of completion of market rate and Affordable Dwelling Units.

i) Documentation and specifications regarding the exterior appearance, materials and finishes of the development for each of the Affordable Dwelling Units, unless it is stated that market rate units and Affordable Dwelling Units shall have identical exterior finishes. It is strongly encouraged that the appearance of affordable units be comparable to the appearance of market-rate units.

j) Documentation of features incorporated into the design of the Affordable Dwelling Units that accommodate lifelong living and aging in place. Examples of such features, also referred to as components of “Universal Design,” are elements that provide increased accessibility to and throughout the dwelling such as accessible points of entrance to the dwelling, wider doorways, and bedrooms accessible without steps.

k) Documentation of the extent to which construction of the affordable units incorporates energy-efficient and durable design and materials, to minimize ongoing maintenance costs for those units.

l) Any and all other information that the Town Manager may require that is needed to achieve the Council’s affordable housing goals.

Prior to issuance of a Zoning Compliance Permit, the Affordable Housing Plan and Performance Agreement shall be reviewed and approved by the Town Manager or his designee.

Transportation

10. Martin Luther King Jr. Boulevard Improvements: That prior to the issuance of a Certificate of Occupancy for the portion of the development accessed by the primary entrance at the intersection of Martin Luther King Jr. Boulevard and Westminster Drive, the applicant shall improve the Martin Luther King Jr. Boulevard frontage including:

- A northbound left-turn lane in the median at the Martin Luther King Jr. Boulevard and Westminster Drive intersection to accommodate site-related traffic including a protected left-turn signal phase for the northbound and southbound left-turn movements (as related to the associated signal upgrade).

- Crosswalks at the Martin Luther King Jr. Boulevard and Westminster Drive intersection on all four legs of the intersection.

- Pedestrian-actuated signals and bicycle-activated loops for all four approaches at the Martin Luther King Jr. Boulevard and Westminster Drive intersection.

- Improvements to the site approach to the Martin Luther King Jr. Boulevard and Westminster Drive intersection including at least 100 feet of driveway length and two exit lanes to be designated as left-turn/through and right-turn only.
• A right turn lane for southbound Martin Luther King Jr. Boulevard traffic.
• Signal retiming along the corridor (to Homestead Road) to accommodate the revised signal timing at the site’s entrance.

The improvements shall be constructed to the North Carolina Department of Transportation standards. The design shall be subject to the approval of the Town Manager and North Carolina Department of Transportation prior to the issuance of a Zoning Compliance Permit.

11. Traffic Generation: That a detailed table of traffic generation for each land use be submitted prior to issuance of a Zoning Compliance Permit. That this table is subject to review and approval by the Town Manager. That in the event the number of daily trips exceeds 2,805, it will be necessary for the applicant to prepare a Traffic Impact Analysis or obtain an exemption from the Town Manager.

12. Martin Luther King Jr. Boulevard Bus Pull-off: That prior to the issuance of a Certificate of Occupancy, the applicant improve Martin Luther King Jr. Boulevard with construction of a bus pull-off with the location and design approved by the Town Manager and the North Carolina Department of Transportation prior to issuance of a Zoning Compliance Permit.

13. Bus Stop Amenities: That prior to the issuance of a Certificate of Occupancy, the applicant shall provide a bus stop shelter with amenities including a bench, lighting, and trash receptacle.

14. Kenilworth Place Extension Right-of-Way: That prior to the issuance of a Zoning Compliance Permit, the applicant shall dedicate right-of-way that extends the existing Kenilworth Place public right-of-way to the proposed north-south public street within the development as well as extending the right-of-way to the southern property line (mobile home park). That the dedication plat shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

15. Kenilworth Place Extension Roadway: That prior to the issuance of a Certificate of Occupancy, the applicant shall construct a Town standard public street, that extends the existing Kenilworth Place roadway to the proposed north-south public street within the development as well as extending the roadway to the southern property line (mobile home park). The design and location of this roadway shall be reviewed and approved by the Town Manager.

16. Kenilworth Place Alternative: That if the Council chooses to not require the applicant to construct the public roadway connections as described in the above stipulation, it will be necessary for the applicant to construct a cul-de-sac or other means for vehicles to turn around at the southern end of the southernmost public street. The design and location of the turn-around shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

17. New Street and Intersection with Martin Luther King Jr. Boulevard: That the required improvements shall be designed to the North Carolina Department of Transportation
standards and approved by NCDOT and the Town Manager prior to the issuance of a Zoning Compliance Permit. That prior to issuance of the first Certificate of Occupancy for this portion of the development, all public improvements shall be constructed.

18. Private Alleys: That the applicant provides a turnaround at the northern end of the private alley running behind the single-family lots 12 through 21.

19. Future Cross Access Easements: That a plat, recorded at the Orange County Register of Deeds Office prior to issuance of a Zoning Compliance Permit, shall include a cross-access easement for pedestrian and vehicular connections between all portions of the development. Notes to this effect shall be provided on all plats and final plans.

20. Loading Zone: That the applicant provides additional information regarding the coordination of potential delivery schedules and parking demands prior to issuance of a Zoning Compliance Permit in order to demonstrate that the peak operation does not conflict with the delivery schedule.

21. Accessibility Requirements: The applicant shall provide the minimum required handicapped parking spaces and design all handicapped parking spaces, ramps, and crosswalks, and associated infrastructure according to Americans With Disabilities Act standards, North Carolina Accessibility Code, and Town standard prior to issuance of a Certificate of Occupancy. Code requirements include standards for the number, size and spacing of handicapped spaces, travel distance from parking spaces to buildings, ramp and sidewalk slope, cross-walk striping and other considerations.

22. Streetscape: That sufficient space for canopy trees, including a 7-foot wide planting strip and tree lawn outside the public right-of-way and utility easements, be provided along the Martin Luther King Jr. Boulevard frontage.

23. Complete Streets: That the design of the transportation network is consistent with the adopted Town of Chapel Hill policy for Complete Streets.

24. Bicycle Parking: That the applicant comply with the bicycle parking standards in place at such time that the Town Council approves the Special Use Permit. That the applicant shall provide dimensioned details for the bicycle parking spaces that comply with Town parking standards and the spring 2002 Association of Pedestrian and Bicycle Professionals Guidelines and the Class I and Class II bicycle parking standards required by the Town Design Manual.

25. Transportation Management Plan: A Transportation Management Plan for the non-residential portion of the site shall be approved by the Town Manager prior to issuance of a Zoning Compliance Permit. This plan shall be updated and approved annually by the Town Manager. The required components of the Transportation Management Plan shall include:

a) A Transportation Coordinator at each site to communicate and promote alternate modes of transportation.
b) Submission of an Occupancy Survey due 90 days after issuance of Certificate of Occupancy.
c) Submission of an updated annual Transportation Management Plan Report.
d) Submission of Go Chapel Hill Mobility Business and Employee Surveys during survey years.
e) Trip reduction measures implemented to gradually attain the goals of the program.
f) An annual list of the types of land use categories occupying the non-residential portion of the site, and the total amount of floor area associated with each category.

Landscaping and Elevations

26. Landscape Buffers: That the applicant shall provide the following landscape buffers:

<table>
<thead>
<tr>
<th>Location</th>
<th>Bufferyard LUMO Requirement</th>
<th>Required Bufferyard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Southern Property Line</td>
<td>20 ft Type C</td>
<td>20 ft Type C</td>
</tr>
<tr>
<td>Western Property Line</td>
<td>20 ft Type C</td>
<td>25 ft Type C (enhanced plantings)</td>
</tr>
<tr>
<td>Eastern Property Line</td>
<td>20 ft Type C</td>
<td>1,000 linear feet 20’ Type C buffer;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>420 linear feet buffer modification</td>
</tr>
<tr>
<td>Northern Property Line</td>
<td>20 ft Type C</td>
<td>20 ft Type C (existing vegetation)</td>
</tr>
</tbody>
</table>

27. **Southern Buffer**: That unless the applicant obtains alternate bufferyard approval from the Community Design Commission, that a standard 20-foot wide Type-C buffer be provided continuously along the north edge of the Southern Bell easement. Stormwater management features, utility easements or greenway trails shall not be located within this 20-foot wide bufferyard. That the limits of disturbance be revised on the final plans to attempt to preserve more, of the rare and specimen trees in this area.

28. **Western Buffer**: That prior to the issuance of a Zoning Compliance the applicant provide an enhanced landscape planting plan along this 25-foot wide Type-C bufferyard. These planting shall be installed prior to issuance of the first Certificate of Occupancy.

29. **Eastern Buffer in Front of Buildings A and B**: That in order to provided sufficient width to accommodate canopy trees, the 420 linear-foot modified bufferyard, in front of building A and B shall include a minimum 15-foot wide tree lawn with canopy tree plantings. The tree lawn and associated canopy trees shall be located outside of the public right-of-way and any utility easements.

30. **Hardscape Plan: Buildings A and B**: That the final plan consider the installation of sidewalk, patios and other hardscape in between Building A, B and Martin Luther King Jr. Blvd. That the plan details indicating the amounts and types of hardscape or intrusions proposed into the buffer in this area.
31. **Alternate bufferyards:** That any stormwater management features or any type of easement, shall not be located within a required bufferyard, unless authorized as part of an alternate bufferyard plan reviewed and approved by the Community Design Commission.

32. **Buffers:** That all buffers be graded at a maximum slope of 3 to 1 unless otherwise approved by the Town Manager prior to the issuance of a Zoning Compliance Permit.

33. **Landscape Protection:** That a detailed Landscape Protection Plan, clearly indicating which significant tree stands, rare and specimen trees shall be removed and which shall be preserved, shall be provided prior to issuance of a Zoning Compliance Permit. The plan shall include critical root zones of all rare and specimen trees, and clearly delineate significant tree stands. The plan shall also include detail of tree protection fencing around construction limits and indicate construction parking and materials staging/storage areas, and Town standard landscaping protection notes, subject to Town Manager approval prior to issuance of a Zoning Compliance Permit.

34. **Landscape Planting Plan:** That the applicant shall provide a detailed Landscape Planting Plan with a detailed planting list, subject to Town Manager approval prior to issuance of a Zoning Compliance Permit.

35. **Tree Preservation:** That the land disturbance limits along the southwest edge of the site be revised to accommodate preservation for two of the three largest white oaks. That the land disturbance activity in the central tree area be minimized in order to improve the survivability of a 31” white oak tree.

36. **Tree Protection Fencing Prior to Demolition:** That the applicant shall provide a note on the Final Plans indicating that tree protection fencing will be installed prior to demolition of the existing buildings on the site, prior to issuance of a Zoning Compliance Permit.

37. **Chain link Fencing:** That a chain link fence shall be installed around the portions of the tree save areas during construction, to ensure restricted land disturbance near these areas. Details concerning the location, type, installation, and maintenance of this fence shall be approved by the Town Manager prior to the issuance of a Zoning Compliance Permit.

38. **Landscape Screening and Shading:** That the landscaping standards for Section 5.9.6 (a-d) of the Land Use Management Ordinance shall be provided prior to issuance of a Zoning Compliance Permit.

39. **Landscape Plan and Landscape Maintenance Plan:** That a detailed Landscape Plan and a Landscape Maintenance Plan, shall be approved by the Town Manager prior to issuance of a Zoning Compliance Permit. The landscape plan shall indicate the size, type, and location of all proposed plantings as well as the limits of land disturbance and tree protection fencing.
40. **Tree Canopies Maintenance Plan**: Prior to the issuance of a Zoning Compliance Permit, the applicant shall provide a tree canopy maintenance plan that provides and ensures maintenance of a 13 1/2 foot vertical clearance distance above the entrance driveways to allow for emergency access.

41. **Tree Canopy Plan**: Prior to the issuance of a Zoning Compliance Permit, the applicant shall provide a tree canopy plan calculating the existing tree canopy coverage on the site, calculating the tree canopy that will be retained and the proposed canopy tree planting plan demonstrating that the development will meet the new Tree Ordinance Minimum Tree Canopy standards.

42. **Planting Plan**: Prior to issuance of a Zoning Compliance Permit, the applicant shall provide a planting plan showing the number and location of proposed canopy trees to determine if the newly required canopy coverage standards are being met.

43. **Building Elevation Approval**: That the Community Design Commission shall approve building elevations including the location and screening of all HVAC/Air Handling Units for this project, prior to issuance of a Zoning Compliance Permit.

44. **Lighting Plan Approval**: That the Community Design Commission shall approve a lighting plan for this site and shall take additional care during review to ensure that the proposed lighting plan will minimize 1) upward light pollution and 2) offsite spillage of light, prior to issuance of a Zoning Compliance Permit.

45. **Greenway trail**: That the applicant provide a 10-foot-wide multi-use trail through the northern portion of the site between Martin Luther King Jr. Boulevard and Lonebrook Drive as shown of the site plan dated January 7, 2011 prior to issuance of a Certificate of Occupancy designed to American Association of State Highway and Transportation Officials (AASHTO). The path surface must be appropriate for a multiple use trail and shall not consist of a dirt, gravel, or similar surface and be constructed with grades no greater than five percent and designed to support the weight of a maintenance vehicle. That the location of the trail and associated construction area is outside of the Jordan Riparian Buffer, outside of the Resource Conservation District, and outside of the proposed single-family lots. That the proposed trail final design, location, and construction details, including signage and pavement marking plan of this greenway be reviewed and approved by the Town Manager prior to the issuance of a Zoning Compliance Permit. That the Greenway trail:

   a. That the maintenance of the bicycle/pedestrian path be the responsibility of the property owner.

   b. That where feasible the path be provided within a 15-foot wide public greenway easement. That the easement be recorded at the Orange County Register of Deeds, and grant an easement in perpetuity to the Town of Chapel Hill prior to issuance of a Zoning Compliance Permit. The recorded easement shall include wording that guarantees public
pedestrian, non-motorized vehicle, and motorized wheelchair access. The easement must also guarantee the Town of Chapel Hill’s right to construct and maintain the trail, signage, or any other function necessary to guarantee public safety. The recorded easement shall also include sketch maps indicating the location of the trail within the easement and nearby points of reference, such as public streets.

**Environment**

46. **Resource Conservation District and Jordan Lake Riparian Stream Buffer**: That no land disturbance within the Resource Conservation District or within the Jordan Riparian Buffer is permitted by this approval unless authorized by the Land Use Management Ordinance Section 5.18 and approved by the Town Manager.

47. **Jordan Buffer**: That the applicant shall comply with the Jordan Riparian Buffer Protection regulations and that Jordan stream buffer boundaries be located by field survey performed by a NC licensed Professional Land Surveyor and be indicated on the final plat and plan. A note shall be added to all final plats and final plans, indicating, “Development shall be restricted within the Jordan stream buffers in accordance with the Chapel Hill Land Use Management Ordinance.”

48. **Resource Conservation District Boundaries**: That the on-site and off-site boundaries (associated with the greenway extension to Lonebrook Dr.) of the Resource Conservation District be located by field survey performed by a NC licensed Professional Land Surveyor and indicated on the final plat and plan. A note shall be added to all final plats and final plans, indicating, “Development shall be restricted within the Resource Conservation District in accordance with the Chapel Hill Land Use Management Ordinance.”

49. **Stream Buffers and Single-Family Lot Lines**: That all single-family lot lines will be located outside of the Resource Conservation District and Jordan Riparian Stream Buffer boundaries.

50. **Stormwater Management Plan**: That the applicant shall demonstrate compliance with the stormwater management requirements of the Land Use Management Ordinance to provide for 85 percent total suspended solids removal for any additional suspended solids that are the result of the new development, the retention of any increase in stormwater runoff volume for the 2-year storm for a period of 2-5 days, and the control of any increase in the stormwater runoff rate for the 1-year, 2-year, and 25-year storms prior to the issuance of a Zoning Compliance Permit. No stormwater management structures are permitted in the public rights-of-way, minimum required building setbacks or landscape buffer yards. This includes the outlet structure and stabilization, under-drains, and the down-gradient toe of french drains. Further, the discharge from all stormwater management and drainage structures must be in sheet flow condition.

51. **Stormwater Facilities and Operations and Maintenance Plans**: That all stormwater management, treatment and conveyance facilities located on and below the ground shall be wholly contained within an easement entitled: “Reserved Stormwater Facility Easement...”
Hereby Dedicated” and shall be reserved from any development which would obstruct or constrict the effective management, control, and conveyance of stormwater from or across the property, other than the approved design and operation functions. A copy of the final plat or easement exhibit, signed and sealed by a North Carolina-registered Land Surveyor and recorded by the County Register of Deeds, and containing the following notes shall be submitted prior to issuance of the Certificate of Occupancy:

- All engineered stormwater management control, treatment, and conveyance structures on and below the ground shall be wholly located within an easement entitled: "Reserved Stormwater Facility Easement Hereby Dedicated" and shall be reserved from any development which would obstruct or constrict the effective management, control, and conveyance of stormwater from or across the property, other than the approved design and operation functions.

- Unless specifically designated as being "Public" and accepted by the Town of Chapel Hill, the "Reserved Stormwater Facility Easement(s)" and the facilities it/they protect are considered to be private, with the sole responsibility of the owner to provide for all required maintenance and operations as approved by the Town Manager.

- The applicant shall conduct inspections of the drainage conveyance system and the stormwater management structures and shall submit annual inspection reports to the Town.

- The Reserved Stormwater Facility Easement and the Operations and Maintenance Plan are binding on the owner, heirs, successors, and assigns.

52. **Stormwater Operations and Maintenance Plan Recordation**: Prior to issuance of a Certificate of Occupancy (C/O), a Stormwater Operations and Maintenance Plan, signed by the owner(s) and recorded by the County Register of Deeds, shall be provided for the proposed stormwater management facilities and submitted to the Stormwater Management Engineer for approval. A schedule of inspection and maintenance tasks shall be included. The plan and schedule shall be detailed, clear, and concise such that property owners/occupants fully understand these requirements (what, when, where, and how).

53. **Reserved Stormwater Facility Easement**: That, for maintenance purposes suitable access to the Reserved Stormwater Facility Easement must be provided and shown on the plans.

54. **Impervious Surface Tracking**: That the applicant to provide an impervious surface tracking mechanism for the purpose of monitoring the total amount of impervious surface constructed on the site over the life-time of the project. This documentation must include a spreadsheet or similar tracking tool for recording impervious surface activity on the site. As part of every application for Final Plan approval, Zoning Compliance Permit, and Building Permit, the developer shall provide an updated cumulative total of actual impervious surface. The cumulative total must also indicate the total impervious surface for each BMP drainage area and any bypass areas.

55. **Impervious Surface Limitations**: That the 21 single-family lots are limited to the impervious surface thresholds and lot sizes as shown in the Stormwater Impact Statement and that these figures be shown on the Final Plat and Final Plan.
56. **Silt Control**: That the applicant shall take appropriate measures to prevent and remove the deposit of wet or dry silt on adjacent paved roadways.

During the construction phase, additional erosion and sediment controls may be required if the proposed measures do not contain the sediment. Sediment leaving the property is a violation of the Town’s Erosion and Sediment Control Ordinance.

57. **Erosion Control**: That a detailed soil erosion and sedimentation control plan, including provision for a maintenance of facilities and modification of the plan if necessary, be approved by the Orange County Erosion Control Officer, and that a copy of the approval be provided to the Town Manager prior to issuance of a Zoning Compliance Permit.

58. **Erosion Control Bond**: If one (1) acre or more is uncovered by land-disturbing activities for this project, then a performance guarantee in accordance with Section 5-97.1 Bonds of the Town Code of Ordinance shall be required prior to final authorization to begin land disturbing activities. This financial guarantee is intended to cover the costs of restoration of failed or failing soil erosion and sedimentation controls, and/or to remedy damages resulting from land disturbing activities, should the responsible party or parties fail to provide prompt and effective remedies acceptable to the Town.

59. **Erosion Control Inspections**: That, in addition to the requirement during construction for inspections after every rainfall, the applicant shall inspect the erosion and sediment control devices daily, making any necessary repairs or adjustments to the devices, and maintain inspection logs documenting the daily inspections and any necessary repairs.

60. **Curb Inlets**: That the applicant shall provide pre-cast curb inlet hoods and covers stating, "Dump No Waste! Drains to Jordan Lake" in accordance with the specifications of the Town Standard Detail SD-5A, for all new curb inlets for private, Town and State rights-of-way.

61. **On-Site/Adjacent Stormwater Features**: That the final plans locate and identify existing site conditions including all on-site and adjacent stormwater drainage features on the plans prior to issuance of a Zoning Compliance Permit. The final plans must provide proper inlet protection for the stormwater drainage inlets on or adjacent to the site to ensure the stormwater drainage system will not be obstructed with construction debris.

62. **Steep Slopes Plan**: That prior to the issuances of a Zoning Compliance Permit, the applicant obtain approval of a Steep Slopes Plan, as specified by Section 5.3.2 of the Land Use Management Ordinance.

63. **As-built Plans**: That prior to the issuance of a Certificate of Occupancy for any phase, the applicant shall provide certified as-built plans for building footprints, parking lots, street improvements, stormwater drainage/conveyance systems and stormwater management structures, and all other impervious surfaces, and include a tally of the constructed impervious area. The as-built plans shall be in DXF binary format using State plane coordinates and NAVD 88.
64. **P.E. Certification:** That prior to the issuance of a Certificate of Occupancy for any phase, the applicant shall provide a certification, signed and sealed by a North Carolina-licensed Professional Engineer, that the stormwater management facility (ies) is (are) constructed in accordance with the approved plans and specifications.

65. **Energy Management Plan:** That prior to the issuance of a Zoning Compliance Permit, the application submit an Energy Management Plan to be approved by the Town Manager. The plan shall: a) consider utilizing sustainable energy, currently defined as solar, wind, biofuels, and hydroelectric power; b) consider purchase of carbon offset credits and green power production through coordination with the NC GreenPower program; c) provide for 20 percent more efficiency that ensures indoor air quality and adequate access to natural lighting, and d) allow for the proposed utilization of sustainable energy in the project; and that the property owner report to the Town of Chapel Hill the actual energy efficiency achieved with their plan, as implemented, during the period ending one year after occupancy.

The EMP shall also be formatted to Town standards and include a USGBC LEED credit checklist (if applicable), and shall include pre-construction energy models to demonstrate the anticipated energy efficiency as compared to base building or certification standards from a recognized standard (e.g. LEED, Green Globes) which demonstrates the anticipated energy performance of the proposed structures. To address item (d) above, the applicant shall submit post-construction energy models one year after occupancy, or certification from a recognized standard which demonstrates the actual energy performance of the applicable structures.

66. **Energy Efficiency:** That the Final Plans shall incorporate a “20 percent more energy efficient” feature relative to the 2004 energy efficiency standard of the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE), as amended and in effect at the time of Special Use Permit issuance. Comparable standards generally recognized as applicable to building energy consumption, as amended and in effect at the time of building permit issuance, may be used by the applicant when incorporating the “20 percent more energy efficient” feature into the final plans.

67. **LEED Program Documentation:** The applicant shall provide evidence from a LEED certified consultant that he/she has provided a minimum of 40 LEED standard performance credits for the USGBC LEED for Neighborhood Development rating system, to be reviewed by the Town Manager, within a reasonable period after substantial completion of construction.

68. **Solar Collection Devices:** That the Homeowners Associations, or similar entities, shall not include covenants or other conditions of sale that restrict or prohibit the use, installation, or maintenance of passive or active solar collection devices including clothes lines.

**Water, Sewer, and Other Utilities**

69. **Utility/Lighting Plan Approval:** That the final utility and streetlighting plans shall be approved as required by Orange Water and Sewer Authority, Duke Energy Company, Time Warner Cable, Public Service North Carolina, AT&T, and the Town Manager before
issuance of a Zoning Compliance Permit. The property owner shall be responsible for assuring that these utilities are extended to serve the development.

70. **Lighting Plan**: That prior to issuance of a Zoning Compliance Permit, the applicant shall submit a lighting plan and other required documents to satisfy the lighting requirements of Section 5.11 of the Land Use Management Ordinance that demonstrate compliance with Town standards, sealed by a Professional Engineer, for Town Manager approval.

71. **Sewer Line Construction**: That all public water and sewer plans be approved by OWASA and constructed according to their standards. Where sewer lines are located beneath drive aisles and parking areas construction methods approved by OWASA shall be employed, to ensure that sewer lines will not be damaged by heavy service vehicles. Final plans shall be approved by OWASA and the Town Manager prior to issuance of a Zoning Compliance Permit.

72. **Overhead Power Lines**: That all proposed or relocated utility lines other than 3-phase electric power distribution lines shall be located underground prior to issuance of a Certificate of Occupancy.

73. **OWASA Approval**: That easement plats and documentation, as required by OWASA and the Town Manager, shall be recorded prior to issuance of Zoning Compliance Permit. If the project is developed in phases, the easement plats for each phase shall be recorded prior to issuance of a Zoning Compliance Permit.

**Fire Safety**

74. **Fire Hydrant and FDC Locations**: That the Final Plans indicate the locations of existing and proposed fire hydrants and Fire Department Connections (FDC). Fire Department Connections shall be located on the street side of the building within 100 feet of a hydrant. Hydrant spacing shall comply with the Town Design Manual. Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

75. **Firefighting Access during Construction**: That as required by NC Fire Code (Section 1410.1 Required Access) vehicle access for firefighting shall be provided to all construction or demolition sites including vehicle access to within 100 feet of temporary or permanent fire department connections and hydrants. Vehicle access shall be provided by either temporary or permanent roads capable of supporting vehicle loading under all weather conditions. That Final Plans shall include the following note, “During construction, firefighting vehicle access shall be provided. Temporary street signs shall be installed at each street intersection when construction allows the passage of vehicles. Signs shall be of an approved size, weather resistant and maintained until replaced by permanent signs.” Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

76. **Fire Apparatus Access and Service During Construction**: That Final Plans shall include the following note, “When fire apparatus access roads or a water supply for fire protection are required to be installed, such protection shall be installed and made serviceable prior to and
during the time of construction, except when approved alternate means of fire protection are provided.” Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

77. **Firefighting Equipment Access**: That Final Plans shall clearly indicate emergency fire access for the Town’s firefighting equipment to within 150 feet of all exterior points of the proposed buildings. Because the buildings will have fire suppression sprinklers, this distance may be increased somewhat upon satisfactory demonstration to the Fire Marshal that building design and materials warrant such an increase. This access shall be unobstructed, constructed of an all-weather surface, and shall be designed to carry the imposed load of the Town’s firefighting equipment (75,000 lbs). Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

78. **Fire Apparatus Access and Road Design**: That Final Plans shall include the following note, “Any and all roads, driveways or dedicated fire lanes used for fire department access shall be all-weather and designed to support to carry the imposed load of fire apparatus weighing 75,000 lbs. Fire access roads shall have a minimum width of 20 feet with overhead clearance of 13 ft. 6 in.” Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

That the Final Plan application shall include designs of all turn radii, bridges, and depressions within roadways to be accessible by the largest fire apparatus operated by the Town of Chapel Hill. That Final Plans shall also include details for signage, bollards, and/or pavement markings used to prevent parking that would hinder fire apparatus access. Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

79. **Fire Prevention During Demolition and Construction**: That Final Plans shall include the following note, “During demolition and/or construction, all aspects of Chapter 14 of the NC Fire Prevention shall be followed. The owner/developer shall designate one person to be the Fire Prevention Program Superintendent who shall be responsible for enforcing Chapter 14 of the NCFPC and the on-site fire prevention program and ensure that it is carried out through completion of the project.” Design shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

80. **Combustible Construction**: That if combustible construction is used, all required fire hydrants for the appropriate construction phase must be installed, active, and accessible for the Fire Department use prior to the arrival of combustible materials on site.

81. **Fire Flow Report**: That the Final Plan application shall include a fire flow report sealed by an Engineer registered in the State of North Carolina. Fire flow shall meet the required flow set forth in the Town Design Manual. The Fire Flow Report shall be reviewed and approved by the Town Manager prior to issuance of a Zoning Compliance Permit.

82. **Automatic Sprinkler System**: That the applicant shall install automatic sprinkler systems in accordance with Town Code prior to issuance of a Certificate of Occupancy.
Solid Waste Management and Recycling

83. **Solid Waste Management Plan**: That a detailed Solid Waste Management Plan, including a recycling plan and a plan for managing and minimizing construction debris, shall be approved by the Town Manager prior to issuance of a Zoning Compliance Permit. The Plan shall also specify public pickup of solid waste and recyclable materials other than cardboard.

84. **Refuse Collection**: That the final plans include dimensioned details of all solid waste collection facility pads required by the Town for Town provided refuse collection services to all components of this mixed-use development. The size, number, and location of these dumpster pads shall be designed to Town standards and approved by the Town Manager prior to issuance of a Zoning Compliance Permit. We believe that this could require more dumpster pads than currently shown on the plans. If the applicant contracts with a private compactor-refuse collection service(s) for the mixed use component of this project in lieu of construction the required dumpster pad(s), no Town refuse service will be provided for those areas until facilities meeting town standards are review and approved by the Town Manager and constructed. A note stating these requirements for Town refuse collection shall be included on the final plat.

85. **Refuse and Recycling Area Dimension Details**: Prior to issuance of a Zoning Compliance Permit, the plans must include a separate, to-scale, dimensioned detail of any proposed refuse/recycling collection areas, including pad length, width, and depth, associated screening, overhead clearances, and protective bollards. Bollards must be 6”CID steel, with two bollards centered behind each bulk waste container and placed 1 foot of the back wall of the enclosure. Dumpster, roll-cart, and compactor details should be provided to scale. The final plans must label each bulk waste container for type of material to be collected.

86. **Food/Grease**: That the final plans reserve space for segregated grease rendering/recycling collection and provide space for segregated food waste collection near the delivery entrance for any building which may house a food service facility. Commercial grease wastes are not allowed to be disposed with regular waste.

87. **Recycling**: That prior to the issuance of a Zoning Compliance Permit, the applicant shall contact Orange County Recycling Specialist to request multi-family recycling services from Orange County Solid Waste upon occupancy.

88. **Heavy Duty Paving**: All driveways and alleys proposed to accommodate refuse collection vehicles be constructed of all-weather, heavy-duty pavement meeting Town standards.

89. **Demolition/Deconstruction**: If the applicant proposes a phasing plan that delays the construction of the proposed buildings following the deconstruction and demolition of the existing structures, a Deconstruction/Demolition Plan will be required as well as plans for the stabilization of the site during and following deconstruction/demolition. It will also be necessary to work with Orange County Solid Waste staff regarding deconstruction/demolition of the existing structure to maximize recycling of deconstruction/demolition waste.
90. **3-R Fee**: By County Ordinance, the 3-R fee is assessed to all improved properties in Orange County with habitable structures, and the level of the 3-R fee assessment is based on the number of units on the property and on the level of recycling service the property is eligible to receive. County fees for recycling and waste management associated with this property will not be waived if private recycling collectors are used.

91. **Private Alleys**: If private alleys are constructed, a note shall be placed on the Final Plat and Plans and included in HOA documents indicating that the Town service vehicles will not be responsible for any pavement damage in these alleys caused by municipal vehicles and if the alleys are blocked or impassable, any provided service will be suspended.

92. **Final Plan Notes**: That the applicant shall place the following notes on Final Plans prior to issuance of a Zoning Compliance Permit:

   a. Any gate design shall include gate retainers.
   b. The user shall be responsible for opening gates to the dumpster area on collection days of any material(s) to be collected from this location.
   c. By Orange County Ordinance, clean wood waste, scrap metal and corrugated cardboard, all present in construction waste, must be recycled.
   d. By Orange County Ordinance, all haulers of construction waste shall be properly licensed.
   e. Prior to any construction activity on the site the applicant shall hold a pre-deconstruction/demolition/pre-construction conference with the County’s Solid Waste staff. This may be the same meeting held with other development officials.
   f. If any vehicles are parked in the refuse or recyclables collection vehicle access area, the containers will not receive service until the next scheduled collection day.

   **Homeowners’ Association**

91. **Homeowners’ Association**: That a Homeowners’ Association be created and Homeowners’ Association documents shall be approved by the Town Manager prior to recordation at the Orange County Register of Deeds Office and shall be cross-referenced on the final plat. The Homeowners’ Association documents shall comply with Section 4.6.7 of the Land Use Management Ordinance.

92. **Dedication of Common Area to Homeowners’ Association**: That the applicant provide for Town Manager review and approval, a deed conveying to the Homeowners’ Association all common and open space areas. These documents shall be reviewed and approved by the Town Manager prior to recordation at the Orange County Register of Deeds Office and cross-referenced on the final plat.

93. **Subdivision of Property**: That the townhome portion of the development, if proposed to be subdivided, must be subdivided in accordance with the Town’s townhouse development provisions. Private parking, private drive aisles, open space, landscape bufferyards, and stormwater infrastructure shall all be common land area that is owned and maintained by a
Homeowner’s Association or in easements controlled by the HOA.

State and Federal Approvals

94. **State or Federal Approvals:** That any required State or federal permits or encroachment agreements shall be approved and copies of the approved permits and agreements be submitted to the Town of Chapel Hill prior to the issuance of a Zoning Compliance Permit.

95. **North Carolina Department of Transportation Approvals:** That plans for improvements to State-maintained roads shall be approved by NCDOT prior to issuance of a Zoning Compliance Permit.

Miscellaneous

96. **Construction Management Plan:** That a Construction Management Plan, be approved by the Town Manager prior to issuance of a Zoning Compliance Permit. The construction management plan shall: 1) indicate how construction vehicle traffic will be managed, 2) identify parking areas for on-site construction workers including plans to prohibit parking in residential neighborhoods, 3) indicate construction staging and material storage areas, 4) identify construction trailers and other associated temporary construction management structures, and 5) indicate how the project construction will comply with the Town’s Noise Ordinance.

97. **Traffic and Pedestrian Control Plan:** That the applicant shall provide a Work Zone Traffic Control Plan for movement of motorized and non-motorized vehicles on any public street that will be disrupted during construction. The plan must include a pedestrian management plan indicating how pedestrian movements will be safely maintained. The plan must be reviewed and approved by the Town Manager prior to the issuance of a Zoning Compliance Permit. At least 5 working days prior to any proposed lane or street closure the applicant must apply to the Town Manager for a lane or street closure permit.

98. **Schools Adequate Public Facilities Ordinance:** That the applicant shall provide the necessary Certificates of Adequacy of Public Schools prior to issuance of a Zoning Compliance Permit.

99. **Construction Sign Required:** That the applicant shall post a construction sign at the development site that lists the property owner’s representative and telephone number, the contractor’s representative and telephone number, and a telephone number for regulatory information at the time of issuance of a Building Permit, prior to the commencement of any land disturbing activities. The construction sign may have a maximum of 32 square feet of display area and maximum height of 8 feet. (§5.14.3(g) of LUMO). The sign shall be non-illuminated, and shall consist of light letters on a dark background. A detail of the sign shall be reviewed and approved by the Town Manager prior to the issuance of a Zoning Compliance Permit.
100. **Street Names and Addresses**: That the name of the development and its streets and house numbers be approved by the Town Manager prior to the issuance of a Zoning Compliance Permit.

101. **Open Burning**: That the open burning of trees, limbs, stumps, and construction debris associated with this development is prohibited.

102. **Detailed Plans**: That final detailed site plans, grading plans, utility/lighting plans, stormwater management plans (with hydrologic calculations), landscape plans, and landscape maintenance plans shall be approved by the Town Manager before issuance of a Zoning Compliance Permit, and that such plans conform to plans approved by this application and demonstrate compliance with all applicable regulations and the design standards of the Land Use Management Ordinance and the Design Manual.

103. **Phasing Plan**: That prior to the issuance of a Zoning Compliance Permit, the applicant provide a Phasing Plan that meets Section 3.5.1(d)(2) of the Land Use Management Ordinance. That the first phase of the development shall include all of the required use categories (residential, commercial, and office uses).

104. **Certificate of Occupancy and Phasing Plans**: That a Certificate of Occupancy shall not be issued until all required public improvements are complete and that a note to this effect shall be placed on the final plans and plats. If the Town Manager approves a phasing plan, occupancy shall not occur for a phase until all required public improvements for that phase are complete; and no construction for any phase shall begin until all public improvements required in previous phases are completed to a point adjacent to the new phase; and that a note to this effect shall be placed on the final plans and plats.

105. **As-Built Plans**: That prior to occupancy, the applicant shall provide certified as-built plans for building footprints, parking lots, street improvements, storm drainage systems and stormwater management structures, and all other impervious surfaces. The as-built plans should be in DXF binary format using State plane coordinates and NAVD 88.

106. **Traffic Signs**: That the property owners shall be responsible for placement and maintenance of temporary regulatory signs prior to occupancy.

107. **Vested Right**: This Special Use Permit constitutes a site specific development plan establishing a vested right as provided by N.C.G.S. Section 160A-385.1 and Appendix A of the Chapel Hill Land Use Management Ordinance.

108. **Continued Validity**: That continued validity and effectiveness of this approval shall be expressly conditioned on the continued compliance with the plans and conditions listed above.

109. **Non-Severability**: That if any of the above conditions is held to be invalid, approval in its entirety shall be void.
BE IT FURTHER RESOLVED that the Council hereby approves the Special Use Permit Planned Mixed-Use Development, Planned Housing Development for Charterwood.

This the ___ day of __________, 2011.
ATTACHMENT 2
RESOLUTION B
(Denying the Special Use Permit Application)

A RESOLUTION DENYING AN APPLICATION FOR A SPECIAL USE PERMIT FOR CHARTERWOOD (FILE NO. 9880-24-4842)

BE IT RESOLVED by the Council of the Town of Chapel Hill that it finds that the Charterwood Special Use Permit proposed by WCA Partners, LLC, on property identified as Orange County Property Identifier Numbers 9880-24-4842 and 9880-24-6787, if developed according to the Site Plan, dated August 21, 2009 and revised May 27, 2010, August 5, 2010, September 30, 2010, and January 7, 2011, and the conditions listed below would not:

1. Be located, designed, and proposed to be operated so as to maintain or promote the public health, safety, and general welfare;

2. Comply with all required regulations and standards of the Land Use Management Ordinance;

3. Be located, designed, and operated so as to maintain or enhance the value of contiguous property or be a public necessity; and

4. Conform with the general plans for the physical development of the Town as embodied in the Land Use Management Ordinance and in the Comprehensive Plan.

BE IT FURTHER RESOLVED THAT the Council finds that the proposed development does not comply with the current Residential-2 (R-2) zoning.

NOW, THEREFORE, BE IT RESOLVED by the Council of the Town of Chapel Hill that the Council hereby denies the application for a Special Use Permit for Charterwood.

This the ___ day of __________, 2011.
Chairperson George Cianciolo called the meeting to order at 7:00 p.m. Commission members present were Mary Margaret Carroll, Augustus Cho, George Cianciolo (Chair), Kathryn James, Laura Moore, Scott Nilsen, Amy Ryan, Hank Rodenburg, Polly Van de Velde, and Robin Whitsell. Staff members present were Senior Planner Kay Pearlstein, and Renee Moye, Administrative Clerk.

**REVISED ALTEMUELLER MIXED USE DEVELOPMENT**

1641 Martin Luther King, Jr. Blvd., File No. 9880-24-4842

The Town has received a proposal from William Christian & Associates for a Concept Plan Review for the Altemueller Property, located at 1641 Martin Luther King Jr. Blvd. The site is located on the west side of Martin Luther King, Jr. Blvd. between Weaver Dairy Road Extension and New Parkside Drive and is adjacent to the Northwood V Subdivision. Two existing single family homes and several outbuildings are proposed to be demolished. The project proposes to construct 110 dwelling units, commercial, and retail space totaling 300,000 square feet of floor area. Parking for 280 vehicles is also proposed. Access to the site is proposed from Martin Luther King, Jr. Blvd. The 12.9-acre site is located in the Residential-2 (R-2) zoning district, the Resource Conservation District, and the Chapel Hill Northern Study Area, Focus Area 3. The site is identified as Orange County Parcel Identifier Numbers 9880-24-4842 and 9880-24-6787.

**CONCEPT PLAN PRESENTATION**

A presentation was made by William Christian and Assoc. including two alternative concept plans. The applicant indicated he has purchased the property from the Altemueller family and working with preservation of the farm house in conjunction with preservationist, Ernest Dollar.

**COMMISSION CLARIFICATIONS/QUESTIONS**

- Commissioner Polly van de Velde asked the applicant to clarify their statement that the Fire Department is dissatisfied with the fire station building adjacent to the proposed development. The applicant replied that the building is old, leaks, and has problems.

- Commissioner Robin Whitsell asked how tall the hotel will be. The applicant replied 3-4 stories.
• Commissioner George Cianciolo asked how many parking spaces per dwelling unit were proposed. The applicant replied 1.5.

• Commissioner Kathryn James asked how much underground parking is proposed. The applicant replied he is not certain of the numbers yet, but below conventional levels. Commissioner James asked the applicant to describe their preservation efforts. The applicant replied they are saving and renovating the historic farmhouse. Commissioner James than asked what was proposed as buffer for the Resource Conservation District for the Intermittent Stream. The applicant stated they are proposing undisturbed buffer.

CITIZEN COMMENTS

1. Neighbor Brian Byerly liked the residential aspects of the proposal that are compatible with the adjacent zoning, R-2; he is relying on the proposed residential components to tie into the adjacent residential neighborhood. He was concerned that the plans distributed to the Community Design Commission were different than what was presented on the boards by the applicant at the meeting. The plans on file showed a 5 story hotel. The applicant stated that the hotel would be 3-4 stories. Mr. Burley wondered what assurances they had that the hotel wasn't going to be 5 stories. His other concerns were: dumpsters in view of homes; noisy AC near existing homes; views into the site from existing homes; and his belief that this is the wrong project in the wrong place. He recommended that the applicant develop the site as R-2.

2. Neighbor Del Snow appreciated the applicant’s previous meeting with surrounding homeowners and invitation to walk with the property and discuss planting options with the former Chair of the NCSU Horticulture Department. Ms. Snow was concerned about preservation of the headwaters of the Booker Creek on the property. She stated that sedimentation problems with downstream lakes and streams are a result of upstream development and additional stormwater controls may be necessary for development on this site.

Ms. Snow recommended the Altemueller farm house be preserved and adaptively reused.

Ms. Snow was concerned about preservation and protection of trees on the site, especially those over 100 years old.

Ms. Snow was also concerned that an insufficient buffer was proposed between the development and the existing neighborhood to the west. If inadequate buffers were proposed, the proposed alley at the western part of the site would impact neighbors’ privacy because of headlights and allow noise from Martin Luther King Jr. Blvd. She stated that the shallowness of the parcel prevented privacy from the multi-family that could overlook residences.

Ms. Snow recommended that the applicant consider recycling rainwater, using pervious pavers, employ dark-sky lighting, and provide less parking.
3. Neighbor Bill Zoffer thought that the design was appealing but not attractive. He supported the applicant’s overtures to the neighbors. He stated that there remained unresolved concerns with preservation, light impacts, dumpster locations, noise, and the alley.

4. Neighbor Sara Farol expressed concerns about property values and the proposed development. In particular, she was concerned about the alley at the western end of the property.

5. Neighbor Ross Durham did not believe the proposed development was meeting the spirit of the residences’ concerns. He wanted to see additional information on how the proposed development will blend with the existing neighborhood.

6. Neighbor Serge Zwikker stated that a third story building would look into his backyard and destroy his privacy. He was concerned about noise of garbage trucks that might use the alley adjacent to his property.

7. Neighbor Kensaku Kawamoto was concerned about increased crime in Northwoods V with the proposed development. He thought the development could have a positive effect on his property values with condominiums and green space but not if late-night bars and restaurants were proposed.

8. Scott Radway, a member of the Northern Area Task force, observed that the proposed design layout should better match the scale of existing single-family homes and better define the uses proposed along Martin Luther King Jr. Blvd. He believed that the proposed townhouses were a serious approach to the neighborhood edge. He recommended design details be further developed for the transition areas.

9. Neighbor Becky Elkins was concerned about the increase in traffic. She has lived in the area since 1995 and seen a continual increase in traffic. She expressed concern with the hotel proposal and retail development and eventual Carolina North contributing additional traffic to an already bad situation. She stated that crossing streets was dangerous and not many people will walk to Timberlyne or Chapel Hill North for retirees and families.

10. Neighbor Linda Poulson said her major concern was the hotel and parking amounts.

**APPLICANT’S CLARIFICATION**

The applicant stated that his concept proposed live/work units, no bars, and no commercial alley.

**COMMISSION COMMENTS**

1. Commissioner Augustus Cho asked if hotel parking will be under the building and if the proposed 280 vehicles included the hotel. The applicant replied that between 150-160 dwelling units were proposed and residential parking will be underground or within the townhouses and not all parking was worked out.
Commissioner Cho had concerns about there being sufficient buffer. He expressed the need for the neighbors to be supportive of the development rather than “not in my backyard.”

2. Commissioner Robin Whitsell appreciated the applicant’s challenges developing the site. Commissioner Whitsell recommended the residential areas be placed along the edge with the adjacent neighborhood. She expressed concern with the alley.

Commissioner Whitsell pointed out that the design presented by the applicant at the meeting did not match what the Commissioners had in their packets.

3. Commissioner Kathryn James noted that the Land Use Plan identified this site as a Development Opportunity site. Commissioner James believed that the site should be developed with less intensity. She supported the preservation of the trees but noted that not enough conservation measures were being proposed. Commissioner James requested that a grading plan be prepared to be sure the trees were being preserved and recommended larger buffers.

Commissioner James supported the live/work units and suggested retail development. She recommended that the height of the buildings be lowered to protect the privacy of the neighbors.

4. Commissioner Hank Rodenburg asked what the applicant was proposing for affordable housing. The applicant said they were not that far in developing the proposal. He asked if there will be a net loss of trees with the proposal. The applicant replied that they will double compensate for the loss of any trees. Commissioner Rodenburg asked how he proposes to compensate. The applicant replied by planting multiple trees.

Commissioner Rodenburg expressed concern with the buffer and did not see the significant elevation changes reflected in the plans.

5. Commissioner Laura Moore liked the plan. She suggested more open space and less parking at the back of the development (western edge) to provide separation from the existing neighborhood. She believed that the Resource Conservation District was well-protected but felt that trees and buffer in the southern portion of the site did not reflect similar preserve efforts.

Commissioner Moore thought that the hotel could be an asset if it is well-sited and parking is below ground. She supported the live/work units and recommended the applicant continue working with the neighbors.

6. Commissioner Polly van de Velde was skeptical whether another hotel was needed and if the proposed site is a good location for one. She wanted to see Class B office space that could be potentially used for research and development for occupants at Carolina North.
Commissioner van de Velde supported the alley concept if it functioned like those in Southern Village. She thought the parking spaces provided for a lot of cars that will create lots of trips.

Commissioner van de Velde also wanted changes in elevation to be taken into consideration with the design of the site and relationship to the existing neighborhood.

7. Commissioner Scott Nilsen liked Scheme “B” because it provided the most residential area and suggested that the ratio between residential to commercial be 80:20 rather than 60:40. He wanted to see more of a village concept like East 54 – more residential and less office/retail space. He believed that Chapel Hill was losing its “hipness” and that having an existing landmark at the entrance to the Town at this location could help convey a positive image.

Commissioner Nilsen did not support the hotel and recommended the applicant concentrate on residential development.

8. Commissioner Amy Ryan stated that providing larger buffers was key. She believed that the alley concept could work if it was in backyards of the proposed residential areas. Commissioner Ryan thought there was too much building and not enough suburban sensitivity. She expressed concern with the grade changes.

Commissioner Ryan was concerned about the walkability of the site. She believed that without willingness of DOT to improve the intersection of Weaver Dairy Road and Martin Luther King Jr. Blvd., the intersection would be too dangerous for pedestrians.

Commissioner Ryan also stated that there was not a gateway entrance in this part of Town and this proposal did not offer one. She believed that the proposed development felt more like an office park and the development would work better with a village emphasis. She recommended that the applicant look at Homestead Station (Homestead Road and Martin Luther King Jr. Blvd.) for a good design concept.

Commissioner Ryan suggested the applicant consult with an arborist to determine if the pine trees were work keeping. She supported Class B office space.

9. Commissioner Mary Margaret Carroll suggested the applicant take photos of the site to use with further presentations. She suggested a gateway concept that reflects the history being protected, much like Fearington Village.

10. Commissioner George Cianciolo had concerns with the alley and buffer proposed. He recommended the buffer be extended and move the drive to the front and leave the backyards as buffer.
Commissioner Cianciolo liked the Class B office space idea and recommended that the applicant look seriously at parking and the number of trips generated. He noted that Westminster Drive will be much busier.

Commissioner Cianciolo did not object to the increase in density on the site noting that Martin Luther King Jr. Blvd. is a major transit corridor and will become more so in the further. He suggested that express buses to Carolina North could help with traffic. He stated that if the development is proposed as transit-oriented, then the density is OK but that it is a hard sell. He noted that if the development is proposed to be a TOD, then 1 ½ cars per unit is not needed. He did not believe that the applicant can “sell” the development as walkable. He believed the development was promising and to keep working with the neighbors.

SUMMARY
The Commission’s comments are summarized below:

- Height of the proposed buildings;
- Parking amounts, esp. surface parking;
- Insufficient buffers;
- Alley adjacent to existing residences;
- Location of residential areas adjacent to east;
- Consistence between plans and applicant’s presentation;
- Preservation of the farmhouse and large trees on site;
- Supportive of live/work units and Class B office space;
- Western edge of site sensitively designed to blend with existing development;
- Hotel proposal not generally supported – traffic, parking and height issues;
- Grading plan needed to show elevation changes and tree preservation;
- More residential emphasis with village emphasis;
- Walkability of location dangerous;
- Gateway design needed; and
- Transit-oriented design “hard sell.”

Prepared for: George Cianciolo, Chair
Prepared by: Kay Pearlstein, Staff
SUMMARY MINUTES OF A PUBLIC HEARING OF THE CHAPEL HILL TOWN COUNCIL MONDAY, FEBRUARY 16, 2009, AT 7:00 P.M.

Present were Mayor Kevin Foy, Mayor pro tem Jim Ward, Council Member Matt Czajkowski, Council Member Laurin Easthom, Council Member Sally Greene, Council Member Ed Harrison, Council Member Mark Kleinschmidt, Council Member Jim Merritt, Council Member Bill Strom, and Acting Town Clerk Amy Harvey.

Staff members present were Town Manager Roger Stancil, Deputy Town Manager Florentine Miller, Assistant Town Manager Bruce Heflin, Town Attorney Ralph Karpinos, Planning Director J.B. Culpepper, Principal Planner Phil Mason, Mayoral Aide Carlo Robustelli, Police Chief Brian Curran, Development Manager Gene Poveromo, Police Legal Advisor Terrie Gale, and Transit Assistant Director Brian Litchfield.

3. **Concept Plan: Altemueller Mixed Use Development, 1641 Martin Luther King Jr. Blvd.**

Planning Director J. B. Culpepper gave a brief summary of the concept plan, noting its proposed location in a Mixed Use zoning area. The development would include dwelling units, a hotel, and office/retail space, she said. Ms. Culpepper noted the Northwest Area Taskforce’s recommendations included in the Council’s packet. Rezoning might be required, but the Town had not received an application, she said.

Bill Christian, of William Christian Associates (WCA), provided background on his 24-year-old consulting business. With regard to this project, he had spent more time on community outreach than anything else to date, he said. Mr. Christian said this mixed use, transit-oriented development was “dead on” with the mixed-use development recommended by the Northern Area Taskforce. He noted that the property was on a transit corridor and said that one who lived there could get rid of a car.

Mr. Christian described the enhanced walking and biking facilities, showed schematics, and itemized the difference in tax implications between his proposal and what would currently be allowed in that location. The project represented sustainable urbanism and would meet the generally-accepted standards for good, smart growth, Mr. Christian said.

Jewell H. Altemueller, the original owner of the land, spoke in favor of the project and gave a history of its uses. She had always hoped that it would be developed for mixed use purposes and that the farmhouse would be put to use in the development plan, she said.

Jonathan Miller, a Northwoods resident, said the entire back of his house would face an alleyway on the Altemueller property, with possible delivery trucks going in and out and causing a serious detriment to his family’s way of life. He said that 29 feet was not enough buffer to something that could have heavy traffic. Mr. Miller also expressed concern about the heights of some buildings.
Paul Jansen, a Kenilworth Road resident, read a letter from area residents who did not want Kenilworth to extend to Martin Luther King Jr. (MLK) Blvd. He pointed out that a median on MLK Blvd. limits right turns. The citizens who would benefit most by this road had determined that the trade-offs were too high, he said.

Kathy Vreeland, a Kenilworth Road resident, spoke against the extension of Kenilworth Place to MLK Blvd. because of the loss of tree buffers, possible stormwater issues, and aesthetics. She asked for a walk and bike path instead.

Three citizens from Tremont Circle (Joey Ware-Furlow, Mar Gutierrez, Alan Hecht) spoke about current stormwater problems in their neighborhood and the magnificent old trees that grow there. They asked the Council to think about the many wild animals. Ms. Gutierrez mentioned possible erosion and air and light pollution that could result from this project. She read a letter that her nine-year-old daughter had written to the Council on behalf of the wild animals.

Del Snow, a Northern Area Taskforce member, referred to a list of 47 homeowners who were concerned about the proposal. She addressed three issues: loss of old majestic trees; too much parking, and stormwater runoff. Ms. Snow said that Mr. Christian should present a formal agreement with DOT regarding retention ponds before any work begins.

Scott Radway, a Northern Area Taskforce member, noted that the CDC’s report had attributed a comment to him that he had not made. He explained that a portion of the Northwoods development had violated what is now required in the RCD because it was based on old rules. The current proposal was close to the requirements described in the Comprehensive Plan, such as non-residential development, mixed use, and respect for MLK and the existing residential neighborhoods, Mr. Radway said.

Council Member Easthom pointed out that the single-family homes that one citizen had mentioned in the southwest portion were not depicted on the schematic, and she asked that this be clarified. She asked for more information on whether or not the proposed 25-foot buffer would be enough protection from light and sight. Council Member Easthom agreed that the Kenilworth connection should be bike and pedestrian access only and that not removing any trees, if possible, would be best. She asked for more information regarding heights of buildings in relation to the trees. Council Member Easthom requested information on root protection for the 100-year-old trees, and said that the number of parking spaces seemed excessive. Stormwater is a huge issue, she said, and she asked to be kept informed about arrangements with the DOT. Council Member Easthom also asked for answers to all of the neighbors questions.

Council Member Kleinschmidt proposed that the developer try to mitigate some of the neighbors’ current stormwater problems. A bicycle and pedestrian connection along Kenilworth might be the most appropriate thing, he said. He said that he did not want to see a cul de sac on MLK Blvd. Council Member Kleinschmidt noted that interconnectivity works because the traffic burden is shared rather than having it all go in and out on one street. He asked for more information and a justification for the parking spaces, and he stressed the importance of preserving the specimen trees.
Council Member Strom urged the applicant to thoroughly address the issues that Council Members Easthom and Kleinschmidt had mentioned. He stressed the importance of addressing the stormwater concerns and mitigating the impact of light on the adjacent neighborhood. In general, Council Member Strom said, this style and intensity of use seemed appropriate and would enhance the area. He encouraged the applicant to continue the dialogue with neighbors.

Mayor pro tem Ward expressed concern about tree protection and asked the applicant to help improve bike and pedestrian connections to and across MLK Blvd. Kenilworth Place needs such connectivity as well, he said, but he asked for more information before making a decision about vehicles. Mayor pro Tem Ward suggested creating a stub-out to the south of the property for future development. He asked for justification for the parking spaces and expressed concern about stormwater issues.

Council Member Greene agreed with all of the Council’s comments and asked about potential uses for the historic farmhouse. Mr. Christian replied that anything was possible and said he was open to ideas.

Council Member Harrison requested information in the application phase on the zones they want to use. He pointed out that the buildings could serve as a noise barrier, depending on how they were aligned. Council Member Harrison agreed that the trees needed to be preserved and said the buffer was too small. He recommended on-site surface volume control and cautioned against assuming that the DOT facilities would be available.

Council Member Czajkowski said that he did not want the Town to approve any more monolithic buildings that would turn a major transit route into a sea of brick. He asked for an idea of what the development would look like from the street. Council Member Czajkowski noted that the Northern Area Plan had recommended a fiscal impact study on developments of this size.

Council Member Czajkowski inquired about the demographics of those who would purchase and live in the residential units. Mr. Christian replied that there was high market demand for a project that is “a place,” but not a subdivision. Singles, young professionals without children, empty-nesters, and retirees would be attracted, he said. Council Member Czajkowski asked about price points, and Mr. Christian replied that he had not gotten to that point yet but workforce housing was greatly needed in Town and he would target this to those at 120% of median income.

Mayor Foy endorsed what others had said about stormwater and buffer issues. He asked that noise, light and privacy issues be addressed as well. Mayor Foy emphasized Council Member Kleinschmidt’s point about not wanting a direct vehicular connection. Since one goal was to have a creative project at the entrance to Town, he suggested perhaps designing one that highlights magnificent trees as a central feature of this property.

Council Member Kleinschmidt noted that things that typically work for the 100-120 percentile in other cities often do not work in this town. He recommended looking beyond typical ways of achieving that and expressed hope that the Town could find a way to replicate a successful
approach. A developer’s commitment is not enough, said Council Member Kleinschmidt, noting that only the first purchaser benefits unless there’s a way to keep it affordable over time.

Council Member Ward encouraged the applicant to aim for LEED silver certification.

Council Member Easthom pointed out that the hotel would be the building closest to the proposed Kenilworth connection. She wondered how traffic would flow from the townhouses north and about safety issues related to that. Council Member Easthom also asked for clarification of the Northern Area Taskforce’s statement regarding environmental constraints impacting the property.

Ms. Snow read a disclaimer that said that the Taskforce did not endorse the plans created by consultants, but had included them for illustrative purposes only. She added that the Taskforce had strenuously objected to those plans.

MAYOR PRO TEM JIM WARD MOVED, SECONDED BY COUNCIL MEMBER BILL STROM, TO ADOPT R-1. THE MOTION WAS ADOPTED UNANIMOUSLY (9-0).

A RESOLUTION TRANSMITTING COUNCIL COMMENTS ON A CONCEPT PLAN FOR THE ALTEMUELLER MIXED USE DEVELOPMENT AT 1641 MARTIN LUTHER KING JR. BLVD. (2009-02-16/R-1)
Charterwood

Responses to the
Community Design Commission Comments
WCA Partners
February 2010
Responses to the Community Design Commission Comments

The following provides our responses to the Community Design Commission’s comments about the Concept Plan presented at their meeting on January 28, 2009. The commissioner’s comments were taken from the transcript of the meeting prepared by Town Staff. Our responses to their comments are provided in the green, italicized font following the specific comments.

COMMISSION COMMENTS

1. Commissioner Augustus Cho asked if hotel parking will be under the building and if the proposed 280 vehicles included the hotel. The applicant replied that between 150-160 dwelling units were proposed and residential parking will be underground or within the townhouses and not all parking was worked out. Commissioner Cho had concerns about there being sufficient buffer. He expressed the need for the neighbors to be supportive of the development rather than “not in my backyard.”

We believe that Commissioner Cho’s comments have been transcribed erroneously. We believe that he stated that the buffer was fully adequate to maintain and enhance their privacy and that the neighbors were practicing Not In My Backyard tactics.

2. Commissioner Robin Whitsell appreciated the applicant’s challenges developing the site. Commissioner Whitsell recommended the residential areas be placed along the edge with the adjacent neighborhood. She expressed concern with the alley.

Commissioner Whitsell pointed out that the design presented by the applicant at the meeting did not match what the Commissioners had in their packets.

We have only residential on the edge with the neighborhood.

3. Commissioner Kathryn James noted that the Land Use Plan identified this site as a Development Opportunity site. Commissioner James believed that the site should be developed with less intensity. She supported the preservation of the trees but noted that not enough conservation measures were being proposed. Commissioner James requested that a grading plan be prepared to be sure the trees were being preserved and recommended larger buffers.

Commissioner James supported the live/work units and suggested retail development. She recommended that the height of the buildings be lowered to protect the privacy of the neighbors.

We have reduced the density of housing to 75 units from the previous Concept Plan submittal of 110 units of residential. We have also reduced the office and retail by approximately 30 percent. We have lowered the heights of most buildings. The height of the buildings in the community is similar to the heights of the neighboring buildings. We are proposing a total of 20,000 square feet of retail.

4. Commissioner Hank Rodenburg asked what the applicant was proposing for affordable housing. The applicant said they were not that far in developing the proposal. He asked if there will be a net loss of trees with the proposal. The applicant replied that they will double
compensate for the loss of any trees. Commissioner Rodenburg asked how he proposes to compensate. The applicant replied by planting multiple trees.

Commissioner Rodenburg expressed concern with the buffer and did not see the significant elevation changes reflected in the plans.

**We intend to replace – two for one – every tree removed in the development process. In consultation with the neighbors we have developed an improved buffer that will provide a significant increase in the amount of vegetation in this zone.**

**We are not clear on the issue of elevation changes. This property has very little change in elevation from east to west, which is the key section for concerns with elevation change. There is typically only one to four feet of elevation change from MLK to the neighboring property, a distance that averages about 400 feet. The slopes here are therefore very minimal. More than 90 percent of the site has slopes less than 5 percent.**

5. Commissioner **Laura Moore** liked the plan. She suggested more open space and less parking at the back of the development (western edge) to provide separation from the existing neighborhood. She believed that the Resource Conservation District was well-protected but felt that trees and buffer in the southern portion of the site did not reflect similar preserve efforts.

Commissioner Moore thought that the hotel could be an asset if it is well-sited and parking is below ground. She supported the live/work units and recommended the applicant continue working with the neighbors.

**The plan proposed has 35 percent open space. Charterwood Park is nearly 4 acres. The only parking in the western portion of the site is a small area for visitor parking for the residents of the live/work units. This small amount of parking is well buffered from the neighborhood. There will be a significant buffer zone in the southern portion of the site where the easement for a new road is located. We have continued to meet and work with the neighbors on all of these issues.**

6. Commissioner **Polly van de Velde** was skeptical whether another hotel was needed and if the proposed site is a good location for one. She wanted to see Class B office space that could be potentially used for research and development for occupants at Carolina North.

Commissioner van de Velde supported the alley concept if it functioned like those in Southern Village. She thought the parking spaces provided for a lot of cars that will create lots of trips.

Commissioner van de Velde also wanted changes in elevation to be taken into consideration with the design of the site and relationship to the existing neighborhood.

**There is no hotel in this northern district of Chapel Hill. There is strong interest among hoteliers for a hotel here. We believe that a hotel in this mixed use community benefits the community as well as the hotel. From the broader Chapel Hill community standpoint it is much better context and town design than a free-standing hotel. It will also add to the viability of**
retail. We believe that there will be demand for office space and retail space, both of which are proposed in modest amounts.

7. Commissioner Scott Nilsen liked Scheme “B” because it provided the most residential area and suggested that the ratio between residential to commercial be 80 : 20 rather than 60 : 40. He wanted to see more of a village concept like East 54 – more residential and less office/retail space. He believed that Chapel Hill was losing its “hipness” and that having an existing landmark at the entrance to the Town at this location could help convey a positive image.

Commissioner Nilsen did not support the hotel and recommended the applicant concentrate on residential development.

The town has a minimum requirement of at least 25 percent non-residential in all mixed use developments. The town also has a policy of encouraging a variety of uses in mixed use opportunity locations. We believe that our proposed community will have much more of a village feel than East 54. Our scale is much more village-like and our buildings will be much less imposing. We also have a much higher ratio of residential than East 54.

8. Commissioner Amy Ryan stated that providing larger buffers was key. She believed that the alley concept could work if it was in backyards of the proposed residential areas. Commissioner Ryan thought there was too much building and not enough suburban sensitivity. She expressed concern with the grade changes.

Commissioner Ryan was concerned about the walkability of the site. She believed that without willingness of DOT to improve the intersection of Weaver Dairy Road and Martin Luther King Jr. Blvd., the intersection would be too dangerous for pedestrians.

Commissioner Ryan also stated that there was not a gateway entrance in this part of Town and this proposal did not offer one. She believed that the proposed development felt more like an office park and the development would work better with a village emphasis. She recommended that the applicant look at Homestead Station (Homestead Road and Martin Luther King Jr. Blvd.) for a good design concept.

Commissioner Ryan suggested the applicant consult with an arborist to determine if the pine trees were work keeping. She supported Class B office space.

The buffer proposed is 2 ½ times the town-required buffer. The quality as well as the quantity of buffers is extremely important in effecting the intended objectives of buffers. Our buffers will be selectively planted with plant species that open or close views, as needed, which was an important objective in our landscape horticulturalist working the neighbors. We have limited space to work with and it is important to make the most of space in a community where compactness is a quality and an asset.

We are unclear about what the grade change comment references. The property has very little slope or grade change.
Studies in numerous towns and cities across the country show that when improvements to pedestrian safety and experiential interest are made, walking does increase, often dramatically. We intend to work with the town and NCDOT to improve the safety of the intersection we have, at MLK and Westminster Drive. We are not contiguous with the intersection at MLK and Weaver Dairy Road. We are aware of the pedestrian safety issues at this intersection – this has been repeatedly brought up by the neighborhood residents – and we are desirous of improving this intersection’s safety and walkability as well. Also, we do have an arborist on our planning team.

9. Commissioner Mary Margaret Carroll suggested the applicant take photos of the site to use with further presentations. She suggested a gateway concept that reflects the history being protected, much like Fearington Village.

We will provide photos at future presentations. We will look at gateway possibilities.

10. Commissioner George Cianciolo had concerns with the alley and buffer proposed. He recommended the buffer be extended and move the drive to the front and leave the backyards as buffer.

Commissioner Cianciolo liked the Class B office space idea and recommended that the applicant look seriously at parking and the number of trips generated. He noted that Westminster Drive will be much busier.

Commissioner Cianciolo did not object to the increase in density on the site noting that Martin Luther King Jr. Blvd. is a major transit corridor and will become more so in the future. He suggested that express buses to Carolina North could help with traffic. He stated that if the development is proposed as transit-oriented, then the density is OK but that it is a hard sell. He noted that if the development is proposed to be a TOD, then 1 ½ cars per unit is not needed. He did not believe that the applicant can “sell” the development as walkable. He believed the development was promising and to keep working with the neighbors.

We have done considerable study of the buffers against the neighbors and have provided a very generous separation. The enhanced-planting buffer zone we are proposing is nearly three times the 11 foot setback that we could build to under the existing R-2 zoning requirements. Our buildings will be more than twice the distance from the common property line as most neighbors’ setbacks. Our buildings will be similar in scale as well.

We have looked very closely and analyzed to a considerable degree the issue of parking. We have a parking consultant who has provided guidance on all of our parking. We have also been in consultation with HNTB, the firm that prepared the Traffic Impact Assessment, regarding trip generation and transit mode splits. It is HNTB’s position that overall we can expect auto alternative mode capture to be in the range of 20% of all trips. We have reduced our parking by nearly 40% over conventional parking standards, which is the absolute maximum reduction we believe is market feasible to attract retail and office tenants and home buyers. The standard of 1.5 parking spaces per unit is the standard for TOD developments in Charlotte’s highly successful TOD zones and many others around the country.
We believe that walkable is sellable and that it will become more so in the future, as will the propensity to ride a bike and take a bus. In order to induce this though, there must be a commitment.
This document provides responses to the Chapel Hill Town Council’s comments on our concept plan, which was presented on February 16, 2009. We have categorized the Council’s comments into two types: “common issues”, that is, issues that were expressed by all, or nearly all, council members, and “specific issues”, which were raised by only one or two council members. The “common issues” are addressed first. The specific issues are addressed subsequently under the heading of the specific council member that addressed it.

**STORM WATER and STORM WATER MANAGEMENT**

The stormwater management plan that will be undertaken in the development of the Charterwood property will comply with all local, regional, state and other governmental agencies with jurisdiction here. We will not only meet regulations, however; we will exceed them with stormwater control measures that will be used to prevent the stormwater entering and leaving this property from degrading downstream waterbodies. To accomplish this we intend to employ structural methods such as detention ponds and bioswales, as well as nonstructural methods such as reducing impervious surfaces. We are working on a storm water management plan that coordinates efforts with the North Carolina Department of Transportation, whose stormwater runoff from MLK Boulevard drains to basins that lie within our property boundaries. By holding the storm water in detention ponds we can cleanse this water and release it gradually in a higher quality condition to receiving waters.

In addition to improving the quality of stormwater that leaves our site, we will dramatically improve how the volume of stormwater is managed, which will improve the intermittent flooding problems that have been reported by the residents of neighboring areas. Many of their problems should be ameliorated by the improvements that will be made in the course of our development.

**BUFFERS**

As we have indicated and discussed throughout our SUP submittal documents, the portion of the Charterwood property that borders the neighboring community to the west (the Northwoods V and Parkside neighbors) will be developed under the existing zoning district, which is R-2 zoning. We are not seeking a rezoning of this portion of our property. We will, however, provide additional consideration to the neighbors by increasing the required buffer zone between our housing and the existing neighborhood housing. Under the R-2 zoning requirements the building setback is 11 feet. We are increasing this considerably to provide a buffer of 25 feet with enhanced landscaping in this buffer zone. In terms of building setback, all buildings built in the first tier adjacent to the neighbors will be 40 feet or more from the property line.

With regard to the buffer zone, a significant effort has been made to work with the Northwoods and Parkside neighbors that are adjacent to the Charterwood property to the west. For those who have contiguous property we have initiated a program and commissioned a landscape horticulturist to work with each property owner to plan and design landscape enhancement plantings that will ensure the

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CHARTERWOOD, RESPONSES TO THE CHAPEL HILL TOWN COUNCIL CONCEPT PLAN COMMENTS

PAGE 2
neighbors’ full enjoyment of their properties. Included in this is consultation with the landscape horticulturalist to determine what views should be closed and which views might be opened to enhance their backyards and their enjoyment of their private space. Also, because we will be building housing under the R-2 district regulations, the scale, density, and design of these Charterwood residences will be similar to and compatible with the existing residences.

Because we will be building housing under the R-2 district regulations, the scale, density, and design of these Charterwood residences will be highly compatible with the existing residences.

In terms of an increase in noise for the neighboring property owners, which has been raised by neighbors, we believe that, first, most of the ambient noise in this area is a combination of Interstate 40 highway noise and noise from MLK Boulevard. Any noise resulting from clearing within our project will be offset by replantings, which will be substantial, as well as the construction of new buildings, several of which will be in proximity to the noise source at MLK Boulevard. Noise attenuation is most effective the closer the attenuation measures are to the source, and buildings are more effective than trees in blocking the distance that noise travels. Therefore, noise levels generated from MLK Jr. Boulevard will likely be reduced relative to current levels in Northwoods and Parkside.

It is also important to point out that none of the Charterwood buildings will be closer than 50 feet from the property lines of Northwoods and Parkside neighbors.

**TREES**

We have planned Charterwood with special consideration for the specimen trees that exist on the property. We have designated three zones on the property where intensive efforts will be made to save significant trees. These include:

- The zone around the old Altemueller farm house, and area of approximately one acre, where it is estimated that at least a dozen mature oak trees will be preserved.
- The zone adjacent to the farm house where the entry drive to this development must occur. Here we have created a large island of one-third acre where we believe we can save – mature oak trees.
- The RCD area, a 4-acre parcel where we will make a community park, with amenities including walking and biking paths, benches, dog runs, a dog bath that utilizes recycled water, etc. In this area we will also add a diversity of new plantings to augment this primarily pine forest.

We will also save as many specimen trees at the edge of MLK Boulevard as feasible.

These set asides will contribute to the preservation of the ambiance and historic context of this site.

Throughout the entire project area we will employ significant efforts using our tree preservation professionals in fencing, pruning, fertilizing, irrigating, etc. to protect the health of our trees. Where we must remove trees, based on the requirements of our development plan and rigorous consideration of
survival probability, we will do so and replant with consultation from our landscape horticulturist, who will develop a comprehensive planting plan for our community.

As a general rule or policy, we have addressed this important issue of tree preservation utilizing a “risk assessment” analysis. That is to say that we will be making assessments of where we can have a high probability of saving an important tree by using appropriate protection and preservation techniques and have a reasonable probability of succeeding. In these areas we will make these trees part of our preservation and protection plan. These trees will receive all of the preservation and protection measures recommended by our tree consultant. Where our consultant has advised us that preservation efforts will likely not be successful, we will employ a removal and replanting regimen. We have been advised based on several inspections over the last fifteen months that many of these specimen trees are “over mature” and sensitive, even hypersensitive, to any disruption. If the farm house was built circa 1872, then some of these trees are likely nearly 140 years old. Even if nothing was done, some of these trees will die. In fact, in the past year two trees died in the farm house zone near MLK Boulevard that Duke Power removed because they endangered their power lines.

Importantly, as has been pointed out by our tree consultant and our landscape horticulturist, the soil volume here is excellent and will provide an ideal element for the replanting of replacement plant materials.

PARKING

The parking proposed for Charterwood has been thoroughly analyzed to strike a balance with market demand and support for retail and other non-residential uses, environmental concerns, lighting, stormwater, and other issues that might be associated with the parking of motor vehicles. We have brought parking to the minimum level at which there is a reasonable balance. With the main parking for the retail and office space, we are at a parking ratio of one space per 400 square feet of development. This is a 60% reduction from standard parking ratios. For residential we are in the range of typical TOD residential parking standards at 1.5 spaces per unit. Nationally these range from 1.2 spaces to 1.9 spaces per residential unit. In Charlotte, where a TOD ordinance is in place, the standard is 1.6 parking spaces per unit. Charlotte has been very successful with attracting development – residential and non-residential - to their new light rail station areas.

All residential parking will be under the residential buildings. In other words no additional building footprint will be built in order to accommodate motor vehicles. At the hotel, the prevailing standard is one parking space per room, and all hotels will require this level of parking in order to attract and retain guests.

Where possible, particularly in the zone near the old farm house, we will look at pervious pavement for parking, so as to enhance the chances of tree preservation as well as to reduce stormwater runoff.
DENSITY/MASSING

The existing R-2 zoning on this property would allow for 54 housing units to be built here, a gross density of 4.15 units per acre. With the mixed use proposal we have made for the SUP, we are requesting 75 housing units, an increase of 20% over the allowable 54 units under the current zoning. This 75 units computes to about 6 units per acre, well below the minimum transit-supportive (for bus) level of 8 units per acre. Other options for the community, which we have submitted separate sketch plans for, where the hotel is removed and replaced with housing and perhaps a modest amount of retail or office, could achieve more units of housing up to 7 or 8 units per acre. This is still at the very low end or under the density widely acknowledged as transit-supportive for bus transit.

This proposal for Charterwood is comprised of two, three and four story buildings with no buildings taller than 50 feet. Those that would be 55 feet in height would be at the MLK Boulevard edge. This is not, under any definition, a high density, massive development. It is a village scale, low medium density development on a major arterial street that is not suitable to single family development, which is what R-2 zoning is primarily about.

To put this into context with other recent projects in Chapel Hill to which we are sometimes compared, the following information is provided.

<table>
<thead>
<tr>
<th>DEVELOPMENT NAME</th>
<th>ACREAGE</th>
<th>DEVELOPMENT VOLUME</th>
<th>FLOOR AREA RATIO (FAR)*</th>
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<tbody>
<tr>
<td>EAST 54</td>
<td>11.22</td>
<td>660,000 S/F</td>
<td>1.35</td>
</tr>
<tr>
<td>COSGROVE HILLS**</td>
<td>20.81</td>
<td>230,000 S/F</td>
<td>.25</td>
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<tr>
<td>CHARTERWOOD</td>
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<td>200,000 S/F</td>
<td>.31</td>
</tr>
</tbody>
</table>

* Floor Area Ratio is the ratio of development volume to land area. It is therefore calculated by dividing the development volume in square footage by the land area in square footage.

**(aka, WILSON ASSEMBLAGE)

As the table above indicates the Charterwood project is most similar in land area to the East 54 development, except that the Charterwood development is only about 21% of the density of East 54. Charterwood is a smaller parcel than the Cosgrove Hills development, but is at a very similar density and scale as Cosgrove Hills. In fact, the retail/office building proposed for Charterwood fronting MLK, Jr. Boulevard is almost identical to the commercial building in Cosgrove Hills that fronts 15/501.

Visually, in terms of what is referred to as massing (size/scale of buildings), the Charterwood proposal is modest, not imposing, and certainly not over scaled in relation to MLK Boulevard, a road with a 120 foot
right-of-way. First, the Charterwood project has approximately 1,500 feet of frontage on MLK Boulevard. Of this frontage, less than 30%, or about 450 feet, will have buildings fronting the road edge, with 70%, or 1,050 feet of the frontage with trees or green space fronting the road edge. This is a fraction of the amounts of development that front the road edge with other the two developments. East 54 is approximately 80% development, and Cosgrove Hills is approximately 65% development, at the road edge.

The scale of buildings in the proposed Charterwood plan is very similar in dimensions (length, width and height) to the buildings in Cosgrove Hills. The Charterwood buildings are considerably smaller than the buildings in East 54. The buildings in East 54 are 4, 5 and 6 story buildings (61 to 77 feet in height) with lengths that range from 180 feet to 480 feet. The largest Charterwood buildings are 4 story, and none will be taller than 55 feet, all of which will be on MLK Boulevard. Charterwood’s buildings will be village scale, less than 200 feet in length. Many of Charterwood’s buildings, including every structure adjacent to the neighbors, will be single family residential cottages, patio homes and townhomes.

NEIGHBORHOOD OUTREACH

Numerous group and one-on-one meetings have been held with the neighbors of the Charterwood project. We have used the input provided by the neighbors to refine and improve the development concept, buffers, and to be as sensitive as possible to the neighbors’ concerns. We recognize that fear of the unknown is an issue and gives neighbors apprehension about our proposal. We have been forthcoming and honest about what we are proposing and we are confident that we can satisfy the neighbors’ concerns. We believe that many neighbors will attest to the fact that we have made significant efforts to work with them and to keep them informed and updated on our progress.

All of the property owners that are common owners along our property line have been offered the opportunity to use our landscape horticulturalist Tracy Traer to assist in developing landscape buffer enhancement plan for each of their properties. Those that have chosen to participate in this process have expressed gratitude and believe the plans that will evolve from this effort will be beneficial.

WALKABILITY & BIKE & PEDESTRIAN IMPROVEMENTS

This general area of Chapel Hill has great potential for inducing and expanding pedestrian and cycling activity here. The area has a plethora of shopping and dining establishments that serve virtually all of the everyday needs of the community. Retail stores, including grocery, pharmacy, hardware, office supplies, personal services, as well as banks, a post office, pet services, 12 movie theatres, 15 restaurants, and numerous other shops and services are within a 7 minute walk from Charterwood. With the pedestrian improvements we will make in terms of new connections and safety improvements in crossing MLK Boulevard, we know that expanded pedestrian activity will take place. This area is already one of the best, if not the best, “walked” areas outside of downtown. The Asian-American residents of this area are routinely seen throughout the day, especially in the early evening, walking the sidewalks here.
An increased use of bicycling as a form of transportation as well as simply exercise can be expected by virtue of the improvements that will be made to connectivity as well as the potential for cycling to the new employment opportunities that will emerge at Carolina North.

**LEED-ND**

The new Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) is a certification that will be submitted for (and most likely granted) for Charterwood. This is a new designation that takes a bigger view of the benefits of well-planned communities that promote the reduction of carbon footprinting and energy consumption by facilitating alternative forms of transportation in compact, mixed use developments. Among the many benefits that are cited by the United States Green Building Council for LEED-ND communities are:

- Encouragement of healthy living
- Reduction of urban sprawl
- Protection of threatened species
- Higher tenancy rates
- Higher real estate values

Charterwood should clearly qualify for LEED-ND designation insofar as it meets a high percentage of the criteria for certification, including:

- A location that is close to a town center
- An area with good transit service
- An infill site
- A site adjacent to existing development
- A location where alternatives to auto dependence are promoted
- A location where housing and jobs are in proximity
- A location where mixed use and smart development is promoted

The Centers for Disease Control and Prevention (CDC) have recently given a strong endorsement for the certifying of LEED-ND to design and build active communities that make it easier for people to live healthy lives.

**LIGHTING/DARK SKY LIGHT**

The Charterwood development will conform to the objectives of the Dark Sky Initiative, to minimize light pollution, reduce energy consumption and green house gas emissions. Our lighting systems will be carefully analyzed and designed so as to illuminate only what needs illumination, avoiding obtrusive light. We will use the lowest wattages to accomplish lighting purposes. Whenever possible, lighting systems will be encouraged to be controlled, either by timing devises or motion sensors. Curfews on lighting may be applied. Individual residential lighting guidelines will be incorporated into the Charterwood Homeowner Association documents.
RESPONSES TO INDIVIDUAL TOWN COUNCIL MEMBER COMMENTS

This section provides responses to individual town council member comments on issues that were not covered in the previous set of issue responses.

Matt Czajkowski

Mr. Czajkowski brought up the question of massing on MLK. We addressed this in the general issues responses but want to emphasize that we will not be building any “monolithic” buildings, something he had reservations about. Our buildings along MLK will be no taller than 50 to 55 feet, a height that will not be obtrusive to the neighbors and is in scale with MLK Jr. Boulevard, a major arterial with a 120 foot right-of-way. To address Mr. Czajkowski’s streetscape question further, the frontage of MLK along the Charterwood ownership will be approximately 30% buildings and 70% green space, mainly trees.

Laurin Easthom

Councilwoman Easthom had several questions on issues that were not covered previously in the general issues responses. One request was related to addressing the petition questions that were raised by Northwoods resident Del Snow, who presented a petition to the Town Council. All of the issues raised in the petition have been addressed in the previous responses to general issues. It must be pointed out here, however, that several of the points that were made in Ms. Snow’s presentation were not correct including her representation of our parking numbers, what a transit oriented development is, storm water runoff problems (they are not currently caused by this property), and development density. What we can address that were questions raised by Ms. Easthom include the following. The question regarding the homes along the southern edge: yes, the homes in Charterwood will be single family detached and of a similar size to what has been built in Northwoods V. Ms. Easthom’s point about the Charterwood property being elevated above the neighboring Northwoods land is correct. However, the change in relief from MLK Jr. Boulevard to the Northwoods property line (east to west) averages about 7 feet over a distance of 400 feet. The topography of this property running in this east to west direction is essentially flat, with a less than 2 percent slope. The property does fall from north to south, but only slightly more with a change of 15 feet over a distance of 700 feet, a slope of slightly over 2 percent.

In all cases along our common boundary with the Northwoods residents, no home in Charterwood will be as close to the property line as the home across the property line in Northwoods.

With respect to storm water we will ameliorate many of the problems that are experienced by residents in Northwoods who have homes that were built in the floodplain. The problems they experience, however, were created by the developer of that community.

Kevin Foy

Mayor Foy’s special concern was with connectivity and mobility, in the context of Kenilworth Place. We are in favor of connectivity where it can be accomplished without conflicting consequences. We have offered to provide a pedestrian/bike connection from the terminus of Kenilworth Place to MLK Jr. Boulevard. We also recognize that the right-of-way for the extension of Kenilworth Place affords the
Parkside and Northwoods V neighbors a thickly vegetated buffer from the adjacent mobile home park. Many of these homes are located within 7 feet of our property line. This is a distance that would not be permitted under current rules.

**Sally Greene**

Councilwoman Greene’s special concern was the preservation of the old Altemueller farm house. We are committed to the preservation and adaptive reuse of the old Altemueller farm house. We view this as an excellent opportunity, along with the preservation of the large oak trees associated with the house, to highlight and incorporate some of the history of this Altemueller property into the plan for Charterwood. We will work closely with the Preservation Society, the Town Council and town staff in this effort.

**Ed Harrison**

Councilman Harrison raised the specific question of why the property needed a rezoning. The existing R-2 zoning does not permit non-residential uses. The property requires a rezoning on the portion of the property where we propose mixed land uses. Councilman Harrison also raised the point that the new buildings proposed would serve as a better noise buffer for the neighbors than the existing trees. This is true. Councilman Harrison also brought up the issue of surface volume control in connection with our storm water management. This will be an integral part of our analysis. Lastly, Councilman Harrison warned that we should not assume that we could use the N.C.D.O.T. storm water basins for our storm water management. We have never assumed that we would be using these basins. We have, however, continued discussions with the DOT and have made significant progress in establishing a mutually beneficial collaboration with respect to storm water management and the potential disposition of these basins.

**Mark Kleinschmidt**

Councilman Kleinschmidt’s special concerns were with the Kenilworth connection and our interest in meeting a demand for workforce housing. With regard to the Kenilworth Place connection we are neutral. We will provide, as promised, the pedestrian/bike connection from the current Kenilworth terminus to MLK Jr. Boulevard and the sidewalk system, bike lanes, and bus stops located in this corridor. We understand the importance of connectivity, but also understand the value of the vegetative buffer against the mobile home park that is afforded the neighbors in the area where an extension of Kenilworth Place would take place. This buffer also benefits our residents here. These mobile homes are within 10 feet of the road right of way. With regard to workforce housing we would be interested in discussing with the town our thoughts on proposed housing products that could meet this need and the target price points that are appropriate to our estimates of household affordability.

**Jim Merritt**

Councilman Merritt had no comments outside of the issues discussed under general issues.
Bill Strom
Councilman Strom’s special concerns were storm water flow and techniques that will be used, dark sky light standards, and continuing a dialogue with the neighbors. We are currently working on our storm water management plan, and the details about techniques will be fully available when this is completed for the SUP submittal. We do know that we will be utilizing some bioswales, some underground storm water storage, and most likely some sand filter cleansing technology. We have discussed in the general concerns section the issue of dark sky lighting standards, which are to be employed in this development. Lastly, we fully intend to continue our dialogue and outreach efforts with the neighbors.

Jim Ward
Councilman Ward’s special concerns were with the “magnificent trees”. As we discussed earlier in our general issues response, there are three primary zones where exceptional measures will be made to protect and preserve as many of these magnificent trees as possible. We have a very experienced and knowledgeable arborist and an excellent horticulturist working on our team. We are interested in working with Councilman Ward as well, as he is an expert in this field.
AREASPECIFICDEVELOPMENTCONCEPTS

FOCUS AREA 3 (SOUTH OF WEAVER DAIRY RD)

ASSETS AND CONSTRAINTS:

Area 3 Gross Area: 71 Acres
Developable Area: 59 Acres: discounts natural constraints only, other constraints will apply
Land Use Plan Designation: Mixed-Use, Medium & High Density Residential & Commercial, Development Opportunity Areas
Current Zoning: MU-OI-1, OI-1,CC, R2, R3 & R5

Description: On the eastern side of Martin Luther King Jr. Blvd., area 3 includes the existing Timberlyne Center. The center accommodates unique neighborhood commercial uses and has opportunities for redevelopment within its existing framework; currently there is excess parking capacity at the shopping center. On the western side, Area 3 includes the Altemueller property which contains historic buildings of a former farm, including a farm house and outbuildings. There are also stands of mature trees, the headwaters of Booker Creek, a mobile home park and Fire Station 4

RECOMMENDATIONS:

Proposed Development Concept:

- Served by transit stops, Weaver Dairy Road will be a transit corridor and Martin Luther King Jr. Boulevard will serve as a high capacity transit corridor
- The corridors should have a landscaped and shaded streetscape
- The intersection of Martin Luther King Jr. Boulevard and Weaver Dairy Rd. should have a highly visible gateway entrance that contains a retail component. The gateway should be connected to the Timberlyne Center by retail uses on the southern side of Weaver Dairy Rd.
- Timberlyne Center - The center should remain a major commercial node and should redevelop over time. A master redevelopment plan incorporating TOD principles and active public space should be prepared. Access to the center should be aligned to a realigned access at Old University Station Drive (see recommendations of area 2)
- East Side of Martin Luther King Jr. Boulevard - Mixed-Use, 15+DU/Acre minimum gross density for residential developments
- West Side of Martin Luther King Jr. Boulevard - Mixed-Use, 8-15DU/Acre minimum gross density for residential developments (density should be measured as an aggregate of all the property in this portion of the focus area)
- Altemueller property - Retain the building and tree group as an active focal space for the community. Adaptively reuse the farmhouse. Protect the natural and cultural heritage of the site. Because of the environmental constraints impacting the property, it will likely be developed at a lower density than the adjoining property on the east side of Martin Luther King Jr. Boulevard
- Consider Town coordinated redevelopment of the Fire Station which incorporates the existing facility and TOD principles
- Extend greenway along Weaver Dairy Rd. Ext. to Martin Luther King Jr. Blvd.
MEMORANDUM

Date:            February 11, 2011

To:            Kumar Neppalli, Chapel Hill Town Traffic Engineer

From:          Bill Christian

CC:            Gene Poveromo, Judy Johnson, Mary Jane Nirdlinger, JB Culpepper, Dwight Bassett, Scott Radway

Project:        Charterwood, Waiver Exemption for TIA Revision, Expanded to Respond to Additional Questions

This memo provides a revised and expanded discussion of our previous memo on the subject of traffic generated by our Charterwood development located on MLK Jr., Blvd. in the vicinity of Weaver Dairy Road and Westminster Drive. This memo comprises what was said in that January 28, 2011 memo, and also includes in the last section of this memo, a more complete set of data about Charterwood trip generation. Specifically I attempt to answer your question about the trip making characteristics of many of the potential non-residential uses that would be allowed if our requested rezoning of 6.39 acres to Mixed Use Village is approved. Some of the most likely uses were discussed in the previous memo. This analysis includes a number of those non-residential uses that weren’t discussed.

This memo is also for the purpose of requesting a waiver exemption from the TIA revision requirement for our Charterwood project. It includes discussion and analysis of the previously (February 2010) prepared Traffic Impact Study done by HNTB, a comparison analysis of trip making based on some changes to our development program as now submitted, and some additional discussion of comparative trip making.
at Charterwood under different development scenarios that are possible if our rezoning request for Mixed Use Village is approved by the Town Council.

As you know, HNTB prepared a Traffic Impact Study for Charterwood in February, 2010, based on our program at the time including the following land uses and development volumes as provided to them, which is summarized below.

**CHARTERWOOD DEVELOPMENT PROGRAM FOR 2010 TRAFFIC IMPACT STUDY**

- 65 HOUSING UNITS, 30 SINGLE FAMILY DETACHED, 35 CONDOMINIUM/TOWNHOUSE
- 15,000 SQUARE FEET, GENERAL OFFICE SPACE
- 20,000 SQUARE FEET, SPECIALTY RETAIL
- 100 ROOM HOTEL

A tabular summary of the trip making analysis produced in that study is presented below in Table 1.

**TABLE 1. WEEKDAY VEHICLE TRIP GENERATION SUMMARY, PROPOSED CHARTERWOOD MIXED-USE COMMUNITY, FEBRUARY 2010 TRAFFIC IMPACT STUDY**

<table>
<thead>
<tr>
<th>LU CODE</th>
<th>LAND USE</th>
<th>DENSITY</th>
<th>UNITS</th>
<th>TRIPS IN</th>
<th>TRIPS OUT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>SINGLE FAMILY DETACHED HOUSING</td>
<td>30</td>
<td>DUS</td>
<td>172</td>
<td>172</td>
<td>344</td>
</tr>
<tr>
<td>230</td>
<td>RESIDENTIAL CONDO/TH</td>
<td>35</td>
<td>DUS</td>
<td>129</td>
<td>129</td>
<td>258</td>
</tr>
<tr>
<td>710</td>
<td>GENERAL OFFICE</td>
<td>15,000</td>
<td>SQ. FT.</td>
<td>155</td>
<td>155</td>
<td>310</td>
</tr>
<tr>
<td>814</td>
<td>SPECIALTY RETAIL</td>
<td>20,000</td>
<td>SQ. FT.</td>
<td>443</td>
<td>443</td>
<td>886</td>
</tr>
<tr>
<td>310</td>
<td>HOTEL</td>
<td>100</td>
<td>ROOMS</td>
<td>409</td>
<td>409</td>
<td>818</td>
</tr>
<tr>
<td></td>
<td>INTERNAL CAPTURE</td>
<td>6 %</td>
<td>78</td>
<td>78</td>
<td></td>
<td>156</td>
</tr>
<tr>
<td></td>
<td>TRANSIT/NON-MOTORIZED TRIPS</td>
<td>20 %</td>
<td></td>
<td></td>
<td></td>
<td>152</td>
</tr>
<tr>
<td></td>
<td>TOTAL (NEW TRIPS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,308</td>
</tr>
</tbody>
</table>

As indicated in Table 1 a total of 2,308 trips were projected from the HNTB analysis. This analysis included reductions in trip making for both internal capture (6 %) and transit and non-motorized modal use (20 % for residential and office trips) owing to the fact that Charterwood is a mixed use, transit-oriented development. In addition (not presented) the study projected that there would be 125 total trips in the AM peak hour, 190 trips in the noon peak hour, and 210 trips in the PM peak hour.

The study detailed a number of transportation-related improvements that will be required in association with the development of Charterwood. These are summarized below.
SUMMARY OF CHARTERWOOD TRANSPORTATION-RELATED IMPROVEMENTS

- We will construct a southbound right-turn deceleration lane at the proposed main entrance to the site (Westminster Drive).
- We will construct the main entrance drive to Charterwood, which will become the fourth leg of the Martin Luther King, Jr. Boulevard intersection with Westminster Drive, and which will include a signal upgrade for the additional phase.
- In addition to the above we will install pedestrian signals and crosswalk on all four approaches to and away from Charterwood at the Westminster/MLK, Jr. Blvd. intersection.
- We will construct a northbound left-turn lane in the median at the Westminster Drive/MLK, Jr. Blvd. intersection to accommodate site-related traffic. We will also provide a protected left-turn signal phase for northbound and southbound left-turn movements.
- We will provide a bus bay, bus stop, and bench and shelter along Martin Luther King, Jr. Blvd. approximately 200 feet south of the main entrance to Charterwood.
- We will construct a right turn lane entry into the secondary entrance to Charterwood at Kingsbridge Lane, with a right out only egress.

There have been two changes in the above-summarized Charterwood development program since the original Traffic Impact Study in February 2010 and what our program is now, as submitted. The first is a change in the number of residential units proposed as well as the mix of units by type. The February 2010 program was for 65 housing units, comprised of 30 single family detached and 35 townhouse and condominiums. The current proposal, affected partly by the loss of land for single family due to tree preservation concerns and by the Town’s new inclusionary housing ordinance, is for 87 units, including 21 single family and 66 townhouse and condominium units. The current proposal also includes a ½-acre parcel that is now in the Mixed Use Village district and is most likely to be developed as office space rather than residential (although it could be developed as residential). We are projecting that this site would produce 15,000 square feet of office space. This office space was not factored into the February 2010 study.

The summary of our current program is as follows.

**CHARTERWOOD CURRENT DEVELOPMENT PROGRAM, JANUARY 2011**

- 87 HOUSING UNITS, 21 SINGLE FAMILY DETACHED, 66 CONDOMINIUM AND TOWNHOUSE
- 30,000 SQUARE FEET, GENERAL OFFICE
- 20,000 SQUARE FEET, SPECIALTY RETAIL
- 100-ROOM HOTEL
In the following Table 2 is a summary of the traffic generated by this development program, based on the same trip generation values used in the 2010 HNTD study.

**TABLE 2. WEEKDAY VEHICLE TRIP GENERATION SUMMARY PROPOSED CHARTERWOOD, JANUARY 2011**

<table>
<thead>
<tr>
<th>LU CODE</th>
<th>LAND USE</th>
<th>DENSITY</th>
<th>UNITS</th>
<th>TRIPS IN</th>
<th>TRIPS OUT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>SINGLE FAMILY DETACHED HOUSING</td>
<td>21</td>
<td>DUS</td>
<td>121</td>
<td>121</td>
<td>242</td>
</tr>
<tr>
<td>230</td>
<td>RESIDENTIAL CONDO/TH</td>
<td>66</td>
<td>DUS</td>
<td>241</td>
<td>241</td>
<td>482</td>
</tr>
<tr>
<td>710</td>
<td>GENERAL OFFICE</td>
<td>30,000</td>
<td>SQ. FT.</td>
<td>310</td>
<td>310</td>
<td>620</td>
</tr>
<tr>
<td>814</td>
<td>SPECIALTY RETAIL</td>
<td>20,000</td>
<td>SQ. FT.</td>
<td>443</td>
<td>443</td>
<td>886</td>
</tr>
<tr>
<td>310</td>
<td>HOTEL</td>
<td>100</td>
<td>ROOMS</td>
<td>409</td>
<td>409</td>
<td>818</td>
</tr>
<tr>
<td></td>
<td>INTERNAL CAPTURE</td>
<td>6 %</td>
<td></td>
<td></td>
<td></td>
<td>183</td>
</tr>
<tr>
<td></td>
<td>TRANSIT/NON-MOTORIZED TRIPS</td>
<td>20 %</td>
<td></td>
<td></td>
<td></td>
<td>269</td>
</tr>
<tr>
<td></td>
<td>TOTAL (NEW TRIPS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,596</td>
</tr>
</tbody>
</table>

This current development program would produce a total of 2,596 daily trips, which is an increase of 288 daily trips over the volume of trips produced in the 2010 analysis.

As we have discussed, Charterwood as proposed would have approximately 50 percent of its land area, 6.4 acres, in the Mixed Use Village zoning district that would allow for uses to “flex” to the extent that alternatives are permissible in the MUV district. We are, however, using the 2,305 trips projected in the 2010 TIA, plus the allowable 500 trip overage as an “upset limit” on the amount of trip generation we can produce at Charterwood. Thus, no more than 2,805 trips can be produced. This is a major constraint on both the volumes and types of land use that can occur, and is something that I as the developer am constantly aware of as I discuss the project with potential clientele.

Apparently a recent potential client that we discussed with the Planning Department activated concern both from a traffic and operational standpoint, was a bank that wishes to have an accessory drive-through. In the past this use and accessory were substantial generators of traffic, and they still are relatively speaking, but with the advent and popularity of on-line banking and bill paying their trip generation rates have been reduced considerably based on recent, bona fide transportation research. These numbers have been provided, taken from the Institute of Transportation Engineers (ITE), Trip Generation Rates, 8th Edition.

The bank that has expressed interest in Charterwood is considering the site to the south of the main entrance where we have shown a hotel. The bank would replace the hotel.
As indicated in the tables presented here the hotel, if built, would produce a projected 818 daily vehicular trips. We do not yet have a specific, formal program outline from the interested bank, but it is likely their trip generation quantity would be less than the hotel’s. Based on preliminary data from the bank, we estimate their trip generation volume to be approximately 550 trips.

On our site plan submittal (Sheet C8) for the Charterwood SUP and Rezoning we had anticipated the question about alternative uses for the “hotel site” and had indicated on this plan sheet some development quantities for three alternative uses that were the most likely. These included the following uses with development quantities that would produce vehicular trips in a similar quantity to the hotel, or approximately 818 trips. These are listed below.

### USE ALTERNATIVES TO THE HOTEL AT CHARTERWOOD, BY DEVELOPMENT VOLUMES

<table>
<thead>
<tr>
<th>ALTERNATIVE USE</th>
<th>DEVELOPMENT QUANTITY</th>
<th>DAILY TRIPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Condominium/Townhouse</td>
<td>110 units</td>
<td>814</td>
</tr>
<tr>
<td>General Office</td>
<td>39,700 square feet</td>
<td>818</td>
</tr>
<tr>
<td>Specialty Retail</td>
<td>18,000 square feet</td>
<td>797</td>
</tr>
</tbody>
</table>

The development volumes shown above, and the projected daily trips associated with these volumes, represent approximate equivalencies to the 100-room hotel alternative that was used in the Traffic Impact Study, in terms of traffic impact. It is highly unlikely that the above volumes shown above would be substituted for the hotel as single uses. It is very likely that any alternative to the hotel would be a mix of uses, in some combination of the residential, office and specialty retail cited above.

To provide a more specific, comprehensive (though not exhaustive) list of uses allowable in the MU-V District, I have composed the table following that identifies permitted uses and their trip-making metrics, for weekday daily total and PM peak trips. These values for trip generation are taken from the ITE Trip Generation Rates, 8th Edition.
### ADDITIONAL PERMITTED USES IN MIXED USE VILLAGE DISTRICT,
### TRIP GENERATION RATES

<table>
<thead>
<tr>
<th>PERMITTED USE</th>
<th>WEEKDAY TRIPS</th>
<th>PM PEAK</th>
</tr>
</thead>
<tbody>
<tr>
<td>BANK</td>
<td>NA</td>
<td>12.3 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>BANK, W/DRIVE-IN</td>
<td>148.1 TRIPS/1,000 SQ. FT.</td>
<td>25.8 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>CHILD CARE</td>
<td>4.5 TRIPS/STUDENT</td>
<td>.82 TRIPS/STUDENT</td>
</tr>
<tr>
<td>MEDICAL/DENTAL OFFICE</td>
<td>36.1 TRIPS/1,000 SQ. FT.</td>
<td>3.46 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>PLACE OF WORSHIP</td>
<td>9.1 TRIPS/1,000 SQ. FT.</td>
<td>1.0 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>OFFICE, SINGLE TENANT</td>
<td>11.6 TRIPS/1,000 SQ. FT.</td>
<td>1.7 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>RESEARCH</td>
<td>8.0 TRIPS/1,000 SQ. FT.</td>
<td>1.0 TRIPS/1,000 SQ. FT.</td>
</tr>
<tr>
<td>RESTAURANT, QUALITY</td>
<td>90 TRIPS/1,000 SQ. FT.</td>
<td>7.5 TRIPS/1,000 SQ. FT.</td>
</tr>
</tbody>
</table>

These uses identified in the above table, together with the uses identified in the table on the preceding page, which include attached residential, general office and specialty retail, are the most likely uses that would be placed on the hotel site, in some mixed combination. We do not know what the quantities of each use would be at this time. We are, as has been stated many times in various documents, using the “upset limit” of 2,805 trips generated at Charterwood as a constraint on development by type and volume, as these variables relate to trip generation. Our plan is to not exceed that trip number.
CHARTERWOOD

TRAFFIC IMPACT STUDY

Prepared for:

The Town of Chapel Hill
Engineering Department

Prepared by:

HNTB North Carolina, PC

343 East Six Forks Road
Suite 200
Raleigh, NC  27609
NCBELS License #: C-1554

February 2010
CHARTERWOOD
TRAFFIC IMPACT STUDY

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The Town of Chapel Hill
Engineering Department

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343 East Six Forks Road
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February 2010
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I. EXISTING CONDITIONS

A. Project Overview

A new mixed-use development tentatively named Charterwood, to be located along N.C. Highway 86 (Martin Luther King, Jr. Boulevard) just south of Weaver Dairy Road is being proposed in Chapel Hill. Figure 1 shows the general location of the site. The project is anticipated to be fully complete by 2014. This report analyzes the full build-out scenario for the year 2015 (one year after anticipated completion), the no-build scenario for 2015, as well as 2009 existing year traffic conditions.

The proposed site concept plans show a direct, full movement access driveway to Martin Luther King, Jr. Boulevard that would form the fourth leg of the existing intersection at Westminster Drive. In addition, the plans show two additional right-turn in/right-turn out only (RIRO) driveways providing access along southbound Martin Luther King, Jr. Boulevard. Figure 2 displays the preliminary concept plan of the proposed Charterwood and nearby land uses and roadways.

B. Site Location and Study Area

This report analyzes and presents the transportation impacts that Charterwood will have on the following intersections in the project study area:

- Martin Luther King Boulevard (N.C. 86) and I-40 Westbound Ramps
- Martin Luther King Boulevard (N.C. 86) and I-40 Eastbound Ramps
- Martin Luther King Boulevard (N.C. 86) and Eubanks Road
- Martin Luther King Boulevard (N.C. 86) and Perkins Drive
- Martin Luther King Boulevard (N.C. 86) and Weaver Dairy Road
- Martin Luther King Boulevard (N.C. 86) and Site Access Driveway #1 (RIRO)
- Martin Luther King Boulevard (N.C. 86) and Westminster Drive/Site Access Driveway #2
- Martin Luther King Boulevard (N.C. 86) and Site Access Driveway #3 (RIRO)
- Martin Luther King Boulevard (N.C. 86) and Stateside Drive
- Martin Luther King Boulevard (N.C. 86) and Homestead Road

The impacts of the proposed site at the study area intersections will be evaluated during the AM, noon, and PM peak hours of an average weekday. The following study is based on background traffic for the existing year, 2009, and the year following the estimated site build out year of 2015, as well as the estimated site-generated traffic produced by the mixed-use development.

There are several Town-approved future developments in the immediate project study area that were considered to be constructed by 2015 and may generate additional background traffic. An area-wide ambient future traffic growth percentage of 2.25 percent per year was applied to the existing volumes, based on information provided in the recently completed Transportation Impact Analysis for the Carolina North
Development (May 2009), which is expected to be one of the more significant background traffic generators near the project study area.

C. Site Description

Charterwood site is currently a heavily wooded parcel with several small residential buildings and is surrounded by existing residential neighborhoods to the west. Additional residential subdivisions are present to the south and east of the site, with some significant commercial and retail development along Martin Luther King, Jr. Boulevard and Weaver Dairy Road (Timberlyne Shopping Center) to the east. The proposed site will have frontage along Martin Luther King, Jr. Boulevard and abuts an existing Town of Chapel Hill Fire Station to the north along the Weaver Dairy Road Extension.

The site concept plan, shown in Figure 2, shows the overall layout of the mixed-use development, which is to include residential units (single family homes and townhomes/condominiums), office space, specialty retail stores, and a hotel. The concept plan also shows several building footprints, general location of parking facilities, internal driveways, and walking paths.

Several specific external roadway improvements are included conceptually on the site plan. There is a primary access driveway that will be located immediately across from Westminster Drive. Modifications for deceleration/acceleration lanes on southbound Martin Luther King, Jr. Boulevard are shown for this driveway. Two other site driveway access points are also shown. The northernmost driveway is to serve a small residential neighborhood on the site, and has a short acceleration lane on Martin Luther King, Jr. Boulevard. The third driveway currently exists along Martin Luther King, Jr. Boulevard and is proposed to be extended to serve development in the southern portion of the site.

D. Existing and Proposed Uses in Vicinity of Site

The land uses and development in the study area are primarily residential, with higher density commercial areas located along Martin Luther King, Jr. Boulevard. The Existing Land Use Plan shown in the 2000 Town of Chapel Hill Comprehensive Plan indicates that the proposed site is a mix of “undeveloped land”, “Parks/Open Space”, and “Low Density Residential”. The Future Land Use Plan, that is also a part of the Town Comprehensive Plan, indicates that the parcel would be “Medium Density Residential (4-8 Units/Acre). It also indicates that this parcel is a “Development Opportunity Area”.
E. Existing and Committed Surface Transportation Network

Roadways
The Charterwood project study area features several major arterial roadways serving areas throughout the Town of Chapel Hill and points beyond, as well as a number of collector and local access streets. Table 1, on the following page, summarizes pertinent information on the study area roadway facilities.

Table 1 – Existing Study Area Roadways

<table>
<thead>
<tr>
<th>Road Name</th>
<th>Functional Class*</th>
<th>Study Area Cross-Section</th>
<th>2007 AADT</th>
<th>Speed Limit</th>
<th>Sidewalk</th>
<th>On-Street Parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>N.C. 86 (Martin Luther King, Jr. Boulevard)</td>
<td>Major Arterial</td>
<td>4-6 lane median divided</td>
<td>27,000</td>
<td>35-45</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Eubanks Road</td>
<td>Minor Arterial</td>
<td>2 lane undivided + turn lanes</td>
<td>7,000</td>
<td>45</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Perkins Drive</td>
<td>Collector/Local</td>
<td>2-3 lane undivided</td>
<td>N/A</td>
<td>25</td>
<td>S</td>
<td>N</td>
</tr>
<tr>
<td>Weaver Dairy Road</td>
<td>Minor Arterial</td>
<td>3 lane with TWLTL</td>
<td>12,000</td>
<td>35</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Weaver Dairy Road Extension</td>
<td>Collector</td>
<td>2 lane median divided</td>
<td>N/A</td>
<td>25</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Westminster Drive Stateside Drive</td>
<td>Collector/Local</td>
<td>2 lane undivided</td>
<td>N/A</td>
<td>25</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>Homestead Road</td>
<td>Minor arterial</td>
<td>2 lane undivided</td>
<td>7,700</td>
<td>35</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

S – Some Sidewalk Present
TWLTL – Two-Way Left-turn Lane

Figure 3 shows the existing lane configuration, traffic control, and speed limits for these study area roadways.

Intersections
Currently, all intersections in the project study area are signalized, with the exception of Martin Luther King, Jr. Boulevard/Stateside Drive, which features two-way stop control for the Stateside Drive minor street approaches. The following paragraphs provide details of each intersection and the type of traffic control currently in operation.

The intersection of Martin Luther King, Jr. Boulevard and the I-40 Westbound Ramps is currently controlled by a three-phase traffic signal. The northbound N.C. 86 approach features dual left-turn lanes and a single through travel lane. The southbound approach features two through lanes and an exclusive right-turn lane. The westbound off-ramp features dual left-turn lanes and an exclusive right-turn lane. The northbound left-turn lanes have protected-only left-turn phasing. No pedestrian signal heads/crosswalks are present.
The intersection of Martin Luther King, Jr. Boulevard and the I-40 Eastbound Ramps is currently controlled by a three-phase traffic signal. The northbound approach features two through travel lanes and an exclusive right-turn “drop” lane that has yield control for I-40 eastbound on-ramp access. The southbound approach features two through lanes and an exclusive left-turn lane that has protected-permitted signal phasing. The eastbound off-ramp approach features an exclusive left-turn lane and dual right-turn lanes that operate under signal control. No pedestrian signal heads or crosswalks are present.

The intersection of Martin Luther King, Jr. Boulevard and Eubanks Road is a “T” intersection currently controlled by a three-phase traffic signal. The northbound approach features three through travel lanes (the right-most lane becomes a “drop” lane immediately to the north, at the I-40 Eastbound ramp intersection) and an exclusive left-turn lane. The southbound approach features a through travel lane and a shared through/right-turn lane. The eastbound Eubanks Road approach features an exclusive left-turn lane and an exclusive right-turn lane. The northbound left-turn movement has protected-permitted signal phasing, and has a right-turn overlap phase with the eastbound approach. No pedestrian signal heads or crosswalks are present.

The intersection of Martin Luther King, Jr. Boulevard and Perkins Drive is a “T” intersection currently controlled by a three-phase traffic signal. The northbound approach consists of two through travel lanes and a shared through/right-turn lane. The southbound approach has an exclusive left-turn lane and two through travel lanes. The westbound Perkins Drive approach features exclusive left-turn and right-turn lanes. The southbound left-turn lane operates with protected-permitted signal phasing that includes a right-turn overlap with the westbound approach. No pedestrian signal heads or crosswalks are present.

The intersection of Martin Luther King, Jr. Boulevard and Weaver Dairy Road is currently controlled by a five-phase traffic signal. The northbound approach features an exclusive left-turn lane, two through travel lanes, and a shared through/right-turn lane. The southbound approach features an exclusive left-turn lane (with additional pavement width for dual lanes in the future), a through travel lane, and a shared through/right-turn lane. The eastbound approach (known as Weaver Dairy Road Extension) features single left-turn, through, and right-turn lanes. The westbound approach consists of dual left-turn lanes and a shared through/right-turn lane. Eastbound and westbound approaches are controlled by split signal phasing. The northbound and southbound left-turn phases are protected-only. Pedestrian signal heads and crosswalks are present across the northbound and westbound approaches.

The intersection of Martin Luther King, Jr. Boulevard and Westminster Drive is a “T” intersection currently controlled by a two-phase traffic signal. The northbound approach features two through travel lanes and an exclusive right-turn lane. The southbound approach consists of an exclusive left-turn lane and two through travel lanes. The westbound approach on Westminster Drive features a single shared left-turn/right-turn lane. No pedestrian signal heads or crosswalk is present.
The intersection of Martin Luther King, Jr. Boulevard and Homestead Road is currently controlled by a four-phase traffic signal. The northbound approach has dual left-turn lanes, a through lane, and a shared through/right-turn lane. The southbound approach has a single exclusive left-turn lane, two through travel lanes and an exclusive right-turn lane. The eastbound Homestead Road approach features an exclusive left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane. The westbound approach, currently a church driveway, features an exclusive left-turn lane and a shared through/right-turn lane. The eastbound and westbound approaches operate with split signal phases. The northbound left-turn lanes operate with protected-only phasing. There are pedestrian signal heads and crosswalk at all four intersection approaches.

**Bicycle Routes and Sidewalks**

Specific bicycle facilities are present in the immediate study area, with striped bicycle lanes in both directions along Martin Luther King, Jr. Boulevard. Striped bicycle lanes are present from the vicinity of Perkins Drive and continue southbound through the project study area. Bicycle lanes are also present on Weaver Dairy Road Extension and Westminster Drive. Pedestrian sidewalk is found along both sides of Martin Luther King Jr. Boulevard through the study area north to Perkins Drive. Additional connectivity exists between these sections and side streets along the corridor. Crosswalks and pedestrian signals are present across Martin Luther King, Jr. Boulevard at the Weaver Dairy Road and Homestead Road intersections. No other crosswalks are present in the study area. Figure 4 displays a schematic of existing pedestrian and bicycle facilities in the project study area.

**Transit Routes**

Current Chapel Hill Transit (CHT) Routes A, NS and T serve the project study area along Martin Luther King, Jr. Boulevard, Eubanks Road, Weaver Dairy Road, Westminster Drive, and Homestead Road with weekday bus service (T Route also provides Saturday service). Numerous bus stops, with a range of amenities (shelters, benches), are present in the study area. Table 2, below, details the three current CHT routes serving the study area.

**Table 2 - Current Study Area Weekday Chapel Hill Transit Service**

<table>
<thead>
<tr>
<th>Route</th>
<th>Headways (minutes)</th>
<th>Study Area Stops</th>
<th>Destinations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Peak</td>
<td>PM Peak</td>
<td>Off Peak</td>
</tr>
<tr>
<td>A</td>
<td>30</td>
<td>30</td>
<td>30-60</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>10</td>
<td>20-40</td>
</tr>
<tr>
<td>T</td>
<td>25</td>
<td>35</td>
<td>35</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Triangle Transit provides regional bus service to the immediate study area via the 420 Route that runs along N.C. 86 between Chapel Hill and Hillsborough. Service for this route occurs at 30 to 60 minute headways during peak weekday periods. Triangle Transit also provides express bus service from Chapel Hill to Raleigh on the 550 Route that uses Martin Luther King, Jr. Boulevard in the study area and makes a stop at the Eubanks Road Park and Ride facility on 30 minute headways during weekdays.

Figure 5 displays transit routes and bus stops that currently exist in the project study area. This study’s analysis accounts for a transit trip reduction factor. The proximity and frequency of transit service along Martin Luther King Jr. Boulevard is likely to account for a quantifiable portion of site trips.

Committed Surface Transportation Improvement Projects

There are two committed/programmed NCDOT Transportation Improvement Program (TIP) projects in the study area that are expected to be complete by 2015. NCDOT TIP U-3306, a corridor upgrade scheduled for Weaver Dairy Road, is being done in coordination with the Town to add sidewalks, bike lanes and turning lanes. The Town is also coordinating with NCDOT to upgrade the existing traffic signal system (TIP U-4704). There are also several committed improvement projects by private developments by the 2015 analysis year. Table 3 summarizes the projects.

Table 3 – Committed Surface Transportation Improvement Projects

<table>
<thead>
<tr>
<th>Project Location</th>
<th>Description</th>
<th>Committed By</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin Luther King Jr. Blvd &amp; I-40 Westbound Ramps</td>
<td>● Add exclusive northbound through travel lane</td>
<td>Chapel Hill North</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>● Reoptimize signal timing</td>
<td>Carolina North (Phase 1)</td>
<td>2015</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Blvd &amp; Eubanks Road</td>
<td>● Add additional eastbound left-turn lane on Eubanks Road</td>
<td>Chapel Hill North</td>
<td>2012</td>
</tr>
<tr>
<td></td>
<td>● Add southbound right-turn lane on MLK Blvd</td>
<td>Carolina North (Phase 1)</td>
<td>2015</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Blvd &amp; Perkins Drive</td>
<td>● Add additional westbound left-turn lane on Perkins Drive</td>
<td>Chapel Hill North</td>
<td>2012</td>
</tr>
<tr>
<td>Martin Luther King, Jr. Blvd &amp; Weaver Dairy Road</td>
<td>● Reoptimize signal timing</td>
<td>Timberlyne Commercial</td>
<td>2007</td>
</tr>
<tr>
<td></td>
<td>● Reoptimize signal timing</td>
<td>Carolina North (Phase 1)</td>
<td>2015</td>
</tr>
<tr>
<td></td>
<td>● Add westbound right-turn lane</td>
<td>Carolina North (Phase 2)*</td>
<td>2025*</td>
</tr>
<tr>
<td>Martin Luther King Jr. Boulevard (corridor)</td>
<td>● Signal System Upgrade</td>
<td>NCDOT/Town of Chapel Hill</td>
<td>2010</td>
</tr>
<tr>
<td>Weaver Dairy Road – from MLK Blvd to Sage Road</td>
<td>● Add sidewalk and bicycle lanes on both sides of street</td>
<td>NCDOT/Town of Chapel Hill</td>
<td>2011</td>
</tr>
</tbody>
</table>
**Figure 6** displays a schematic of the location of the committed improvements identified in the table above.

### F. Existing Traffic Conditions

**Figures 7A and 7B** show the existing AM, noon, and PM, peak hour traffic volumes for the study area intersections. The counts used to determine these volumes were conducted in the spring of 2009 for the recently completed *Transportation Impact Analysis* for the *Carolina North Development* (May 2009) conducted by Vanasse Hangen Brustlin, Inc. (VHB). for all study area intersections during the weekday periods 7:00 - 9:00 AM, 11:30 AM – 1:30 PM and 4:00 – 6:00 PM. An additional traffic count, shown in **Table 4**, was conducted by HNTB for the intersection of Martin Luther King, Jr. Boulevard and Stateside Drive, as that intersection was not analyzed in the Carolina North TIA.

**Table 4 – Traffic Count Information**

<table>
<thead>
<tr>
<th>Traffic Count Location</th>
<th>Period Counted</th>
<th>Peak Hour</th>
<th>Date of Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin Luther King, Jr. Blvd (N.C.86) and Stateside Drive</td>
<td>AM Peak</td>
<td>7:45 – 8:45 AM</td>
<td>7/28/09</td>
</tr>
<tr>
<td></td>
<td>Noon Peak</td>
<td>12:30 – 1:30 PM</td>
<td>7/28/09</td>
</tr>
<tr>
<td></td>
<td>PM Peak</td>
<td>5:00 – 6:00 PM</td>
<td>7/28/09</td>
</tr>
</tbody>
</table>

Traffic count information shows traffic flows on Martin Luther King, Jr. Boulevard were heavy during the AM and PM peak count periods, with southbound flows from I-40 to downtown Chapel Hill heaviest in the AM peak and northbound return flows heaviest in the PM peak. Traffic volumes at the I-40 interchange were also heavy during the AM and PM peaks. Traffic on Eubanks Road, Perkins Drive, Weaver Dairy Road and Homestead Road was moderate to heavy during the peak periods, with light to moderate traffic volumes on Westminster Drive and Stateside Drive. **Appendix B** contains raw traffic count information for the Stateside Drive intersection that was counted specifically for this study.

### II. 2015 BUILD-OUT YEAR +1 CONDITIONS

#### A. Future Ambient Traffic Growth Without Proposed Development

Area-wide ambient traffic growth estimates for the study area were taken from the *Transportation Impact Analysis* for the *Carolina North Development*. This study used the Triangle Regional Travel Demand Model (TRM) to estimate regional traffic growth for the Chapel Hill area for the years 2015 and 2025. Annual growth percentages, based on model data on vehicle miles traveled (VMT), were approximately 2.25 percent per year from the 2005 base model to 2015. This information was used directly in the development of total background traffic growth for the 2015 Build-Out+1 analysis year for the Charterwood study area.
B. Approved Background Traffic

There are several Town-approved developments in or near the project study area that are either under construction currently or are expected to be built out and fully operational by the 2015 design year. These studies are listed below:

- Purefoy (Habitat for Humanity) Subdivision
- Homestead Twins
- Fraley Property
- Carolina North (Phase 1)
- Chapel Watch Village
- Timberlyne Commercial
- Chapel Hill North
- American Board of Pediatrics

The Carolina North TIA report analyzed the effects of 13 proposed or Town-approved development projects in the 2015 Phase 1 Build-out year for Carolina North (including all of the developments listed above). To make a consistent, and conservative, estimate of total background traffic growth, data from the Carolina North Phase 1 analysis was taken directly for this study for all 13 traffic generators and the 2.25 percent year ambient growth estimate from that study. Along with the background and ambient growth, site traffic estimates for Phase 1 of Carolina North were also included as approved background traffic for this study.

Figures 4-8, 4-11, and 4-14 from the Carolina North study were used directly for the 2015 analyses at all relevant study area intersections. For intersections not studied in the Carolina North TIA, background traffic estimates were aggregated from the 2.25 percent per year ambient growth estimate for side street turning movements. Through traffic movements were balanced using the 2015 data from the Figures listed above. Total background traffic volumes (corresponding to the 2015 Without Site Traffic Scenario) for the Charterwood study area are shown in Figures 8A and 8B.

C. Proposed Project Traffic

i. Trip Generation

The projected trips generated by the proposed Charterwood were based on the *ITE Trip Generation Manual* (Institute of Transportation Engineers, 8th Edition, 2008). Five separate land use types were analyzed for the development. No noon peak data was available from ITE data, so an average of the AM and PM peak generation rates for each land use type were used for estimation purposes. Noon peak estimates for the specialty retail land use were assumed to be the same as the PM peak generation information – as the AM peak data for this type had no trip information (0 trips). The selection of independent variables and the use of rate-based or equation-based generation methods for each particular land use type follow NCDOT Congestion Management Unit practices.

Table 5 shows the estimated number of trips generated by Charterwood during the AM, noon, and PM peak hours of adjacent streets. A truck percentage of two percent was estimated for all site-generated traffic. Table 5 shows that the site, when fully
developed, will generate approximately 125 total trips in the AM peak hour, 190 trips in the noon peak hour, and 210 trips in the PM peak hour. Trip generation estimates account for specific trip reductions due to transit, pedestrians, and bicycles and also include the potential for internally captured trips. Both transit trip reduction and internal capture assumptions were discussed, and approved, by Town staff as part of this process.

Table 5. Weekday Vehicle Trip Generation Summary
Proposed Charterwood

<table>
<thead>
<tr>
<th>Daily Trip Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LU Code</strong></td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>210</td>
</tr>
<tr>
<td>230</td>
</tr>
<tr>
<td>710</td>
</tr>
<tr>
<td>814</td>
</tr>
<tr>
<td>310</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>AM Peak Hour Trip Summary</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LU Code</strong></td>
</tr>
<tr>
<td>-------------</td>
</tr>
<tr>
<td>210</td>
</tr>
<tr>
<td>230</td>
</tr>
<tr>
<td>710</td>
</tr>
<tr>
<td>814</td>
</tr>
<tr>
<td>310</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Table 5 (Continued). Weekday Vehicle Trip Generation Summary
Proposed Charterwood

### Noon Peak Hour Trip Summary

<table>
<thead>
<tr>
<th>LU Code</th>
<th>Land Use</th>
<th>Density</th>
<th>Units</th>
<th>Trips</th>
<th>In</th>
<th>Out</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Single Family Detached Housing</td>
<td>30</td>
<td>dwelling</td>
<td>15</td>
<td>18</td>
<td>33</td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>Residential Condominium/Townhouse</td>
<td>35</td>
<td>dwelling</td>
<td>11</td>
<td>14</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td>710</td>
<td>General Office Building</td>
<td>15,000</td>
<td>sq. ft.</td>
<td>24</td>
<td>26</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>814</td>
<td>Specialty Retail Center</td>
<td>20,000</td>
<td>sq. ft.</td>
<td>24</td>
<td>30</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>310</td>
<td>Hotel</td>
<td>100</td>
<td>rooms</td>
<td>33</td>
<td>25</td>
<td>58</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal Capture</td>
<td></td>
<td></td>
<td>13</td>
<td>15</td>
<td>28</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transit/Non-Motorized Trips</td>
<td></td>
<td></td>
<td>8</td>
<td>12</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (New Trips)</td>
<td></td>
<td></td>
<td>87</td>
<td>102</td>
<td>189</td>
<td></td>
</tr>
</tbody>
</table>

### PM Peak Hour Trip Summary

<table>
<thead>
<tr>
<th>LU Code</th>
<th>Land Use</th>
<th>Density</th>
<th>Units</th>
<th>Trips</th>
<th>In</th>
<th>Out</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>210</td>
<td>Single Family Detached Housing</td>
<td>30</td>
<td>dwelling</td>
<td>22</td>
<td>13</td>
<td>35</td>
<td></td>
</tr>
<tr>
<td>230</td>
<td>Residential Condominium/Townhouse</td>
<td>35</td>
<td>dwelling</td>
<td>17</td>
<td>8</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>710</td>
<td>General Office Building</td>
<td>15,000</td>
<td>sq. ft.</td>
<td>16</td>
<td>79</td>
<td>95</td>
<td></td>
</tr>
<tr>
<td>814</td>
<td>Specialty Retail Center</td>
<td>20,000</td>
<td>sq. ft.</td>
<td>24</td>
<td>30</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>310</td>
<td>Hotel</td>
<td>100</td>
<td>rooms</td>
<td>31</td>
<td>28</td>
<td>59</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Internal Capture</td>
<td></td>
<td></td>
<td>13</td>
<td>19</td>
<td>32</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Transit/Non-Motorized Trips</td>
<td></td>
<td></td>
<td>8</td>
<td>16</td>
<td>24</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total (New Trips)</td>
<td></td>
<td></td>
<td>89</td>
<td>123</td>
<td>212</td>
<td></td>
</tr>
</tbody>
</table>

### ii.) Adjustments to Trip Generation Rates

a.) Pass-by Trips

Pass-by trips were not accounted for in this study, as the only proposed land use designation that would typically be associated with pass-by trip-making in ITE methodologies is the specialty retail designation. To make a conservative estimate that all trips were to/from external areas, no pass-by trips were estimated.

b.) Internal Capture

The land use mix and density proposed for the Charterwood development would exhibit the potential for internally captured trips. Using ITE methodologies for internal capture calculations, a spreadsheet was developed for PM peak hour.
internal trip capture. Percentage estimates produced by this spreadsheet (See Appendix C for spreadsheet output) was used in reducing raw trip generation estimates. It was assumed that internal capture for the noon peak hour would be approximately the same as the PM peak hour, and that the AM peak hour and Daily internal capture rates would be 50% of the PM peak hour estimate.

c.) Modal Split

Since the study area is well served by several CHT transit routes with frequent existing service and also has facilities for pedestrians and bicyclists with good connectivity, an analysis was conducted to estimate trip reductions for these modes. The basis for modal split estimates was research and case studies compiled for the Transportation Research Board (TRB) Transit Cooperative Research Program (TCRP) Report 128 – Effects of Transit-Oriented Development on Housing, Parking, and Travel (Arrington and Cervero, 2008). Case study developments presented in the research that had similar characteristics as the proposed Charterwood and existing/future transit service along Martin Luther King, Jr. Boulevard were analyzed for trip generation rates, mode splits, and number of automobiles owned, and parking generation rates.

Though no standard, simplified estimates for mode splits and trip generation rates can easily be drawn from the case studies presented, the aggregate data suggests that a 20 percent vehicle trip reduction for a higher density/transit-oriented development with proximal, high frequency transit service is achievable. This 20 percent represents transit and walk/bike trips that are made after internal trips are removed from original raw trip generation estimates. This estimate correlates well with older, generalized data on trip making characteristics for Chapel Hill and Orange County from the 2000 Census (source: 2007 Town of Chapel Hill Data Book, pg 7-8.). This data suggests that about 70 percent of Chapel Hill and 80 percent of Orange County work-related trips were made by single occupant vehicles or car pools. Trips for the Hotel and Specialty Retail land uses were not included in the transit/non-motorized trip reduction estimates, per agreement with Town of Chapel Hill staff.

d.) Trip Generation Budget

Current plans for Charterwood do not specifically designate a phased construction process, though that would likely occur for the different land uses being proposed. This analysis considers impacts and recommends improvements for the ultimate build-out of Charterwood, with the proposed development intensity as provided by the Applicant.

iii.) Trip Distribution

Trip distribution for site-related traffic was based existing daily and peak hour traffic patterns to determine the directional peak hour characteristics of traffic to and from the site from the major study area thoroughfares. Trip distribution percentage data was
also estimated by comparing trip distribution pattern information found in the *Transportation Impact Analysis for the Carolina North Development*. The comparisons were useful, since that study conducted an expansive, regionally-based method of estimating trip origins/destinations to a location that is proximal to Charterwood. No local trips from the Weaver Dairy Road Extension, Perkins Drive, or Stateside Drive areas were estimated, though the possibility exists a small portion of trip-making may occur to/from these local streets. Local site access driveway trip distribution breakouts were necessary, as site trips using Site Driveway #1 have no alternative but to use that access point. The remaining site-related trips would either use Site Driveways #2 or #3. **Figure 9** presents the projected trip distribution traffic percentages for the proposed site in 2015.

iv.) Trip Assignment

**Figure 10** shows the corresponding site traffic volumes distributed on the 2015 study area network. Total volumes into and out of the site correspond to total external vehicular trips generated, based on the trip generation methodology developed previously. Data in **Figure 10** represents an aggregate sum of trips unique to Site Driveway #1 and remaining trips that would be expected to use Site Driveways #2 or #3.

D. Future Traffic Forecasts with the Proposed Development

**Figures 11A and 11B** display the 2015 build-out+1 year projected study area traffic volumes with site traffic added. These traffic volumes represent the aggregate traffic growth over existing traffic volumes for a) ambient traffic growth, b) specific background development traffic assignments from those developments, and c) estimated site traffic assignments for Charterwood.

III. IMPACT ANALYSES

A. Peak Hour Intersection Level of Service Analysis

i.) Methodology

Evaluation of traffic operations on suburban arterials is most effective through the determination of level of service (LOS) criteria. The concept of level of service correlates qualitative aspects of traffic flow to quantitative terms. This enables transportation professionals to take the qualitative issues, such as congestion and substandard geometrics, and translate them into measurable quantities, such as operating speeds and vehicular delays. The 2000 *Highway Capacity Manual (HCM 2000)* characterizes level of service by letter designations A through F. Level of service A represents ideal low-volume traffic operations, and level of service F represents over-saturated high-volume traffic operations. Level of service is measured differently for various roadway facilities, but in general, level of service letter designations are described by the following in **Table 6**.
Table 6
Level of Service (LOS) Characteristics

<table>
<thead>
<tr>
<th>Level of Service Description</th>
<th>Per Vehicle Delay at Signal</th>
<th>Per Vehicle Delay at Stop Sign</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>LOS A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Free flow</td>
<td>&lt; 10.0 sec</td>
<td>&lt; 10.0 sec</td>
</tr>
<tr>
<td>➢ Freedom to select desired speed and to maneuver is extremely high</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ General level of comfort and convenience for motorists is excellent</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOS B</strong></td>
<td>10.0 – 20.0 sec</td>
<td>10.0 – 15.0 sec</td>
</tr>
<tr>
<td>➢ Stable flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Other vehicles in the traffic stream become noticeable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Reduction in freedom to maneuver from LOS A</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOS C</strong></td>
<td>20.0 – 35.0 sec</td>
<td>15.0 – 25.0 sec</td>
</tr>
<tr>
<td>➢ Stable flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Maneuverability and operating speed are significantly affected by other vehicles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ General level of comfort and convenience declines noticeably</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOS D</strong></td>
<td>35.0 – 55.0 sec</td>
<td>25.0 – 35.0 sec</td>
</tr>
<tr>
<td>➢ High density but stable flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Speed/freedom to maneuver are very restricted</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ General level of comfort / convenience is poor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Small increases in traffic will generally cause operational problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOS E</strong></td>
<td>55.0 – 80.0 sec</td>
<td>35.0 – 50.0 sec</td>
</tr>
<tr>
<td>➢ Unstable flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Speed reduced to lower but relatively uniform value</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Volumes at or near capacity level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Comfort and convenience are extremely poor</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Small flow increases or minor traffic stream disturbances will cause breakdowns</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>LOS F</strong></td>
<td>&gt; 80.0 sec</td>
<td>&gt; 50.0 sec</td>
</tr>
<tr>
<td>➢ Forced or breakdown flow</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Volumes exceed roadway capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Formation of unstable queues</td>
<td></td>
<td></td>
</tr>
<tr>
<td>➢ Stoppages for long periods of time because of traffic congestion</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The *Synchro Professional Version 7* operations analysis software was used to analyze peak hour conditions at signalized intersections. The *Highway Capacity Software (HCS+ Version 5.2.1)* was used to analyze peak hour conditions at unsignalized intersections.
The minimum acceptable peak hour intersection level of service established for this project is LOS D for signalized intersections or LOS E for critical movements at unsignalized intersections, or no increase in delay for signalized intersections operating below LOS D or unsignalized intersection critical movements operating below LOS E without the inclusion of site traffic. The following four conditions were evaluated:

**Condition 1** - Existing Traffic

**Condition 2** - 2015 Traffic without Site Traffic

**Condition 3** - 2015 Traffic with Site Traffic Volumes Added

**Condition 4** - 2015 Traffic with Site Traffic and Improvements

The results of this analysis are based on the procedures presented in the *HCM 2000* and performed with the corresponding capacity analysis software described previously. The methodology of evaluating each condition for signalized intersections is presented below:

- **Condition 1** – Use current Town of Chapel Hill data for the cycle length and splits of individual signalized intersections and report LOS and delay values from Synchro.

- **Conditions 2 and 3** – Reoptimize the cycle lengths and splits of individual intersections in Synchro. Adjust cycle lengths, splits, and offsets, if necessary, if the signal is currently operating in a coordinated system. The optimized signal timing information will be held constant for both Conditions, to provide a means to compare effects of the proposed site traffic.

- **Condition 4** – Optimize coordinated traffic signals for effects of recommended mitigation strategies that change existing/committed changes to lane geometrics. Evaluate the potential for different signal phasing schemes (left-turn lag phases, for example). Retain existing split minimums and any pedestrian timing values. Recommendations, if warranted, will be made to obtain at least LOS D for the intersection as a whole.

The net effect of this process is that direct comparisons, by movement, of delay and LOS between each of the three conditions are impossible because splits and cycle lengths can and do change between conditions. The pertinent statistic of this analysis is the overall intersection level of service and delay. Improvements to deficient intersections in Condition 3 were made by first attempting to adjust signal operations via changes in cycle lengths, splits and/or with acceptable adjustments to signal phasing. If that did not produce satisfactory results for all intersections, geometric improvements to improve intersection capacity were considered for the deficient intersections. *Appendix D* contains the Synchro output for all three conditions (where applicable).

Unsignalized intersections were analyzed directly in HCS. Their results were evaluated on a per-movement basis, since HCS does not produce an overall intersection level of service for unsignalized intersections. Thus, intersections with deficient (LOS F) movements in Condition 2 would need to be evaluated for improvements in Condition 3. This methodology differs from signalized intersections, where one or more movements...
at an intersection may be deficient in Condition 2, but as long as the overall intersection level of service does not fall below LOS D, no intersection improvements are deemed necessary. Appendix E contains the HCS output for all unsignalized intersections under study.

ii.) Existing Conditions

Table 7 presents the results for the existing year traffic conditions as compiled from field data. The table lists LOS and delay values for those movements that are in existence at this time. It also only lists data for individual movements encountering delay at the stop-controlled intersections (which do not have an overall intersection delay value produced by HCS).

Table 7 – Capacity Analysis Results for Study Area Intersections
Condition 1 – 2009 Existing Traffic

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM Noon PM</td>
<td>AM Noon PM</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Westbound Ramps</td>
<td>C D D</td>
<td>30.3 40.4 45.5</td>
</tr>
<tr>
<td>NB LT</td>
<td>A E D</td>
<td>8.7 71.4 50.2</td>
</tr>
<tr>
<td>NB TH</td>
<td>A A A</td>
<td>4.0 3.6 3.3</td>
</tr>
<tr>
<td>SB TH</td>
<td>C B C</td>
<td>25.0 17.4 32.5</td>
</tr>
<tr>
<td>SB RT</td>
<td>C B C</td>
<td>22.2 17.0 28.0</td>
</tr>
<tr>
<td>WB LT</td>
<td>E E F</td>
<td>70.0 73.8 81.0</td>
</tr>
<tr>
<td>WB RT</td>
<td>D E E</td>
<td>53.8 65.4 81.7</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Eastbound Ramps</td>
<td>F C C</td>
<td>257.4 23.2 29.9</td>
</tr>
<tr>
<td>NB TH</td>
<td>D C C</td>
<td>41.7 20.5 24.1</td>
</tr>
<tr>
<td>SB LT</td>
<td>C A A</td>
<td>32.8 0.6 2.6</td>
</tr>
<tr>
<td>SB TH</td>
<td>C A C</td>
<td>22.4 0.4 24.2</td>
</tr>
<tr>
<td>EB LT</td>
<td>D E D</td>
<td>40.7 56.0 54.0</td>
</tr>
<tr>
<td>EB RT</td>
<td>F E E</td>
<td>740.0 76.8 77.0</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Eubanks Road</td>
<td>D B C</td>
<td>39.1 10.7 23.0</td>
</tr>
<tr>
<td>NB LT</td>
<td>E A C</td>
<td>61.7 3.6 29.0</td>
</tr>
<tr>
<td>NB TH</td>
<td>A A A</td>
<td>8.7 2.7 7.9</td>
</tr>
<tr>
<td>SB THRT</td>
<td>D A A</td>
<td>44.5 3.1 6.5</td>
</tr>
<tr>
<td>EB LT</td>
<td>F F F</td>
<td>98.8 81.4 177.2</td>
</tr>
<tr>
<td>EB RT</td>
<td>D E D</td>
<td>42.0 61.7 48.5</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Perkins Drive</td>
<td>B B C</td>
<td>11.9 11.1 20.7</td>
</tr>
<tr>
<td>NB THRT</td>
<td>A A B</td>
<td>7.9 2.9 14.8</td>
</tr>
<tr>
<td>SB LT</td>
<td>B A C</td>
<td>14.1 6.6 27.8</td>
</tr>
<tr>
<td>SB TH</td>
<td>A A B</td>
<td>8.9 6.3 14.5</td>
</tr>
<tr>
<td>WB LT</td>
<td>E F F</td>
<td>79.1 82.6 83.5</td>
</tr>
<tr>
<td>WB RT</td>
<td>E E D</td>
<td>62.0 59.0 41.0</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made
### Table 7 (Continued) – Capacity Analysis Results for Study Area Intersections  
Condition 1 – 2009 Existing Traffic

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Weaver Dairy Road</td>
<td>E</td>
<td>D</td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>NB THRT</td>
<td>E</td>
<td>B</td>
</tr>
<tr>
<td>SB LT</td>
<td>D</td>
<td>F</td>
</tr>
<tr>
<td>SB THRT</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>EB LT</td>
<td>E</td>
<td>E</td>
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<tr>
<td>EB TH</td>
<td>E</td>
<td>E</td>
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<tr>
<td>EB RT</td>
<td>C</td>
<td>D</td>
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<tr>
<td>WB LT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>WB THRT</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Westminster Dr</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>NB TH</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>NB RT</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>SB LT/U-TURN</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>SB TH</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>WB LTR</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Stateside Drive</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NB LT/U-TURN</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>SB LT/U-TURN</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>EB LTR</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>WB LTR</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Homestead Road</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>E</td>
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<td>SB LT</td>
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<td>WB LT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>WB THRT</td>
<td>A</td>
<td>E</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made

During existing conditions, all intersections operate at acceptable levels of service for all of the analyzed peak hours except for the Martin Luther King, Jr. Boulevard intersections at the I-40 Eastbound Ramps and at Weaver Dairy Road. The intersection of Martin Luther King and the I-40 Eastbound Ramps is over capacity in the AM peak hour, with existing signal timing plans in operation, primarily due to the eastbound off-ramp right-turn movement. The intersections of Martin Luther King, Jr. Boulevard and Weaver Dairy Road is over capacity in the AM and PM peak hours, due to heavy left and right-turning movements at several approaches.
### iii.) 2015 No-Build Scenario (Condition 2)

Table 8 presents the results for the design year estimated traffic conditions without the impacts of site-related traffic. This analysis includes ambient growth, and data for the future background site developments. A summary of operations for each intersection is given after the tabular information.

#### Table 8 – Capacity Analysis Results for Study Area Intersections

**Condition 2 – 2015 Without Site Traffic**

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Westbound Ramps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>C</td>
</tr>
<tr>
<td>NB TH</td>
<td>A</td>
<td>A</td>
</tr>
<tr>
<td>SB TH</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>SB RT</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>WB LT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>WB RT</td>
<td>D</td>
<td>E</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Eastbound Ramps</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB TH</td>
<td>C</td>
<td>A</td>
</tr>
<tr>
<td>SB LT</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>SB TH</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>EB LT</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>EB RT</td>
<td>F</td>
<td>E</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Eubanks Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>A</td>
</tr>
<tr>
<td>NB TH</td>
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<td>SB TH</td>
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<td>A</td>
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<tr>
<td>SB RT</td>
<td>B</td>
<td>A</td>
</tr>
<tr>
<td>EB LT</td>
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<td>E</td>
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<td>EB RT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Perkins Drive</td>
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<td></td>
</tr>
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<td>SB LT</td>
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<td>D</td>
<td>E</td>
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<tr>
<td>Martin Luther King Blvd and Weaver Dairy Road</td>
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</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>D</td>
</tr>
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<td>NB THRT</td>
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<tr>
<td>SB LT</td>
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</tr>
<tr>
<td>SB THRT</td>
<td>E</td>
<td>B</td>
</tr>
<tr>
<td>EB LT</td>
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<td>C</td>
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<td>WB LT</td>
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</tr>
<tr>
<td>WB THRT</td>
<td>F</td>
<td>F</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made
**Table 8 (Continued) – Capacity Analysis Results for Study Area Intersections**  
**Condition 2 – 2015 Traffic Without Site**

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
<td>PM</td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td><strong>Martin Luther King Blvd and Stateside Drive</strong></td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NB LT/U-TURN</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>16.7</td>
<td>12.2</td>
</tr>
<tr>
<td>SB LT/U-TURN</td>
<td>B</td>
<td>B</td>
<td>C</td>
<td>12.3</td>
<td>12.0</td>
</tr>
<tr>
<td>EB LTR</td>
<td>D</td>
<td>C</td>
<td>F</td>
<td>32.0</td>
<td>22.2</td>
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<td>D</td>
<td>F</td>
<td>18.4</td>
<td>26.7</td>
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<td>A</td>
<td>6.1</td>
<td>4.4</td>
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<td>A</td>
<td>C</td>
<td>1.2</td>
<td>2.6</td>
</tr>
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<td>SB TH</td>
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<td>A</td>
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<td>76.6</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made

During Condition 2 - 2015 Without Site Traffic, most study area intersections are expected to operate at acceptable levels of service for all analyzed peak hours. Several improvements are expected to be completed by 2015 by Town-approved developments and/or the Town of Chapel Hill that will mitigate some of expected impacts caused by background traffic growth.

As shown in Table 8, the intersection of Martin Luther King, Jr. Boulevard and Weaver Dairy Road continues to experience deficient (LOS F) conditions in the AM and PM peak hours. The stop-controlled approaches at the intersection of Martin Luther King, Jr. Boulevard and Stateside Drive drop to a LOS F in the PM peak hour, due to projected traffic increases on Martin Luther King, Jr. Boulevard limiting the amount of acceptable gaps for stop-controlled traffic.
iv.) 2015 Build Scenario (Condition 3)

Table 9 presents the results for the design year estimated traffic conditions including the impacts of site-related traffic. A summary of operations for each intersection is given below.

**Table 9 – Capacity Analysis Results for Study Area Intersections**  
Condition 3 – 2015 With Charterwood Site Traffic

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Westbound Ramps</td>
<td>C</td>
<td>C</td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>C</td>
</tr>
<tr>
<td>NB TH</td>
<td>A</td>
<td>A</td>
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<td>SB TH</td>
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<td>E</td>
</tr>
<tr>
<td>N.C. 86 and I-40 Eastbound Ramps</td>
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<td>B</td>
</tr>
<tr>
<td>NB TH</td>
<td>C</td>
<td>A</td>
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<tr>
<td>SB LT</td>
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<td>D</td>
</tr>
<tr>
<td>EB RT</td>
<td>F</td>
<td>E</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Eubanks Road</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>NB LT</td>
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<td>Martin Luther King Blvd and Perkins Drive</td>
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</tr>
<tr>
<td>WB RT</td>
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<td>E</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Weaver Dairy Road</td>
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</tr>
<tr>
<td>NB LT</td>
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</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made
Table 9 (Continued) – Capacity Analysis Results for Study Area Intersections
Condition 3 – 2015 With Charterwood Site Traffic

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
<th>Average Vehicular Delay (sec/veh)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Stateside Drive</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>NB LT/U-TURN</td>
<td>C</td>
<td>B</td>
</tr>
<tr>
<td>SB LT/U-TURN</td>
<td>B</td>
<td>B</td>
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<tr>
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<td>D</td>
<td>C</td>
</tr>
<tr>
<td>WB LTR</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Westminster Drive/Site Driveway #2</td>
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<td></td>
</tr>
<tr>
<td>NB LT/U-TURN</td>
<td>F</td>
<td>F</td>
</tr>
<tr>
<td>NB TH</td>
<td>C</td>
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</tr>
<tr>
<td>NB RT</td>
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<td>A</td>
</tr>
<tr>
<td>SB LT/U-TURN</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>SB TH</td>
<td>A</td>
<td>B</td>
</tr>
<tr>
<td>SB RT</td>
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<td>A</td>
</tr>
<tr>
<td>EB LTH</td>
<td>D</td>
<td>D</td>
</tr>
<tr>
<td>EB RT</td>
<td>C</td>
<td>D</td>
</tr>
<tr>
<td>WB LTR</td>
<td>E</td>
<td>F</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Homestead Road</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>E</td>
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<tr>
<td>NB THRT</td>
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<td>Martin Luther King Blvd and Site Driveway #3</td>
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<td>C</td>
<td>B</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made
* => No movement capacity per HCM methodology, delay is theoretically infinite

Intersections that were expected to operate at an acceptable LOS for all peak periods for Condition 2 – Without Site Traffic will continue to operate at acceptable levels of service in Condition 3, even with the additional site-generated traffic. The intersections with Condition 2 deficiencies – MLK, Jr. Boulevard /Weaver Dairy Road and MLK, Jr. Boulevard/Stateside Drive are expected to operate marginally worse with the addition of site traffic. The intersection of MLK, Jr. Boulevard and Homestead Road is predicted to drop from a LOS D to LOS E in the PM peak hour with the addition of site traffic (assuming signal timings are held constant). The two RIRO site driveway intersections are also expected to operate acceptably for all peak hours.
The intersection of Martin Luther King, Jr. Boulevard and Westminster Drive was analyzed as a four-legged intersection, with protected-only signal phasing for northbound and southbound left-turns. The eastbound Site Driveway #2 approach was analyzed as having separate left-turn/through and right-turn approach laneage. In addition, pedestrian signal phasing timing was added to all approaches, using similar walk/flashing don’t walk timings as found at the nearby Weaver Dairy Road traffic signal.

v.) 2015 Mitigation Scenario (Condition 4)

Three study area intersections were analyzed for capacity improvements, based on anticipated traffic operations deficiencies in at least one peak hour in the Condition 3 – 2015 Without Site Traffic scenario.

**Martin Luther King, Jr. Boulevard and Weaver Dairy Road** – To mitigate deficient intersection operations anticipated in the AM and PM peak hours, and bring overall intersection delays down to a level better than the 2015 Without Site Traffic scenario, restriping of the westbound Weaver Dairy Road approach for an exclusive left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane was tested. Analysis results show significant improvements in both AM and PM peak hours. No other geometric or signal operations improvements were tested.

**Martin Luther King, Jr. Boulevard and Stateside Drive** – 2015 Without Site and With Site Traffic scenario capacity analyses indicate excessive delays in the PM peak hour for the stop-controlled approaches. The 2015 With Site Traffic scenario indicates that there is no movement capacity for either approach on Stateside Drive, due to heavy traffic on Martin Luther King, Jr. Boulevard eliminating any safe gaps for turning movements. A three-phase traffic signal (protected left-turn phasing for northbound/southbound movements) was tested as a mitigation measure. No geometric changes were assumed.

**Martin Luther King, Jr. Boulevard and Homestead Road** – 2015 With Site Traffic scenario PM peak hour capacity analyses indicate that this intersection may drop to a deficient LOS E. To mitigate this deficiency, signal timing splits and offsets were adjusted from the 2015 Without Site Traffic scenario for optimal operations, given the estimated traffic volumes.

Capacity analysis results for these improvements are shown in Table 10, on the following page.
Table 10 – Capacity Analysis Results for Study Area Intersections
Condition 4 – 2015 Traffic With Improvements

<table>
<thead>
<tr>
<th>Intersections</th>
<th>LOS</th>
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<tr>
<td></td>
<td>AM</td>
<td>Noon</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Weaver Dairy Road</td>
<td>D</td>
<td>C</td>
</tr>
<tr>
<td>NB LT</td>
<td>E</td>
<td>D</td>
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<tr>
<td>NB THRT</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>SB LT</td>
<td>E</td>
<td>E</td>
</tr>
<tr>
<td>SB THRT</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>EB LT</td>
<td>E</td>
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<td>NB LT/U-TURN</td>
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</tr>
<tr>
<td>NB TH</td>
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<td>B</td>
</tr>
<tr>
<td>NB RT</td>
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<td>A</td>
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<tr>
<td>SB LT/U-TURN</td>
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<td>SB THRT</td>
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<td>EB LTR</td>
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<td>D</td>
</tr>
<tr>
<td>WB LTR</td>
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<td>D</td>
</tr>
<tr>
<td>Martin Luther King Blvd and Homestead Road</td>
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<td>D</td>
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</tr>
<tr>
<td>WB THRT</td>
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<td>E</td>
</tr>
</tbody>
</table>

N/A => Not Applicable, i.e. movement is non-existent or no improvements made

B. Access Analysis

Vehicular site access is to be accommodated three access driveways connecting to Martin Luther King, Jr. Boulevard. The site concept plan shows the northernmost driveway to have right-turn in/right-turn out only access. This driveway would serve a small subdivision of single-family homes (about 20 lots) as the sole vehicular access – no other internal circulation to the rest of the site is shown for this area, other than pedestrian trails. The middle driveway is shown to form the fourth leg of the existing intersection of Martin Luther King, Jr. Boulevard and Westminster Drive and is shown to have full access with conceptual pavement width for two egress and one ingress lane. This driveway would serve the retail, office, hotel and townhome/condominium areas. It would also require an upgrade in the existing traffic signal at this location. A third access driveway is shown along the southern portion of the property. This driveway currently exists as a curb cut and short unpaved path into the existing parcel. In the site
plan, the driveway would serve as a second, minor entrance/exit for the hotel and residential development in the southern portion of the property.

Driveway throat length as shown on the proposed site concept plan is less than adequate for projected 2015 with site traffic conditions for the proposed main site driveway (Site Driveway #2). Capacity analysis maximum queue estimates indicate that the driveway throat for a two-lane exit should be at least 100 feet for both lanes. This exceeds the 40 feet shown on the concept plan. The concept plan does not indicate internal circulation laneage or parking areas in detail. There appears to be an elongated traffic circle that forms near the Site Driveway #2 throat. Vehicular traffic movements in this area need to be further delineated to avoid blockages of traffic entering and exiting the site.

Driveway distances along Martin Luther King, Jr. Blvd from the signalized intersections at Weaver Dairy Road and Westminster Drive is acceptable, based on recommendations of 100 foot minimum corner clearance as set forth in the 2003 NCDOT Policy on Street and Driveway Access to North Carolina Highways and the 250 foot minimum along arterials specified in the 2005 Town of Chapel Hill Design Manual. The northernmost driveway (Site Driveway #1) is approximately 335 feet downstream of Weaver Dairy Road and 675 feet upstream of the Westminster Drive/Site Driveway #2 intersection. The southern driveway is approximately 500 feet downstream of Westminster Drive/Site Driveway #2. Capacity analysis results indicate that no queue blockages are expected to occur on external roadways.

The southern driveway is immediately adjacent to an existing driveway access point for a mobile home subdivision that borders the site parcel to the south. This driveway is shown on the site concept plan to potentially connect to an existing local street (Kenilworth Place). To eliminate the need to two immediately adjacent driveways, it is recommended that the current mobile home subdivision driveway be closed and that a connection from that subdivision roadway be made to the proposed Site Driveway #3.

Access for pedestrians and bicyclists is currently adequate in the project study area. Sidewalk is present on both sides of Martin Luther King, Jr. Boulevard adjacent to the site and connectivity is available on at least one side of the street along many facilities in the project study area that connect to Martin Luther King, Jr. Boulevard. Crosswalk does not exist across Martin Luther King, Jr. Boulevard at the Westminster Drive intersection or at the Stateside Drive intersection. Striped bicycle lanes are also present along Martin Luther King, Jr. Boulevard.

C. Signal Warrant Analysis

Based on projected traffic volumes and current/proposed access, the only unsignalized intersection in the project study area that would potentially warrant the installation of a traffic signal, based on the methodology found in the 2003 Manual on Uniform Traffic Control Devices (MUTCD), is the Martin Luther King, Jr. Boulevard intersection with Stateside Drive. A warrant often satisfied from the MUTCD methodology is the Peak Hour Warrant, which would have comparable data collected from this study. Based on
Figure 4C-3 from the MUTCD 2003, the study area intersection of Martin Luther King, Jr. Boulevard and Stateside Drive would not satisfy the Peak Hour Warrant in any peak hour in the 2015 with site traffic condition, due to the fact that approach traffic volumes for the Stateside Drive eastbound and westbound approaches do not meet minimum thresholds for this warrant. **Appendix F** contains details for the Peak Hour Warrant analyses.

Due to the fact that a community park exists on the west side of this intersection, an evaluation of the MUTCD 2003 Signal Warrant #4 (Pedestrian Volume) was also considered. The Pedestrian Volume signal warrant is intended where the traffic volume on a major street is so heavy that pedestrian experience excessive delay on crossing the street. The pedestrian volume threshold to warrant the installation of a traffic signal is 190 or more during any 1 hour or 100 or more for each of any 4 hours during an average day. The pedestrian counts collected would not satisfy the Pedestrian Volume warrant. However, consideration should be given to enhance pedestrian safety at this location, such as appropriate pedestrian signing and markings.

### D. Sight Distance Analysis

In general, sight distance issues entering and exiting the proposed site would be minimal, considering the fact that Martin Luther King, Jr. Boulevard has only slight horizontal curvature in the vicinity of the proposed project and vertical curvature is currently minimal.

### E. Intersection Crash Analysis

Data from the NCDOT Traffic Safety Unit was requested and was provided for the period 6/1/2009 to 5/31/2009 for the segment of N.C. 86 (Martin Luther King, Jr. Boulevard) from the I-40 westbound ramp intersection to Homestead Road. Additionally, information was provided for crashes at all study area intersections for this time period. Raw crash data can be found in **Appendix G**.

There were 90 crashes reported along the Martin Luther King, Jr. Boulevard study area corridor over the three year period. Crash types varied between angle crashes, rear end crashes, and fixed object crashes, along with several other crash types. Almost half (44 of 90) of the crashes were rear-end crashes. Other significant crash types included angle crashes (10), left-turn crashes (12), and sideswipes (7).

**Table 11** presents a comparison between the Martin Luther King, Jr. Boulevard study area crash rates and the latest North Carolina statewide rates for the period 2005-2007 (compiled by NCDOT Traffic Safety Unit).
Table 11. Study Area Crash Rate Comparison

<table>
<thead>
<tr>
<th>Statistic</th>
<th>MLK, Jr. Boulevard (I-40 WB Ramps to Homestead Road)</th>
<th>North Carolina Statewide Average Urban North Carolina Routes (4-Lane Divided – No Access Control)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Crash Rate</td>
<td>179.04</td>
<td>443.05</td>
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<tr>
<td>Fatal Crash Rate</td>
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</tr>
<tr>
<td>Non-Fatal (Injury) Crash Rate</td>
<td>59.68</td>
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<td>Night Crash Rate</td>
<td>53.71</td>
<td>94.79</td>
</tr>
<tr>
<td>Wet Crash Rate</td>
<td>33.82</td>
<td>69.85</td>
</tr>
</tbody>
</table>

Overall, the number and severity of crashes along Martin Luther King, Jr. Boulevard in the project study area are lower than statewide averages for similar facilities.

In addition to the crash comparison for the project study corridor, individual intersection crash data for the three year period was provided and results are shown in Table 12.

Table 12. Study Area Intersection Crash Summary

<table>
<thead>
<tr>
<th>Intersection</th>
<th>Number of Total Crashes</th>
<th>Crashes Per 100 Million Vehicles Entered</th>
</tr>
</thead>
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<td>11.89</td>
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<td>19.31</td>
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<td>45.02</td>
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<td>Martin Luther King Boulevard (N.C. 86) and Weaver Dairy Road</td>
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<td>40.85</td>
</tr>
<tr>
<td>Martin Luther King Boulevard (N.C. 86) and Westminster Drive</td>
<td>9</td>
<td>29.33</td>
</tr>
<tr>
<td>Martin Luther King Boulevard (N.C. 86) and Stateside Drive</td>
<td>6</td>
<td>19.91</td>
</tr>
<tr>
<td>Martin Luther King Boulevard (N.C. 86) and Homestead Road</td>
<td>20</td>
<td>56.32</td>
</tr>
</tbody>
</table>

Crash rate information taken from the crash reports indicates that the Martin Luther King Jr. intersections at Homestead Road, Perkins Drive and Weaver Dairy Road have the highest rate of crashes. Typically, congested conditions during peak travel periods are a cause of higher crash rates and both the Weaver Dairy Road and Homestead Road intersections experience more congestion than some other study area intersections.
F. Other Transportation-Related Analyses

Other transportation-related analyses relevant to the 2001 Town of Chapel Hill Guidelines for the preparation of Traffic Impact Studies were completed as appropriate. The following topics listed in Table 13 on the following page are germane to the scope of this study.

G. Special Analysis/Issues Related to Project

Based on discussions with Town of Chapel Hill staff, there are no special issues or analyses beyond the ones already discussed for this proposed site.

Table 13. Other Transportation-Related Analyses

<table>
<thead>
<tr>
<th>Analysis</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Generalized Peak Hour and/or Daily LOS Analysis</td>
<td>Planning-level corridor LOS Analyses are not necessary for this study. The relative daily traffic impact over the long-term horizon along the major roadways (Martin Luther King, Jr. Blvd) in the study area is not significant.</td>
</tr>
<tr>
<td>Turn Lane Storage Requirements</td>
<td>Storage bay lengths at study area intersections were analyzed using Synchro and HCS 95th percentile (max) queue length estimates for the 2015 Build Scenario. Recommendations for improvements to storage bays were made in a few cases where existing storage bay lengths may be deficient due to background or site traffic impact.</td>
</tr>
<tr>
<td>Appropriateness of Acceleration/ Deceleration Lanes</td>
<td>The proposed site plan shows a right-turn deceleration lane for the main site driveway and a bus-turn out/short acceleration lane for that driveway and for a site driveway to the north. The use of the short acceleration lanes is unnecessary, but use as bus pull-outs is possible where warranted. A northbound left-turn lane for traffic entering the site needs to be shown on the site plan.</td>
</tr>
<tr>
<td>Pedestrian and Bicycle Analysis</td>
<td>Existing pedestrian and bicycle access and connectivity is adequate through the study area. Sidewalk exists proximate to the proposed site with connectivity throughout the study area. Crosswalks across Martin Luther King, Jr. Boulevard are limited to a few intersections. Specific bicycle amenities are present along Martin Luther King Jr. Boulevard and Weaver Dairy Road Extension.</td>
</tr>
<tr>
<td>Public Transportation Analysis</td>
<td>Public transportation service to the study area, and to the proposed site is excellent. Several bus stops currently exist near the proposed site on either side of Martin Luther King, Jr. Blvd, with the possibility of the creation of a stop and bus turn-out immediately in front of the site.</td>
</tr>
</tbody>
</table>
IV. MITIGATION MEASURES/RECOMMENDATIONS

A. Planned Improvements

The Town of Chapel Hill in coordination with the North Carolina Department of Transportation have committed to make two planned improvement projects for study area facilities studied within the design year time frame of 2009-2015.

- The Town is in the process of upgrading its current traffic signal system, which will provide improvements to coordination of traffic signals along the Martin Luther King Jr. Boulevard corridor.

- The Weaver Dairy Road corridor from Martin Luther King, Jr. Boulevard to Sage Road will be improved to include sidewalk and bicycle lanes and additional turning lanes, where necessary.

B. Background Committed Improvements

There are several committed background improvements expected to be completed by the 2015 analysis year (see Figure 6 for details). They include:

- Construction of a northbound through travel lane through the Martin Luther King Jr. Boulevard intersection with I-40 Westbound Ramps.

- Construction of a southbound right-turn lane and additional eastbound left-turn lane at the intersection of Martin Luther King, Jr. Boulevard and Eubanks Road.

- Construction of an additional westbound left-turn lane at the intersection of Martin Luther King, Jr. Boulevard and Perkins Drive.

- Retiming of signals along the Martin Luther King, Jr. Boulevard corridor for optimal signal progression due to background development traffic impacts.

C. Applicant Committed Improvements

Based on the concept plan provided, there are several transportation-related improvements to be made external to the site property.

- Construction of a southbound right-turn deceleration lane and bus bay at the proposed main entrance to the site (Site Driveway #2).

- Construction of Site Driveway #2 to become the fourth leg of the Martin Luther King, Jr. Boulevard intersection with Westminster Drive will require a signal upgrade for the additional signal phase.
D. Necessary Improvements

Based on traffic capacity analyses for the 2015 design year, and analyses of existing study area turning bay storage lengths and site access, the following improvements are recommended as being necessary for adequate transportation network operations (see Figure 12).

1) Lengthen existing storage bay for the proposed eastbound dual left-turn lanes on Eubanks Road to at least 325 feet. The dual left-turn lane improvement was recommended from a background-approved traffic study, but no specific details were provided for this analysis regarding the storage bay length of this improvement. This improvement is recommended regardless of whether or not Charterwood is developed.

2) Restripe the westbound approach at the Weaver Dairy Road/Martin Luther King, Jr. Boulevard intersection for a single left-turn lane, a shared left-turn/through lane, and an exclusive right-turn lane. Split signal phasing can be kept, but timings should be optimized. Existing and future traffic patterns at this approach indicate that this laneage configuration will provide reductions in existing and future vehicular delay for the intersection. This configuration will also allow the addition of right-turn overlap signal phasing for the westbound approach. This improvement is recommended regardless of whether or not Charterwood is developed.

3) With the necessary traffic signal upgrade to accommodate the forth leg (Site Driveway #2) of the Westminster Drive/Martin Luther King, Jr. Boulevard intersection, install pedestrian signals and crosswalk on all four approaches. This improvement is required for the Charterwood development.

4) Construct a northbound left-turn lane in the median at the Westminster Drive/Martin Luther King Jr., Boulevard intersection to accommodate site-related traffic. As part of the signal upgrade for this intersection, provide a protected left-turn signal phase for northbound and southbound left-turn movements. This improvement is required for the Charterwood development.

5) For the Site Driveway #2 approach at the Westminster Drive/Martin Luther King, Jr. Boulevard intersection, provide at least 100 feet of driveway throat length and two exit lanes to be designated as left-turn/through and right-turn only. This improvement is required for the Charterwood development.

6) Provide a bus bay, bus stop and amenities (bench and shelter) along Martin Luther King, Jr. Boulevard just to the south of Site Driveway #2. This improvement is required for the Charterwood development.

7) Close existing driveway to mobile home park located immediately to the south of Site Driveway #3. Construct new access to the property along Site Driveway #3.
Connect existing Kenilworth Place to Site Driveway #3 and construct Site Driveway #3 as a public street to local street standards in the Town Design Manual. No specific analysis of traffic pattern shifts for this improvement was made for this study. However, the improvement would improve local connectivity, reduce the number of driveways along Martin Luther King, Jr. Boulevard and would allow local neighborhood traffic access to Charterwood. This improvement is required for the Charterwood development, regardless of whether or not a connection is allowed to local street system to the west of the property.

8) Install a traffic signal at Martin Luther King, Jr. Boulevard and Stateside Drive when traffic conditions meet a full traffic signal warrant analysis. Peak hour capacity analyses indicate that by 2015, there may be few acceptable gaps in traffic along Martin Luther King, Jr. Boulevard in the AM and PM peak hours (with or without traffic from the Charterwood Site). With the construction of the traffic signal, add striped crosswalks at all four intersection approaches, along with pedestrian signal heads. Any site-related trips near this vicinity (on the east side of Martin Luther King, Jr. Blvd) would still be able to use the recommended crosswalk/pedestrian signal head improvement upstream at the Westminster Drive/Main Site Driveway intersection with Martin Luther King, Jr. Blvd, even without a signalized improvement at this intersection. Consideration should be given to enhance pedestrian safety at this location, such as additional pedestrian signing and markings. This improvement is recommended for additional study regardless of whether or not Charterwood is developed.

9) Retime traffic signal at Martin Luther King, Jr. Boulevard and Homestead Road. This improvement is required for the Charterwood development. The signal upgrade at the Main Site Driveway/Westminster Drive will require all signals along the corridor to have timings updated to maximize traffic progression along Martin Luther King, Jr. Boulevard.
ORANGE COUNTY

Mr. William Christian
William Christian and Associates
6607 Creek Wood Drive
Chapel Hill, NC 27514

Subject: Proposed Charterwood Mixed Use Development Located on NC 86,
(Martin Luther King Jr. Blvd) – Request for Disposal of Surplus Right of Way

Dear Mr. Christian,

I am writing in response to your recent request to dispose of portions of right of way at
the above location. The area in question is currently used to accommodate storm water
controls originally installed during construction of NCDOT project U-2302 in the late
1990’s. The controls, located in the Upper New Hope Watershed, were not subject to
permitting requirements at the time of installation.

These storm water controls do present value and benefit to NCDOT, specifically related
to compliance with the Jordan Lake Nutrient Sensitive Water Rules adopted during the
2009 Legislative Session. This office does recognize, however, that the release of this
right of way does allow for you to incorporate the property into your proposed
development and would allow you to meet enhanced storm water treatment requirements,
provide onsite irrigation, and improve the aesthetic value of the property and roadway
view shed.

Approval of your request for disposal of this property is subject to the following
requirements:

- Your request is subject to review and recommendations of the NCDOT Surplus
Right of Way Disposal and Control of Access Review Committee and approval of
the State Highway Administrator and the FHWA.

P.O. Box 766 Graham, N.C. 27253 Telephone (336)-570-6833
• You may be responsible for reimbursing NCDOT for the enhancement value of the property at current fair market value.

• The properties will be maintained by the property owner in perpetuity for the purpose of storm water treatment as established by appropriate deed restrictions and easements.

• The property owner shall continue to receive runoff from the contributing highway drainage area discharging to these areas and achieve a minimum of 35% nitrogen reduction and 5% phosphorous reduction or meet the current local standard if more stringent.

• NCDOT shall retain all nutrient removal credits associated with the properties.

In order to proceed, it is necessary that you submit to this office a written request for the proposed disposal along with copies of your proposed site plan indicating the requested disposal, storm water calculations for the proposed controls, and areal photos of the site. Please budget approximately 90 days for NCDOT review.

Feel free to contact me if you have any questions.

Sincerely,

C. N. Edwards Jr. PE
District Engineer

Cc: J. M. Mills, PE, Division Engineer
    D. R. Henderson, PE, State Hydraulics Engineer
    L. B. Little, Division Right of Way Agent
    Sue Burke, PE, Storm Water Engineer, Town of Chapel Hill
Charterwood

Special Use Permit Statement of Justification

WCA Partners LLC

January 2011
The Charterwood property is a 14.32-acre parcel located just south of the town’s Fire Station #4 on the west side of Martin Luther King Boulevard. This property, with more than 1,000 feet of road frontage on MLK, was highlighted as an important gateway and transit-oriented development opportunity in the town’s Northern Area Task Force study. The study and report, which is the most detailed analysis of this area ever undertaken, was adopted by the Chapel Hill Town Council in January 2008.

The Northern Area Task Force’s recommendation for this property is to create a mixed use village on the property, with a combination of housing, retail, office and other uses that would take advantage of existing infrastructure, including the auto-alternative transportation – bus, cycling, and walking – that exists in the MLK Corridor. This Corridor is a primary connector to the emergent Carolina North Campus of UNC, as well as the UNC Main Campus and UNC Hospital, the two largest employment destinations in Chapel Hill.

Our approach in Charterwood is to develop a community where our proportionate share of local social and environmental needs is met. This extends to housing diversity, workforce housing, stormwater management, water conservation, environmental protection, energy conservation, carbon footprint and greenhouse gas (GHG) reduction, and improvement of the town’s fiscal sustainability.

The Town’s Land Use Management Ordinance (LUMO), in Section 4.5 of the ordinance, sets forth the criteria for approving Special Use Permits (SUPs). In addition to the objective of demonstrating a high quality of overall site and building design, the criteria include the following “standards and findings of fact”, each of which must be met:

1. **The development will maintain or promote the public health, safety and general welfare.**

2. **The development will comply with all required regulations and standards of the Special Use Permit provisions.**

3. **The development will maintain or enhance the value of contiguous property.**

4. **The development conforms with the general plans for the physical development of the town as embodied in the comprehensive plan.**

The Charterwood development satisfies all four of these required findings and therefore complies fully with the Town’s standards for SUP approvals.

1. **The development will maintain or promote the public health, safety and general welfare.**

This proposed development will promote the public health, safety and general welfare. The development will be served by public water and sewer, will provide NCDOT and Town of Chapel Hill approved roadway access to MLK Jr. Boulevard and will preserve stream corridor and limit impacts to the Resource Conservation District. The development locates single family homes adjacent to the existing Northwoods neighborhood single family homes. The development of Charterwood, by meeting/exceeding current storm water management standards, will ameliorate the drainage problems that were not addressed by the developer of Northwoods V.
2. The development will comply with all required regulations and standards of the Special Use Permit provisions.

The development does comply with all required regulations and standards of the Special Use Permit provisions. No modifications to any standard or regulation are requested.

3. The development will maintain or enhance the value of contiguous property

The property values of contiguous property owners will be enhanced by not only the quality of development and the amenities of the Charterwood development but also by the direct efforts we will implement in the buffer zones with enhanced landscape plantings to ensure the neighbors’ privacy, their full enjoyment of their property, and to control wanted and unwanted views. In the enhanced buffer zone, which extends the length of the common boundary with Northwoods V and Parkside (partially), we will make landscaping investments that will improve the backyards of those who choose to participate in this program, which is intended to provide new plant materials that will increase the privacy and beauty of their yards. The full enjoyment of their property will be ensured, and wanted and unwanted views controlled. For those neighbors that are contiguous with the Resource Conservation District, which will be developed into a passive park, they will have direct access to the trail system, dog run, park benches, and other amenities that will be provided. These park-neighboring properties will benefit as much as Charterwood residents will in the development of this 3-acre park space. Another way that the neighbors will benefit is the access to MLK Jr. Boulevard through the connections we will provide from Kenilworth Court, as well as through the Charterwood Park. These connections will also facilitate pedestrian and bicycle access to the Timberlyne and Chapel Hill North shopping and entertainment.

4. The development conforms with the general plans for the physical development of the town as embodied in the comprehensive plan.

This Charterwood plan and proposal directly address the Town’s Comprehensive Plan goals and objectives as they relate to this sector of Chapel Hill. These goals and objectives were clearly enumerated in detail in the Northern Area Task Force Report, and will be reviewed and discussed at some length following, in the context of the Charterwood development proposal.
Proposed Charterwood – A small, neighborhood scale mixed-use development opportunity

In the Task Force Report, one of the overarching objectives of the “Northern Area Vision” was for new development and redevelopment to be transit oriented, well served by alternative modes of transportation and more accessible to pedestrians and bicyclists. The Charterwood development will contribute to all of the objectives of this vision, and will incorporate the principles of transit-oriented development. To be a transit-oriented development, according to the Town’s definition in the Task Force Report, a transit-oriented development shall incorporate the following principles of design and development:

- **Density**: A minimum of 8 dwelling units per net developable acre (low end of transit supportive density)
- **Design**: Community and building design is transit-oriented and is framed by walkability, integration of transit, reduction of auto usage and open space preservation
- **Diversity**: Development includes a mix of uses, including residential, commercial retail and office.

The Charterwood development meets and, in many instances, exceeds these criteria for transit-oriented development and the concept of sustainable development. An important point with respect to the characteristics of the Charterwood development is the balancing of neighborhood concerns with the objectives of achieving a transit-supportive density of 8 dwelling units per acre. As outlined in our original Concept Plan submittal the Charterwood program for development was at the lower end of density vis-a-vis the standard of 8 dwelling units per acre for transit-supportive (bus system) density. Both the neighborhood and the Chapel Hill Community Design Commission, however, had strong objections to the scale and massing of development necessitated to achieve a development density that was quantitatively transit-supportive. Our response, in this revised plan, has been to reduce the overall quantity of development.

On the other counts of design and diversity, the Charterwood proposal exceeds the basic transit-oriented development standards. For instance, 35 percent of Charterwood will be open space, including the 3-acre Charterwood Park. Significant pedestrian improvements are proposed, including coordinating with the North Carolina Department of Transportation on crosswalk improvements at Westminster Drive and MLK Jr. Boulevard, constructing a more than 2,000 foot leg of the greenway system, as well building a pedestrian connection from the Northwoods and Parkside communities via Kenilworth Court to MLK Jr. Boulevard and the bus stop, facilitating a much more direct connection for these residents. In addition, efforts are ongoing with NCDOT to make their drainage basins fronting MLK more functional and aesthetic to enhance the “Gateway” experience as well as these basin’s role in stormwater management.

The Northern Area Vision Statement goes on to envision “creative building design and land use plans that emphasize street front aesthetics, [green technology], and ample buffering of existing neighborhoods. It will value preserving areas of natural beauty, environmental sensitivity, and history. New development will be integrated with the existing neighborhoods in a seamless and mutually beneficial manner”. The Charterwood proposal directly addresses all of the components of this vision as articulated in the Vision Statement. Each of the goals and objectives that are specified in the Task Force Report are addressed in relation to the Charterwood Plan. The goals as written in the Task Force Report are provided verbatim, italicized following, with summary comments relative to how the Charterwood proposal is consistent with those goals and objectives.
Gateway Entrance

Goal 1: A landmark gateway that “announces” Chapel Hill at the intersection of Martin Luther King Jr. Blvd., and Weaver Dairy Rd.

Objectives:
1. Require architecturally interesting buildings, public art, and design features fashioned as community gathering places
2. Design crosswalks as a signature feature
3. Create balanced architectural design that stresses continuity for both the east and west sides of the intersection
4. Install wayfinding signage or art that directs residents and visitors to key destinations
5. Design entry way signs so that it is a feature that incorporates Chapel Hill’s values
6. Consider longer term traffic control options such as pedestrian bridges and roundabouts

It is acknowledged that this site on MLK, Jr. Blvd. is a strategic gateway design opportunity. Charterwood’s developer has initiated a cooperative partnership with the North Carolina Department of Transportation to improve the stormwater basins that lie within the boundaries of this property. These basins could be an excellent opportunity to make a gateway statement at this location, as well as to serve the purposes of stormwater management, water quality enhancement and water conservation. Recent progress has been made on this matter with the N.C.D.O.T. and the North Carolina Department of Environment and Natural Resources. We have also initiated discussions with N.C.D.O.T. on MLK crosswalk improvements in this area. The Charterwood SUP plan submittal includes details of crosswalk improvements at MLK, Jr. Boulevard and Westminster Drive.

The developer’s team is comprised of highly experienced planning and design professionals that have worked on numerous mixed use projects across the country, and will bring planning and design excellence to this project.

Neighborhood Protection

Goal 2: To protect the integrity of existing neighborhoods while accommodating transit-oriented development

Objectives:
1. Protect existing residential neighborhoods with adequate buffers that minimize the light, noise, and visual impacts of new development and that preserve property values
2. Limit the height or design of new buildings adjacent to existing residential development in order to provide a transition area and avoid shadow effects
3. Balance building density and scale with impact on existing neighborhoods
4. Maintain and or improve affordable housing options in the area
5. Ensure that the cumulative impact of development does not result in crowding and congestion in the area
6. Reduce vehicular impact on residential neighborhoods

A significant effort has been made to work with the Northwoods and Parkside neighbors that are adjacent to the Charterwood property to the west. For those who have contiguous property we have initiated a program with the neighbors. We have commissioned a landscape horticulturalist to work with each property owner to plan and design landscape enhancement plantings that will ensure the
neighbors’ full enjoyment of their properties. Included in this is consultation with the landscape horticulturist to determine what views should be closed and which views might be opened to enhance their (mainly) backyards.

We have also provided a buffer zone that is 25 feet in width, about 2.5 times the 11 foot setback that is required under the existing zoning for the R-2 zoning district. Moreover, all of the Charterwood land that is contiguous with the Northwoods community will be developed under the existing R-2 zoning regulations and rights. The scale, density, and design of these residences will be highly compatible with the existing residences.

The Environment

Goal 3: Development that protects, restores, and enhances the environmental quality of the area

Objectives:
1. Identify and protect significant trees and tree stands in the area
2. Protect Booker Creek headwaters and RCD that lead to Lake Ellen, Eastwood Lake, and Eastgate S/C
3. Protect and provide adaptive reuse of old, architecturally, or culturally significant buildings and features where possible
4. Recommend new developments to include accessible public open space
5. Encourage innovative on-site stormwater management, for example limit impervious surfaces, utilize vegetative roofs and harvest rainwater
6. Design development to mitigate noise impacts from I-40
7. Require innovative “green” development through energy efficient site planning, architecture, urban design, and maintenance respecting standards such as LEED, HealthyBuild, and ASHRAE
8. Use development to restore degraded habitats
9. Bury existing and new electric power lines to allow for a full tree canopy
10. Develop lighting standards that respect both the natural and human environment

A component of the Charterwood planning process is a tree protection plan that identifies specimen trees that are feasible to be saved and a program to ensure that they have a high probability of survival.

Another important component of the Charterwood plan is the preservation, renovation, and adaptive re-use of the old Altemueller farm house. The above-mentioned tree protection plan also includes the preservation of the oak grove that is associated with the farm house.

As discussed earlier in this statement there is ongoing collaboration with the North Carolina Department of Transportation on partnering to provide enhanced stormwater management here to include to responsibilities for all party’s stormwater requirements and an effort to significantly improve upon stormwater management practices. A number of water quality management and conservation techniques may be pursued.

The Charterwood project will seek to be LEED-ND certified.
**Land Uses and Intensity**

**Goal 4: Development that supports an active pedestrian environment and promotes transit use**

**Objectives:**
1. Concentrate commercial development in nodes and at existing commercial centers
2. Establish minimum densities in order to ensure transit supportive development
3. Regulate building height: Appropriately scaled, multi-story, mixed-use buildings
4. Design buildings that are oriented and proximate to the transit corridors to maximize access to transit and transit use
5. Encourage niche pedestrian oriented commercial development such as hotels, clothing stores, book stores, cafés, bakeries, gyms, galleries, pre-schools, and a farmer’s market
6. Discourage automobile oriented uses such as drive-in/drive-through services, gas stations, automobile services and repair, and car washes
7. Design the ground floor level of mixed-use buildings to be capable of occupation by both residential or non-residential use
8. Limit residential development close to I-40 to protect health and wellbeing of residents

The Charterwood development will include a mixed use core located on the eastern portion of the property addressing MLK Boulevard. In deference to the neighbors to the west of Charterwood higher densities will only be in this mixed use core zone. We have sought to find an optimal balance between the neighbor’s interests and the objectives of transit-supportive development density. Buildings in Charterwood will range from 2 to 4.5 stories in height. No buildings will be massive or incongruous with a village scale. Uses proposed include owner-occupied residential, both single family detached and attached, specialty retail, cafes/restaurants, office and hotel. Live/work units are also contemplated.

**Pedestrian and Bicycle Mobility**

**Goal 5: A highly connected bicycle and pedestrian system that provides safe, efficient, and attractive travel options**

**Objectives:**
1. Complete the bicycle and sidewalk system along corridors (Weaver Dairy Rd., Martin Luther King Jr. Blvd., Homestead Rd. and Eubanks Rd.)
2. Avoid fragmentation caused by requiring separate developers to install sidewalks at different times
3. Provide pedestrian amenities along sidewalks, such as benches, lighting, and shade with landscaped streetscapes
4. Ensure safer crossing of major corridors through ground level street improvements
   - Install striped or colored crosswalks with maximum radius corners to ease pedestrian crossings
   - Install pedestrian activated signals with count down feature that provide enough time to safely cross at main corridors and transit stations
   - Provide pedestrian refuges with shade through median pockets along Martin Luther King Jr. Boulevard
5. Connect existing development to new development with walking and bicycle trails
6. Stripe bicycle lanes per Town design manual cross section on Martin Luther King Jr. Boulevard, Weaver Dairy Road, Homestead Rd, and Eubanks Road
7. Create meandering sidewalks for aesthetic appeal in appropriate locations
8. Design varied and aesthetically interesting tree lawns, sidewalks and building
setbacks that reflect the scale of the street:

- **Major Transit Corridor:** Martin Luther King, Jr. Blvd.
- **Secondary Streets:** Eubanks, Weaver Dairy Rd., Weaver Dairy Road Extension and Homestead Rd.
- **Residential Street:** these streets serve as feeder pedestrian and bicycle corridors

The developer will facilitate and promote all forms of travel options. Work has begun with D.O.T. on crosswalk improvements for safer, more friendly walkability. This area is noted for the volume of “walkers” in the community and this activity can be promoted further. LEED-ND is endorsed by the Centers for Disease Control (CDC) largely by the fact that LEED-ND projects are premised on promoting walkability and public health.

In addition to walking as an alternative, efforts will be made to increase cycling to and from this community. Charterwood is a 3-minute bike ride to the new Carolina North Campus and about 12 to 15 minutes to downtown Chapel Hill. An excellent bike lane exists on MLK Jr. Boulevard and additional, perhaps more bike friendly, connections can be made to downtown and other activity centers in the future. Charterwood will provide bike storage facilities for residents and visitors.

**Transportation**

**Goal 6: A comprehensive transportation system that promotes bicycling, walking, and the use of transit**

**Objectives:**

1. **Promote a pedestrian oriented environment by controlling the amount, placement, and design of parking**
   - Promote shared parking
   - Consider unbundling the provision of parking from residential units
   - Locate parking behind or under buildings
   - Encourage structured parking with pedestrian friendly facades or ground level retail
   - Allow parking reductions or incentives for developer investments in transit

2. **Provide opportunities for transit oriented retail**

3. **Create aesthetically pleasing shaded streetscapes**

4. **Endorse and promote the NC 86/ Martin Luther King Jr. Boulevard Corridor Study recommendations**

5. **Provide safe, informative, and inviting bus stops**
   - Develop shelters and signage of a scale and architectural quality that reflects the importance of major transit stops
   - Locate stops near designated pedestrian crossings with crosswalks and or signalized intersections, and when possible, away from busy corners
   - Incorporate shading, cover, and benches
   - Create attractive medians through tree plantings and lighting
   - Implement the minimal allowable width for car travel lanes by road type
   - Minimize the number of curb cuts and provide cross access between properties
• Consider Town acquisition of NC 86 in order to fully implement recommended corridor improvements if the State does not accept the corridor study recommendations

6. Improve the road network to provide more connections and safer turning options (e.g. Perkins and Weaver Dairy Road, Westminster and Martin Luther King Jr. Boulevard).

The Charterwood project is premised on the concept of utilizing the full complement of transportation options available to residents, employers, employees, businesses, etc. to travel to and from this community. The project is designed to be a transit oriented development.

Parking standards have been reduced to well below conventional standards, with shared parking planned for all public parking. Nearly all private parking will be beneath buildings.

The transit stop that serves this area, which currently is only a post, will be significantly upgraded to an attractive, comfortable, inviting shelter with good design and protection from the elements.

**Design Guidelines**

**Goal 7: Guidelines that promote the design of safe, comfortable, active, and visually interesting buildings and streetscapes.**

**Objectives**

1. Promote day and evening ground level pedestrian activity by including public space and attractive destinations
2. Design upper floor residential accommodation to overlook public space and create eyes on the street
3. Use lighting to create a safe and inviting environment for pedestrians
4. Articulate building forms to reflect the existing scale of residential and smaller commercial buildings. Provide varied roof lines to add architectural interest.
5. Continue pedestrian and bicycle paths into residential and commercial developments
6. Limit setbacks to draw buildings close to the street
7. Provide breaks in building frontages through green spaces and plazas
8. At small commercial sites with two or more businesses, include a public plaza facing the street, with outdoor seating where appropriate.
9. Landscape corners of major intersections to attract and buffer pedestrians from the street while providing pedestrian access to development
10. Create a master landscape plan to encourage harmonious design
11. Provide a landscaped streetscape along the corridors to create shade between roadways and buildings fronting the street. Building setbacks should be sufficient to allow for tree planting
12. Increase minimum tree circumference for trees required to be planted by developers from 2 1/2" to 4"
13. Provide parking and circulation on the interior away from the street
14. Locate site loading and service areas behind buildings and use landscaping and decorative fencing to screen views from adjacent streets and pedestrian ways.

This project will demonstrate architectural and community design excellence. Commercial buildings will be pulled close to the street to showcase design and architectural detail and excellence. A public plaza that fronts MLK is in the proposed plan. Solid waste, loading and service areas will be carefully sited and
screened. Parking will be located on the interior of the community, mostly invisible from the street. A comprehensive landscaping plan will be prepared and implemented.
Date: July 28, 2010
To: Town of Chapel Hill Planning Department
From: Bill Christian, AICP, WCA Partners
Subject: Charterwood Hotel Site Mixed Use Alternatives

In response to your request we have developed this summary of potential programs for the Charterwood development. We have a development program that includes the hotel on the southern parcel fronting MLK, which is the proposed program for the SUP and rezoning application. We have been advised by the Planning Department, however, that other development programs for the property where the hotel is sited could also be alternatives with this application.

So basically what I will outline here are program alternatives for the project, broken out by the two “subareas”, the R-2 area that will not be rezoned and the area for which a rezoning is being requested to Mixed Use Village/Arterial. The R-2 area is 7.93 acres and the MUV/A area is 6.39 acres. This includes the 1.38 acres of the N.C.D.O.T. lands.

On the R-2 portion of the property, where only residential can be built, we can build 32 units, as allowed by the R-2 regulations. We have the ability to do 22 units of single family and 10 units of townhouse. We believe that this level of development and product split is basically fixed in any development program scenario.

For the “core area”, the 6.39-acre parcel on MLK that we are requesting to be rezoned, there are a number of options. As mentioned, the proposed program includes 56 condominiums/townhouses, 30,000 square feet of office, 20,000 square feet of retail, and a 100-room hotel.

The total combined development volume of this program, including the R-2 and MUV/A pieces, totals 230,000 square feet, as summarized below.
87 residential units @ average 1,550 s/f per unit 135,000 s/f
Office space 30,000 s/f
Retail space 20,000 s/f
100-room hotel 60,000 s/f
TOTAL 245,000 s/f

This program would produce a total of 2,345 external net new vehicle trips. The overall approximate Floor Area Ratio (FAR) of this program works out to about .4. In the core area alone, the FAR is about .75.

To be able to meet market demand our expectation is that we can do alternative programs at least on the hotel site as well as the small parcel at the north end that is also being rezoned to MUV-A. We are assuming that we would need to stay within the trip limits of the existing TIA (plus 500 trips, which is the Town’s policy), so that any alternative program on the hotel site would need to generate no more than the 818 daily trips that the hotel is projected to generate, plus 500, or 1,318 trips.

Some comparison programs that would fit within this parameter are outlined following. All of these alternative programs would produce less building volume than the 100-room hotel.

ALTERNATIVE PROGRAMS FOR THE HOTEL SITE

These four “hypothetical programs” provide examples of alternative scenarios on the ±2-acre hotel site.

**Hypothetical Program #1:**
15,000 square feet retail (664 trips)
15,000 square feet general office (310 trips)

*This program adds 156 more trips than the hotel, produces an overall FAR of about .35, and in the core an FAR of about .7.*

**Hypothetical Program #2:**
5,000 square foot bank with additional 5,000 square feet bank offices (612 trips)
30 units of housing (222 trips)

*This program produces 16 more trips than the hotel, reduces the overall FAR to about .33, and in the core to about .61.*
Hypothetical Program #3:

20,000 square feet office (414 trips)
25 housing units (185 trips)

This program generates 219 fewer trips daily than the hotel, and reduces the overall FAR to .38, and in the core to about .76.

Hypothetical Program #4:

80 seniors housing units (400 trips)
10,000 square feet retail (440 trips)

This program generates 22 more trips than the hotel daily, and is nearly exactly the same overall FAR as the hotel alternative.

These are just examples of some possible mixed use combinations that would be allowable alternatives to the hotel. It is highly likely that any combinations without the hotel would total to a lower development volume than 245,000 square feet. The overall project FARs would range from a low of about .33 up to about .4. Within the 6.39-acre core zone the FARs could vary from a low of around .64 up to about .76.

On the Charterwood Plan (site plan sheet) it is indicated in a notation table block on the “hotel site” the maximum alternative development volumes by land use that could be allowed within the trip generation cap of the Traffic Impact Assessment. This table is reproduced below.

<table>
<thead>
<tr>
<th>HOTEL SITE LAND USE ALTERNATIVES (MAXIMUM SINGLE USE DEVELOPMENT VOLUMES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAND USE</td>
</tr>
<tr>
<td>---------------------</td>
</tr>
<tr>
<td>HOTEL</td>
</tr>
<tr>
<td>RETAIL</td>
</tr>
<tr>
<td>OFFICE</td>
</tr>
</tbody>
</table>

I hope this provides enough additional information and detailed breakout about the Charterwood program and options. If you have any questions or concerns please do not hesitate to contact me by email, or by phone at 933-1315. Thanks.
This memorandum is for the purpose of providing some supplemental information and responses in regard to our application for the Special Use Permit for Charterwood. In this memo we address our response to satisfying several aspects of our project requirements that we intend to address comprehensively and fully at a point in the process when requisite data and information has been gathered, analyzed and more completely considered on these subjects. The subjects addressed herein are Public Art, Affordable/Workforce Housing, Buffer Requirements and Planting Plans, our Recreation Plan, and our plan for the NCDOT drainage areas.

Public Art

WCA Partners is committed to incorporating public art as part of the Charterwood development. We will work with the Town of Chapel Hill Office of Public Arts, within the context of the Town’s development review process, to seek its assistance in the selection of an artist or, if applicable, an art consultant, for the Charterwood development.

Should WCA Partners choose to employ an outside public art consultant, the consultant and the process for selecting the artist and the artwork, should be reviewed by the Office of Public Art, and by the Town within the development review process.

The art piece or pieces may be stand alone, or integrated into the building, serve as public amenities, or be landscape/hardscape elements.
Affordable/Workforce Housing

WCA Partners is committed to providing affordable housing in the Charterwood community. In this regard we will provide housing that meets the Town’s Inclusionary Housing requirements or, alternatively, we will endeavor to work with the Town on an initiative we have begun with the Town to produce workforce housing in Charterwood. We will seek to work with the Town, including staff and the Town’s committee that is addressing the affordable housing objectives, to further pursue a workforce housing initiative in Charterwood. We have had initial discussions with Town Council members and staff on this subject and have been encouraged by their comments to pursue this alternative.

Workforce housing is defined as providing housing opportunities for working families, generally with incomes that range from 80% to 120% of the area’s median income. This housing initiative is aimed at and based on the concept that those who serve their communities should be embraced by their communities, not shut out.

Buffers

The following provides more detail with respect to required buffers and plantings.

Northern Boundary Buffer (adjacent to Fire Station)

Public Use Facility requires a Class C buffer with a minimum width of 20 feet. Existing plant materials of value to be saved will be augmented by new materials in order to meet the Class C buffer plant material requirements. We ask that the Town’s Urban Forester walk the site with our Landscape Architect upon approval of the SUP to jointly determine the existing vegetation to be saved.

Western Boundary Buffer (adjacent to Northwoods and Parkside neighborhoods)

The Town requires a Class B buffer, minimum width of 10 feet. WCA Partners has initiated a special enhanced buffer of 25 feet, and an individualized landscape plan for each of the backyards of the adjoining neighbors. A WCA Partners-provided horticulturist (Tracy Traer) has provided, or offered to provide, consulting services to all adjoining neighbors to assist in developing planting plans customized to each property owner’s preference in this zone to enhance the neighbor’s privacy and enjoyment of their backyard space. These landscape plans are in progress of being developed with each neighbor.

Southern Boundary Buffer

If a hotel, retail or office is built in this zone, the buffer requirement is Class C, with a minimum width of 20 feet. If residential is built in this zone, the requirement is a Class B, with a minimum width of 10 feet. Existing plant materials of value to be saved will be augmented by new materials in order to meet the Class C buffer plant material requirements. We ask that the Town's Urban Forester walk the site with our Landscape Architect upon approval of the SUP to jointly determine the plantings to be saved.
MLK Boulevard Buffer

A Class D buffer of 30 feet is required per the ordinance. We are proposing a variable width Class D buffer. Building setback standards in the Mixed Use Village district permit buildings to be located nearer to the street than 30 feet, the normal Class D buffer width. Existing plant materials of value will be saved and augmented by new materials in order to meet the Class D buffer plant material requirements. We ask that the Town’s Urban Forester walk the site with our landscape architect upon approval of the SUP to jointly determine the plantings to be saved.

In summary, we have shown buffer types in the zones where they are required. We understand from conversations with Curtis Brooks that planting plans come later. For our MLK frontage we are showing a “variable” buffer concept. That is, we will have a major portion, more than 60%, of the MLK frontage with buffers that considerably exceed the D buffer requirements. On other portions, in the retail area, for example, we will are requesting an exemption from the buffer requirement in order to pull the retail up to the street. This is consistent with what the Northern Area Task Force Report recommended in their objective of “activating the street”. All of this is shown on our plan submittal. The detailed Streetscape Plan and Planting Plan(s) will come later.

Recreation Plan

The Charterwood community will have 3+ acre park in the Resource Conservation District within the property. This park will provide passive recreation opportunities for Charterwood residents as well as neighboring areas and visitors. This park will have excellent connectivity. We are proposing to build a greenway through this RCD area that would connect from Weaver Dairy Extension to MLK Boulevard. This improved greenway will be asphalt paved, 10’ wide and more than 1,000 feet in length, and built to accommodate cyclists and pedestrians. The park will also incorporate the storm water retention structure that will be constructed to accomplish our enhanced storm water management responsibility.

NCDOT Land

Numerous meetings have been held with the North Carolina Department of Transportation with respect to their two drainage basins that lie within the Charterwood property. Our discussions have led to the possibility of acquiring these drainage basins from the NCDOT. Our discussions have been coordinated with and have included town staff from Planning, Storm Water Management, and the Manager’s Office. Our intentions are to:

1. Acquire the two drainage basins of NCDOT.
2. Voluntarily agree to meet the future Jordan Lake storm water management regulations on the NC DOT pavement areas that are tributary to the two existing NCDOT basins.
3. Pass through the clean-up credits for reducing nitrogen and phosphate levels to NCDOT.
4. Incorporate the improved and more aesthetic northern basin into Charterwood Park.
Charterwood

Energy Management Plan

WCA Partners

July 2010
This document provides an Energy Management Plan for Charterwood, a mixed use development proposed for a 14.32-acre parcel located on the west side of MLK Jr. Boulevard in Chapel Hill. This document has been prepared in accordance with the requirements of the Town of Chapel Hill’s suggested framework for an Energy Management Plan. Energy management plans and energy reduction goals are required for all Special Use Permit applications made to the Town.

**Prelude**

The Charterwood development is a mixed use development that will occur in the high volume transit corridor of the MLK Jr. Boulevard. The community has been planned and designed as a Transit Oriented Development (TOD) that links land use with transportation options, with the key objectives of promoting auto-alternative mobility options. The developer will undertake a number of initiatives to promote walking and walkability, the use of bus transit, and bicycling as alternatives to automobile usage. It is estimated that at least twenty percent of the projected trip-making to and from Charterwood will not be automobile based trips, but rather trips involving Chapel Hill Transit buses, or walking or biking. If this level of alternative mobility modes is achieved, and this is a realistic objective, a 20 percent reduction in carbon emissions would be immediately achieved from reduced auto usage from this initiative alone by the time Charterwood reaches buildout.

Charterwood will be Leadership in Energy and Environmental Design for Neighborhood Development (LEED-ND) certified. By virtue of this certification the community will achieve very high levels of energy efficiency and substantial reductions of carbon emissions. Studies show that strong linkages between transportation and land use have significantly greater effects on energy use and carbon emissions reduction than any other strategies, such as building construction methods, energy efficient appliances and equipment, etc.

The following goal statements and objectives address how Charterwood will comply with Town goals relative to energy management and energy efficiency.

**Charterwood Energy Management Plan Goal Statements**

1. Contribute to the Town’s goal of reducing carbon emissions by 60 percent prior to 2050.

2. Implement strategies for sustainability in the construction and operations of Charterwood.

3. Utilize sustainable energy in the construction and operations of Charterwood.

**Charterwood Construction Energy Management Plan Objectives**

1. Achieve minimum energy efficiency improvements that meet or exceed 20 percent over ASHRAE 90.1, 2004.

2. Give consideration to using alternative fuels and technologies that represent sustainable energy technology.
3. Incorporate elements that help to ensure a high level of indoor air quality, adequate access to natural lighting and other indoor environmental quality attributes.

4. Give consideration to the purchase of carbon offset credits or green power production through coordination with a designated, recognized greenpower program.

**Charterwood Energy Management Plan General Elements**

The following provides a list of techniques, products, strategies, etc. that provide alternative means of achieving the 20% improvement objective and other energy management plan objectives.

1. Use of photovoltaic panels, alternative fuels, solar thermal, day lighting, enhanced insulation, performance elevators, high performance motors, high performance building shell materials, carbon offset/greenpower credits, indoor environmental quality, air filtering, LED products, fresh air make up, enthalpy wheels, and other products, strategies and techniques.

**Charterwood Energy Management Plan Specifics**

For all buildings in Charterwood, at the building permitting stage, engineering calculations, product specifications, and descriptions and explanations of expected results will be provided. The engineering calculations, product specifications, and narrative will be signed by a licensed engineer. The following specific plan elements will typically be included:

**Residential Structures**

**HVAC Equipment**

- 15 SEER heat pumps, achieving 30 to 35 percent more efficiency over code
- Programmable thermostats
- Energy Star windows with low-e glazing
- Insulation R values 10 percent or more above code

**Lighting**

- High efficiency compact fluorescent lighting with space sensor controls
- High efficiency dark sky site and parking area lighting with space sensor, photocell or timer controls
- Architectural daylight with daylight factor equal to 2% average in residential units and, where possible, in common areas

**Other**

- Provide education in use of programmable thermostats and carbon footprint awareness to all residents
Commercial Structures

HVAC Equipment

- Buildings will be fitted with equipment that is 20 percent more efficient than ASHRAE 90.1-2004. The products and calculations will be provided with building permit applications.
- Increased R values for thermal components that will exceed Building Code requirements by at least 20 percent, will be utilized. Products and R values will be provided with building permit applications.
- Rooftop mounted HVAC equipment with an EER rating at a minimum of 12 and a 100 percent air economizer cycle with be provided. Product data will be provided with building permit applications.
- Energy calculations will be provided for all Conditioned Areas with calculations provided at the building permit phase.

Lighting

- Exterior lights will be provided with photo cells, sensors and timers for lighting controls.
- Exterior lighting will have dark sky, minimum lumens to meet building code.

Other

- Energy summaries for each major electrical item including lighting sources/products, HVAC equipment, water heaters, appliances, elevators, etc. will be made. These calculations will be provided with the building permit applications.
- Buildings will be sited and designed, where possible, to take advantage of optimal solar orientation.
- All coolants for HVAC will be Chlorofluorocarbon (CFC) free. Likewise, all fire protection systems will be CFC free.
- Ongoing education to tenants of building operation systems will be provided.
- A recycling program will be implemented during building construction to ensure a minimum of 50 percent of construction waste is recycled. Receipts from Waste Management Company will be available for verification.
- Wherever possible, recycled products will be used in Charterwood.
- Paints, adhesives and finish materials will be VOC free-low emitting materials
- Whenever possible, owner will purchase green power production through coordination with the NC Green Power Program or through other sources for wind credits, hydroelectric power or other green power agencies.
- Charterwood will be developing and implementing a water re-use system for irrigation of plant materials; plant materials in Charterwood will be largely indigenous plants suitable for this Zone 6b climate and requiring lower water/irrigation rates. It is the objective of Charterwood not to use potable water for any irrigation.
• Charterwood will also utilize water saving fixtures that will be at least 20 percent more efficient than required per Code.
This project shall comply to the Town of Chapel Hill regulations and standards.

Special Use Permit

Chapel Hill, North Carolina

Charterwood