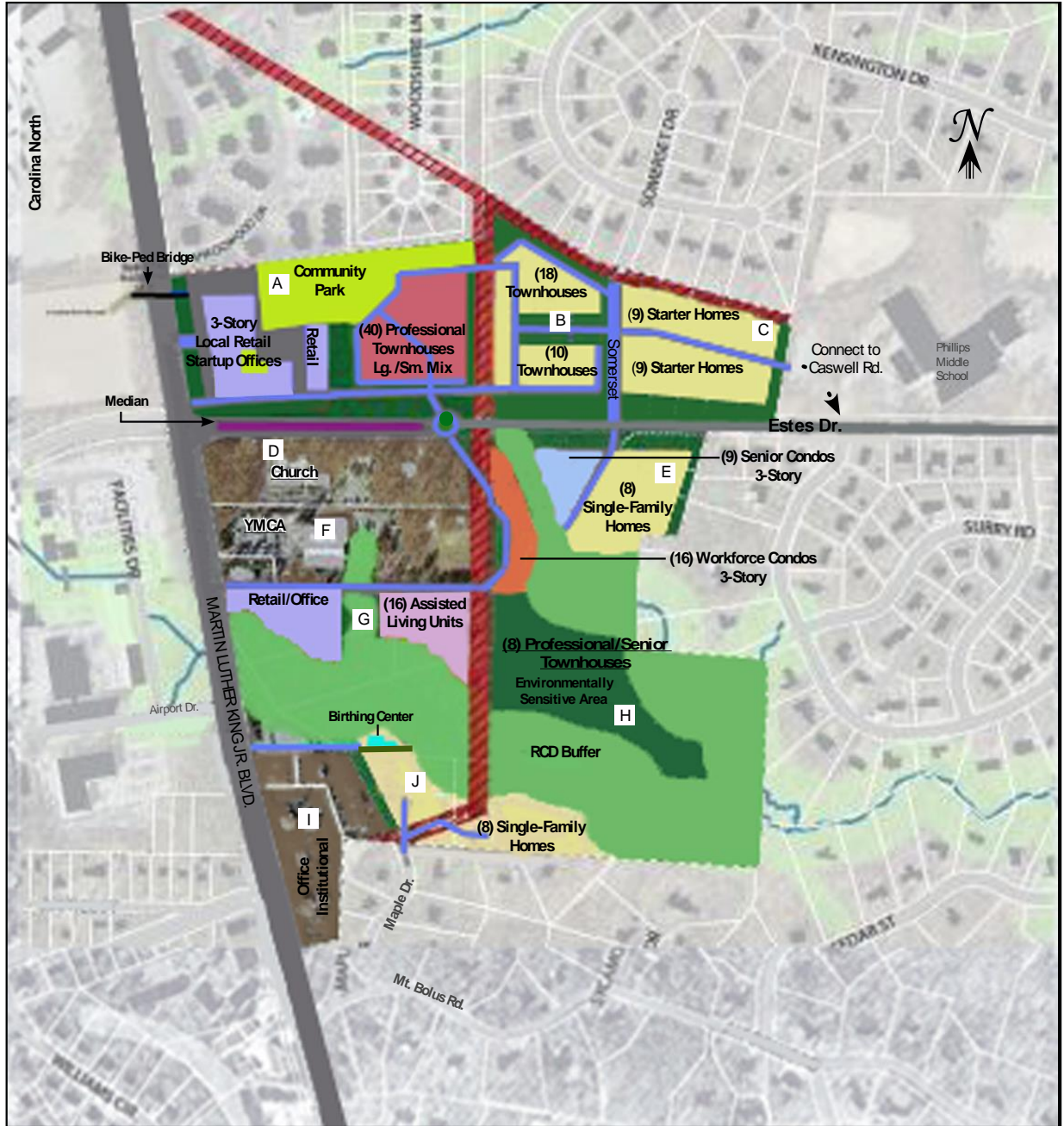


# Alternate Medium-Density Plan for Central West

November 24, 2013



- RCD Buffer
- Greenways
- Existing Roads
- New Roads
- Community Park
- Median
- Ped-Bike Bridge
- Powerline Easement
- Proposed Connecting Road

## Executive summary

This medium-density vision for the Central West area (MLK Blvd and Estes Drive) is an alternative to the high-density small area plan and concept map developed by the Central West Steering Committee. Smart, responsible development is good for the Town of Chapel Hill, its residents and landowner interests. This plan is also in accordance with the Principles and Objectives of the plan proposed by the Steering Committee. We are proud that this document encapsulates the best of what we have learned during the Central West process along with the great preponderance of comments heard from the public at the outreach workshops, Public Hearing and letters to Town Council. The purpose of this vision document is to guide potential development on land in the Central West area. While it is not a substitute for parcel-by-parcel permitting and zoning, this small area plan seeks to ensure that even where development happens in a piecemeal fashion, the Central West area is developed consistent with the vision outlined herein.

This proposed plan includes the following components to ensure compatible, smart, economically viable and environmental appropriate development.

### Retail/Office

- Modest ground floor retail spaces with 2nd and 3rd floor office space in the area north of Estes would provide 200,000 square feet of retail, restaurant and office space. Since the Town already provides business incubator space, this plan incorporates flexible business startup space.
- Buildings on the east side of MLK Blvd in the NW quadrant would be limited to 3 stories to remain below the existing tree canopy and to mirror the planned buildings of Carolina North on the west side of MLK Blvd. This area should also mirror the 60-foot setback decided for Carolina North.
- Retail/office space in the SW quadrant will be stepped back from the street as is currently the situation for office space on MLK Blvd across from Barclay Road.
- The focus of retail, restaurant and office space should be on facilities that are oriented towards use by the local community and people at Carolina North.
- This plan avoids use of the term “mixed use” space as this designation results in unpredictable use and could result in coverage of up to 70% of available land with impervious surfaces, seriously affecting the cost and effectiveness of stormwater management.

### Housing

- This plan includes 84 residences that could serve as professional housing, 8 residences that could serve as professional or senior housing, 9 senior condos and 16 assisted living units for senior citizens or persons with disabilities.
- The plan includes 65 residences that qualify as affordable/workforce housing. This represents 42% of proposed housing, far exceeding the Town's goal of 15% for affordable housing units. We believe that market demand will allow these units to be more profitable for developers than fewer “McMansions” built on the same acreage.

### Compatibility with existing neighborhoods

- This plan proposes housing that will complement existing surrounding neighborhoods in terms of height and density.
- The plan includes an area for outdoor dining (similar to Weaver Street Market) adjacent to a 4-acre community park, as people would be more likely to dine here than along a busy street. The park would

become an amenity for the local community for picnics and social gathering. This area could have attractively designed stormwater facilities that encourage recreation.

- The inclusion of ground-floor local community-oriented retail and restaurant space with offices above will accommodate the needs of Central West residents, residents of surrounding neighborhoods and grad students and staff at Carolina North.

### **Mitigating traffic impact**

- This plan includes two new roads entering the Central West area from MLK Blvd, with one crossing the area to link up with Estes Drive and development in the NW/NE quadrants.
- This plan proposes employee parking underneath business buildings.
- This plan proposes limiting parking for new uses to encourage the use of public transit.
- Due to lower densities, fewer turning options will be needed to mitigate increased traffic.

### **Ensuring and enhancing pedestrian safety**

- This plan proposes a pedestrian and bicycle bridge across MLK Blvd to Carolina North's proposed bikeway across the street.
- This plan proposes that crosswalks be placed at all intersections and bus stops along Estes Drive. It recommends that the Town Council initiate a task force of parents and school administrators to identify specific improvements for Estes Drive near Estes Elementary and Phillips Middle Schools. Development in the Central West area should occur only after such improvements are finalized.
- This plan endorses a pedestrian and biking plan that will include all intersections in the impact area.
- The moderate intensities of development in this plan will translate to a higher level of pedestrian safety crossing the street at cross walks and at intersections.

### **Stormwater management**

- Given the constraints of a difficult topography near an EPA 303 (d) impaired Bolin Creek, this plan weights stormwater as a key factor and an important constraint on the density of development for Central West.
- This plan proposes the development of a Small Area Stormwater Management Master Plan for all the undeveloped land in the focus area in advance of rezoning. The plan includes hydrologic analyses of the existing conditions (pre-development) and the undeveloped conditions (forested) for each project in the undeveloped Central West land, as well as an analysis of the impact of proposed development on surrounding neighborhoods.
- The latest scientific literature tells us that keeping stormwater on site is of paramount importance. Given repeated flooding in this area, special care should be taken and the highest and best practice standards should be used. We can prevent further degradation of our developed watershed by making sure each local plan requires that flows, volumes and durations remain unchanged following construction.
- This plan proposes a tax district to pay for stormwater facilities.
- Stormwater management shall be integrated into the site, building, and landscape design of all new development and redevelopment projects. The conceptual stormwater management plan shall include hydrologic analyses of the existing conditions (pre-development) and the undeveloped conditions (forested). Additionally, the plan will strive to make the proposed hydrological conditions match the undeveloped conditions, to the maximum extent practicable.

- This plan’s vision includes coordination between the Town and Orange County’s Soil and Erosion Division with inspections during the construction phase to ensure that soil erosion is minimized and stormwater stays on site before the management plan is approved and put in place.

**Preservation of green space (existing vegetation and trees)**

- This plan proposes that any construction placed in the SE quadrant be situated well away from ridge edges in order to minimize erosion and future stormwater problems.
- This plan suggests that walking trails in the SE quadrant that connect to Caswell be signed to indicate public accessibility.
- This plan proposes that natural surface bicycle paths/walking trails should run on the SW quadrant at least 50 feet away from creeks and link to existing trails.
- The existing trees and undergrowth should be preserved for the tree buffers in all quadrants.
- Buildings will be built underneath the tree canopy to fit in with the surrounding vegetation and terrain.
- We favor 15% of green space set aside for each project exclusive of unbuildable or sensitive areas. We prefer to see a higher percentage set aside for green space.

**Tax revenue estimates**

The overall goal of this small area plan is to ensure that the mix of 8 types of residence units provides at least a financial break-even for the Town when the cost of Town services to these residences are subtracted from the property tax revenue generated by these residences. The amount of excess property tax revenue minus town services provided by the 200,000 square feet of total business space can be estimated by the Town, but it will be in relative proportion to the 270,000 square feet of business space in the Steering Committee Central West Plan compared to the 200,000 square feet of this plan; this will produce a substantial revenue stream to the Town.

**Big picture summary and recommendations**

- This plan offers uses compatible and consistent with the Steering Committee’s principles and the context and constraints of the Central West impact area.
- It is only by making choices and assumptions that the economic benefits and transportation impacts of a plan can be measured and estimated. This plan has been analyzed and tested based on data provided by the Town’s transportation staff and the model the Steering Committee adopted for economic analysis.
- This is a vision plan, not a specific mandate for future development. If the Town Council approves the small area plan for inclusion into the Comprehensive Plan, it will serve as a guide for future development for the area as a whole.
- A vision plan can only be implemented when the Town applies the vision to individual projects as they come through the Town’s permit and public hearing processes.
- This plan recommends that development in the focus area north of Estes Drive occur in tandem with the development of the Carolina North new campus and that the Town does not explore removing or lessening the restrictions currently in place for the Airport Hazard Zone while the Airport is in operation.

## Introduction

The citizens of Chapel Hill understand that the Town Council requested a “small area plan” for the Central West Area, which the Council will consider on November 26, 2013. To ensure that the Central West Small Area Plan represents the interests of the Town’s residents, smart, compatible development, and a functional plan, Town residents have been actively engaged in the process. Although we support a number of proposals in the plan submitted by the Central West Steering Committee, we believe some basic premises in that plan are not viable for this area. We support more intensive (dense/mixed use) urban development in Chapel Hill where it fits into our community. Downtown and the 15-501 corridor are the most promising locations for this kind of development.

The Town has studied how much residential, retail, office, and commercial space exists in Chapel Hill, the vacancy rates, and how much of each type of space has already been approved by the Town Council but not yet built. This Town-wide information should have guided the Steering Committee’s discussion of what development is most needed for Central West, but the Committee did not pursue or use this information. Information provided by developers in response to questions from the Steering Committee co-chairs indicated that there is no large market for office and retail; it must also be noted that much commercial space is empty in Downtown, Rams Plaza, the North Mall, etc.

Development in the Central West area must respect the context of this area: an Estes Drive that is already overburdened; much more traffic expected from the 800,000 square feet of development already approved at Carolina North; two public schools and the library, for which safe and ready access is a top priority; and many well-established surrounding residential neighborhoods. New development at Central West must have limits on the number of new residents and on the amount of business space to make development projects successful and to ensure that traffic in the area moves effectively and safely.

The following five considerations are an excellent basis for evaluating the quality of proposed developments: the character of an area, need for development (demand analysis), cost effectiveness of development, transportation (broadly construed) and the environmental Impacts of development. Citizens have accordingly developed an alternative plan, taking into account suggestions and input received from the public, Steering Committee discussions and experts on issues such as traffic analysis.<sup>1</sup> We believe that this alternative plan meets the Principles and Objectives contained in the Steering Committee plan, principles which we endorse (Appendix 1).

Assumptions concerning housing (Appendix 2) and comparisons of the impact of design elements in this plan with two plans considered by the Central West Steering Committee to date (Appendix 3) show what happens when key parameters are modeled, illustrating how this alternative vision would add the least number of auto trips and additional residents. In addition, this plan endorses a pedestrian and biking plan that will include all intersections in the impact area.

We request that this document be considered by the Town Council for the Central West Small Area Plan.

---

<sup>1</sup> The Central West Citizens group is composed of homeowners and renters from over 18 neighborhoods in Chapel Hill.

## Explanation of this plan and concept map

To facilitate comparison with the Steering Committee plan, please note:

- NW quadrant: tract A
- NE quadrant: tracts B and C
- SW quadrant: tracts D, F, G, I and part of J
- SE quadrant: tracts E, H and part of J

### Retail/office

- The focus of retail and office space should be on facilities that are oriented towards use by the local community, such as restaurants, coffee shop, grocery store, dry cleaners, drugstore, hardware store, etc.
- Modest ground floor retail/restaurant spaces with 2nd and 3rd floor office space, not to exceed 1/3 of the NW quadrant, having 60,000 square feet of retail/restaurant space on the ground floor, 60,000 square feet of flexible office space on the second floor and 60,000 square feet of flexible business startup space on the third floor. A second smaller retail/restaurant building neighboring the main commercial building provides an additional 20,000 square feet of business space, equaling a total of 200,000 square feet of business space in the area north of Estes.
- This plan does not propose business incubator space as the Town already has that covered.<sup>2</sup> Rather, this plan proposes what the Town currently needs —"startup" space that can be rented by a new business that has completed the incubator stage and has received initial funding, often from a venture capital or angel investor, to proceed to market with product development. Startup space is flexible (as in room for rapid expansion or repurposing), inexpensive office space that also provides shared amenities such as conference rooms, a showroom, lobby with attendant and quality waiting space for important visitors/investors/prospects and so forth. Some startups also require "wet" laboratory facilities for product development. Currently there is no such space for rent in Chapel Hill and none even being planned.
- Primary store frontage in the NW quadrant will face east toward open space/park and the town houses with easy access for pedestrians and bicycles. It is limited to 3 stories to remain below the existing tree canopy and to mirror the planned buildings of Carolina North on west side of MLK Blvd.
- Retail/office space in the SW quadrant will be stepped back from the street as is currently the situation for office space on MLK Blvd across from Barclay Road.
- This plan avoids use of the term "mixed use" space as this designation results in unpredictable uses and could result in coverage of up to 70% of available land with impervious surfaces, seriously affecting the cost and effectiveness of stormwater management (Appendix 4).

### Housing

#### Professional housing

- Tracts A, B and C in the NW/NE quadrants would focus on R2 density garden apartments/ town houses (intended for families and post-graduate professionals) with communal central garden space.
- The SE quadrant includes 24 single-family homes/townhouses.

---

<sup>2</sup> <http://www.launchchapelhill.com/about>

### **Senior and/or disabled housing**

- The SE quadrant includes 9 3-story senior condo units. We believe that higher senior housing could be problematic for residents confronted with possible power outages that would affect elevators.
- The SE quadrant also includes 8 townhouses that could be either professional or senior housing.
- The SW quadrant includes 16 assisted living units for seniors and/or disabled persons.

### **Affordable/workforce housing**

- The following working definition has been used to define affordable/workforce housing: residences with a property value that is 2/3, or less, of the average assessed property value of Chapel Hill residences (\$231,000 or less).
- We support a joint partnership with UNC to develop workforce housing.
- The plan includes 65 homes that qualify as affordable/workforce housing. This represents 42% of proposed housing, exceeding the Town's goal of 15% for affordable housing units. These include:
  - 20 small professional townhouses in tract A (value of \$231,000)
  - 16 workforce condos in tract E (value of \$216,000). Density will depend on what detailed assessments reveal from the topography and stream analysis; stream crossings to be avoided. Overall density of site may be low due to these environmental constraints.
  - 9 senior condos in tract E (value of \$216,000)
  - 16 assisted living units for seniors and/or disabled persons in tracts G and H (value of \$216,000) plus 4 caretaker residences (value of \$144,000).

### **Compatibility with existing neighborhoods**

- The MLK Blvd/Estes area is too small to become a center of urban activity and atmosphere in itself (e.g., a Southern Village). Also it is too far from the parts of Town which do have a real potential to become urban centers, such as Downtown and the 15-501 corridor.
- This plan proposes housing that will complement existing surrounding neighborhoods in terms of height and density.
- The plan includes an area for outdoor dining (similar to Weaver Street Market) adjacent to the 4-acre community park, as people would be more likely to dine here than along a busy street. The park would become an amenity for the local community for picnics and social gathering. This area could have attractively designed stormwater facilities that encourage recreation.
- The inclusion of local community-oriented retail, restaurant and office space will accommodate needs of Central West residents, residents of surrounding neighborhoods and people at Carolina North.

### **Mitigating traffic impact**

- Primary vehicle access (including service access) to the retail/office in the NW quadrant is approximately 1/3 of the way down the property on MLK. This new road has right in, right out access to MLK Blvd.
- Add roundabout (located between the MLK/Estes and suggested Somerset/Estes traffic lights near the power line easement) to line up with new road from the south that offers a new YMCA Estes exit and makes an entrance to the professional housing on the NW quadrant.
- Added stoplight at Somerset with pedestrian control is to be computer linked to the Estes/MLK stop light; the new Estes roundabout provides easy exit for cars leaving the NW quadrant. Turn lanes on Estes may be appropriate for Somerset as well.

- New road access provided off of MLK Blvd just south of the YMCA; to rear of the YMCA property on east side of power line, the new road curves north towards Estes Drive and follows contour lines staying well off the stream and joins the new roundabout at the eastern border of the Amity Church property, opposite the NW quadrant.
- Endorse the Committee Bike-Pedestrian Plan which includes an off-road bike path, improved cross walks near bus stops and schools, and continuous sidewalks with bike-ped connections to the larger impact area.
- Retail employee and office employee parking should be underneath the business buildings with service access and customer vehicle parking on the west side and additional customer vehicle parking on the east side of the buildings, with all parking hidden from view from MLK and Estes by existing trees.
- This plan proposes limiting parking for new uses to encourage the use of public transit.
- Any rezoning of property in this area should be contingent on a new, up-to-date traffic study for the Central West Impact Area, including the effect of traffic from other major Town corridors with active small area reviews, and the associated constraints that Estes Drive's capacity would have on any future development in Central West. However, since traffic from the other 5 focus areas will have a major impact on Central West, what is really needed is a comprehensive up-to-date traffic analysis that would inform the Town of conditions in the Central West impact area as a result of the 5 million square feet of new developments planned by the Town in the other 5 focus areas.

### **Ensuring and enhancing pedestrian safety**

- This plan proposes a pedestrian and bicycle bridge to cross MLK Blvd, rising from the open space/park within the NW quadrant and crossing MLK to the central mall/park within the Carolina North campus. This bridge is to additionally provide linked access to the second story of the retail/office building, with access to a pedestrian and bike friendly elevator adjacent to the building. The bridge would be positioned to link up with the Carolina North proposed bikeway, and bikeway on the east of MLK.
- The plan proposes that crosswalks be placed at all intersections and bus stops along Estes Drive. It recommends that the Town Council initiate a task force of parents and school administrators to identify specific improvements for Estes Drive near Estes Elementary and Phillips Middle Schools. Development in the Central West area should occur only after such improvements are finalized.

### **Stormwater management**

- Given the constraints of a difficult topography near an EPA 303 (d) impaired Bolin Creek, this plan weights stormwater as a key factor and an important constraint on the density of development for Central West. In addition, we expect and must prepare for both periods of drought and periods of increased storms (and increased stormwater volume) in an increasingly warmer, more dynamic climate.
- Therefore structured parking, limiting parking spaces, and limiting the amount of impervious surfaces allowed are key in project consideration and review (see Appendix 4).
- To comprehensively address stormwater management for the area, this plan proposes the development of a Small Area Stormwater Management Master Plan for all the undeveloped land in the focus area in advance of rezoning. The plan includes hydrologic analyses of the existing conditions (pre-development) and the undeveloped conditions (forested) for each project in the undeveloped Central West land, as well as an analysis of the impact of proposed development on surrounding neighborhoods.
- Given repeated flooding in this area, special care should be taken and the highest and best practice standards should be used and apply to each local project. The most up-to-date scientific information



tells us it is preferable to approach stormwater management through a project-by-project approach by keeping stormwater on site. We can prevent further degradation of our developed watershed, by making sure each local plan requires that flows, volumes and durations remain unchanged following construction.

- This plan proposes a tax district to pay for stormwater facilities.
- This plan would limit impervious surfaces to under 50%, unlike the Central West plan which would allow up to 70% impervious surface and over 50% uncontrolled run-off. Appendix 4 illustrates the impact of impervious surface on stormwater runoff.
- Stormwater management for each individual project should be integrated into the site, building, and landscape design of all new development and redevelopment. At a minimum, the proposed hydrology conditions will not exceed the pre-development (existing) conditions. Additionally, in this plan's vision, the proposed hydrology conditions match the undeveloped conditions to the maximum extent practicable.
- This plan's vision includes coordination between the Town and Orange County's Soil and Erosion Division with inspections during the construction phase to ensure that soil erosion is minimized and stormwater stays on site before the management plan is approved and put in place.

### **Preservation of green space (existing vegetation and trees)**

- This plan honors environmentally sensitive and valuable areas of mature forest, pristine creeks and steep vegetated topography at the center of Chapel Hill as a legacy for current and future generations.
- The existing trees and undergrowth should be preserved for the tree buffers in all quadrants.
- Buildings will be built underneath the tree canopy to fit in with the surrounding vegetation and terrain.
- The plan proposes that any construction placed in the SE quadrant be situated well away from ridge edges in order to minimize erosion and future stormwater problems.
- The plan suggests that walking trails in the SE quadrant that connect to Caswell be signed for public accessibility.
- The plan proposes that natural surface bicycle paths/walking trails should run on the SW quadrant at least 50 feet away from creeks and link to existing trails.
- If a land swap in the SE quadrant (tract H) were considered agreeable by the landowners and Town, consideration could be given to partnering with an area nature organization to enhance conservation use of the area and preservation of the natural environment.
- We favor 15% of green space set aside for each project exclusive of unbuildable or sensitive areas. We prefer to see a higher percentage set aside for green space.



Ridge view in SE quadrant



Dry Oak/Hickory mixed forest in SE quadrant

## **Tax revenue estimates**

- To estimate how much additional tax revenue development at Central West would bring in, balanced against additional Town cost of services for this new development, the following elements must be considered: taxes paid by businesses, taxes paid by residents, Town services provided to residents and businesses, the number of new transit riders to and from Central West to reduce the total number of new automobile trips, costs of the new buses, drivers and maintenance to move these new passengers, bond payments, and so forth.
- The overall goal of this small area plan is to ensure that the mix of all residence units provides at least a financial break-even for the Town when the cost of Town services to these residences are subtracted from the property tax revenue generated by these residences. The amount of excess property tax revenue minus town services provided by the 200,000 square feet of total business space can be estimated by the Town, but it will be in relative proportion to the 270,000 square feet of business space in the Steering Committee plan compared to the 200,000 square feet of this plan.
- In addition, it should be noted that that the property taxes paid by residents of the 2000 acres containing 18 neighborhoods in the Central West impact area represent about 1/6 of all Town property tax income and therefore warrants serious consideration of the concerns and wishes of those residents.

## **Big picture summary and recommendations**

- This plan offers uses compatible and consistent with the Steering Committee's principles and the context and constraints of the Central West impact area.
- It is only by making choices and assumptions that the economic benefits and transportation impacts of a plan can be measured and estimated.
- This plan has been analyzed and tested based on data provided by the Town's transportation staff and the model the Steering Committee adopted for economic analysis. A comparison of the plan considered by the Central West Steering Committee with this plan shows what happens when key parameters are modeled, illustrating how our alternative vision would add the least number of auto trips and additional residents. In addition, the plan endorses a pedestrian and biking plan that will include all intersections in the impact area.
- This is a vision plan, not a specific mandate for future development. If the Town Council approves this small area plan for inclusion into the Comprehensive Plan, it will serve as a guide for future development for the area as a whole.
- A vision plan can only be implemented when the Town applies the vision to individual projects as they come through the Town's permit and public hearing processes.
- This plan recommends that development in the focus area north of Estes Drive occur in tandem with the development of the Carolina North new campus and that the Town does not explore removing or lessening the restrictions currently in place for the Airport Hazard Zone while the Airport is in operation.

## Appendix 1: PRINCIPLES AND OBJECTIVES

### PRINCIPLE 1: Create a Strong Sense of Place

The Central West Focus Area plan will promote the creation of a vibrant sense of place, respecting its character as a comfortable, tree-lined residential community, home to important Chapel Hill institutions, and a major gateway to Carolina North.

#### *Objectives for Principle 1*

- A. Recognize Martin Luther King, Jr. Boulevard as a primary gateway into town and provide a plan that develops it into an attractive, tree-lined, boulevard with a median, where the pedestrian and cyclist realms are protected by bollards, islands, and cycle-track curbing.
- B. Establish different characters for the Estes Drive and Martin Luther King, Jr. Boulevard street frontages. In order to enhance the unique character of each of these streets, create cohesive and distinct street profiles.
- C. Establish a local architectural vernacular appropriate to Chapel Hill that relates to the architecture proposed at Carolina North. Encourage the use of materials and plants native to North Carolina.
- D. Recognize and enhance the distinctive zones along Estes Drive: Estes Drive Extension, Estes Drive on the east side of Martin Luther King, Jr. Boulevard, the school area, the single-family neighborhoods in the area, and lower Estes Drive between the Public Library and Franklin Street.
- E. Encourage locally based businesses in the commercial area that provide services to the surrounding community.
- F. Develop building and road/streetscape design standards that extend north and south on Martin Luther King, Jr. Boulevard through the Impact Area.
- G. Place buildings along Martin Luther King, Jr. Boulevard, especially near to Estes Drive, that architecturally enhance the entranceway to the Carolina North campus. Connect the Carolina North pedestrian mall to a complementary, tree-lined lane on the east side of Martin Luther King, Jr. Boulevard.
- H. Plant trees at street edges and in medians.
- I. Enhance community space with colorful, attractive features, such as sculpture, tile-work, fountains, awnings, flower plantings, and trees.
- J. Minimize the visual impact of parked motor vehicles with, for example, structured parking, screening, and location.

### PRINCIPLE 2: Ensure Community Compatibility

Development will provide a graceful transition between the existing residential and institutional uses and the new uses evolving around the Martin Luther King, Jr. Boulevard/Estes Drive intersection near the Carolina North campus.

#### *Objectives for Principle 2*

- A. New development will minimize negative aesthetic and environmental impacts to neighborhoods.
- B. Build variable heights and densities that respond to existing land uses and natural features such as site specific terrain, tree height, and tree stands.
- C. Design gradual height and density transitions between new development and existing residential and institutional uses.

- D. Consideration should be given to allowing existing neighborhoods, especially near the new development, to construct ancillary apartment/cottage development on existing properties to increase density, while preserving existing character.
- E. Integrate the new development with existing neighborhoods. The first line in every new development, if adjacent to existing neighborhood buildings, will complement the character (e.g., scale, materials, and setbacks) of the neighborhood edge before transitioning to different style or housing type.

**PRINCIPLE 3: Create Social Connections**

Development should create places that foster a strong sense of community and allow people to meet, both formally and informally.

***Objectives for Principle 3***

- A. Encourage new retail and/or civic spaces and uses in the area that will promote social connections.
- B. Include a variety of public spaces for all ages (indoor or outdoor) at a variety of scales, with trees/vegetation, shade, and places for sitting.
- C. Locate retail and mixed use developments around public gathering spaces.
- D. Provide pedestrian and bicycle connections that encourage interpersonal connections to public gathering places and throughout the area.

**PRINCIPLE 4: Improve Physical Connections**

Multiple means of moving within and through the Planning Area should be incorporated into new development; explore improving physical connections between the Impact Area and the Town as whole.

***Objectives for Principle 4***

- A. Ensure interconnectivity among all modes of transportation (e.g., bike to bus transfers).
- B. Within the Impact Area create improvements to the pedestrian realm, to the extent possible, such as narrow vehicular lanes in contrast to wide greenways, bike tracks/lanes, and sidewalks/footpaths. The pedestrian realm is to be more connected, permeable, and dominant than the car realm.
- C. Create public spaces and buildings that are visible and easily accessible from streets, paths, and sidewalks.
- D. Provide a clear and coordinated place, speed, and way-finding communication system.
- E. Establish a connected street and trail network within new development.
- F. Provide vehicular access to Carolina North from Homestead Road to relieve traffic on Martin Luther King, Jr. Boulevard and Estes Drive.
- G. Make bicycle and pedestrian movement between Carolina North across Martin Luther King, Jr. Boulevard and Estes Drive to its eastern and southern neighbors easier and safer.
- H. Tie new paths and greenways into the Carolina North and town greenway systems and the Campus to Campus Connector.

**PRINCIPLE 5: Minimize Vehicular Traffic Impacts**

Recognize the limited capacity of the existing road network and favor developments that minimize negative impacts on vehicular traffic and quality of life in the area.

***Objectives for Principle 5***

- A. Calm traffic using a variety of means such as streetscape design, additional crosswalks, and landscaping, especially in the school walk zone.

- B. Improve Estes Drive to ensure safe orderly flow around stopped buses, utility trucks, and delivery vehicles.
- C. Plan significant improvements along Estes Drive to improve traffic flow and safety along its length, recognizing that different solutions will be needed for different segments of the road.
- D. Synchronize traffic signals to maximize vehicle flow at reduced speeds.
- E. Develop neighborhood retail (pharmacy, coffee shop, dry cleaner, etc.) in the area to capture neighborhood business, encourage walking, and reduce car use.
- F. Explore regional solutions for preventing Estes Drive from becoming a major commuting route for Carolina North.
- G. Where new streets are built, they should accommodate pedestrians, bicycles, vehicles and transit, recognizing that different streets will accomplish this in different ways.
- H. Encourage developers to mitigate the traffic that new development will cause.
- I. Consider reducing the speed limit along Estes Drive.

PRINCIPLE 6: Enhance the Pedestrian/Bicycle Experience

Build a high quality bicycle, pedestrian, and greenway system that ensures safe, comfortable, and convenient access to school, residences, and other destinations for those of all ages and abilities.

**Objectives for Principle 6**

- A. Create local destinations that make biking and walking in the area desirable, safe, attractive, and convenient.
- B. Ensure access to local destinations by creating (in the Planning Area) ADA-compliant public byways that, where necessary, are protected by barriers or landscaped buffers.
- C. Provide a network of bike and pedestrian paths, with a variety of types and surfaces, from paved trails near major roads to nature trails through wooded stretches.
- D. Create a network of off-road, down-lit multiuse paths through the area to connect residences, institutions, and other uses. Use solar lighting when possible.
- E. Pursue Safe Routes to School strategies and funding and work with the schools to minimize car trips to school within the walk zone.
- F. Ensure that all pedestrian crossings in the Impact Area are safe and well marked.
- G. Provide a paved sidewalk on at least one side of Estes Drive from Franklin Street to Carrboro.
- H. Provide paved sidewalks along both sides of Martin Luther King, Jr. Boulevard throughout the Impact Area.
- I. For new development and as streets are retrofitted, provide a planting median between sidewalks and the road and physically segregate bicycle lanes from automobile traffic.
- J. Ensure adequate widths for pedestrians and cyclists on sidewalks and bike paths.
- K. Over time, enhance bike and pedestrian safety of existing neighborhood streets.

PRINCIPLE 7: Improve the Transit System

Encourage uses and densities that will support improvements in transit service such as increased frequency, duration, and access.

**Objectives for Principle 7**

- A. Support new development in the Central West Focus Area with expanded hours and frequency, convenient bus stops, and destinations as density warrants, and explore expanded cross-town service and service to locations with jobs and retail.

- B. Support sufficient transit ridership by putting high density land uses nearest bus stops.
- C. Increase housing and mixed use density along existing bus routes, especially along Martin Luther King, Jr. Boulevard.
- D. Create useful destinations (such as retail community activities) that are accessible to and integrated with the transit system.
- E. Promote types of development that encourage and provide incentives for the use of public transportation and limited parking.
- F. Provide bus stops every quarter of a mile, preferably, fully furnished with benches, shade/shelter, and bicycle racks.
- G. Place crosswalks and traffic calming devices at all bus stops. Use devices such as pedestrian activated stop lights if there is not a traffic light to stop traffic. Put an island, or bollard refuge, mid-street if crossing more than two lanes.

**PRINCIPLE 8: Encourage a Diverse Mix of Uses**

Create a new mix of land uses that encourages walkable destinations.

***Objectives for Principle 8***

- A. Encourage retail uses that meet the needs of the local community.
- B. Foster a blend of services that promotes day-night uses.
- C. Encourage the design of buildings with flexible floor plans suitable for a variety of purposes.

**PRINCIPLE 9: A Diverse Population**

The area shall serve a broad socio-demographic range of Chapel Hill residents, students, workers, and visitors.

***Objectives for Principle 9***

- A. Ensure flexible plans that will recognize and address the needs of future generations of Chapel Hillians as they develop.
- B. Encourage residential and other uses that will accommodate the affordable, workforce, and market rate populations.
- C. Provide housing and amenities to attract a variety of ages, income levels, multigenerational family options, and ability groups.
- D. Provide a range of housing types (e.g., apartments, condominiums, townhomes, single family homes, retirement/senior housing, workforce and affordable housing, and rental and for sale) in the Planning and Impact Areas.

**PRINCIPLE 10: Respect Existing Neighborhoods**

Development patterns will respect the integrity of the well-established neighborhoods and enhance their character and quality of life.

***Objectives for Principle 10***

- A. Require graceful transitions between new development and existing neighborhoods including green/landscaped buffers between different building types.
- B. Locate greatest densities and heights in the areas towards to Martin Luther King, Jr. Boulevard transitioning to lower densities and heights near existing single-family neighborhoods.

- C. Favor development that does not increase vehicular traffic through existing single-family neighborhoods. Maintain safety for foot and bicycle traffic.
- D. Encourage multifamily housing to be designed in a manner that is compatible with adjacent residences.

**PRINCIPLE 11: Employ Environmentally Sound Practices**

Development will emphasize environmentally conscious design, maintenance, and operation of buildings and sites.

***Objectives for Principle 11***

- A. Maintain (or reestablish if needed) riparian buffers along streams with sufficient allowance for wildlife corridors.
- B. Minimize light, noise, air, and water pollution from development.
- C. Require new development to capture additional run-off on site and have landscape designs that use low-impact techniques for controlling stormwater and site water, such as rain gardens.
- D. Plan for maintaining a tree canopy cover in the Central West Focus Area. Plant new trees where necessary, especially to shade parking lots and paved areas, conserve soil, and provide other environmental services.
- E. Promote green building and construction standards. Encourage alternative low-carbon technologies, pervious pavement, and consider solar orientation and shading in all building design.
- F. Bury utility and power lines in new developments.
- G. Encourage the removal of invasive species and replant with native and non-invasive plant species and replanting unstable banks with native species.
- H. Minimize the “heat island” effect by avoiding dark, unshaded surfaces and employing such techniques as reflective roofs.

**PRINCIPLE 12: Feature, Repair, and Enhance Natural Resources**

Development will protect and relate to the area’s significant and character contributing natural features.

***Objectives for Principle 12***

- A. Enhance environmental assets by protecting steep slopes and waterways.
- B. Provide open space amenities, such as walks and trails, through the natural areas to connect the developed areas and provide recreational experience. Where necessary, build boardwalks and bridges for access across environmentally sensitive areas such as eroded, sloped, denuded, wet marshy areas, and clay soils.
- C. Use best management practices for handling and treating stormwater to maintain water quality and keep it on site to reduce erosion into creeks.
- D. In ecologically sensitive areas, encourage dense, clustered development, minimizing building footprints to preserve existing natural features.

**PRINCIPLE 13: Consider Economic Impacts in Development Decisions.**

As part of the planning process, consider the fiscal impact and economic viability of proposed development in the area.

***Objectives for Principle 13***

- A. Design for commercial success. Cluster retail development to create enough critical mass for the shops to succeed.

- B. In making land use recommendations, recognize the importance of economic viability for those who will build.
- C. Assess the impact of the plan on the Town's fiscal health.
- D. Assess the impact that development in the area will have on the Chapel Hill–Carrboro School System.



**Appendix 2: details on residential units**

<b>Tract</b>	<b>Residence Type</b>	<b># Res Units</b>	<b>Sq Feet per Unit</b>	<b>Stories per Unit</b>	<b>Stories per Bldg</b>	<b>Cars per Garage</b>	<b>Residents per unit</b>	<b>Total Residents</b>	<b>Assessed \$/Sq ft</b>	<b>Assessed \$ per Unit</b>	<b>Assessed \$/garage</b>	<b>Combined Assessed</b>	<b>Total Assessed</b>
A	Small Prof. Townhouse	20	1200	2	2	1	2	40	\$180	\$216,000	\$15,000	\$231,000	\$4,620,000
A	Large Prof. Townhouse	20	2000	2	2	1	3	60	\$180	\$360,000	\$15,000	\$375,000	\$7,500,000
B	Upscale Sr Townhouse	28	1800	2	2	1	2	56	\$250	\$450,000	\$15,000	\$465,000	\$13,020,000
C	Single Family Starter Home	18	1800	2	2	1	3	54	\$180	\$324,000	\$15,000	\$339,000	\$6,102,000
E	Workforce Condo	16	1200	1	3	0	3	48	\$180	\$216,000	\$0	\$216,000	\$3,456,000
E	Senior condo	9	1200	1	3	1	2	18	\$180	\$216,000	\$15,000	\$231,000	\$2,079,000
E	Large Single Family Home	8	2500	2	2	2	4	32	\$250	\$625,000	\$25,000	\$650,000	\$5,200,000
G&H	Senior Quad w/ caretaker	16	1200	1	1	0	2	32	\$180	\$216,000	\$0	\$216,000	\$3,456,000
		4	800	1	1	0	1	4	\$180	\$144,000	\$0	\$144,000	\$576,000
H next to E	Large Single Family Home	8	2500	2	2	2	4	32	\$250	\$625,000	\$25,000	\$650,000	\$5,200,000
H next to J	LSFH -> Birth Center	0	2500	2	2	2	0		\$250	\$625,000	\$25,000	\$650,000	\$0
J	Large Single Family Home	8	2500	2	2	2	4	32	\$250	\$625,000	\$25,000	\$650,000	\$5,200,000
Totals		155 Residential units	259200 units					408 Residents			Total Res Assessed: Average	Assessed: \$56,409,000	Assessed: \$363,929
42%	Affordable:	65											

### Appendix 3: Comparisons of Central West Concept Plans

<b>Totals for all tracts</b>	<b>Alternative Medium-density Plan</b>	<b>Central West Small Area Plan</b>
Total daily auto trips	3533	6668
Business square feet	200,000	270,000
Number of residential units	155	620
Residential square feet	260,000	558,000
Number of residents	408	1545
Maximum height	3 stories	8 stories

Appendix 4: Comparisons of impervious surface

Impact of Imperviousness on Runoff

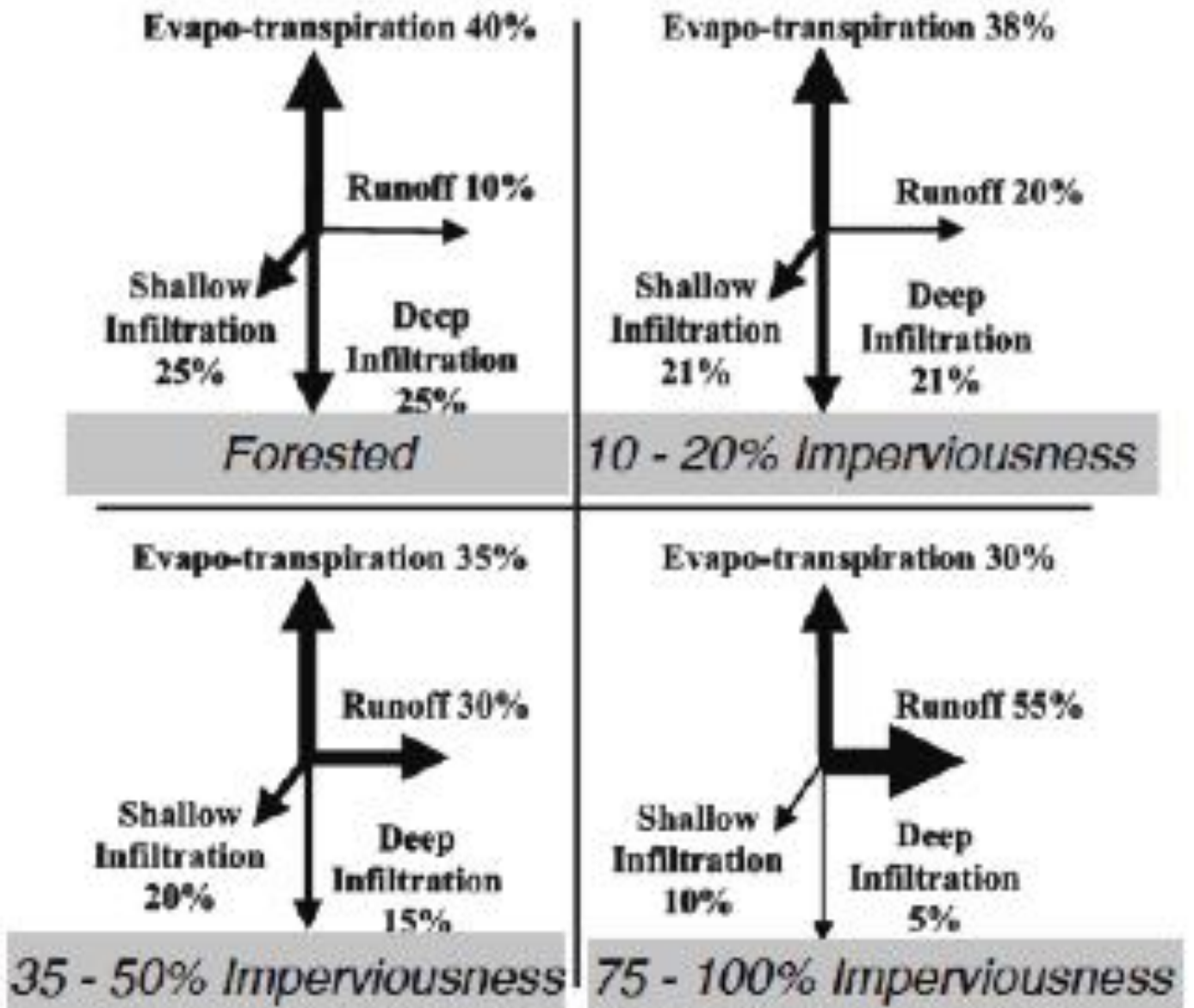


Figure 1 Changes in hydrologic flows with increasing impervious surface cover in urbanizing catchments (after Arnold & Gibbons 1996).

from Paul, M.J. and Meyer, J.L. "Streams in the Urban Landscape." *Annu. Rev. Ecol. Syst.* 2001. 32:333-65.