

*Aydan Court*  
*Townhomes and Condominiums*  
Chapel Hill, North Carolina

Special Use Permit  
Statement of Justification

Revised  
March 16, 2009<sup>1</sup>  
~~August 1, 2008~~

Cazco, Inc. (Developer)  
J. Davis Architects (Architecture and Site Design)  
Mitchell – Westendorf (Engineering)  
Radway Design Associates (Application Consultant)

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<sup>1</sup> Pages 8-12 have been added. These pages duplicate the information about building height included in the applicants proposed Modifications to Regulations Statement.

*Aydan Court*  
*Townhomes and Condominiums*  
 NC 54 East, Chapel Hill, NC (Durham County)

**Statement of Intent** \_\_\_\_\_

The Aydan Court Townhome and Condominium development is designed to provide a medium density residential development on the north side of the NC 54 entryway corridor to Chapel Hill. The entire site is located in Durham County but lies within the Town Limits of Chapel Hill and is subject to Chapel Hill planning and development regulations. Municipal services are provided by Chapel Hill. The property is served by the Durham County school system.

It is the intent of Cazco Inc., the developer, to create a compact neighborhood with two types of dwellings, townhomes and single floor condominium dwellings. It is anticipated that the families living in Aydan Court will be primarily older adult households without school age children. A total of 58 dwelling units (21 townhomes and 37 condominium flats) are proposed.

**Applicant** \_\_\_\_\_

Carol Ann Zinn is a long time Chapel Hill resident. Her development portfolio, extending from 1976, includes 11 single-family neighborhoods in Chapel Hill, Carrboro, and Durham and two commercial developments in Chapel Hill. One of these developments is the Courtyard on West Franklin Street, which in 1979-80 converted a former milk processing plant into a pedestrian scaled development with a mix of retail, restaurant, and office uses.

As part of the 2002 approval process for her single-family neighborhood Larkspur, off Weaver Dairy Road Extension, she helped author Affordable Housing Text Amendments that allowed the construction of detached single-family price restricted affordable homes in Larkspur. In her joint role as real estate developer and designer/builder, her family-owned company, Zinn Design Build, created thirteen 3 bedroom • 2 ½ bath single-family affordable homes in Larkspur and sold them below cost to Orange Community Housing and Land Trust. These homes were then sold by OCHLT to families with 60-80% of area median income. With this background, she recently served on the Chapel Hill Inclusionary Zoning Task Force that has provided recommendations to the Town Council for instituting an Inclusionary Zoning provision in the Land Use Management Ordinance.

A trend setter in distinctive, high-quality design, Ms. Zinn is merging these skills with important green and sustainability programs, making Aydan Court a thoughtfully conceived community with a strong, environmentally responsible program. A by-product of this type of development is its contribution to the health and well-being of its residents and to those in the greater community.

**General Site & Location Description** \_\_\_\_\_

The development site is located on the north side of NC 54 east of Meadowmont and is the first property within Chapel Hill Town limits as one travels west on Route 54 from I-40.

To the east and north of the 5.8-acre site is U.S. Army Corps of Engineers (USACE) property, a part of the Jordan Lake tributary and watershed lands of the Corps. To the immediate west is an approximately 51-acre site owned by the University of North Carolina at Chapel Hill Foundation

Inc. Immediately to the west of the UNC property is Meadowmont, a mixed-use development with residential uses, retail and office development, public school and park facilities, greenways, and a pedestrian and bicycle trail system running within and parallel to NC 54.

Opposite the Aydan Court site on the south side of NC 54 is the Downing Creek residential community that also directly abuts Army Corps of Engineers property. To the west of Downing Creek is the Sherwood Forest neighborhood. Immediately west of Sherwood Forest and opposite the UNC property is the 35-acre site of the proposed Woodmont mixed-use office and residential development.

The Aydan Court site has a mixture of hardwood and evergreen vegetation with mature tree heights between of 40 – 70 feet. A cut bank of about 350 feet in length within the Route 54 right-of-way rises 10-12 feet above the roadway elevation. Immediately to the north of this embankment on the Aydan Court site is an intermittent stream flowing from west to east. This stream changes from ephemeral to intermittent just after it enters the southwest corner of the site. An RCD stream buffer of 50 feet width on each side of the stream encompasses approximately 47,000 Square Feet of area.

The primary land forms of the site are two plateaus – formerly farm land - that extend from west to east. Each of these plateaus has side slopes with elevation changes of about 10-12 feet.

A Chapel Hill welcome monument is located in the NC 54 right-of-way in front of the Aydan Court site.

#### Description of Proposed Aydan Court Development

Aydan Court is designed to be a compact residential neighborhood with a mix of Townhomes (21) in six buildings and Condominium dwellings (37) located in one building. The site will be served by a private drive entering the site to the east of the Chapel Hill Monument. Design and photographic analysis shows that the roadway embankment and the 50-150 feet buffer that will run for 470 of the 530 feet of roadway frontage will visually screen the residential development from view of those traveling along NC 54.

The proposed development is arranged to provide two complimentary types of owner-occupied residential development, townhomes and flats<sup>2</sup>. The different types of homes are connected by a complete sidewalk system that will promote interaction between residents, especially as they use the common activity areas provided on the site. The condominium flats' building contains indoor community space that includes a fitness facility with an adjacent community gathering room. The gathering room will provide a congenial environment for meeting and entertaining for all Aydan Court residents and their guests. An outdoor courtyard is located within the townhome portion of the site plan and will provide the outdoor setting for Aydan Court resident activities. These common facilities are located on the site in ways that will make them safe, comfortable, and easily accessed by all residents. The separate indoor and outdoor common areas will encourage pedestrian movement throughout the site.

The townhomes are groupings of three and four dwellings of 4-floors with the ground floor containing garages for resident vehicles. The condominium building is 4-stories of one, two and three bedroom dwellings over one floor of structured parking. These designs substantially reduce the surface area of the site used for vehicular access and storage by tucking the parking under the footprints of the buildings.

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<sup>2</sup> Dwelling units on one floor in multi-family structures of several stories

Aydan Court

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Special Use Permit  
Justification Statement

To augment the recreation space in the condominium building and the open courtyard, the developer proposes to extend the Meadowmont – NC 54 Trail system. That system runs on both the north and south sides of NC 54. The applicant proposes to extend the trail system from its current terminus at the eastern boundary of Meadowmont to the eastern boundary Aydan Court shares with the Upper Little Creek Wildlife Area, a distance of about 1/3<sup>rd</sup> mile. This will provide a pedestrian and bicycle connection extending from the Meadowmont Village Center and its internal trail system and public park facilities to the Upper Little Creek Wildlife Area. It is expected that residents in Meadowmont, as well as those in Aydan Court, will benefit from this connection.

Aydan Court will meet the Town's Energy Reduction and Conservation goals for residential developments. The methods used are described in the accompanying Energy Management Plan.

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**Required findings for approval the proposed residential development.**

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Aydan Court is proposed to be a Planned Development-Housing application that is approved as a Special Use Permit. The Chapel Hill Land Use Management Ordinance contains standards and findings that must be made by the Town Council for the approval of this application. These requirements and findings are addressed below.

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**SPECIAL USE PERMIT FINDINGS OF FACT**

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Section 4.5.2(a) of the Town of Chapel Hill Land Use Management Ordinance states:

*“No Special Use Permit shall be recommended by the Town Manager or Planning Board for approval and no Special Use Permit shall be approved by the Town Council unless each of the following findings is made concerning the proposed special use or planned development:*

*(1) 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;*

*(2) That the use or development complies with all required regulations and standards of this Chapter, including all applicable provisions of Articles 3 and 5, the applicable specific standards contained in the Supplemental Use Regulations (Article 6), and with all other applicable regulations;*

*(3) 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*

*(4) That the use or development conforms with the general plans for the physical development of the Town as embodied in this Chapter and in the Comprehensive Plan.”*

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**STATEMENT OF JUSTIFICATION – SPECIAL USE PERMIT**

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The applicant submits the following information and material as evidence that the proposed residential development meets the Special Use Permit as required.

(1) 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:

- *Aydan Court is proposed to be a medium density residential neighborhood (10 units/acre) on a site that is presently zoned for residential use. It is designed to provide safe vehicular access from NC 54 in accordance with recommendations of the Town’s traffic impact review consultant.*
- *Aydan Court has been designed from the outset to be a community leader in the areas of energy efficiency, carbon footprint reduction, and long term energy reduction thru operational management.*
- ☑ *Energy Efficiency:* *Aydan Court will reduce energy use by 20% or more above the North Carolina baseline requirements. This goal will be achieved through a combination of energy efficient technologies and building design features, including more effi-*

cient HVAC, better insulation, careful selection of lighting and controls, and a better building envelope.

- Renewable Energy and Carbon Footprint:* Renewable energy will be purchased from NC Greenpower by the Aydan Court HOA for all common areas. An education program will encourage condominium and townhome owners to purchase NC Greenpower.
- Operations Management Plan:* Aydan Court will have an on-going commitment to sustainability and reduced carbon footprint over time through resident education and building operations.
- *Water resource conservation is integral to the maintenance of landscaping at Aydan Court. Rainwater will be collected from the condominium building roof and be retained on-site for re-use. We expect that most internal landscaping will be substantially irrigated by this collected stormwater.*
- *Convenient solid waste recycling is also an integral part of the Aydan Court development.*
  - The applicant proposes that the townhomes have curbside collection for both trash collection and recycling collection. This is the easiest and most convenient form of disposal of household solid waste and in Chapel Hill has led to a significant decrease in the amount of waste going to the landfill and the increase in recycling material collected.*
  - The design of the condominium building has had provisions for easy, convenient internal solid waste disposal as a primary element since the beginning. Rather than require residents to carry both trash and recycling materials to outside trash collection facilities, vertical chutes leading from each floor to collection facilities on the parking floor are provided. Each floor contains a recycling room for items that do not work well with a chute system. The solid waste collected in the building will be collected by private contract on a schedule coordinated with the rate of disposal of materials by residents.*
- *The site contains Resource Conservation District areas that will be restricted from development according to the Town's RCD regulations, except for the entry drive needed to reach the internal areas of the site.*
- *The internal design of the site provides for a private drive that provides clear access to the proposed dwelling units and provides access for public service vehicles including police, fire, solid-waste and recycling.*
- *On-site recreation activity is provided for within a community exercise and meeting facility to be located within the proposed 4-story building containing condominium flats. In addition the developer will extend the existing "Meadowmont – NC 54" trail system from its current location at the southeast corner of Meadowmont to the eastern edge of Aydan Court where it meets the Upper Little Creek Wildlife Area.*
- *The applicant will extend public water and sanitary sewer service to the site.*
- *The development will be a condominium community with owner associations that will provide for the maintenance of common spaces including landscaped areas, drives and parking areas, exterior lighting, stormwater management facilities, and common spaces interior to the condominium flats building.*

(2) That the use or development complies with all required regulations and standards of this Chapter, including all applicable provisions of Articles 3 and 5, the applicable specific standards contained in the Supplemental Use Regulations (Article 6), and with all other applicable regulations;

- Article 3, Zoning Districts, Uses, and Dimensional Standards establishes use, density, intensity (floor area ratio) and dimensional standards.

*The applicant proposes a Zoning Map Amendment. The site is currently zoned R-1 Residential, a district that permits a maximum density of 3 units per acre and permits a very limited amount of floor area. The applicant proposes to develop the site at a density of 10 dwelling units per acre and with an increased amount of floor area. Currently the Planning Board and the Town Council are considering a modification to the amount of floor area permitted in the Residential Special Standards Conditional (R-SS-C) residential district. The applicant proposes that the Aydan Court site be rezoned to R-SS-C district after the adoption of the proposed 1.000 floor area ratio for that district.*

Article 5, Design and Development Standards govern many of the physical aspects of development. The applicant's plan meets the requirements of Article 5 with three exceptions.

- **Parking Quantity Standards - §5.9.7** - In June 2007, the Town adopted new parking standards establishing minimum and maximum levels of parking. For Aydan Court a minimum of 95 and a maximum of 119 spaces are permitted. The applicant proposes 122 spaces.

The applicant requests a modification of this standard to permit the amount of parking shown on the application plans because:

1. Sixty-one percent (61%) of the on-site parking – almost 2/3rds – is tucked under the buildings, thereby providing this parking within the footprint of the residential buildings. Each townhome has 2 parking spaces within garages and the condominium building contains 33-garaged spaces for 37 dwelling units.
2. The three (3) additional requested parking spaces are located in the parking lot in front of the condominium building.
3. These three spaces will be removed and replaced by solid waste collection facilities if the solid waste collection facilities located on the garage floor of the condominium building are augmented or replaced by an outdoor collection facility at any time in the future.
4. Market data provided to the applicant shows that a minimum parking ratio of 2.25 parking spaces per unit is needed. At recent Council and Planning Board meetings, the negative affects of the parking deficiencies at 4 story condominiums in Meadowmont has been presented by others.
5. The amount of parking in Aydan Court is 2.10 parking spaces per unit, an amount that is still below market need and demand.

The applicant believes that the requested modification to standards for three parking spaces is justified because the replacement of those spaces by solid waste collection facilities (if needed in the future) would result in 119 spaces, the maximum permitted by § 5.9.7.

*For the above reasons, the applicant believes that the “public purposes related to parking standards are satisfied to an equivalent or greater degree” by the Aydan Court Plan as submitted.*



• **Building Height – Table 3.8-1: Dimensional Matrix (LUMO)**

*Aydan Court is to be developed at a density of 10 dwelling units per acre with two types of dwelling units: 1) Townhomes and 2) Condominium Flats in a building with 4 floors of homes over a garage parking level.*

R-SS-C Height Standards – Primary (39 Ft.) and Secondary (60 Ft.)

*All residential zoning districts in Chapel Hill have primary and secondary building height requirements.*

- *Primary height is measured at the minimum building setback line. **The minimum interior setback line for the R-SS-C District is 0 feet. There is no Solar setback requirement for the R-SS-C District.***
- *Secondary height is the maximum height a building can reach when set back an additional distance. In all residential districts, a building may have one (1) additional foot of height for each additional two (2) feet of building setback from the location of the minimum front or interior setback line – up to the maximum secondary height limit.*

*Shown in Table 5 are the setback relationships for the townhomes. **All of the townhomes meet the standards of the R-SS-C District.***

Table 5  
Townhome Heights

<b>Standard</b>		<b>Bldg II</b>	<b>Bldg III</b>	<b>Bldg V</b>	<b>Bldg VI</b>
<i>Height – Primary at minimum setback line.</i>	39'	n/a	n/a	n/a	n/a
<i>Height at actual building setback lines</i>	25 – 105'	29'	29'	29'	29'
<i>Height – Secondary Maximum</i>	60'	47'	47'	47'	47'

*The setback and height relationships in Table 6 address the interior setback on the University of North Carolina at Chapel Hill Foundation, Inc. property side (west).*

*The Aydan Court proposal exceeds the secondary building height at the building setback line on the western side of the site by 5.5 feet and exceeds the Maximum Secondary Height by 1 foot.*

Table 6  
Condominium Height & Interior Setback – UNC-CH Side

<b>Standard</b>	<b>R-SS-C</b>	<b>Aydan Court</b>	<b>Proposed Modification to Regulation</b>
<i>Maximum Height – Primary at minimum setback line.</i>	39'	n/a	n/a
<i>Maximum Height at proposed Building Setback (31')</i>	54.5'	61'	<b>6.5 Ft.</b>
<i>Maximum Secondary Height</i>	60'	61'	<b>1.0 Ft.</b>

Table 7 addresses the interior setback relationships on the eastern-northern side along the US Army Corps of Engineers property in Durham County. The Aydan Court proposal exceeds the secondary building height at the building setback line on the eastern edge of the site by 14 feet.

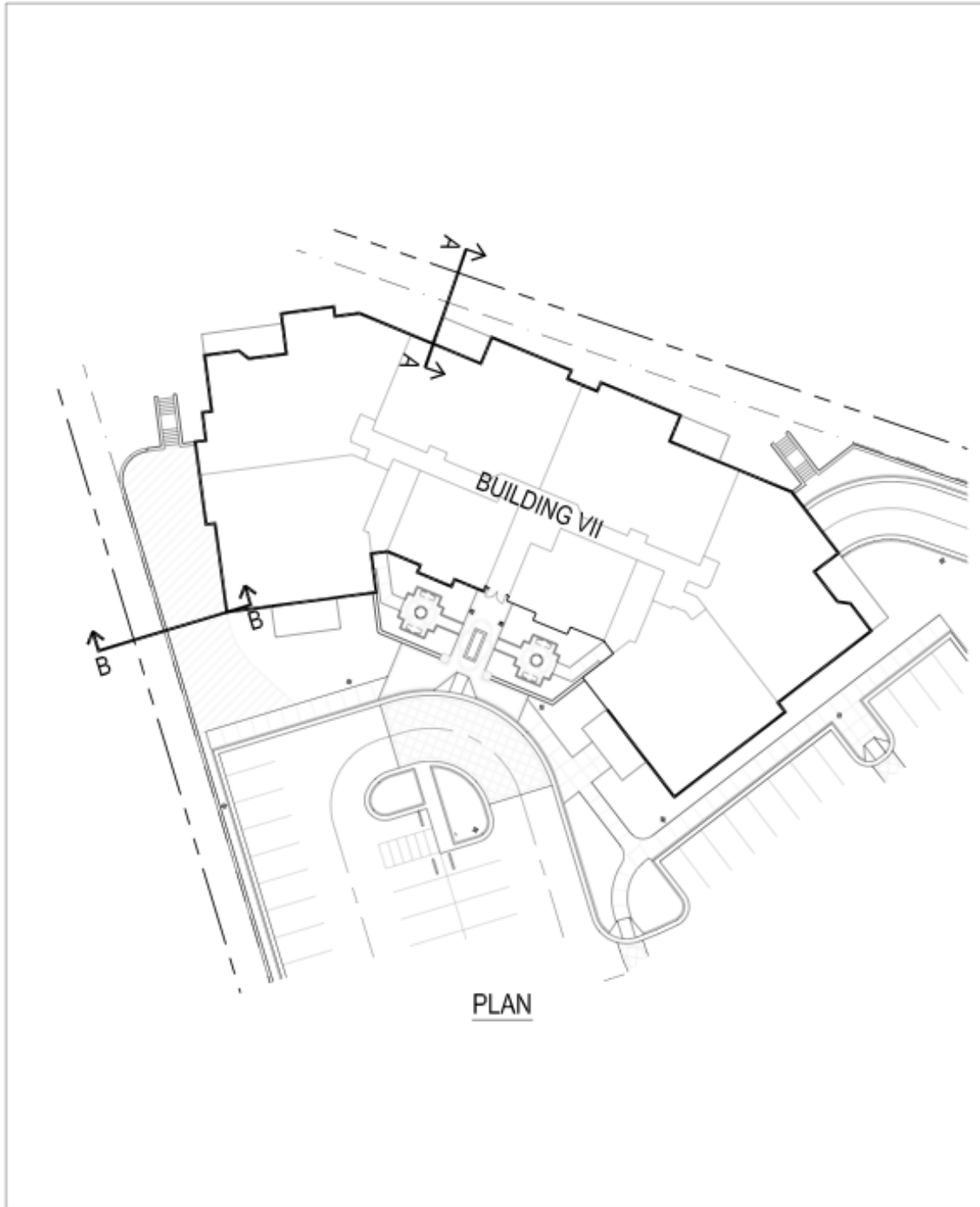
Table 7  
Condominium Height – Army Corps of Engineers Side

<b>Standard</b>	<b>R-SS-C</b>	<b>Aydan Court</b>	<b>Proposed Modification to Regulation</b>
Height – Primary at minimum setback line.	39'	n/a	n/a
Height at Building Setback (16')	47'	61'	<b>14 Ft.</b>
Height – Secondary Maximum	60'	61'	<b>1.0 Ft.</b>

**Requested Modification for Building Height**

***The applicant requests 3 minor modifications to the height standards:***

- 1) A one (1) foot Secondary Height modification to allow the condominium building to have a maximum secondary height of sixty-one (61) feet.***
- 2) A six and one-half (6.5) feet modification to the building height standard for the west side of the condominium building at the proposed building setback line.***
- 3) A fourteen (14) feet modification to the building height standard for the east side of the condominium building at the proposed building setback line.***



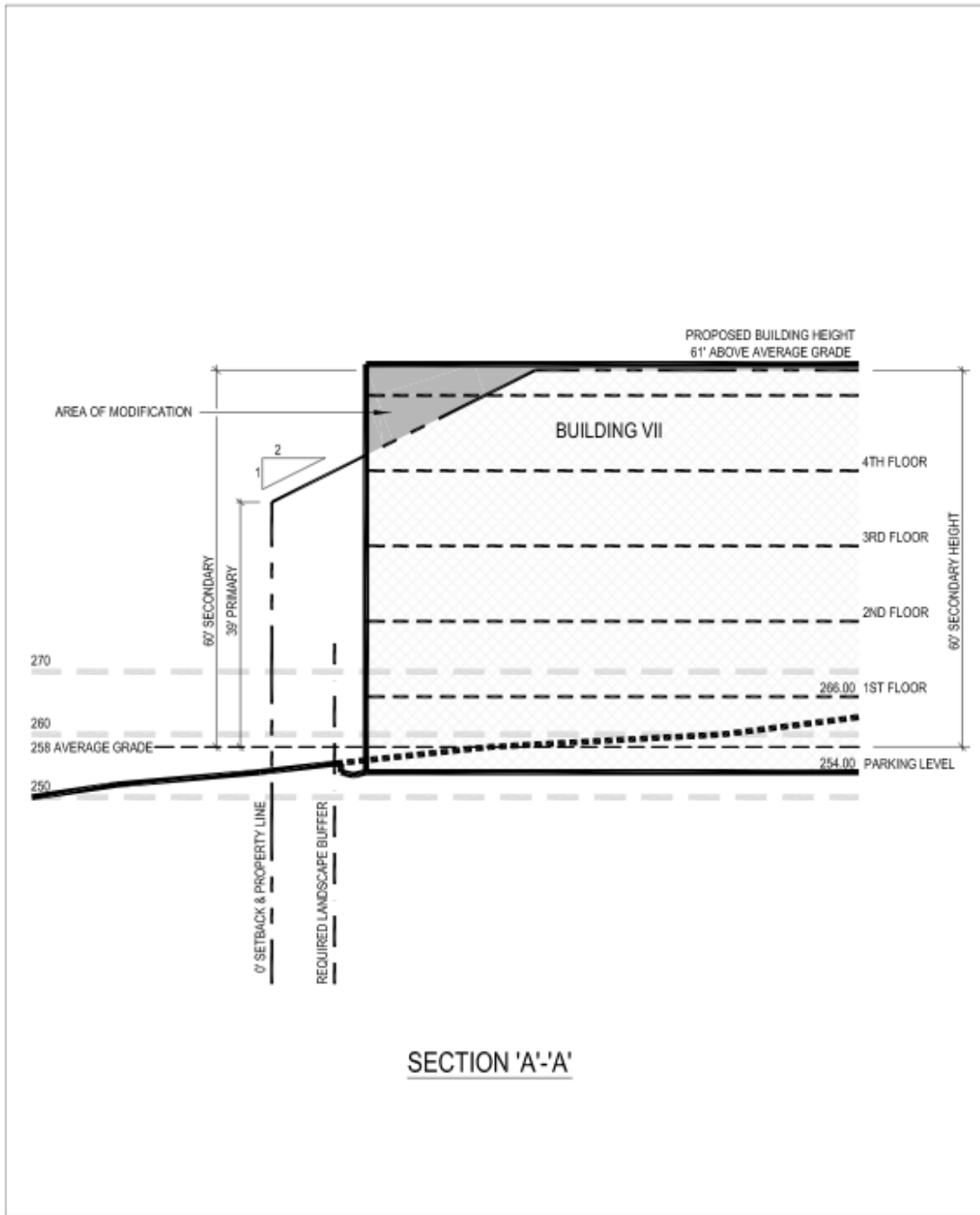
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*Aydan Court*  
CAZCO, Inc.  
Chapel Hill, North Carolina

Date: April 30, 2008  
Scale: 1" = 40'





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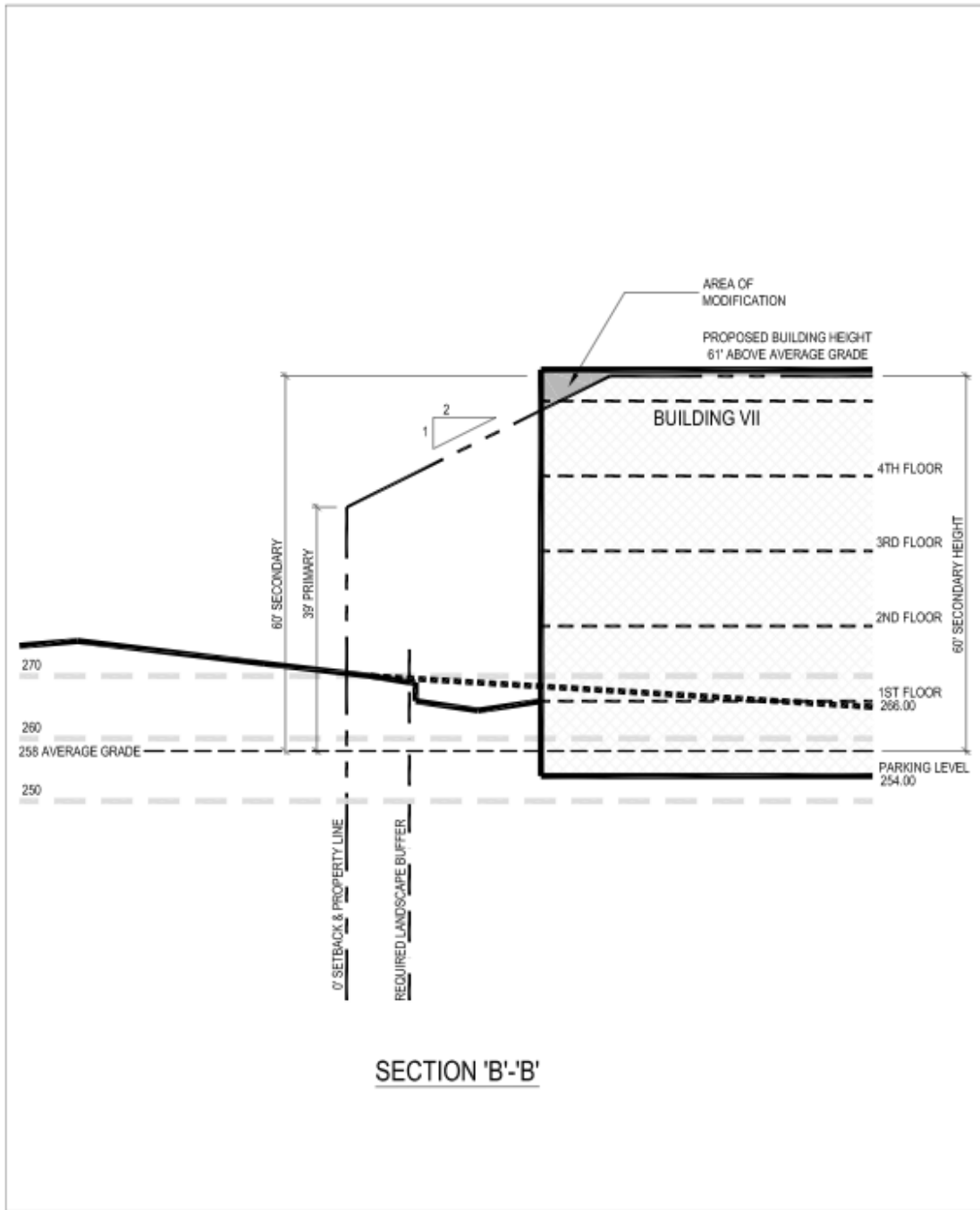


*Aydan Court*  
CAZCO, Inc.  
Chapel Hill, North Carolina

Date: July 11, 2008  
Scale: 1" = 20'



Army Corps of Engineers side of site.



SECTION 'B'-'B'

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*Aydan Court*  
 CAZCO, Inc.  
 Chapel Hill, North Carolina

Date: July 11, 2008  
 Scale: 1" = 20'



University of North Carolina at Chapel Hill Foundation Inc. side of site.

**Steep Slopes - § 5.3.2**

*The Aydan Court site has a limited amount of sloped area exceeding 25%. In total, the Chapel Hill regulates development on lands that are sloped according to the categories and standards shown in Table 2 below. (LUMO Table 5.3-1 Slope Construction Restrictions).*

*It is important to note that development on slopes greater than 25% is not prohibited. Twenty-five percent of the land with slopes over 25% may be developed without question.*

*When development is proposed to be more than 25% of this sloped land, a higher level of scrutiny is provided. Development that is more than 25% of this sloped area is permitted when approved by the Board of Adjustment or by the Town Council when it approves a Special Use Permit.*

Table 2  
(LUMO Table 5.3-1 Slope Construction Restrictions).

<b>Slope Category</b>	<b>Development Restrictions</b>
Slope less than 10%	No additional building restrictions pursuant to this Section.
Slopes 10-15%	Site preparation techniques shall be utilized which minimize grading and site disturbance
Slopes greater than 15% less than 25%	Building and site preparation may occur upon demonstration of specialized site design techniques and approaches as described in subsection (d)
Slopes 25% or higher	Generally unsuitable for development. Land disturbance shall not exceed 25% of the area containing 25% or greater slopes unless a variance is granted by the Board of Adjustment. For disturbed areas, building and site preparation shall utilize specialized site design techniques and approaches as described in subsection (d).

*Subsection (d) - reproduced below - outlines the type of construction activities required to create stable slopes. These include permitting a maximum slope of reconstructed disturbed area to be 33% and that exposed surface areas are covered by ground cover and plantings that prevent erosion.*

*To the applicant, it does seem somewhat contradictory that the required specialized construction techniques permit a finished slope of 33% while at the same time placing limits on 25% slope disturbance.*

(d)	<p><b>Construction techniques</b></p> <p>Construction activities on slopes greater than fifteen (15) per cent shall comply with the following:</p> <p>(1) Exposed soil that is not under continuous construction shall be re-vegetated with temporary or permanent vegetation so that the soil is not left exposed following issuance of a certificate of occupancy, vegetation shall be reestablished. If irrigation is not provided, then the exposed soil shall be planted with species which can survive without irrigation. Vegetative cover or any alternative cover (rock, masonry, etc.) shall be maintained in perpetuity.</p> <p>(2) All cut and fill slopes shall not exceed a three (3) (horizontal) to one (1) (vertical) by the Town Manager upon certification, by a qualified soils engineer or geologist, that the slope will remain stable under foreseeable conditions. The certification must delineate any specific stabilization measures deemed necessary by the soils engineer or geologist.</p>
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Slopes on Aydan Court Site

*A slope and topographic analysis of the site has been made with a 4 feet contour interval and with slope determinations for areas with 400 square feet. (e.g. 20'x20'). [§ 5.3.2(c)(1)A. requires an interval of 5 feet or less]*

*The amount of land area and the percent of land area in each of the four required slope categories are shown in Table 3. There is a very small portion of the site in "steep" slopes.*

- *Fifty-eight percent (58%) of the site has slopes of less than 15%*
- *Thirty-four percent (34%) of the site has slopes of 15-25%*
- *Land areas with slopes of 25% or greater comprise 8% of this site.*

Table 3

<b>Slope Category</b>	<b>Land Area in Square Feet</b>	<b>Percent of Land Area</b>
Slope less than 10%	67,325	29%
Slopes 10-15%	67,067	29%
Slopes > 15%-25%	78,214	34%
Slopes 25% or higher	18,467	8%
<b>Totals</b>	<b>231,073</b>	<b>100%</b>

Location of Land with slopes of 25% or more

*The scattered small areas of land with slopes of 25% are in 2 locations.*

1. *The north-facing slope of the embankment along NC 54. (9,235 SF)*

*Just over half (50.5%) of the area in slopes of greater than 25% is located at the front of the site in either the RCD buffer or the required NC 54 street buffer.*

2. *Internal plateaus – side slopes. (9,232 SF)*

*Each of the two internal plateaus has side slopes that are between 20-25% from the base of the slope to the top of the slope. Within these side slopes are 6 small, scattered areas with slopes in excess of 25%.*

Figure 1 shows the major landforms of the site divided into two categories, Slopes of 0-15% and slopes between 15-25%. In addition, the slope of the sides of the plateaus is shown. These are all hillsides of less than 25% slope from top to bottom.





Figure 2 shows the small areas of slopes areas greater than 25% in the context of the overall slopes of the hillsides.



Public Purposes and justification for construction in areas with slopes of 25% or greater.

The plan proposes construction on 11,515 SF (1/4<sup>th</sup> of an acre) of land with slopes greater than 25% to achieve three public purposes. The slope area permitted to be disturbed, without question, is 4,616 SF. The applicant is requesting approval of another 6,897 SF of disturbance for the reasons discussed below.

1. Site Access from NC 54 (2,440 SF)

The location of the site entry road has been established by the NCDOT required median cut in NC 54. That median cut will permit eastbound left turns and U-turns on NC 54. This will provide an entrance to Aydan Court and a U-turn location for other vehicles, thereby preventing the need for vehicles to go an additional mile east to Hunting Ridge Road in Durham to turn around. The entrance also responds to the requirement from the Fire Marshall and from Public Works to provide for emergency and service vehicles to turn around within Chapel Hill and not go east to the more congested area of Hunting Ridge Road.

This median cut location will also contain a westbound left turn to provide access to Downing Creek.

To accommodate the entrance location as determined by NCDOT, a portion of the 25% sloped embankment at the front of the site must be disturbed to construct the entry road. The design minimizes the disturbance while still providing for sidewalks from the site to the pedestrian and bicycle trail to be extended from Meadowmont to the eastern property line of Aydan Court.

2. Sanitary Sewer Service and Access (571 SF)

OWASA and the Town of Chapel Hill require that new development be served by gravity flow sewer systems where possible. This is accomplished at Aydan Court by exiting the northwestern edge of the site, traversing the adjoining UNC Foundation property and reaching the OWASA pump station at The Cedars in Meadowmont.

To do this, regardless of the interior design of the site, the side slope areas of the plateaus will be disturbed to place the sewer line at the needed depth and to clear the thirty feet easement widths required by OWASA.

3. Higher Density Residential Development (9,232 SF)

The Town of Chapel Hill is preparing a Long Range Transit Plan. As part of that planning effort, the Town has identified the NC 54 corridor and specific areas in that corridor for development at higher intensities. NC 54 Corridor Planning Area 16 includes the Aydan Court and UNC Foundation properties.

In Planning Area 16, the proposed uses are Office, Retail, and Residential. It is estimated that one-half of the 58 acres in area 16 will be developed with residential uses. The density per acre for the residential uses is proposed to be 25 dwelling units per acre.

- The Aydan Court site is not suited for retail use.

- The Aydan Court residential design is for 10 units per acre for the 5.8 acres. To reach this density, residential development will require structures with parking beneath buildings as well as some surface parking.
- Office development on the Aydan Court site would generate significantly more automobile trips than the 58 units proposed by the applicant.

The Aydan Court plan has embraced the goals of the Town to achieve higher density development and to provide a fair share of affordable housing. It does so by placing parking under both the townhome buildings and the condominium building.

On the Aydan Court site this is achieved by tucking the parking into the side slopes of the 2 plateaus. As it happens, these side slopes have a general vertical elevation change of 8-12 feet from top to bottom. This change in elevation is in fact fortuitous as it is an almost perfect height change for placing a parking level underneath living levels

The proposed design for Aydan Court achieves the public purposes of providing higher density residential development by locating parking beneath living space.

#### Modification of Slope Construction Limitation on 25% Slopes

The applicant requests a modification of the twenty-five percent base limitation for development on slopes of 25% or greater to permit the amount of disturbance shown on the application plans. The public purposes served by this are:

1. The 2,440 SF of disturbance to the 25% slopes on the embankment along NC 54 is necessary for access to the site,
2. The 571 SF of disturbance to the 25% slopes is necessary to serve the site by gravity flow sewer service exiting the site from the north, and
3. The 9,232 SF of disturbance to the 25% slopes - embedded within the larger 15-25% side slope areas of the plateaus - serves the public purpose of creating higher density residential neighborhoods along primary transit corridors and by providing for a future connection to the University of North Carolina at Chapel Hill Foundation, Inc. property and by extension to Meadowmont.

*Article 6, Special Regulations for Particular Uses establishes regulations for Planned Development Housing developments in Section 6.18. These requirements apply to the proposed development. The proposed development meets these standards. Additional information about these requirements is provided in the following materials that deal with findings specifically applicable to PDH developments.*

- (3) 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;

*The proposed residential development has 2 distinct types of immediately neighboring property.*

- *To the west is a 51-acre undeveloped property owned by the University of North Carolina at Chapel Hill Foundation Inc. It is expected that property will be appropriately developed over time to serve the needs of the University. The current proposal will not diminish the*

*economic or use value or potential value of the property. The proposed design provides for an appropriate buffer between the two sites and at the Council request, the design of the Aydan Court site includes a roadway link to the UNC property for a future connection, if one is deemed appropriate.*

- *The Army Corps of Engineers land to the north and east of Aydan Court is in public ownership and will remain so. The development of Aydan Court will not affect the land value of this property. The proposed development will meet or exceed the stormwater management requirements of Chapel Hill and thereby maintain the quality of the water discharging on to the Corps property and will maintain the environmental quality of the Corps property. Lastly, and with regard to the protection of wildlife, residential development of the Aydan Court property will substantially limit the area of the Waterfowl Impoundment in which hunting is permitted by both the NC Wildlife Commission and Durham County. NC Wildlife Commission regulations require a 450 feet no-hunting zone on the Army Corps property where it abuts residential development. Durham County ordinances require a larger 600 feet no-hunting zone abutting the Aydan Court site. The applicant believes that residential development on her site will enhance the value of the Impoundment area as a safe haven for waterfowl and other birds and animals.*

(4) That the use or development conforms with the general plans for the physical development of the Town as embodied in this Chapter and in the Comprehensive Plan.”

The proposed Aydan Court development complies with the adopted general plans for Chapel Hill in several ways.

- It provides a significant vegetation buffer along NC 54 in keeping with the many goals and policies of the town regarding entryway corridors.
- It provides for the orderly extension of utilities and pedestrian and bicycle facilities along a major transportation corridor.
- The site is zoned for residential use, although at a density substantially below the generally accepted transit oriented development (TOD) densities. The NC 54 East Corridor is included in the town’s Long Range Transit Plan. In that plan, the density proposed for the applicant’s property is about 25 dwelling units per acre.
- The applicant’s proposal is for a density of development consistent with TOD principles, but at a medium density that is consistent with the capabilities of the site.
  - The gross density of Aydan Court is 10 dwelling units per acre. (59 units divided by 5.8 acres).
  - The design density of Aydan Court is 15 dwelling units per acre. (59 units divided by 4 acres, the area of the site not within the RCD overlay zone.)

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**SUMMARY**

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*This site is one of the few remaining undeveloped locations on a major transportation corridor suitable for multi-family development that meets Comprehensive Plan goals for diversity of housing, proximity to retail and other services, and easy access to the bus system.*

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**PLANNED DEVELOPMENT REQUIREMENTS (LUMO §6,18)**

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PD-H developments are required to meet a number of standards. The five primary standards that apply to all Planned Developments are reproduced below along with information and statements from the applicant demonstrating that the application satisfies these requirements.

**(a) General**

Planned developments shall be appropriately located with respect to intended functions, to the pattern and timing of development indicated in the Comprehensive Plan, and to public and private facilities existing or clearly to be available by the time the development reaches the stage where it will be needed.

*The proposed residential development is located on a 5.8-acre site on the north side of NC 54, east of Meadowmont. During the last decade, development and redevelopment of other properties on both sides of NC 54 within Chapel Hill's jurisdiction and within the Urban Services Boundary have extended OWASA public water and sewer lines to within one lot of the proposed development. The applicant proposes to extend public water and sewer service to the site. The site is readily served by Chapel Hill public services including sanitation collection, police, and fire services.*

*The applicant has proposed and NCDOT has preliminarily approved a new median break directly opposite the Aydan Court site that aligns with the current entrance to Downing Creek. That break will provide for a left turn and a U-turn for drivers traveling both east and west on NC 54.*

- *This will provide a safe access to the site for Aydan Court traveling east on NC 54 and will provide an easy U-turn for other eastbound traffic including police, solid waste, and fire vehicles.*
- *Traffic will not need to go to the median cut at Huntingridge Road (entrance to Falconbridge) on the eastern side of Upper Little Creek to safely and conveniently turn around.*

*Community retail services for Aydan Court residents are available at Meadowmont as are public park and greenway systems. In summary, the necessary public services and desirable private development is nearby and can easily accommodate the proposed development.*

**(b) Relation to Major Transportation Facilities**

Planned developments shall be so located with respect to major street, bicycle, and pedestrian networks, or public transportation facilities, and shall be so designed, as to provide direct access to the development without creating traffic in residential neighborhoods outside the development.

*Vehicular access to the site is from NC 54, an arterial roadway providing access to Chapel Hill and The University of North Carolina – Chapel Hill from Interstate 40 and the southeastern portion of Durham. The applicant proposes to extend the public trail system (bicycle and pedestrian) from the eastern edge of Meadowmont along NC 54 (in front of a parcel of land owned by UNC) to the eastern edge of the proposed development and thereby complete the trail system within Chapel Hill along the north side of NC 54.*

*The applicant proposes to provide vehicular, pedestrian, and bicycle access to the adjoining UNC property, which is expected to develop with university related activities in the future.*

*This development will not provide any direct access to an existing or proposed residential neighborhood and therefore complies fully with this standard.*

**(c) Relation to Public Utilities, Facilities, and Services**

- (1) Planned developments shall be so located in relation to sanitary sewers, water lines, storm and surface drainage systems, and other utilities and installations that neither extension nor enlargement of such systems will be required in a manner, form, character, location, degree, scale, or timing resulting in higher net public cost or earlier incursion of public cost than would development generally permitted under existing zoning and development policies.

*The applicant will extend existing public water and sewer service to the site at cost to the applicant. All other utilities such as electric, gas, and communication lines are either located at the site or will be extended to the site. Costs for these services shall be borne by the developer, except to the extent that the appropriate utilities cover some costs of providing new service to development.*

*Stormwater management will be provided in accordance with currently applicable Chapel Hill Town Standards. The property will pay to the new Stormwater Utility the annual fees due under the current and future fee schedules adopted by the Utility and the Town of Chapel Hill.*

*The proposed development will not result in higher net public cost or earlier incursion of public cost than would development generally permitted under existing zoning and development policies.*

- (2) Such developments shall be so located with respect to necessary public facilities (as for example, schools, parks, and playgrounds in the case of Planned Development-Housing) as to have access to such facilities in the same degree as would development permitted under general regulation, and shall be located, designed, and scaled so that access for public services is equivalent to, and net cost for such services is not greater than, access and net costs for public services for development permitted under general development standards.

*The proposed residential development will have access to all public facilities in the same manner and without additional public cost as would any other residential development at this location.*

- (3) However, planned developments failing to meet these criteria may be approved if applicants (a) provide private facilities, utilities, and services approved by appropriate public agencies as substituting on an equivalent basis, and assure their satisfactory continuing operation, permanently or until similar public utilities, facilities, or services are available and used; or (b) make provision acceptable to the Town for offsetting any added net public cost of early commitment of public funds made necessary by such development.

*Solid waste management collection services not provided as a standard service by the Town will be obtained first by the developer and thereafter by the Condominium Association(s).*

*There will be no services required or costs incurred by the Town other than the normal services provided to new multi-family developments and all other properties in Chapel Hill.*

- (4) In determining net public costs, the difference in anticipated public installation, operation, and maintenance costs and the difference in anticipated public revenue shall be considered. Expenses involved in making such determinations shall be paid by the applicant. Determinations shall be made by the Town or by experts acceptable to the Town.

*Fees paid to OWASA and the Stormwater Utility are designed to off-set costs incurred by these public agencies in the provision of facilities and services. The required public road improvements will be installed by the developer.*

**(d) Relation to Physical Character of the Site**

The Aydan Court site is currently vacant. The UNC property to its west has two small older homes that are now vacant. These homes appear to date to the mid-1900s when the property was a farm. There are no buildings nearby on the Army Corps of Engineers' property to the east. Development on the south side on NC 54 is between 250-300 feet away and not visible from the interior portion of the Aydan Court site.

The site has four (4) primary natural characteristics.

- (1) Visibility - Because of the cut embankment created by the construction of NC 54, the internal portion of the site is minimally visible by those traveling on NC 54.
- (2) Plateaus – Two natural plateau features extend from east to west. The sides of these plateaus have slopes that are primarily 15-25% with small areas of slope between 25-30%. The elevation change from top to bottom of these side slopes is generally 8–12 feet. Thus these slopes and the elevation change are perfectly suited for one floor of building structure to be used for under building parking. A second benefit of this condition is that the building foundations become the retaining structure.
- (3) Drainage swales and streams – The site contains 2 minor drainage features. One is an intermittent stream at the front of the site that handles water only during and immediately after storm events. It carries water from the site, but the larger share of water it carries is from the roadway shoulder swales of NC 54. This is the lowest category drainage feature that requires a Resource Conservation District buffer in the Town of Chapel Hill Land Use Management Ordinance. The second drainage swale is categorized as an “ephemeral” stream. This is a drainage feature that also carries water only during and after a storm event.
- (4) Existing Vegetation – The site has a mixture of evergreen and hardwood trees. The more significant larger trees and the more noticeable older hardwood trees are located at the front of the site and many are within the RCD buffer that is 100 feet wide across most of the front of the site.

The plan for Aydan Court places development to the interior of the site, on the north side of the intermittent stream buffer. The location of parking in a ground floor under both the town home and condominium flats building allows the side slopes of the plateaus to accommodate the change of elevation within the site.

Connectivity to UNC – Ephemeral Stream Disturbance.



A vehicular and pedestrian connection to the University of North Carolina at Chapel Hill Foundation Inc. property is desired by the Town Council and LUMO policies and regulations. This connection needs to be located toward the rear of the Aydan Court site to permit the UNC property flexibility in design for an eventual connection to both the Aydan Court site and Meadowmont to its west. Because the site has a small wetlands at the northern corner with its associated RCD, a connection that permits an effective grade change between the applicant's site and the UNC property is proposed in the location of the ephemeral stream corridor thereby creating an internal drive arrangement that is located in the ephemeral stream corridor.

#### Development on Steep Slopes

The applicant will use a combination of building foundation walls and selectively located retaining walls to stabilize slopes and manage the change of grade. The detailed materials requested by the LUMO to show how this will be done will be provided at the ZCP Final Plans submission and review process.

#### **(e) Relation to Energy Use**

Planned developments shall be so located with respect to climatic elements, including solar access, and shall be so designed, as to provide for and promote energy conservation and efficient use for energy. Applicants are encouraged to consider the use of solar roofs, state energy guidelines, and measures prescribed in Section 5-125 of the Town Code of Ordinances.

*In accordance with Resolution 2007-04-23/R-9, adopted by the Town Council on April 23, 2007, the proposed Aydan Court development will meet the goal of a 20% reduction in energy consumption. Repeated from page 5 of this report are the basic tenants of the Aydan Court energy reduction approaches:*

- ☑ Energy Efficiency: Aydan Court will reduce energy use by 20% or more above the North Carolina baseline requirements. This goal will be achieved through a combination of energy efficient technologies and building design features, including more efficient HVAC, better insulation, careful selection of lighting and controls, and a better building envelope.
- ☑ Renewable Energy and Carbon Footprint: Renewable energy will be purchased from NC Greenpower by the Aydan Court HOA for all common areas. An education program will encourage condominium and townhome owners to also purchase NC Greenpower.
- ☑ Operations Management Plan: Aydan Court will have an on-going commitment to sustainability and reduced carbon footprint over time through resident education and building operations.

*The form of the Aydan Court development, attached single-family homes and buildings with single floor homes (flats), is substantially more energy efficient than single-family detached homes because the design creates fewer exposed exterior walls per dwelling unit. This condition provides extra levels of air and material insulation for both heating and cooling cycles, thereby less energy is consumed in these processes.*

*While not often recognized as an element of energy efficiency, the development of garaged parking and parking underneath the buildings with flats (horizontal dwelling units) also promotes energy conservation. These parking designs significantly reduce the amount of imper-*

*vious surface on the site, thereby reducing heat absorbed and reflected heat around buildings and reducing the heat demand on the HVAC systems. In addition, vehicles stored out of the sun create less demand on the automobile air-conditioning systems and thereby result in the consumption of less fuel and the exhaust of less heat from these vehicles when in use. While this may seem to be a minor point in energy efficiency, the Town's goals for reduced impervious surface for water quality and vegetation retention have this ancillary added energy reduction benefit.*

## **Design Guidelines Statement of Compliance**

### Applicant Statement of Compliance

The proposed development will meet or exceed the Town of Chapel Hill Design Guidelines and the LUMO standards when developed. Guidelines of particular note for this application are discussed below.

### Goals for the NC 54 East Entranceway

A brief history of the NC 54 East Entranceway goals is needed to put the Aydan Court development in the appropriate context with respect to the design and use goals of that document.

NC 54 is one of the 3 major entry roadways into Chapel Hill. The applicant's property is the first property within the Town limits when approaching on NC 54 from Durham, NC. As such it is of particular importance to all residents and visitors of Chapel Hill.

In 1995, preceding the approval of Meadowmont, an NC 54 Entranceway Task Force considered the importance of this entry route into Chapel Hill. The Task Force produced a set of recommended goals that were adopted by the Town Council as a component of the Chapel Hill Comprehensive Plan. That document is attached as Appendix A.

The task force was charged with looking broadly at the corridor and specifically with providing recommendations useful to the Council as it considered the Meadowmont proposed development. The task force contained members of the Planning Board, interested citizens and residents with particular knowledge and expertise in environmental planning and design. Project consultant Scott Radway was a member of this task force in his capacity as a Planning Board Member.

The primary assumption in NC 54 East Entranceway Goals statement is that any/all development in the corridor will be mixed use, regardless of size and location. This is not a valid assumption for small properties.

Aydan Court is a small site with virtually no visibility from NC 54.

- Retail development on the Aydan Court site is not appropriate. It is not a site that could be successfully used for retail activity. Nor should it be. Meadowmont, the retail and office town center within this portion of Chapel Hill provides the goods and services that will be needed by Aydan Court residents.
- Office development on the Aydan Court site is also inappropriate. A comparison of the relative affects of the same amount of office floor area as are proposed for Aydan Court's 59 dwelling units shows that office development would have a substantially negative impact on parking and peak hour traffic.

Comparison of Office vs. Residential Use  
 Parking and Traffic Impact

USE	Floor Area	Parking Spaces	Peak Hour Trips
Aydan Court 59 Residences	174,500	124	31 <sup>3</sup>
Office Development	174,500	610 <sup>4</sup>	331 <sup>5</sup>

- Mixture of Uses – Retail as a component of a small residential development would be unsuccessful because of the limited number of customers. Office as part of a residential neighborhood can work in some locations, but this does not seem to be one such situation.

54 East, the office, retail, and residential development currently under construction at the on the western side of NC 54 between Hamilton Street and Finley Golf Course Road is the type of site and location suited for a mixture of uses.

**For the reasons discussed above, the applicant proposes only residential uses for Aydan Court.**

The accompanying copy of the *GOALS FOR THE NC 54 EAST ENTRANCEWAY* identifies the goals and design objectives that are pertinent to the Aydan Court proposal as well as those that are not relevant.

<sup>3</sup> PM peak trips for 59 dwelling units with the trip tables from the Aydan Court TIA prepared by HNTB North Carolina, PC.

<sup>4</sup> 3.5 spaces per 1,000 SF

<sup>5</sup> 1.91 peak hour trips per 1,000 SF – ratio obtained from Woodmont TIA prepared by HNTB North Carolina, PC, the consultant hired by the Town of Chapel Hill to perform both the Woodmont and the Aydan Court Traffic Impact Assessment reports.

### NC 54 Visual Corridor

At the present time the site is wooded, with the cleared NC 54 right-of-way in front. The roadway cut into the hillside along the front of the property is shown in the photo below.



Figure 1 – Existing Property Edge

The applicant's proposed entrance to the site is approximately in the center of this hillside, approximately 140 feet to the east of the current Chapel Hill Town Monument that is located within the NC 54 right-of-way.

By entering the site at this location (the paired left turns in the NC 54 median provides for safe turning motions) the design leaves the entranceway vegetation features almost entirely in place and permits the Chapel Hill entry monument to remain in its present location and a prominent visual feature.

The intermittent stream and the required buffer that lie immediately behind this embankment ensure that the significant backdrop of trees will stay in place immediately adjacent to NC 54.



Figure 2 – Intermittent Steam – NC 54 on Left



Figure 3 – Stream Embankment Looking West toward NC 54