



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Meeting Agenda Board of Aldermen



Tuesday, February 7, 2017

7:30 PM

Board Chambers - Room 110

7:30

A. RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

7:35-7:37

B. ANNOUNCEMENT OF UPCOMING MEETINGS

7:37-7:50

C. REQUESTS FROM VISITORS AND SPEAKERS FROM THE FLOOR

7:50-7:53

D. CONSENT AGENDA

1. [17-024](#) Approval of Previous Meeting Minutes of January 17, 2017

2. [17-025](#) Amendment to the Town Code Pertaining to the Recreation and Parks Commission Membership

PURPOSE: The purpose of this item is to amend the Town Code to create a liaison seat for members of the Youth Council.

Attachments: [Attachment A - Draft Ordinance Amending Section 3-27\(a\)](#)

3. [17-022](#) Introduction to Possible Amendments to the Joint Planning Agreement and the Water and Sewer Management, Planning, and Boundary Agreement (WASMPBA)

PURPOSE: The purpose of this item is to introduce the Board of Aldermen to possible amendments to both agreements.

Attachments: [1 - Possible Joint Planning Amendments](#)
[2 - Carrboro - Possible Joint Planning Amendments](#)
[3 - Existing WASMPBA Primary Service Area Overlaid on Possible Joint Planning Land Use Amendments](#)
[4 - Existing JPA Land Use Map](#)
[5 - WASMPBA Changes Chapel Hill](#)
[6 - WASMPBA Changes Carrboro](#)
[7- WASMPBA Changes Hillsborough](#)
[8 - Overall WASMPBA Map with Possible Changes](#)

E. OTHER MATTERS

7:53-7:55

1. [17-023](#) A Resolution Regarding Appointments to the Carrboro Tourism Development Authority

PURPOSE: The purpose of this item is for the Board of Aldermen to consider appointing members to the Carrboro Tourism Development Authority (CTDA) and select a chair.

Attachments: [A Resolution Making Appointments to the Carrboro Tourism Development Authority](#)

7:55-8:30

2. [17-021](#) Presentation on the Orange County Transit Plan Update.

PURPOSE: The purpose of this agenda item is to receive a presentation from GoTriangle on the status of updating the Orange County Transit Plan (formerly the Orange County Bus and Rail Investment Plan).

Attachments: [Attachment A - Staff Memo 2-3-2017](#)
[Attachment B - Meeting Schedule](#)
[Attachment C - Outline of the County Transit Plan Updates](#)

8:30-9:00

3. [17-017](#) Consideration of request to submit a petition to rezone property at NC Old 86 and Eubanks Road to a Site Specific, Flexible Zoning (FLX) District.
- PURPOSE:** The purpose of this agenda item is for the Board to consider a request from Parker Louis, LLC to submit a petition to rezone property at the corner of NC Old 86 and Eubanks Road from to a Site Specific, Flexible Zoning (FLX) District

Attachments: [Attachment A - Resolution Authorizing Petition Submittal](#)
[Attachment B - Zinn Request_10-28-2016](#)
[Attachment C - Bubble Flow Diagram of FLX Process](#)
[Attachment D - Excerpt of 12 ART-IX FLX](#)
[Attachment E - NSA Workshop final report](#)

9:00-9:45

4. [17-018](#) Presentation of the Parking Study Recommendations

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to receive a presentation on the updated findings and associated recommendations as a precursor to adopting the document as a Parking Plan.

Attachments: [Attachment A - Resolution Parking Plan](#)
[Attachment B - Carrboro Parking Study](#)

9:45-10:00

5. [17-020](#) Discuss Options for Shared Rosemary Parking Lot
- PURPOSE:** The purpose of this item is to discuss options for management and maintenance of the shared parking lot at Rosemary and Sunset.

Attachments: [Carrboro-Chapel Hill Shared Rosemary Lot](#)

F. MATTERS BY BOARD MEMBERS

G. MATTERS BY TOWN MANAGER

H. MATTERS BY TOWN ATTORNEY



Town of Carrboro

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Agenda Item Abstract

File Number:17-024

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

Approval of Previous Meeting Minutes of January 17, 2017



Town of Carrboro

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301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number:17-025

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Amendment to the Town Code Pertaining to the Recreation and Parks Commission Membership

PURPOSE: The purpose of this item is to amend the Town Code to create a liaison seat for members of the Youth Council.

DEPARTMENT: Town Clerk

CONTACT INFORMATION: Cathy Dorando, 918-7309

INFORMATION: The Youth Council has approached the Recreation and Parks Commission with interest in serving on the Commission. The Commission Liaison, Anita Jones-McNair and the Commission are both interested in creating this position for the Youth Council.

The ordinance attached creates a voting seat for the Youth Council.

The Youth Council is affiliated directly with the Recreation and Parks Department and is not related to the Carrboro Youth Advisory Board.

FISCAL & STAFF IMPACT: N/A

RECOMMENDATION: Staff recommends that the Board adopt the ordinance amendment.

AN ORDINANCE AMENDING SECTION 3-27 OF THE TOWN CODE TO CHANGE
THE COMPOSITION OF THE RECREATION AND PARKS COMMISSION

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. Section 3-27(a) of the Town Code is amended to read as follows:

(a) There shall be a recreation and parks commission composed of ten voting members appointed by the Board of Aldermen, and two non-voting liaison members. Seven of the voting members shall be residents of the Town, one of the voting members shall be a liaison member of the Youth Advisory Board and shall be selected from its membership, and two shall be residents of Orange County, outside the Town's corporate limits. However, if despite its good faith efforts the Town is unable to fill the out-of-town seats with qualified out-of-town residents, then the seats may be filled by Town residents. One non-voting member shall be appointed by the Board of Aldermen from its membership at its organizational meeting, and one non-voting member shall be selected by the Chapel Hill-Carrboro City Schools Board of Education from its membership at its organizational meeting and appointed by the Carrboro Board of Aldermen.
(Amend. 5/11/80, 1/27/87, 12/8/08, 4/22/14)

Section 2. Except as amended by Section 1 above, Town Code Section 3-27 shall remain unchanged.

Section 3. All provisions of any town ordinance in conflict with this ordinance are repealed.

Section 4. This ordinance shall become effective upon adoption.



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Agenda Item Abstract

File Number:17-022

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Introduction to Possible Amendments to the Joint Planning Agreement and the Water and Sewer Management, Planning, and Boundary Agreement (WASMPBA)

PURPOSE: The purpose of this item is to introduce the Board of Aldermen to possible amendments to both agreements.

DEPARTMENT: Planning

CONTACT INFORMATION: Trish McGuire, pmcguire@townofcarrboro.org
<<mailto:pmcguire@townofcarrboro.org>>, 919-918-7327

INFORMATION: Planning staffs of the three local governments that are party to the Joint Planning Agreement (JPA) have been discussing possible amendments to the related Joint Planning Area Land Use Plan (JPALUP). Amendments to the Water and Sewer Management Planning and Boundary Agreement (WASMPBA) would be needed to actualize some of the changes that are under consideration. Carrboro and OWASA staff have identified an additional possible change to the WASMPBA on Smith Level Road and Orange County and Hillsborough Planning staff have identified other possible changes to the WASMPBA in order to designate a larger area for Hillsborough's Economic Development District (EDD). The Orange County Board of County Commissioners will be receiving an introduction to these items on Monday, February 13th. Next steps will be formulated and scheduled in relation to feedback to these introductions.

Descriptions of the possible Joint Planning Area changes are presented first, followed by descriptions of the possible WASMPBA changes.

Possible Changes to Joint Planning Land Use Plan and Agreement

The map in *Attachment 1* depicts the possible amendments to the JPALUP (the current version of which is included in *Attachment 4*). Possible amendments are summarized below, by jurisdiction.

Chapel Hill Area:

- Change the Millhouse Road Park (78.2 acres) parcels, three smaller parcels (6.3 acres) owned by the Town of Chapel Hill and located between Millhouse Road and the Millhouse Road Park parcels, and 2.2 acres of road right-of-way from Rural Buffer to Chapel Hill ETJ (Extraterritorial Jurisdiction).

- This modification would allow the planned park to eventually be served by public water and sewer systems, if WASMPBA is also amended. Service by public water and sewer is an important component of increasing the capacity of the park and its expected active recreation (possible soccer center) component, since a park served only by well and septic systems would have a more limited capacity.
- Change the northern portion of the parcel on which the Town of Chapel Hill's Operations Facility is located from Rural Buffer to ETJ (32.2 acres).
- Change 66 acres of Chapel Hill Transition Area to ETJ. This area is located immediately south of Interstate 40 in the vicinity of Sunrise Road.
- Change 207.8 acres from Chapel Hill Transition Area to Rural Buffer. This area is located in the southwest corner of the county between Highway 15-501 and Old Lystra Road. Staff's understanding is that this area was formerly part of Chapel Hill's Urban Service area before the WASMPBA "primary service area" boundary was established in 2001, thereby removing this area from urban utility access.

Carrboro Area:

- Change 2.9 acres on Highway 54 West from Rural Buffer to Carrboro ETJ. This proposal involves six parcels and was discussed at the October 13, 2016 http://www.orangecountync.gov/document_center/BOCCAgendaMinutes/161013.pdf joint BOCC/Town of Carrboro meeting. The portions of the parcels located immediately adjacent to the highway are currently within Carrboro's ETJ while the northern portion of the parcels is designated as Rural Buffer. This change would designate all of the smaller parcels (five parcels) as ETJ while moving the ETJ line of a "flag lot" slightly further north. Because of the relatively small size on the overall map, a "zoomed in" map is provided in *Attachment 2*.

If amendments were prepared and eventually approved, the Joint Planning Land Use categories would change in the following ways: the Rural Buffer would increase in size by 207.8 acres (from Chapel Hill Transition Area); the Carrboro and Chapel Hill Extraterritorial Jurisdictions would increase by 121.8 acres (from Rural Buffer); and the Chapel Hill Extraterritorial Jurisdiction would increase by 66 acres (from Transition Area)

The map in *Attachment 3* shows the "primary service area" of WASMPBA overlaid on the geographic area. Possible changes to WASMPBA related to the JPA changes, and others that are unrelated to the JPA, are described in the section below.

Possible Changes to Water and Sewer Management Agreement

The maps in *Attachments 5, 6 and 7* depict the possible amendments to the WASMPBA map (the current version of which is included in *Attachment 8* with the possible changes overlaid). A summary of possible amendments is provided here:

Chapel Hill Area:

- Designate 118.9 acres in the vicinity of Millhouse Road as "primary service area."
 - 78.2 acres Orange County owns for the planned Millhouse Road Park

- Three smaller parcels (totaling 6.3 acres) owned by the Town of Chapel Hill, located between the railroad tracks and the Millhouse Road Park parcels.
- 2.2 acres of road right-of-way.
 - As noted in previous section, these changes would be possible following a JPA amendment and would allow public water and sewer service.
- The northern portion of the parcel on which the Town of Chapel Hill's Operations Facility is located (32.2 acres).

Carrboro Area:

- Designate 20.6 acres (34 parcels, 3 partial parcels, and road right-of-way) in the vicinity of Smith Level Road near Carrboro High School as "primary service area."
- The area is zoned R-10 (Residential, 10,000 square feet per dwelling unit) which is extremely small if onsite well and septic service is necessary. There is water service in part of the area already (which may have started in 1969, according to OWASA pipe data) and a sewer line is stubbed out at Bixby Lane which could provide service to a portion of the properties; others would be served from lines adjacent to Smith Level Road.

Hillsborough Area:

- Designate 87.5 acres (12 parcels, 2 partial parcels, and road right-of-way) contiguous to, and south of, the Hillsborough EDD as "primary service area."

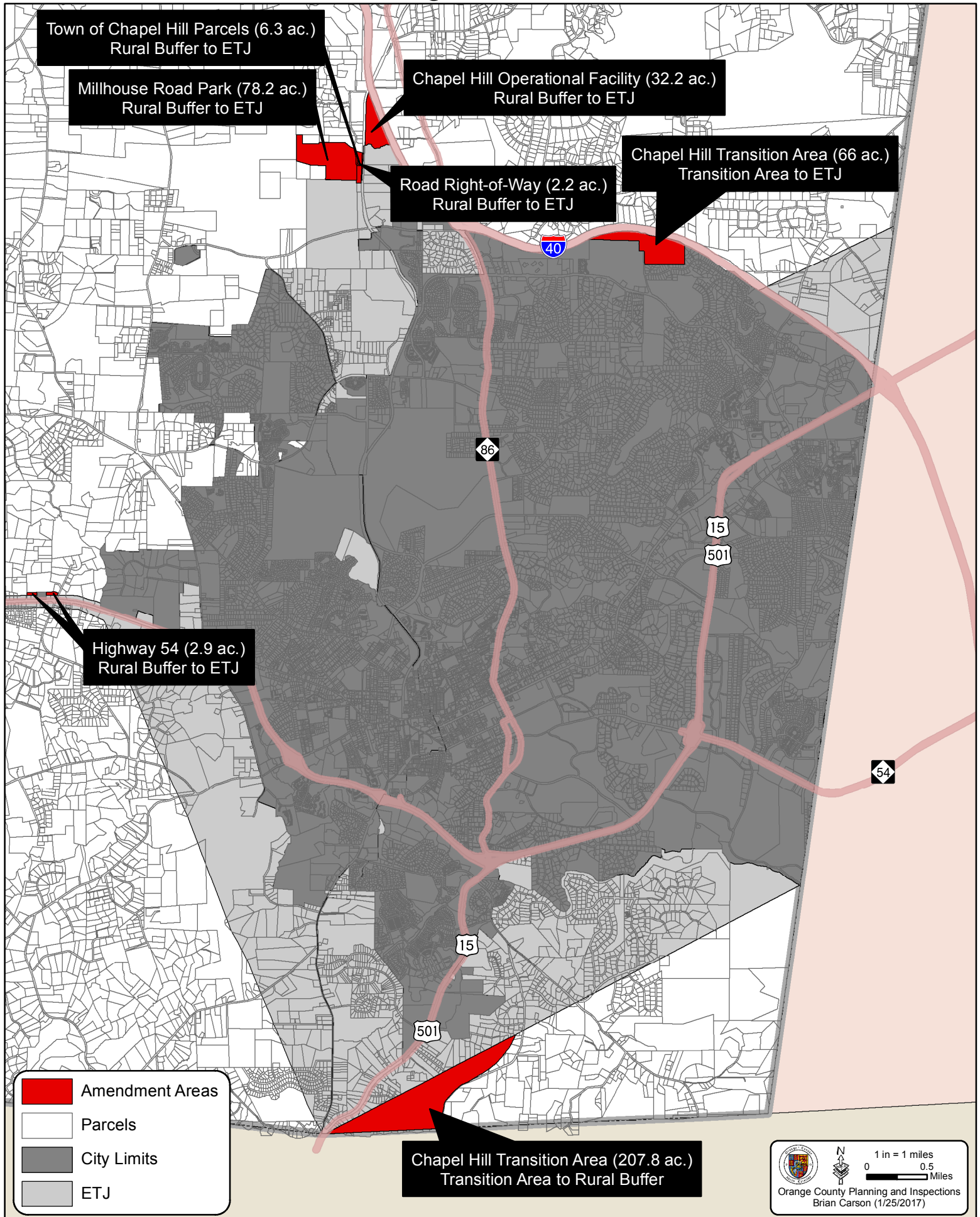
Amendments to the Joint Planning Land Use Plan require approval of all three signatory local governments (Orange County and the Towns of Chapel Hill and Carrboro) subsequent to a joint public hearing (which includes mailed notice to property owners). JPA public hearings can be held in the spring and fall of each year, generally the March and October joint meeting dates, which must be "converted" to joint public hearing dates on the governmental calendars.

Amendments to the WASMPBA require approval of all five signatory parties (Orange County, OWASA, and the Towns of Chapel Hill, Carrboro, and Hillsborough) through the regular agenda/decision process (a formal public hearing is not required).

FISCAL & STAFF IMPACT: None anticipated in association with receiving this information. If amendments to the noted agreements are of interest, staff and attorney time associated with development and process of those amendments would be needed.

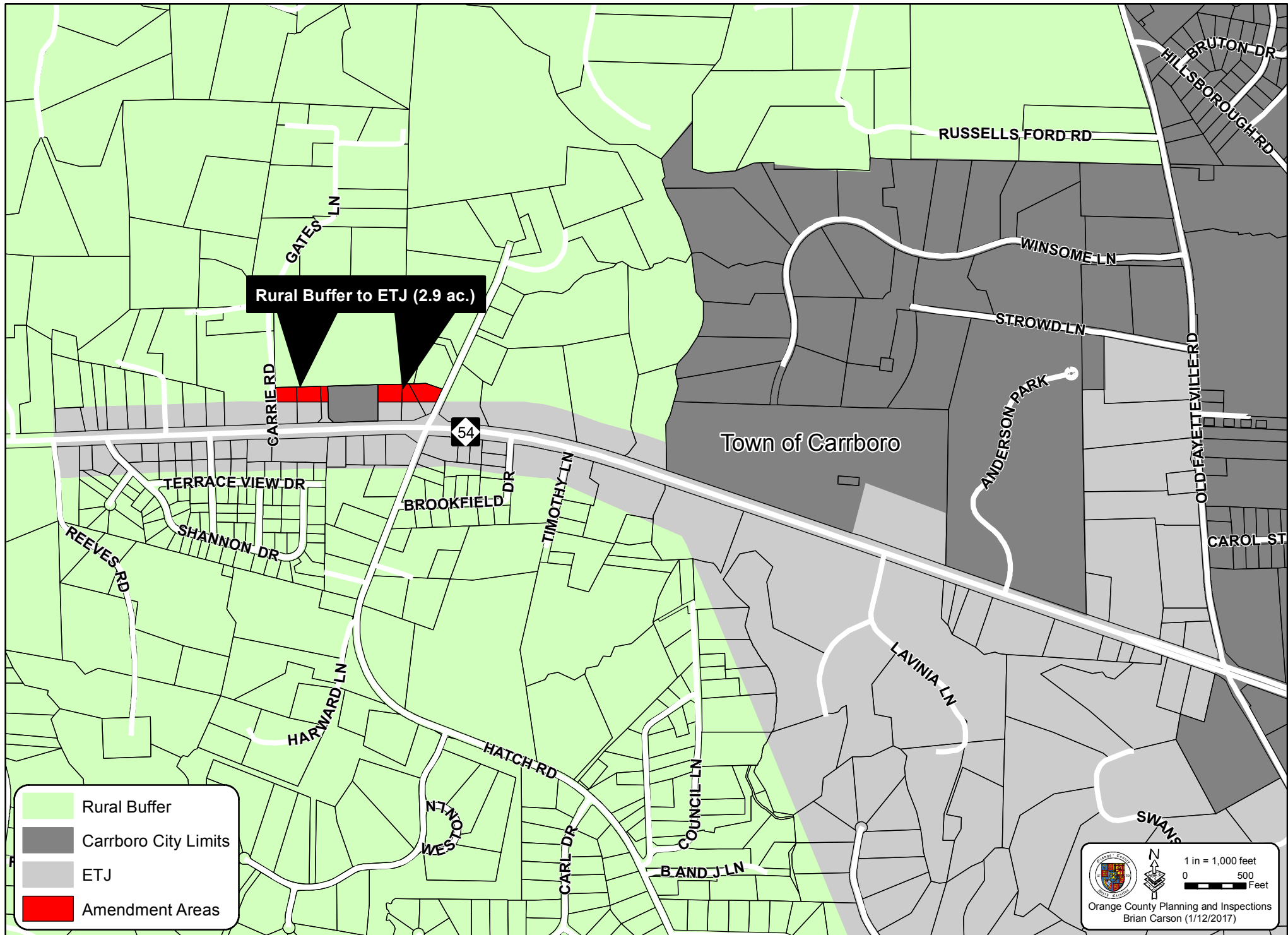
RECOMMENDATION: It is recommended that the Board of Aldermen receive this introduction.

Possible Joint Planning Area Land Use Amendments

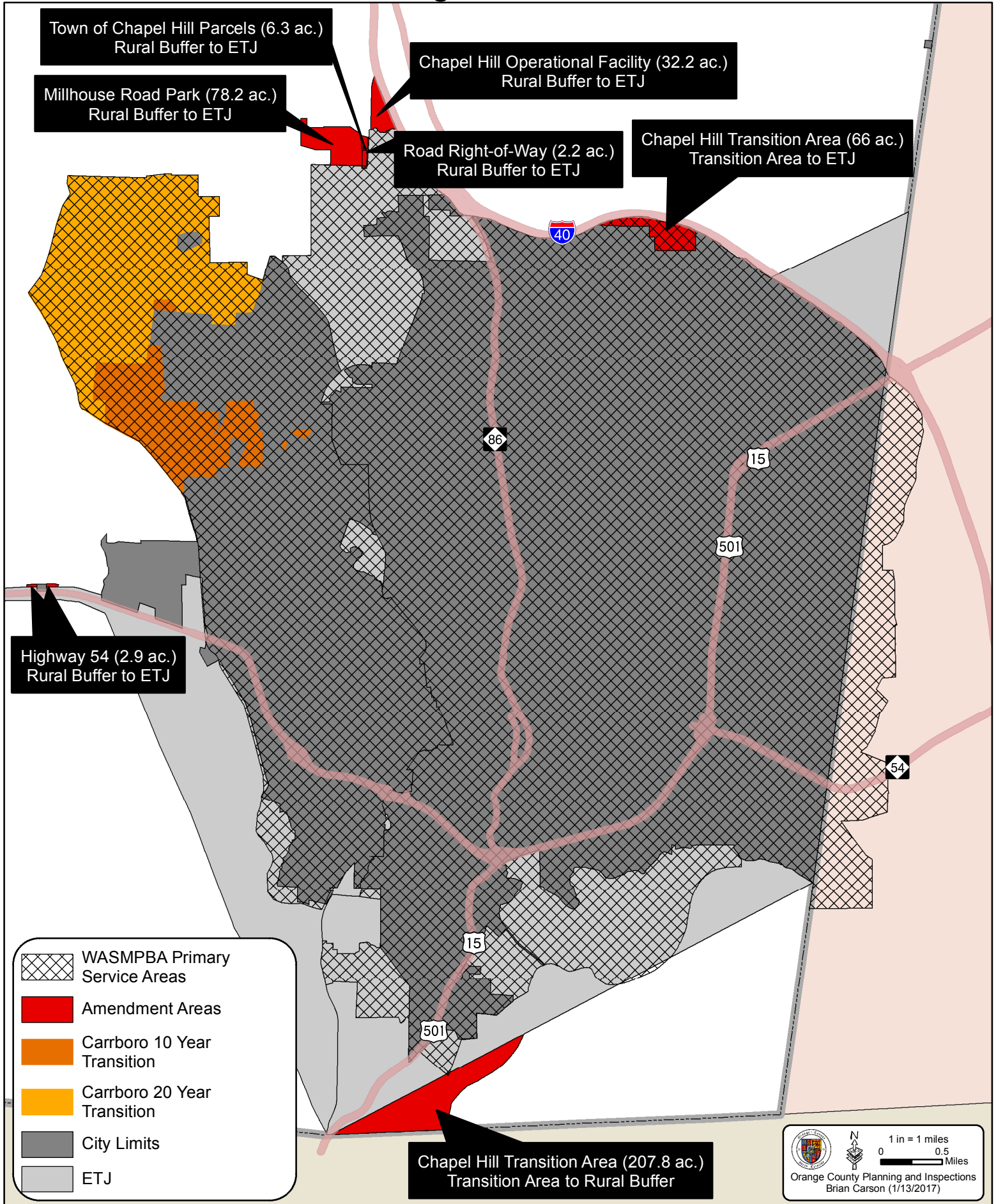


Possible Joint Planning Land Use Amendments

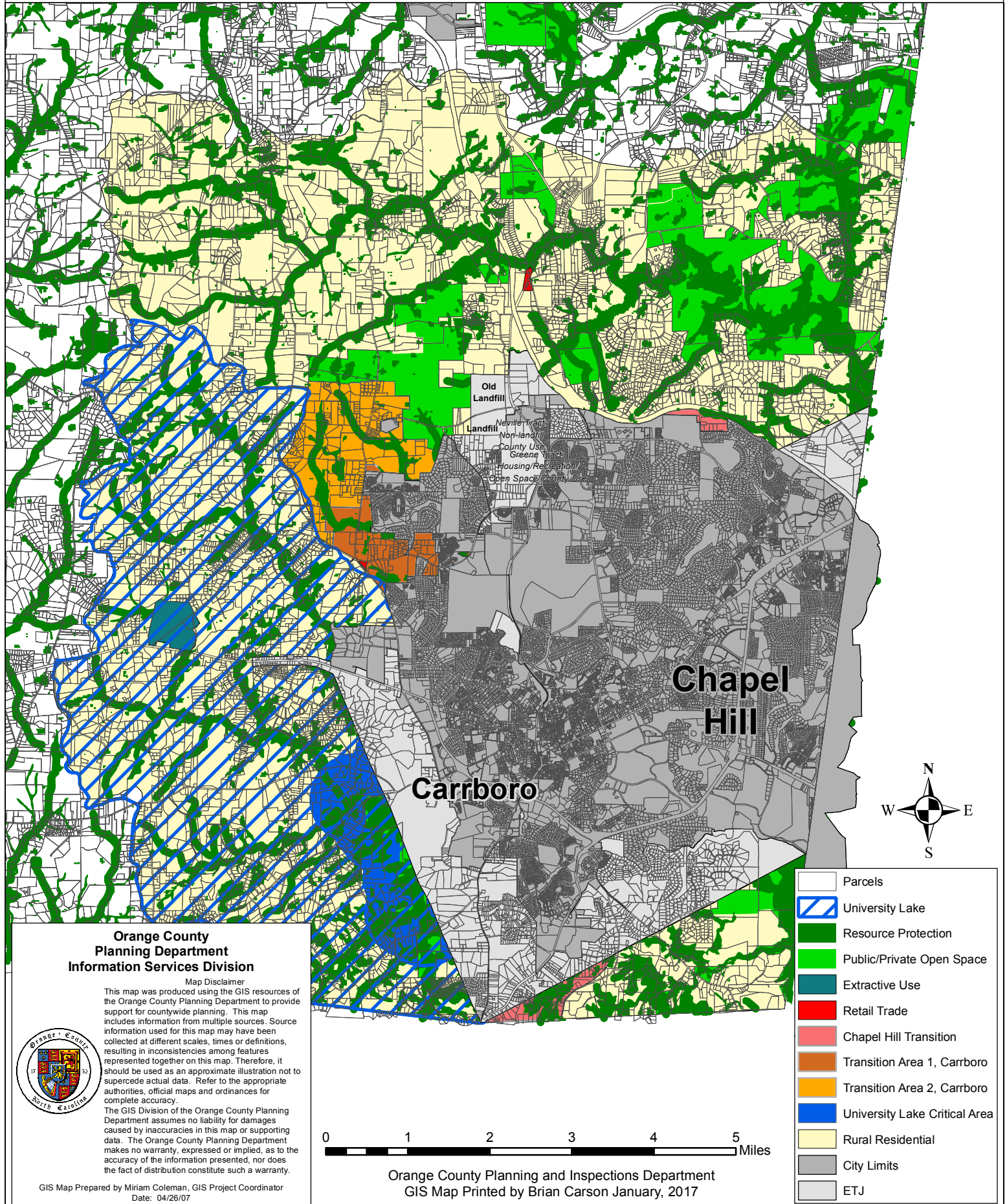
Attachment 2

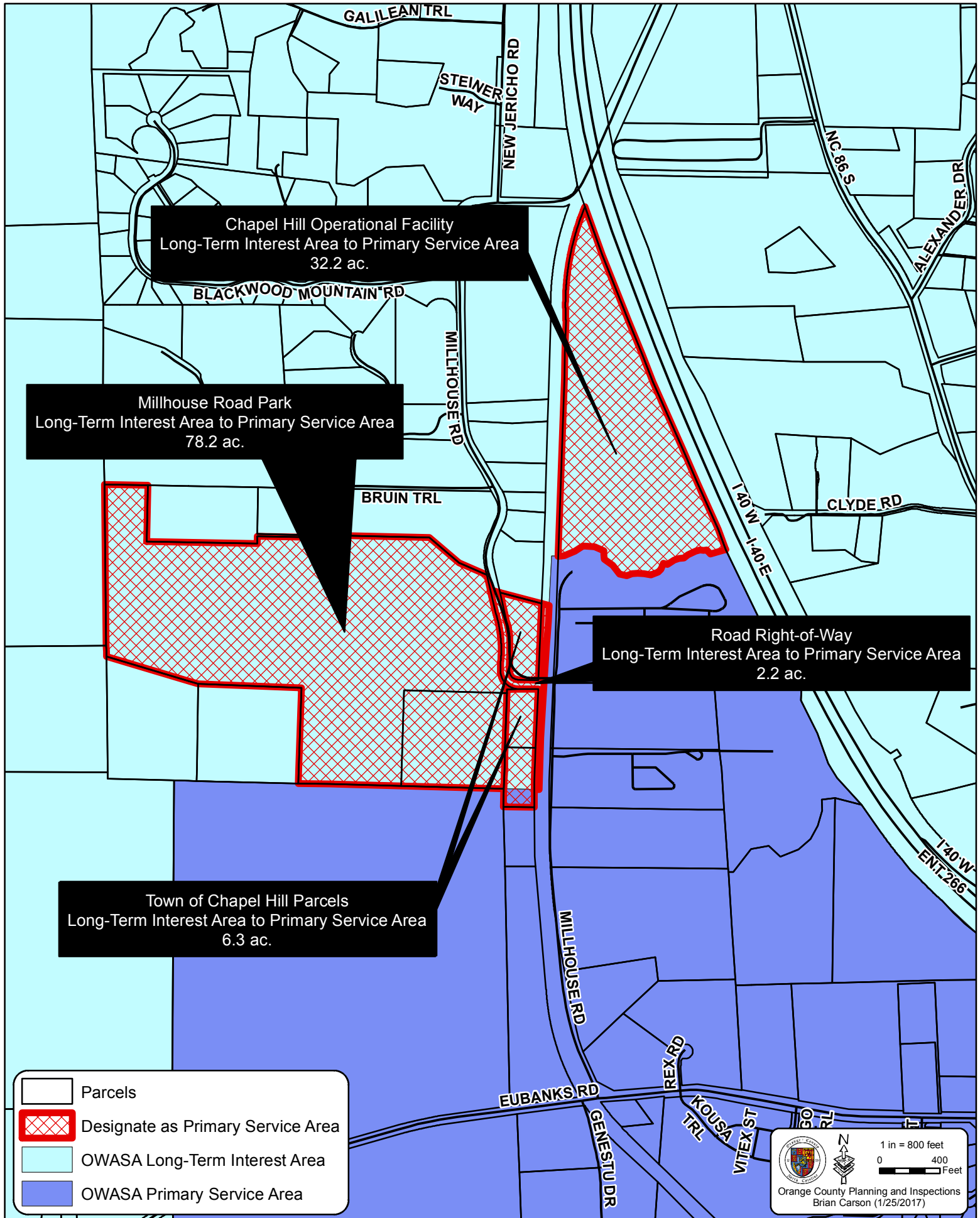


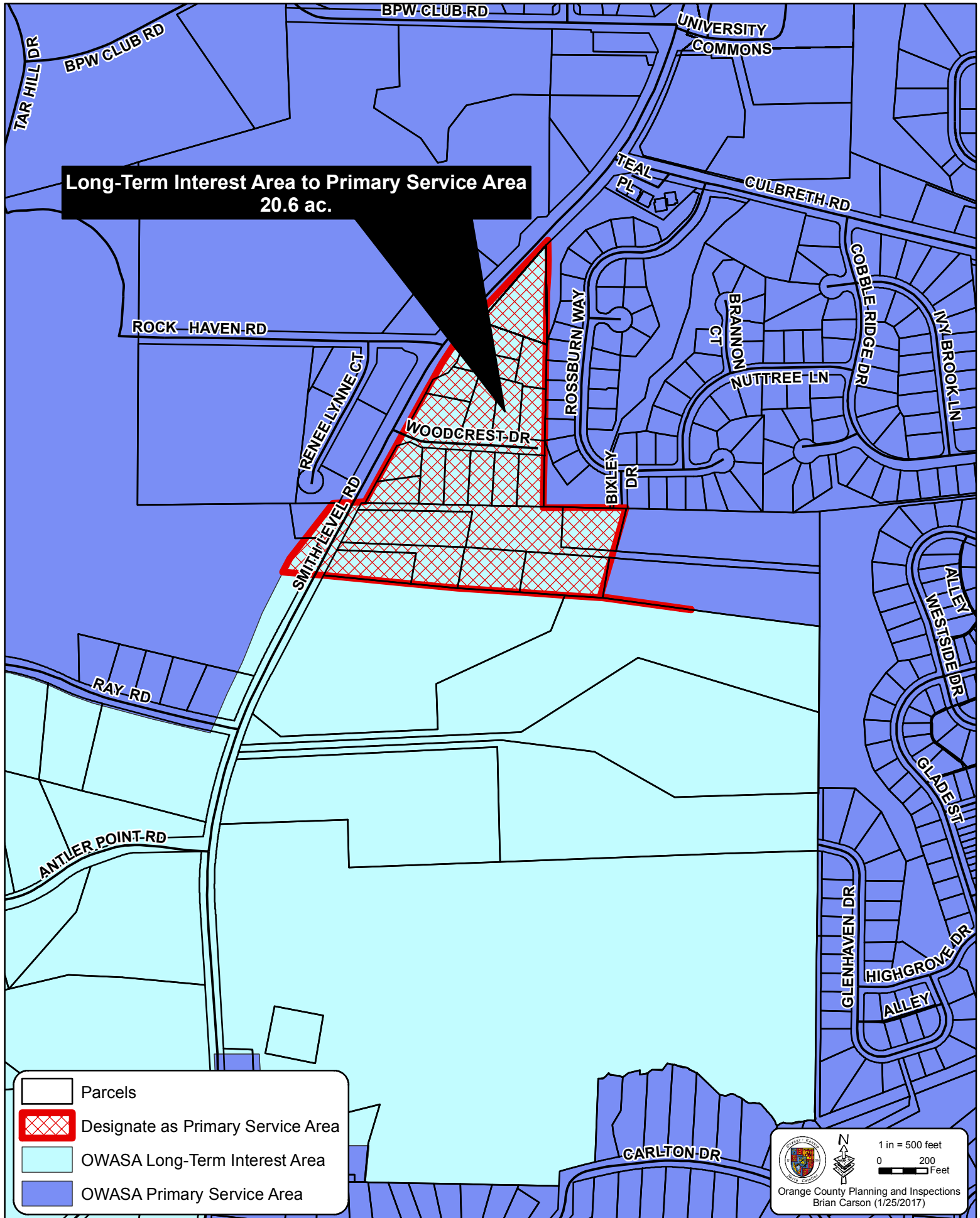
Existing WASMPBA "Primary Service Area" Overlaid on Possible Joint Planning Area Land Use Amendments

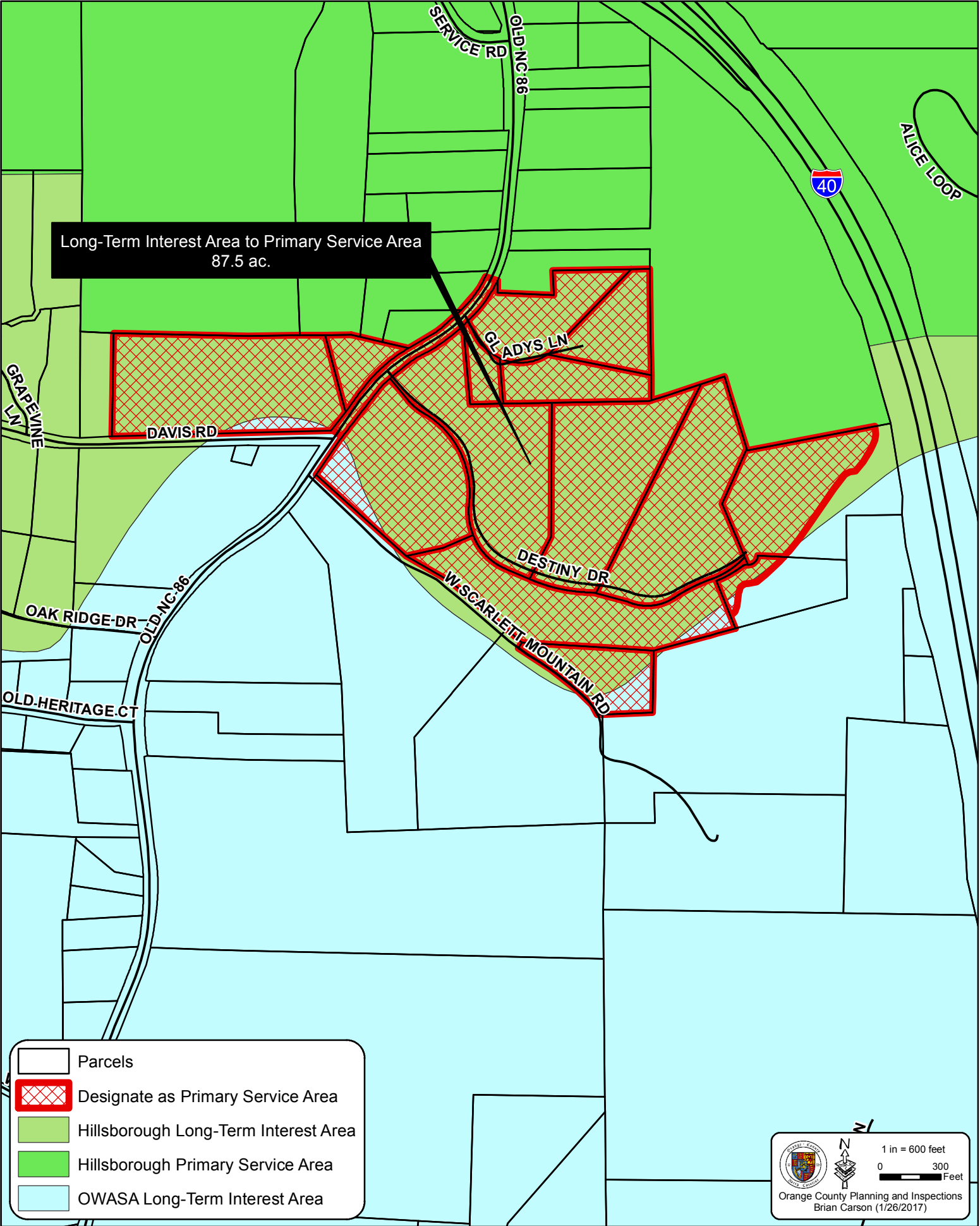


Orange County - Chapel Hill - Carrboro JOINT PLANNING AREA - LAND USE PLAN



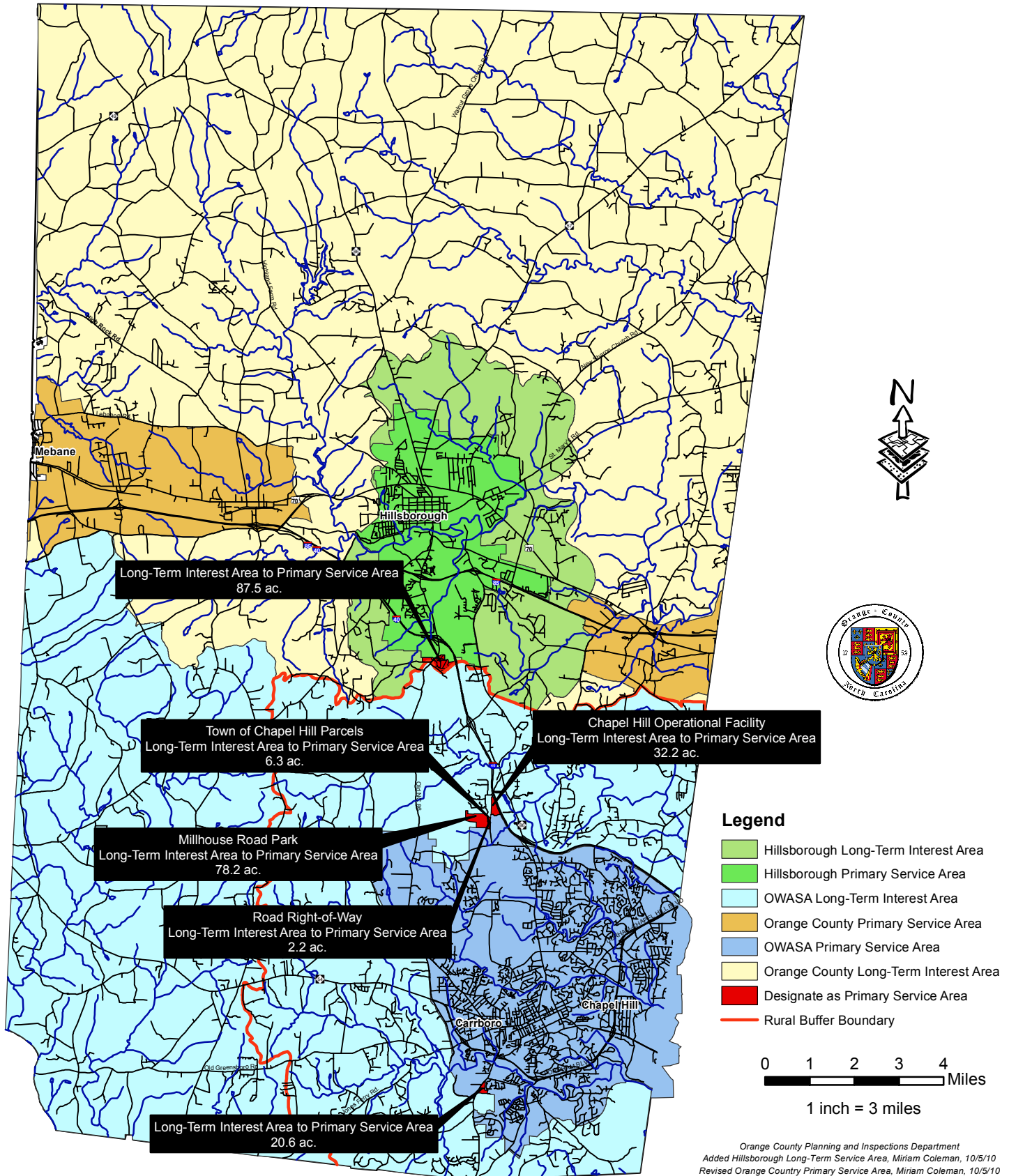






Appendix A

Water and Sewer Management Planning and Boundary Agreement



Orange County Planning and Inspections Department
 Added Hillsborough Long-Term Service Area, Miriam Coleman, 10/5/10
 Revised Orange County Primary Service Area, Miriam Coleman, 10/5/10
 Updated Hillsborough Primary Service Area, Miriam Coleman, 10/22/08
 Updated Streets, Miriam Coleman, 2002
 Revised Map to show retracted Chapel Hill Urban Service Boundary, Carrie Whitehill, 11/14/01
 Original Map Prepared by Beth McFarland, 04/17/97



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Agenda Item Abstract

File Number:17-023

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File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

A Resolution Regarding Appointments to the Carrboro Tourism Development Authority

PURPOSE: The purpose of this item is for the Board of Aldermen to consider appointing members to the Carrboro Tourism Development Authority (CTDA) and select a chair.

DEPARTMENT: Town Clerk

CONTACT INFORMATION: Cathy Dorando - 918-7309

INFORMATION: The CTDA was established by Section 8A of the Carrboro Town Code. The Board made the initial appointments to the CTDA in June of 2013. All terms are for one year and expire annually in January. The current members of the Authority are Alvin Sellers, Erin Jobe and Daniel Mayer. Daniel Mayer was recently appointed and his term does not expire until 2018. Both Alvin Sellers and Erin Jobe have indicated that they would like to continue to serve. Erin Jobe is the current chairperson of the TDA and is willing to continue serving in that capacity. The Town Clerk advertised the openings and received no additional applications.

FISCAL & STAFF IMPACT:

The Hotel/Motel Room Occupancy Tax is a tax for the Town of Carrboro and the distribution of the tax is outlined in Section 8A-4 of the Carrboro Town Code:

Section 8A-4. Distribution and Use of Tax Revenue.

The town shall, on a quarterly basis, remit the net proceeds of the occupancy tax to the Carrboro Tourism Development Authority (CTDA). The CTDA shall use at least two-thirds of the funds remitted to it under this section to promote travel and tourism in Carrboro and shall use the remainder for tourism-related expenditures. The following definitions apply in this section:

(1) Net Proceeds. Gross proceeds less the cost to the town of administering and collecting the tax, as determined by the finance officer, not to exceed three percent (3%) of the first five hundred thousand dollars (\$500,000) of gross proceeds collected each year and one percent (1%) of the remaining gross receipts collected each year.

(2) Promote travel and tourism. To advertise or market an area or activity, publish and distribute pamphlets and other materials, conduct market research, or engage in similar promotional activities that attract tourists or

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business travelers to the area. The term includes administrative expenses incurred in engaging in these activities.

(3) Tourism-related expenditures. Expenditures that, in the judgment of the CTDA, are designed to increase the use of lodging facilities, meeting facilities, and convention facilities in the town by attracting tourists or business travelers to the town. The term includes tourism-related capital expenditures.

RECOMMENDATION: Staff recommends that the Board of Aldermen reappoint the members of the CTDA for another term and select a chair person for the Authority.

A Resolution Making Appointments to the Carrboro Tourism Development Authority and
Selecting a Chair Person for the Authority

Section 1. The Board of Aldermen hereby appoints:

1. Alvin Sellers

2. Erin Jobe

Section 2. The Board of Aldermen hereby selects **INSERT NAME**

Section 3. The terms shall expire January 31, 2018

Section 4. This resolution is effective immediately upon adoption.



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Agenda Item Abstract

File Number:17-021

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Presentation on the Orange County Transit Plan Update.

PURPOSE: The purpose of this agenda item is to receive a presentation from GoTriangle on the status of updating the Orange County Transit Plan (formerly the Orange County Bus and Rail Investment Plan).

DEPARTMENT: Planning

CONTACT INFORMATION: Patricia McGuire - 919-918-7327; Christina Moon - 919-918-7325; Bergen Watterson - 919-918-7329; John Tallmadge, GoTriangle Director of Regional Services Development - 919-485-7430

INFORMATION: In 2011 and 2012, Durham and Orange counties adopted two separate Bus and Rail Investment Plans (BRIP) in partnership with the Durham-Chapel Hill-Carrboro MPO (DCHC-MPO) and GoTriangle (formerly Triangle Transit) to identify commitments for public transit through the year 2035. Drafted after extensive public input, the plans outlined a comprehensive approach toward expanding public transit systems, including major investments such as light rail and commuter rail, enhanced bus service, including bus rapid transit, and associated bus access improvement projects (bus shelters, sidewalks, etc.). The plans were adopted by formal agreement and require review and assessment every four years. The Orange County BRIP and agreement may be found on the Orange County Planning and Inspection Department's website under the subheading for Local Transportation Planning Documents.

http://www.orangecountync.gov/departments/planning_and_inspections/transportation_planning.php

Work is underway to update both BRIP documents (renamed Transit Plans) with completion targeted for April 2017. An initial draft of the Orange County Transit Plan should be finished by the first full week of February and will be distributed to the Board of Aldermen as soon as it is available. A public information session on the update will be held on Tuesday, February 21st, from 5:00 pm to 7:30 pm at the Chapel Hill Public Library, and will include presentations at regular intervals and staffed information stations focusing on the different aspects of the plan. Regular updates will also be provided to the Orange Board of County Commissioners and the DCHC-MPO Board. Formal comments on the Orange County Transit Plan may be conveyed to the MPO-Board through its representatives or by way of a recommendation directly to GoTriangle; citizen comments may be submitted directly to the Our Transit Future website, administered by GoTriangle (<http://ourtransitfuture.com/>). The website contain information relating to the draft reports, meeting schedules for presentations, and public comment (<http://ourtransitfuture.com/projects/bus/>). The anticipated meeting schedule is provided as Attachment B and a draft outline of the report is provided as Attachment C.

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FISCAL & STAFF IMPACT: There is no fiscal impact with receiving the presentation. Future implications will depend on the development of the financial model associated with the updated Orange County Transit Plan, the use of local transit tax dollars toward the projects outlined in the plan and the availability of funding for capital projects in the Town's jurisdiction.

RECOMMENDATION: Staff recommends that the Board receive the presentation, ask questions and offer comments on the update process and draft plan (if available). The Board may also wish to authorize the Town's MPO Board representatives to convey comments or formal recommendations to the DCHC-MPO Board and/or to provide staff with direction for further follow-up.



TOWN OF CARRBORO

NORTH CAROLINA

TRANSMITTAL PLANNING DEPARTMENT

DELIVERED VIA: ☐ *HAND* ☒ *MAIL* ☐ *FAX* ☐ *EMAIL*

To: David Andrews, Town Manager
Mayor & Board of Aldermen

From: Tina Moon, Planning Administrator

CC: Patricia McGuire, Planning Director

Date: February 2, 2017

Subject: Orange County Transit Plan

Background

The Orange County Bus and Rail Investment Plan (BRIP), adopted by the Board of County Commissioners on October 2, 2012, describes the commitment for transit improvements using local transit revenue sources such as the sales tax and car registration fees through the year 2035. The plan was mutually approved through an Interlocal Implementation Agreement by the Orange County Board of County Commissioners, the Durham-Chapel Hill-Carrboro-Metropolitan Planning Organization (DCHC-MPO) Board and the GoTriangle Board of Trustees on October 24, 2012. On November 6, 2012, Orange County voters passed a referendum approving a half-cent (\$0.005) sales tax for transit improvements. The Board of Aldermen endorsed the BRIP along with recommendations on May 24, 2011.

As required by the Agreement, the plan must be reviewed by a Staff Working Group (SWG) every four years, and must be updated through formal adoption by the three parties to the Agreement if proposed changes to the plan exceed certain thresholds. As several changes have occurred--additions to the number of projects, modifications to the scope of projects and adjustments in funding from state and federal revenue sources--the SWG has determined that a formal update is needed. The SWG—consisting of Orange County, DCHC-MPO, and GoTriangle staff – together with staff from all the municipalities in the County, is in the process of reevaluating the projects and services in the original OCBRIP, with a focus on timing, funding, ongoing maintenance commitments, and assumptions about changes in costs and revenues. The group has also developed a public outreach strategy and communication plan for bringing information and recommendations to the governing boards. The DCHC-MPO and

GoTriangle staff are also working with Durham County to prepare an update to the Durham plan. The collaborative effort is designed to review and approve both documents—renamed as the Orange County Transit Plan and the Durham County Transit Plan respectively.

2012 Orange County Bus and Rail Investment Plan

The existing Orange County BRIP includes funding for bus expansion and bus operations, including the North-South Corridor Bus Rapid Transit Project (N-S BRT), in Chapel Hill, small capital bus projects or access improvement projects, and the Durham-Orange Light Rail Transit Project (DO LRT). Significant changes that affect the financial plan for these projects include are described below.

Transit Funding in General

- More funding is needed to maintain the bus and rail services outlined in the plan for future years.
- Federal and state funding shares for bus expansion and capital projects have decreased significantly since the original plan requiring additional local funding for these projects.
- GoTriangle is using a new sales tax revenue forecast.
- Additional federal transportation funding is being considered to fund elements of the plans, if needed. This funding may come from monies intended for local transportation projects (such as bike/ped projects) through the MPO's competitive allocation process.

DO LRT

- The Final Environmental Impact Statement/Record of Decision selected a preferred route for the project and it includes an extension of the line to North Carolina Central University—adding to the cost of the overall project. The schedule for construction has also been delayed due, in large part, to the updated financing requirements.
- State law has limited state funding to ten percent of the project cost for light rail and commuter rail projects. As the original financial model anticipated twenty-percent of funding coming from the state the ten-percent cap represents a loss of approximately \$250 million.
- GoTriangle approached the Durham and Orange counties, and the DCHC-MPO regarding options to address the shortage.
- GoTriangle subsequently hired consultants to reexamine their financial modeling and now believe that there are sufficient funds to construct the project; however, FTA requires a strategy to account for possible overages (sensitivity models) to ensure project completion.
- Reserves are now included in the plan.
- Foundations, endowments, and private contributions are being considered to fund elements of the plans.

N-S-BRT

- The North-South Bus Rapid Transit project has increased in scope and cost as the project has progressed from the feasibility study to the design phase.
- Reserves are now included in the plan.

Draft Orange County Transit Plan

The working draft of Orange County Transit Plan (outline attached) also includes approximately \$5.9 million of expenditures for bus capital projects during the next twenty years (2037). The funding will be allocated as shown in the table and described below:

Type of Project	Percentage
Transit (bus stop improvements, signage, shelters, technology, etc.))	40%
Access Improvement Projects (sidewalks, intersection improvements, studies)	20%
Park-and-Ride Facilities	15%
Operations, Maintenance and Replacement	15%
Discretionary	10%
Total	100%

Town of Carrboro projects would be eligible for funding primarily as access improvement projects. Funding would be used for up to 100% of the cost of small projects (\$300,000 or less) and approximately 52% (on average) of the cost of larger projects, and could be used toward the local match (typically 20%) requirement for state and federal funded projects. Staff presented a preliminary list of projects to the Board of Aldermen on September 17, 2013 and an updated list on April 22, 2014. The list of projects included: the sidewalk on South Greensboro Street, sidewalks and bike lanes on Estes Drive, a sidewalk on West Main between Fidelity and Poplar, a sidewalk on Old Fayetteville Road behind Carrboro Plaza, the Morgan Creek Greenway and a corridor study of Estes Drive.

Timeline

The Staff Working Groups for Durham and Orange counties have been meeting regularly for several months to review the existing plans and consider changes. The plan is scheduled to be released for public comment February 10, 2017 through March 13, 2017. It is expected that GoTriangle staff will present the contents of the draft plan at the February 7th Board of Aldermen meeting. Public drop-in style meetings will be held during late February. GoTriangle is compiling public comments and will share them with local boards for their consideration. If there is interest, the Board may request that GoTriangle present the draft plan once the public comment period has ended.

Target milestones for plan adoption include: the April 4th Orange County Board of Commissioners meeting, the April 12th DCHC MPO Board meeting, and the April 26th GoTriangle Board of Trustees meeting. The complete schedule for all meetings associated with the Transit Plan update is attached. The timeline is designed to provide for the GoTriangle Board to consider entering into a contract for final design with their General Engineering Consultant for the DO LRT project and stay on track with the FTA schedule.

Financial Impact

The financial impacts of the proposed update to the Orange County Transit Plan will be identified in the scheduled release of the draft Plan document in early February. The key issues relate to the trade-offs between funding the major capital projects, bus operations and expansion, and small capital projects. The cost share agreement with Orange County for the DO LRT project may also be revisited.

Recommendation

Staff recommends that the Board receive the presentation on the Orange County Transit Plan, offer comments, and consider recommendations to convey to the DCHC-MPO Board through the Town's liaisons. The Board may also wish to consider requesting a follow up presentation from GoTriangle for a meeting in March.

Durham County Board

Date	Type	Action	Description
1/23	Regular Session	No Action (<i>Information Briefing</i>)	Overview schedule for the Transit Plan update & the D-O LRT Project Financial Plan submittal.
2/6	Work Session	No Action (<i>Information Briefing</i>)	Overview of the public comment period schedule; overview of the Draft Transit Plan
2/10	<i>Draft Transit Plan released for public comment</i>		
3/6	Work Session	No Action (<i>Comments Requested</i>)	Review of transit plan, summary of comments received to date. Ideal time for Board to submit comments on the draft plan.
3/13	<i>Public Comment period for Draft Transit Plans close</i>		
3/27	<i>Final Transit Plans Released</i>		
4/10	Regular Session	Adoption of Updates to the County Transit Plan	Presentation on Final Transit Plans

Orange County Board

Date	Type	Action	Description
1/24	Regular Session	No Action (<i>Information Briefing</i>)	Overview schedule for the Transit Plan update & the D-O LRT Project Financial Plan submittal.
2/10	<i>Draft Transit Plan released for public comment</i>		
2/16	Work Session	No Action (<i>Information Briefing</i>)	Overview of the public comment period schedule; overview of the Draft Transit Plan
3/7	Regular Session	No Action (<i>Comments Requested</i>)	Summary of comments received to date. Ideal time for Board to submit comments on the draft plan.
3/13	<i>Public Comment period for Draft Transit Plans close</i>		
3/27	<i>Final Transit Plans Released</i>		
4/4	Regular Session	Adoption of Updates to the County Transit Plan	Presentation on Final Transit Plans

Public Informational Meetings

Date	Location	Time
2/20 (Monday)	Whitted Human Services Building, Hillsborough, Meeting Room 230	5:00 – 7:30 p.m.
2/21 (Tuesday)	Chapel Hill Public Library, Meeting Room A	5:00 – 7:30 p.m.
2/23 (Thursday)	GoTriangle, 4600 Emperor Blvd. Suite 100, Durham, Administrative Offices, Room 105	5:00 – 7:30 p.m.
2/25 (Saturday)	Durham Station, Second Floor	10:00 – 12:30 p.m.

MPO Technical Committee

Date	Action	Description
1/25	<i>Information Briefing</i>	Review Transit Plan inputs from SWG, offer input on rough draft transit plans
2/10	<i>Draft Transit Plan released for public comment</i>	
2/22	<i>Information Briefing</i>	Review of comments received to date and the progress of the public meetings
3/13	<i>Public Comment period for Draft Transit Plans close</i>	
3/27	<i>Final Transit Plans Released</i>	
3/22	<i>Information Briefing</i>	Review of comments submitted and Draft Final Plan

MPO Policy Board

Date	Action	Description
1/11	No Action (<i>Information Briefing</i>)	Overview schedule for the Transit Plan update & the D-O LRT Project Financial Plan
2/8	No Action (<i>Information Briefing</i>)	Overview of the public comment period schedule; overview of the Draft Transit
2/10	<i>Draft Transit Plan released for public comment</i>	
3/8	No Action (<i>Comments Requested</i>)	Review of transit plan, summary of comments received to date. Ideal time for Board to submit comments on the draft plan.
3/13	<i>Public Comment period for Draft Transit Plans close</i>	
3/27	<i>Final Transit Plans Released</i>	
4/12	Adoption of Updates to the County Transit Plan	Presentation on Final Transit Plans

GoTriangle Board of Trustees

Date	Action	Description
1/25	<i>Information Briefing</i>	Overview of the public comment period schedule & process to create draft transit
2/10	<i>Draft Transit Plan released for public comment</i>	
2/22	<i>Information Briefing</i>	Review of comments received to date and the progress of the public meetings
3/13	<i>Public Comment period for Draft Transit Plans close</i>	
3/22	<i>Information Briefing</i>	Summary of comments received to date, review of draft final transit plan.
3/27	<i>Final Transit Plans Released</i>	
4/26	<i>Adoption County Transit Plans Approval Contracts for</i>	Presentation on Final Transit Plans and review of contracts for GEC and PMC.

Additional presentations on the Draft Transit Plans will include:

- Carrboro Board of Alderman: Feb. 7 Regular Meeting
- Chapel Hill Town Council: Feb. 8 Work Session
- Durham City Council: Feb. 9 Work Session
- Hillsborough Board of Commissioners: Feb. 13 Regular Session Briefing

Outline of the County Transit Plans

1. Introduction
 - a. Description of Service Providers and governmental jurisdictions
 - b. Voter approved funding and service expansions
 - c. Governance over Plan and Implementation decisions
 - i. Legislative authorization
 - ii. Interlocal agreements
2. Summary of previously adopted plan deliverables
3. Summary of progress made and changes encountered
 - a. Implementation progress and outcomes
 - i. Services & Vehicles
 - ii. Facilities
 - iii. D-O LRT
 - iv. N-S Corridor BRT (Orange only)
 - v. Hillsborough Train Station (Orange only)
 - vi. Commuter Rail (Durham only)
 - b. Federal funding
 - c. State funding
 - d. Project scope changes
 - i. Service plans for GoDurham / OPT
 - ii. Use of funds for increased costs of existing service
 - iii. Facilities
 - iv. D-O LRT scope
 - v. N-S Corridor BRT scope
 - vi. Commuter Rail delay from Wake Transit Plan
4. Proposed plan deliverables
 - a. Services & Vehicles
 - i. Descriptions
 - ii. Cost, schedule and Funding assumptions
 - iii. Commitment of local transit tax dollar amount
 - b. Facilities
 - i. Descriptions
 - ii. Cost, schedule and Funding assumptions
 - iii. Commitment of local transit tax dollar amount
 - c. D-O LRT
 - i. Description
 - ii. Capital Cost, schedule and funding assumptions
 - iii. Operating cost and funding assumptions
 - iv. Commitment of local transit tax dollar amount
 - v. Need to update terms of implementation agreements and cost-share agreement
 - d. N-S BRT

- i. Description
 - ii. Capital Cost, schedule and funding assumptions
 - iii. Operating cost and funding assumptions
 - iv. Commitment of local transit tax dollar amount
 - e. Hillsborough Train Station
 - i. Description
 - ii. Capital Cost, schedule and funding assumptions
 - iii. Operating cost and funding assumptions
 - iv. Commitment of local transit tax dollar amount
 - f. Wake-Durham Commuter Rail
 - i. Description
 - ii. Capital Cost, schedule and funding assumptions
 - iii. Operating cost and funding assumptions
 - iv. Commitment of local transit tax dollar amount
 - v. Need to develop cost-share agreement
- 5. Financial Plan Summary
 - a. Revenue Assumptions
 - i. Customer fares
 - ii. Local sources
 - iii. State sources
 - iv. Federal Sources
 - v. Debt Financing
 - b. Inflation forecasting
 - c. Service and Operating Plan
 - i. Commitment of local transit tax dollars per agency
 - d. Capital Plan
 - i. Commitment of local transit tax dollars per project
 - ii. Debt service
 - iii. State of Good Repair/Asset Management
 - e. Reserves
 - f. Financial Modeling Results
 - i. Key Financial Issues
 - 1. Areas of Risk
 - 2. Sensitivity Analysis/Stress Tests
 - ii. Mitigation of cost increases or funding shortfall
 - g. Financial Plan Spreadsheets



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number:17-017

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Consideration of request to submit a petition to rezone property at NC Old 86 and Eubanks Road to a Site Specific, Flexible Zoning (FLX) District.

PURPOSE: The purpose of this agenda item is for the Board to consider a request from Parker Louis, LLC to submit a petition to rezone property at the corner of NC Old 86 and Eubanks Road from to a Site Specific, Flexible Zoning (FLX) District

DEPARTMENT: Planning

CONTACT INFORMATION: Christina Moon - 919-918-7325; Patricia McGuire - 919-918-7327

INFORMATION: On June 21, 2016, the Board of Aldermen adopted text amendments to the Land Use Ordinance authorizing the Board to consider petitions to rezone property to a new zoning category, a site specific flexible zoning district (FLX). The FLX district was designed to respond to goals set out in the Facilitated Small Area Plan for Carrboro's Northern Study Area (FSAP) for floating zones that would provide opportunities for commercial uses at a neighborhood scale and, potentially, office/assembly uses that would allow some light manufacturing and flex space subject to performance standards. The FSAP goals also spoke to the importance of an integrated site plan review process whereby the applicant, the Town and members of the public would be involved early in the process.

To be eligible for consideration, a proposed FLX district must meet four key criteria: (1) is at least twenty-five acres in size, (2) is under single ownership or control, (3) is located adjacent to a major arterial such that, when developed, the principal entrance to such development will be from that arterial, and (4) has been the subject of a site specific planning study by the Town to determine the most appropriate potential development options for such tract. The site specific planning study is the linchpin of the FLX district. Findings from the study whether delineated into single design or identified as the commonalities from a number of designs are to be incorporated into the FLX development proposal. Examples of these types of findings include: identification of suitable land uses, maximum residential density, and maximum floor area, building heights, etc. Thematic findings could likewise speak to the overall character of the project such as a rural hamlet or a small commercial node with storefronts.

The process for considering rezoning to a FLX district is similar to that of a conditional zoning with additional steps to ensure that as the proposal moves forward it remains consistent with the design elements identified

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

during the site specific planning study (Attachment C). In accordance with this process, Adam and Omar Zinn of Parker Louis, LLC, have prepared an overview of their design proposal (Attachment B); this step is shown in the yellow bubble along the bottom left side of the process flow chart. If the Board finds that the site meets the four criteria for eligibility and that the proposed development project reflects the design schemes assembled during the 2011 design workshop, the Zinns may submit the formal petition for change of zoning to a FLX district and begin to refine their proposal--narrative and conceptual site plan--to bring to the advisory boards for input. Information on the findings from the site specific planning study may be found in the final report from the Durham Area Designers (DAD), presented to the Board on February 21, 2012, and included as Attachment E. Examples of common elements from the workshop design schemes include small commercial components, senior living and an overall interest in respecting the existing rural character with buffers along the perimeter and strong bicycle/pedestrian connectivity within.

http://www01.townofcarrboro.org/BoA/Agendas/2012/02_21_2012_D5.pdf.

Prior to submitting the petition for change of zoning to the FLX, the Zinns would also have to consider whether to request annexation, or to pursue a simultaneous review with Orange County.

FISCAL & STAFF IMPACT: There are no direct fiscal costs with allowing the applicants to proceed with the submittal of a formal request for rezoning.

RECOMMENDATION: Staff recommends that the Board consider the request to submit a formal petition for change of zoning to a site specific flexible zoning district (FLX).

A RESOLUTION AUTHORIZING PARKER LOUIS, LLC, TO SUBMIT A PETITION FOR
CHANGE OF ZONING TO A SITE SPECIFIC, FLEXIBLE ZONING DISTRICT

Draft Resolution No.

WHEREAS, on June 21, 2016, the Board of Aldermen of the Town of Carrboro adopted amendments to the text of the Carrboro Land Use Ordinance, authorizing the Board to establish site specific flexible zoning districts, (FLX); and

WHEREAS, Parker Louis, LLC has demonstrated that the proposed site meets the four criteria necessary to be eligible for FLX zoning and has provided a written narrative and conceptual site plan that reflects the central thematic aspects of the Town sponsored site specific planning study.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro resolves that Parker Louis LLC may proceed with the submittal of a petition for change of zoning to a site specific, flexible zoning district subject to the process described in Article XX of the Carrboro Land Use Ordinance for map amendments and the specific requirements outlined in Section 15-141.5 for FLX districts, and the findings from the site specific planning study.

BE IT FURTHERMORE RESOLVED, that the Board of Aldermen offers the following additional comments:

This the 7th day of February 2017.

Parker Louis, LLC, owner of an assemblage of properties on Old Highway 86 and Eubanks Road, is requesting permission to apply as a Flexible Zoning District (FLX). The parcels total 26.2 acres.

An overall goal is to take ingredients from the Durham Area Designers (DAD) group and incorporate them into the design. Multiple workshops were held which led to reports that were published in 2007 and 2011. It should be noted that the following conditions on and around the site are noteworthy changes since the last reports were published. None of these changes are substantial to the overall design and some will alleviate prior concerns :

1. Eubanks Road has been realigned. Some DAD reports accommodated for this while others did not.
2. Most the northeastern section of the site is no longer a designated wetland area. Of the original 12.5 acres originally thought to be wetland, less than 2 acres are now considered to be wetland. This was originally listed as wetland in town inventory but after further analysis and verification from the state it was determined that the majority of it was not wetland. These documents will be provided at a later submission.
3. In July of 2013, the Orange County Landfill permanently closed. This is an important development because many of the DAD findings were concerned about truck traffic going down Eubanks Road to and from the landfill.
4. Parker Louis has purchased another 0.57 acre parcel to the east of the roundabout that is contiguous.

The DAD reports shared many of these common design elements in theme, building type and usage:

- Community scale commerce to serve residents in the nearby neighborhoods, parents of children at Morris Grove Elementary and the future middle school and county park.
- A variety of housing types: Single family homes on small lots, townhomes and multi family.
- Parking for commercial and multi family should be placed on the interior.
- The use of street trees and sidewalks throughout combined with the placement of building close to roadways to give the site more of a “hamlet” feel.
- Create a landmark structure with vernacular character that announces an arrival to the western edge of Carrboro.
- The small single family lots should be tucked in the back of the property.
- Daycare and senior housing were widely encouraged.
- Retain a rural feel by combining design elements and targeted green space areas.

Listed below are the zoning uses or general description uses we believe should be allowable. **This should be considered a general framework and will be a work in progress at this stage of the process.** A combination of commercial and residential components are proposed. The attached diagram lays out the potential uses.

Orange Area – This 1.5 acre piece will be the “anchor” for the development. The potential zoning choice is B3-T with additional usage allowing a restaurant that would allow outdoor seating and an outdoor display area. We envision a structure that is part Maple View Farms, part Merritt’s and part Johnny’s. A destination for bikers, runners and drivers and also the first impression as you enter town from the west. A number of viable options exist for a business model and some of the prominent features include: Old fashioned big front porch, outdoor area for kids and dogs, live music area(s), coffee/breakfast spot, etc. General store feel.

Pink Area, +- 6 acres, possible zoning of B3-T and other zoning choices – Senior Living and/or Daycare/Commercial/Office. These components are low impact commercial uses. The main structure(s) would be two or three stories and will have a vernacular character and will front Eubanks Road.

Yellow Area, +- 12 acres – Single Family homes. An area of homes that are on small lots (+- 3500 s.f). These cottage homes will be small (1100-1800 square feet) and will have pockets of open space throughout. The demand for small homes is very high as proven in Claremont South.

Blue Area, +- 6.7 acres – Multifamily/Townhomes/Office and/or Church site. A group of units facing Eubanks may be 3 stories high. Parking behind the buildings.

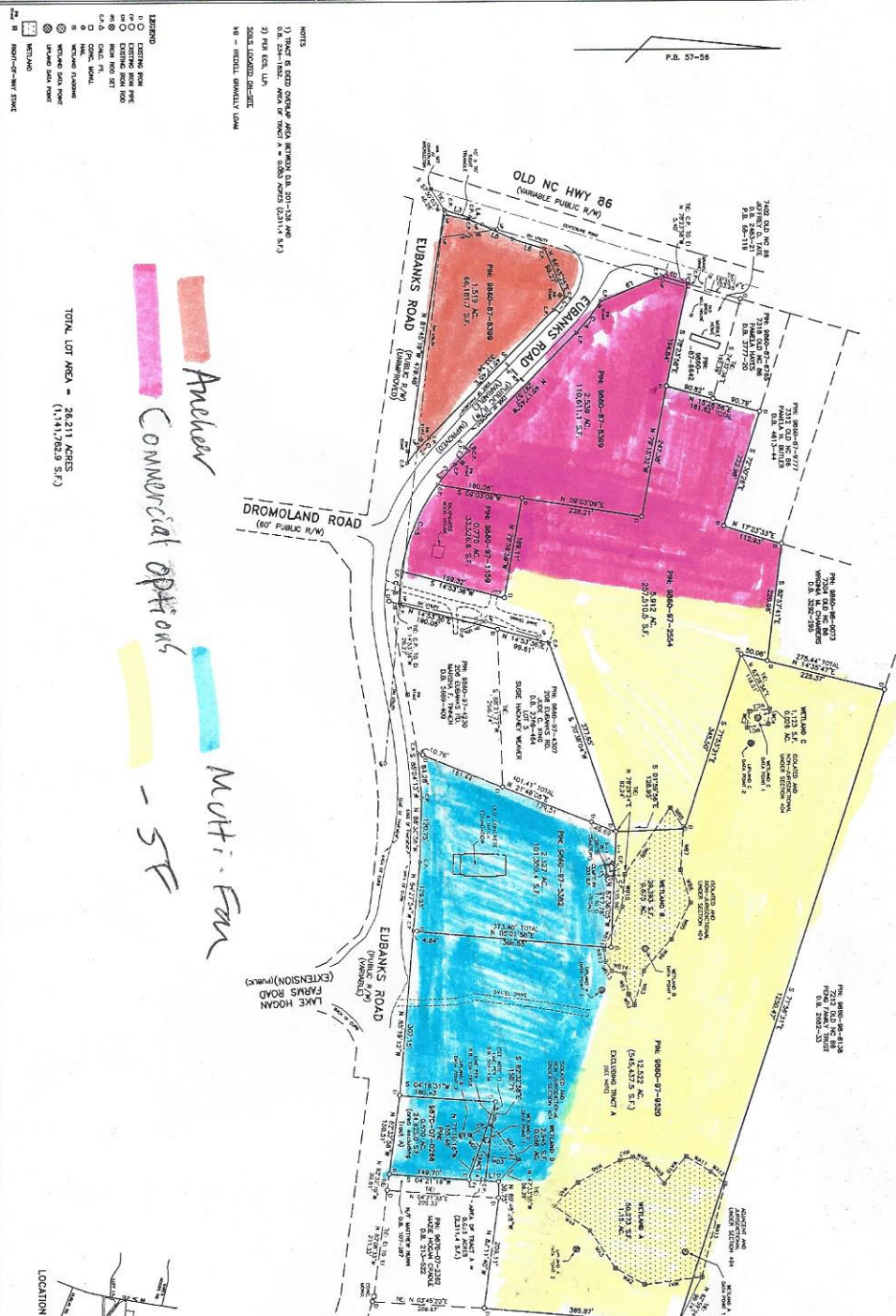
Course	Boating	Distance
L1	S 04°13'38" W	25.02'
L2	S 04°16'38" W	30.72'
L3	M 17°26'54" E	50.38'
L4	S 47°17'41" E	3.35'
L5	N 24°46'54" E	92.27'
L6	M 17°17'57" E	61.75'
L7	N 40°17'45" W	35.77'
L8	S 44°41'38" W	10.00'

Course	Boating	Endorsement
1-1	87.36	74.07
1-2	87.36	77.74
1-3	87.36	13.95
1-4	79.56	20.46
1-5	79.56	14.67
1-6	75.06	18.18
S	87.36	
SS	87.36	
SSS	87.36	
S	79.56	
N	79.56	
M	75.06	

WELDON A			WELDON B		
Cow/ewe	Bearing	Difference	Cow/ewe	Bearing	Difference
W001	5 57/51.25" E	10A 3.6"	W001	6 78/72.5" E	2"
W002	5 57/51.25" E	10A 3.6"	W002	6 78/72.5" E	2"
W003	5 56/50.25" E	10A 3.6"	W003	6 74/68.5" E	3"
W004	5 54/50.25" E	10A 3.6"	W004	6 67/61.5" E	3"
W005	5 54/50.25" E	10A 3.6"	W005	6 72/66.5" E	3"
W006	5 57/51.25" E	10A 3.6"	W006	6 72/66.5" E	3"
W007	5 57/51.25" E	10A 3.6"	W007	6 68/62.5" E	3"
W008	5 57/51.25" E	10A 3.6"	W008	6 68/62.5" E	3"
W009	5 57/51.25" E	10A 3.6"	W009	6 68/62.5" E	3"
W010	5 57/51.25" E	10A 3.6"	W010	6 68/62.5" E	3"
W011	5 57/51.25" E	10A 3.6"	W011	6 68/62.5" E	3"
W012	5 57/51.25" E	10A 3.6"	W012	6 68/62.5" E	3"
W013	5 57/51.25" E	10A 3.6"	W013	6 68/62.5" E	3"
W014	5 57/51.25" E	10A 3.6"	W014	6 68/62.5" E	3"

Course	Ranking	Distance
W1	5 07:46.46	38.66'
W2	5 11:15.14	33.22'
W3	5 08:41.00	33.60'
W4	5 04:10.00	28.01'
Course	Ranking	Distance
W1	5 26:51.77	44.26'
W2	5 31:40.33	38.73'
W3	5 28:02.00	35.75'
W4	5 22:19.25	30.06'

I DECLARE THAT THIS NAME HAS BEEN CHANGED BY SURRENDER FROM AN ACTUAL SURVIVOR NAME LISTED ON SURRENDER (OED) DESCRIPTION INSTRUCTED IN BOOK 3663, PAGE 182; BOOK 4343, PAGE 303; BOOK 4164, PAGE 43; BOOK 3623, PAGE 211). THAT THE BOWHEADS WERE SURRENDERED AND SURRENDERED OR RESIGNED TO THE BOWHEADS IN 1940 AND THAT THE BOWHEADS OR RESIGNED ACQUIRED IN 1940 AND THAT THE BOWHEADS MEETS THE REQUIREMENTS OF THE STANDARDS OF PRACTICE FOR (AND SURRENDER IN NORTH CANADA) (21) (OED 364, 1940) THIS 15th DAY OF SEPTEMBER, 2018.



FREEHOLD LAND SURVEYS, INC. C-165

P.O. BOX 126, CARRBORO, NC 27510
1777 FOREMAN BLVD, SUITE 104
CHAPEL HILL, NC 27514
PHONE 318-526-8090

STEPHEN M. HALLSTROM PROFESSIONAL LAND SURVEYOR
1-50835

J2175

PROPERTY OF
PARKER LOUIS, LLC

PN REFERENCE: 9840-87-3539
 PROPERTY ADDRESS: 7410 OLD RD. B6
 DED BOOK: 98-000-000-162, 418-412
 PN REFERENCE: 9840-87-3554
 DED BOOK: 98-000-000-162, 418-420
 PN REFERENCE: 9840-87-1159
 DED BOOK: 98-000-000-162, 418-422
 PN REFERENCE: 9840-87-3550
 DED BOOK: 98-000-000-368
 PN REFERENCE: 9840-87-3482
 DED BOOK: 98-000-000-465
 PN REFERENCE: 9840-87-3246
 DED BOOK: 98-000-000-211

CHAPEL HILL TOWNSHIP
 GRAYSON COUNTY
 NORTH CAROLINA

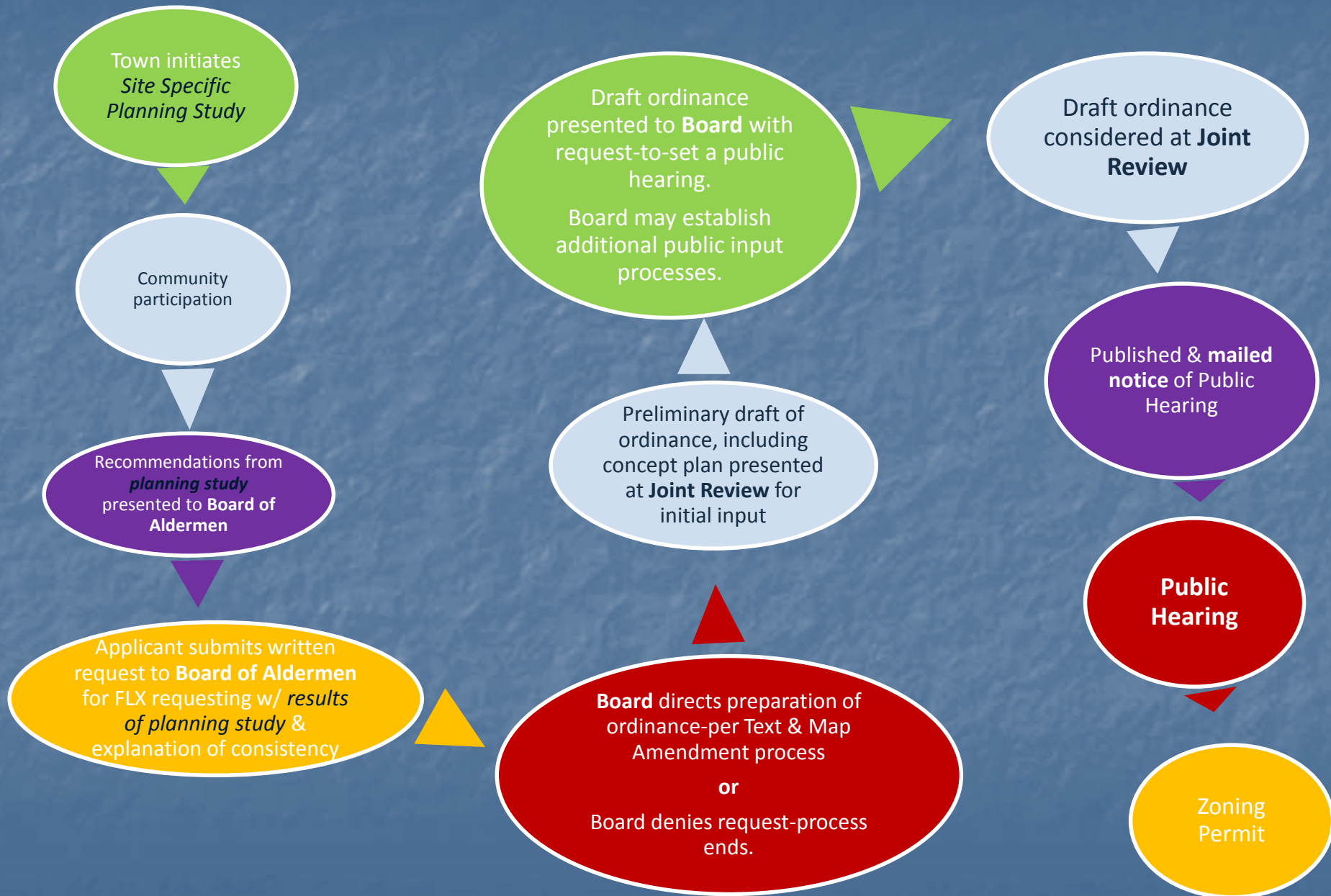
SCALE: 1" = 100'

REV: SEPT. 13, 2016
AUG. 19, 2016

0 200 400

Proposed FLX Rezoning Process

Attachment C



ARTICLE IX

ZONING DISTRICTS AND ZONING MAP

PART I. ZONING DISTRICTS

Section 15-141.5 Site Specific, Flexible Zoning District (AMENDED 06/21/16)

- (a) A site specific, flexible zoning district (FLX) may be established in accordance with the provisions of this section. The purpose of such a district is to establish detailed standards for alternative possibilities for the development of a specific tract of land, thereby facilitating the development of that property according to the demands of the market, but in a way that is consistent with sound planning and the promotion of the public health, safety, and welfare.
- (b) To be considered for FLX zoning, a tract must (i) be at least twenty-five acres in size, (ii) be, as a whole, owned by or under control or option to be purchased by one or more individuals or entities, (iii) be located adjacent to a major arterial such that, when developed, the principal entrance to such development will be from that arterial, (iv) have been the subject of a site specific planning study by the Town to determine the most appropriate potential development options for such tract. As used herein, the term “site specific planning study” shall mean a collaborative programmatic and design study for the site performed either by, or with the participation of the Town and input from one or more workshops, which shall result in a narrative report and conceptual master plan describing in general terms how the site might be developed and how the conceptual master plan corresponds to and addresses applicable components of all town plans for the area, and applicable conditions, and (v) be located in an area that is subject to an adopted small area plan.
- (1) If the Town receives a request for FLX zoning for a tract that has not been the subject of a site specific planning study as described in Subsection (b)(iv) above, the Planning Director shall present to the Board of Aldermen a proposal for undertaking such a study before accepting a formal application for the rezoning. If the Board of Aldermen accepts the proposal, the site specific planning study shall proceed as described in the following subsections, or as otherwise directed by the Board.
 - a. The site specific planning study shall be structured as a charrette of a minimum of one day in duration, or more as determined by the Board.
 - b. The Town shall contract a design professional, with no ties to the applicant, to conduct the charrette. The Town may also contract with a qualified facilitator to oversee the charrette process and final reports prepared from the charrette process.
 - c. Participation shall include representatives from advisory boards,

- neighbors, and members of the public.
- d. Notice of the date of the charrette will be mailed to residents and property owners within 1000 feet of the subject property, published in the newspaper as well and any other means the Town deems suitable.
- (2) Findings from the site specific planning study report, or narrative, and site plan(s) shall be presented to the Board of Aldermen. Subsequent requests for FLX zoning shall demonstrate compliance with the findings from the site specific planning study.
- (3) If more than five years have elapsed since the findings from the site specific planning study were presented to the Board and the circumstances relating to the study have substantially changed, the Board may request an update to the study before accepting a request for FLX zoning. Examples of substantial changes in circumstances include but are not limited to: annexation, some or all of the tract has been subject to a rezoning, unrelated to the FLX district, that increases residential density or changes the types of uses, (i.e. residential to commercial), development on surrounding properties has changed the character or capacity of existing infrastructure.
- (c) A FLX zoning district shall address the following:
- (1) The types of uses that are permissible within the FLX district, along with a maximum (and if applicable, a minimum) percentage of the gross land area that will be devoted to each such use. The description of uses may be in reference to the use classification numbers set forth in the Table of Permissible Uses, or the uses may otherwise be described. The district regulations may also establish density or intensity limitations (expressed in terms of a maximum and/or, if applicable, a minimum number of dwelling units or square feet of building floor area, and applicable ratios, if any if different types of uses within the district).
- (2) The dimensional restrictions (building height, minimum lot size, setbacks) that shall apply throughout the district. Different restrictions may apply to different portions of the district, depending on the uses located therein. The dimensional restrictions may be described by reference to those applicable within particular zoning districts, or otherwise.
- (3) Any limitations on the areas within the district where particular types of uses may be allowed.
- (4) Any architectural standards that will apply to all or designated portions of the district.
- (5) Any limitations on the timing or sequence of development of various portions of the district.

- (6) The location of entrances to and exits from the tract zoned FLX.
 - (7) The manner in which the development of the property will comply with the stormwater requirements set forth in Article XVI, Part II. All developed lots within the district shall be subject to these standards, regardless of the amount of land disturbance, but the FLX district may allow the necessary stormwater treatment facilities to be constructed to meet these standards on a lot by lot basis, or some other basis that provides effective and efficient treatment for all new construction.
 - (8) Any limitations on the location or design of parking lots and facilities.
 - (9) Specifications and standards for the internal circulation system serving vehicular and pedestrian traffic, including a statement as to whether such facilities will be dedicated to the Town.
 - (10) All infrastructure improvements proposed to be constructed in conjunction with the development of the property zoned FLX (including but not limited to improvements to adjoining streets) together with a schedule that links construction of such improvements to the development of the property.
 - (10A) A traffic impact analysis of the FLX zone, including a phase plan or schedule of improvements along with a description of thresholds to require improvements.
 - (11) The extent to which, and the manner in which, development within the tract zoned FLX will be required to meet the goals of Low Impact Design and or exceed the standards for LEED gold certification.
- (d) Development of any lot within a FLX zoning district shall require a zoning permit (and a sign permit if applicable), but not a special or conditional use permit.
 - (e) All relevant provisions of the Land Use Ordinance shall apply except to the extent that such provisions are superseded by the provisions of this section or any FLX district established pursuant to this section. In the case of conflict, the provisions of this ordinance or of the specific FLX district ordinance for the tract shall apply.
 - (f) A text amendment establishing a FLX district as well as a map amendment applying such district to a particular tract shall be initiated and processed in accordance with the following provisions:
 - (1) The owner of property who wishes to have such property zoned FLX shall submit a written request to the Board of Aldermen, identifying the subject property and explaining why the property is a good candidate for FLX zoning. This written request shall include or attach (i) relevant documents (i.e. narrative, and site plan(s) and a list of proposed conditions which may be in the form of written statements, graphic illustrations, or any

combination thereof) that describe the results of the site specific planning process referred to in subsection (b)(iv) above, and (ii) an explanation as to why and how the proposed district is consistent with the Northern Study Area Plan, or if the property is not located within the Northern Study Area, such other plans or policies as may be applicable. The Board may, in its discretion, summarily deny the request or direct the town attorney and planning staff to work with the property owner to develop an ordinance pursuant to this section that establishes an appropriate FLX district and that applies this district to such property.

- (2) Once an ordinance has been drafted as provided in subdivision (f)(1), such ordinance shall be processed in accordance with the provisions of Article XX of this chapter applicable to ordinance amendments initiated by the town administration, except that (i) a preliminary draft of the ordinance, including a concept plan shall be presented to the planning board, Transportation Advisory Board, Environmental Advisory Board, Appearance Commission, Economic Sustainability Commission, and Northern Transition Area Advisory Committee (and other advisory boards to which the Board of Aldermen may refer the draft) prior to the ordinance being referred to the Board of Aldermen to establish a date for the legally required public hearing on the ordinance; (ii) at the time the Board of Aldermen directs that an ordinance be drafted in accordance with subsection (f)(1) above, the Board may establish such additional processes as deemed necessary to ensure that the public has an adequate opportunity for input into the proposed FLX district, and (iii) no property shall be rezoned FLX without the consent of the property owner (which consent may be withdrawn at any time before the adoption of the ordinance establishing the FLX district). The text and the map amendment may be processed simultaneously.
 - (3) Amendments to a FLX district shall be initiated and processed in the same manner as the initial ordinance, except that, if the planning staff determines that a proposed amendment has no substantial impact on neighboring properties, the general public, or those intended to occupy the site zoned FLX, the staff may forward the requested amendment to the Board as provided in subsection 15-321(c)(2). In such case, the Board may (i) decline to call for a public hearing on the proposed amendment, thereby rejecting it; (ii) establish a date for a public hearing on the proposed amendment in accordance with the procedures applicable to any other zoning amendment; or (iii) direct that additional processes be followed to obtain additional public input on the proposal before setting a date for the legally required public hearing.
- (g) Property within a FLX district may be subdivided according to the provisions of this chapter applicable to minor subdivisions, even if such subdivision involves the

Art. IX ZONING DISTRICTS AND ZONING MAP

creation of more than a total of four lots or the creation of a new public street.

Northern Study Area-Eubanks Site Facilitated Workshops



TOWN OF CARRBORO



DURHAM AREA DESIGNERS
FACILITATORS



February 20, 2012

Northern Study Area-Eubanks Site Facilitated Workshops

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Northern Study Area-Eubanks Site Facilitated Workshops

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Northern Study Area-Eubanks Site Facilitated Workshops

Background

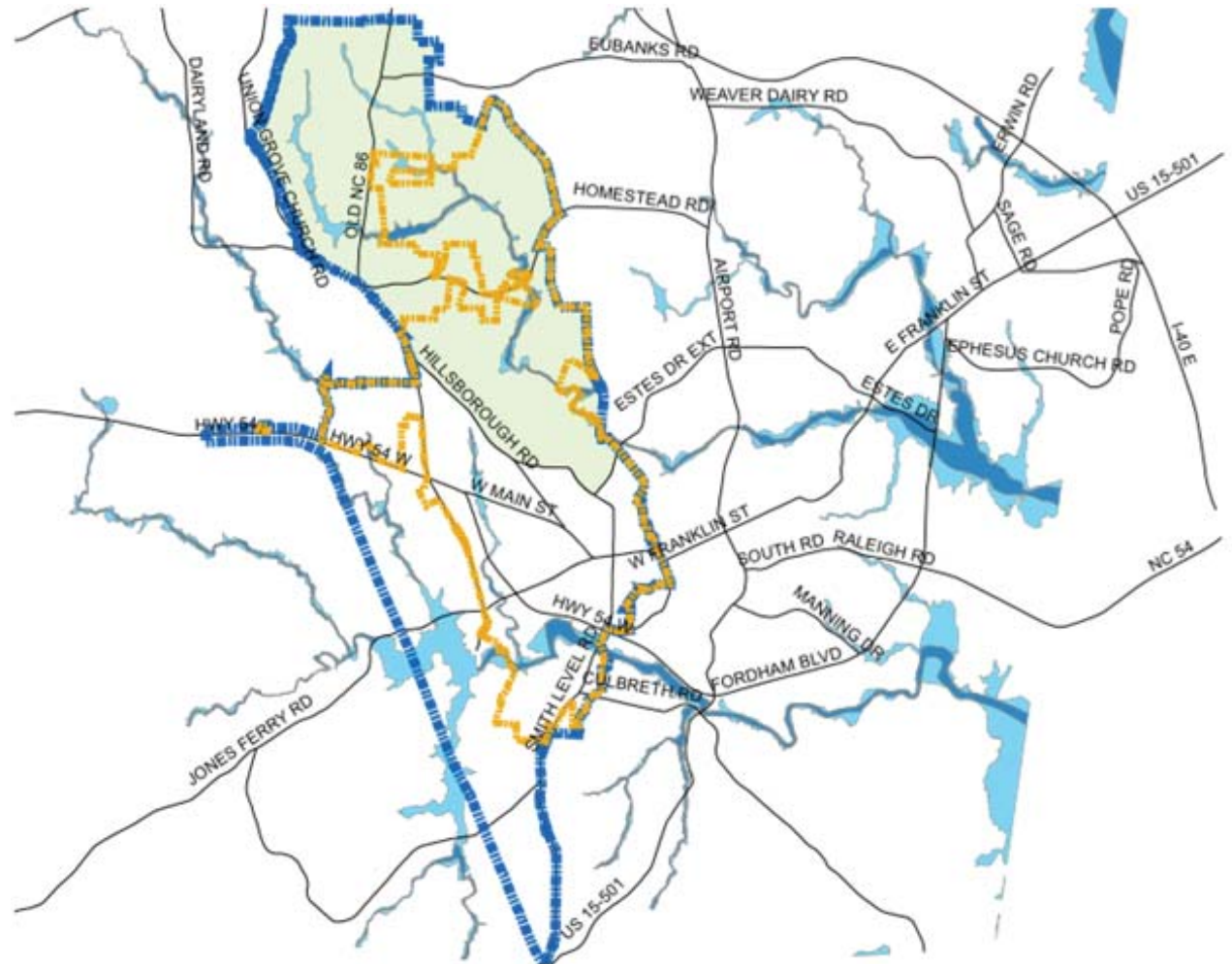
In 1992, Carrboro's Board of Aldermen created the Small Area Planning Work Group to formulate a Small Area Plan for future land use in the North Study Area. In 1996, the Board received the first Draft of Small Area Plan. After taking public comment on the draft, the Board retained Randall Arendt to conduct two facilitated workshops to allow stakeholders to express concerns about the Draft Plan and to assist in formulating changes that resolved those concerns. The plan was adopted after receiving consensus approval from the participants in the workshop.

In 2007, the Board of Aldermen created the Northern Study Area Plan Implementation Review Committee (NSAPIRC) to review and update the North Study Area Small Area Plan. The committee held community forums and based upon the input from them and upon their own analysis of the plan, they submitted recommendations. Upon their own analysis of the plan, they developed recommendations which were then presented to the Board of Aldermen. The Town, upon reviewing select rezoning recommendations, agreed to sponsor a public workshop aimed at exploring ideas for mixed use development in the Northern Study Area. Among the issues the committee recommended to be address in the workshop were modifications to the Village Mixed Use zoning district requirements, development of appropriate street sections for new streets and roads in the Northern Study Area, and creation of a form-based overlay ordinance for mixed use village design.

The public workshop took place on February 26, 2011. This report presents the findings and subsequent recommendations which address the issues identified by the NSAPIRC.

Northern Study Area-Eubanks Site Facilitated Workshops

Northern study area map



Northern Study Area-Eubanks Site Facilitated Workshops

Past, Present, and Future of the Study Area

History. This area of North Carolina was settled in the 1700's by Irish and Scots-Irish settlers who amassed considerable land. Some of these families owned slaves. After the emancipation, some freed slaves became share croppers, others were provided with land to establish farmsteads. It was not uncommon for the freed slaves to take the surnames of their owners. Their history remains in sight. For instance, the white Hogans were active parishioners of New Hope Church; freed slaves Morris and Panthia Hogan created the Morris Grove School and Hickory Grove Church. Descendents of the original settlers and their slaves still live in the area.

The path of Old NC 86 was the historic route of the main road between Chapel Hill and Hillsborough. In 1882, a railroad spur from Hillsborough to a point just north of Main Street in what was then known as West End was completed. Because of the easy access to the train, industrialists started a cotton mill, a gristmill, and a hosiery mill. In 1907, Julian S. Carr bought the cotton mill and agreed to extend electricity to West End, the Town of Venable was incorporated in 1911 and in 1914 the name was changed to Carrboro in honor of Carr.

The history of both the agricultural enterprise and of the village of Carrboro influenced workshop participants' vision for the character of a new mixed use village at the corner of Old NC 86 and Eubanks Road. Two strong sentiments were expressed. First, participants wanted to retain the agricultural landscape and the rural character of Old NC 86. Second, they wanted a village characterized by small scale and North Carolina vernacular style buildings.

Current Land Use. Much of the land to the west and southwest of the targeted site is in forest or agricultural use. Many lots along Old NC 86 north and south of the site are developed with single homes. Nearby land to the east along Eubanks Road is largely forested. Northeast of the site, the land is part of the Duke Forest. Within a mile south is a major residential subdivision—Lake Hogan Farm. Morris Grove Elemen-

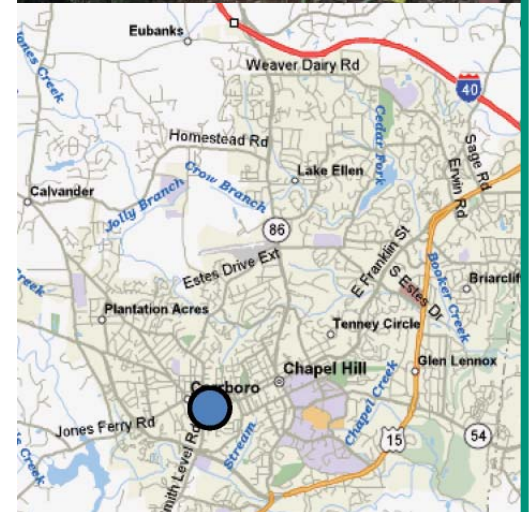


Northern Study Area-Eubanks Site Facilitated Workshops

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tary School is situated immediately south of the site. See Exhibit B in Appendix C for maps of the site and land uses around it.

Projected Future Land Uses. There are three major future public projects in the immediate vicinity of the site. There are two sites for future schools/school administration along the Lake Hogan Farm Road which is to be completed in the near future. Just to the south of Morris Grove School, planning for the new Twin Creeks Park is nearly complete. The park will be entered from a new road, the Tallyho Trail which will be extended all the way to Old NC 86 and will cross the Lake Hogan Farm Road Extension. In addition, there are four residential developments that have been approved: Ballontine, Winmore, the Legends at Lake Hogan farms, and Claremont.



Northern Study Area-Eubanks Site Facilitated Workshops

Executive Summary

The Town of Carrboro engaged the Durham Area Designers (DAD) in early 2011 to facilitate neighborhood discussion of a potential development plan at the corner of Eubanks Road and Old NC 86. The property is currently owned by Parker Louis, Inc, a Chapel Hill based homebuilding and development company. The property is one of the locations identified as a potential mixed-use commercial area by the Board of Aldermen in 2008. This was the result of the Northern Study Area (NSA) workshop recommendations that additional residential and economic development opportunities should be pursued in the NSA to support broader community objectives defined through collaborative planning processes. In 2010, the Town Planning Staff contacted the property owners of the 5 areas identified in that report to ascertain whether they would be willing to allow a Town-led design workshop to study their property for that purpose. The Parker Louis owners were the only ones who responded in the affirmative.

The goal of the workshops was to elicit neighborhood input on what a mixed-use development might look like at this location. A public input session was held on the evening of Wednesday February 2, and a design workshop held on Saturday, February 26th.

DAD made presentations which discussed images and ideas of what modest, residential scale mixed-use hamlets from other areas (within North Carolina and beyond/elsewhere in the U.S.). They also spoke about the history of the area, the NSA effort, and current and projected growth and development patterns in the area. DAD also gave a brief description of Form-Based Zoning. This type of regulating code regulates the form of building blocks, the scale of buildings, their relationship to the street and surrounding properties, and basic street layout. It is less concerned with uses, and instead establishes a building framework where uses can change over time as ownership and market demands dictate. A more thorough description can be found in Appendix C Exhibit D. The participants responded by creating a list of potential acceptable uses, building scale, and concerns about buffering and preservation of rural character, among other things. The resultants of the design workshop are illustrated and described in this report.

The process and results follow. (All of the information/presentations made at the workshop can be found in Appendix C.)



Northern Study Area-Eubanks Site Facilitated Workshops

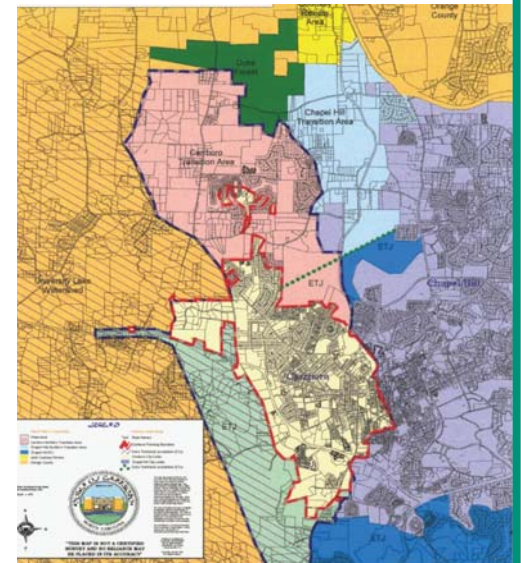
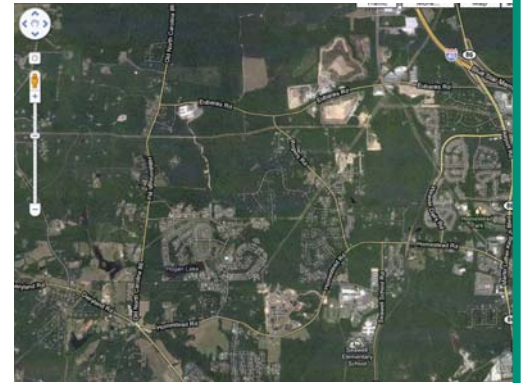
Introduction to the Process

The charrette –based design process is well recognized as an effective tool for engaging potential beneficiaries and affected parties in arriving at a design solution that incorporates their concerns and ideals. The term “charrette” has its roots in Nineteenth Century French architectural schools, where, at a project deadline, the Instructor would declare “pens down” to his studio of architecture students; his assistant would roll around a small cart (“charrette” in French) to pick up the projects. Architecture students, being what they are, would continue drawing to the very last second before the cart came to them, and even in some cases climb on to the “charrette” to put that last finishing touch on their drawings as it rolled away. Therefore, the word charrette came to describe this intense activity to finish a design project. The use of charrettes has been widely adopted to promote community participation in the design and development of their neighborhood, town, or city.

In the case of the Carrboro NSA mixed use village workshops, DAD utilized a modified charrette process to engage the participants in a “what if” scenario. After studying the 18 year history of the Northern Study Area process and results, the DAD team met with Town Staff and representatives from Parker Louis to ascertain the particulars of the site. Along with a site walkabout, the DAD team gathered base maps from various Town and County sources, researched the history of the neighborhood, and pulled together various long range plans for items such as transportation, land use, recreation and open space, trails and water and sewer service areas. The preparation also included a meeting with a representative from the NCDOT District office to discuss its planned relocation of the Eubanks/Old NC 86 intersection to the north of its current location.

Town Staff placed advertising in media sources and sent out direct mail invitations to all property owners within an area 150’ outside of a polygon formed by Homestead Road, Rogers Road, Old NC 86 and Eubanks Road. approximately 2 weeks before the first Public Meeting.

The first Public forum was a community input meeting held at the Morris Grove Elementary School Media Center on the evening of February 2, 2011.



Northern Study Area-Eubanks Site Facilitated Workshops

(Continued from previous page)

Approximately 25 people attended (exclusive of Town Staff and the DAD team). The first portion of the meeting was a presentation by several DAD members on examples of similar scale mixed use communities in the US, a short history of the neighborhood, an overview of the NSA efforts and process to date, and overview of the property, including the planned NCDOT intersection re-alignment, and a brief summary of some basic small scale village and street design principles.

Most of the meeting was spent on the ensuing discussion among the participants on topics as diverse as whether there was a need or a desire for commercial uses of any kind at this location; the current “soft” commercial market and whether any commercial would be financially viable; the NCDOT proposal (and whether any properties would be affected); the relationship and connection to the school, including shared parking arrangements; the Northern Study Area process to date; the current rural character and future buffering; and ultimately the potential uses that folks would like to see at the location.

Based on input from the first meeting, the DAD team revised, expanded and refined the materials and presentations for the Design Workshop. More “precedent” images, including some from downtown Carrboro of the early 20’s, and fewer “urban” images were put in the presentation. Also, an introductory presentation to Form-Based Zoning principles was added to the materials.

The Design Workshop was held on the morning of Saturday, February 26th, again at Morris Grove Elementary School. Approximately 45 people were present at the beginning of the day. The DAD team and Town Staff gave a brief overview of the discussion from the orientation meeting on the 2nd, and then gave detailed presentations that further described the characteristics of the property. Before the presentations proceeded very far into a discussion of Form Based Zoning, a small group of participants took the floor to revisit the idea of whether the premise of commercial uses at this location are appropriate, and whether the exercise was just to go through the motions because the mixed use village was a fait-accompli. DAD represen-



Northern Study Area-Eubanks Site Facilitated Workshops

(Continued from previous page)

tatives and Town Staff both assured the attendees that this was not a pre-determined outcome, but rather was a genuine community-based design workshop. Any decisions on zoning map changes and Use Permits would still entail a long public process, and would ultimately need to be voted on by the Carrboro Board of Aldermen after public hearings. Omar Zinn, one of the partners in Parker Louis, explained that they were well aware of that process, and that they would ultimately have to decide whether they wanted to pursue any of the recommendations from the workshops, or to pursue another course in developing the property.

After about an hour and a half of presentations and discussions, the attendees broke into five work groups of 5 to 8 people each. The first exercise was to formulate five big ideas that would guide their design of the property. It should be noted that about 25% of the morning's attendees had to leave at this point due to other obligations. After each team had shared its five big ideas with all participants, the teams set out to design what each saw as the ideal mixed use village. Each group had at least one DAD facilitator at the table who helped (as needed) to put the groups ideas on paper, to take notes, and to answer questions about land design principles. The DAD members roles were not, however, to promote any design agenda, but simply to help participants at each table incorporate their ideas into the design.

After about 90 minutes of work, each team pinned up their sketches on the wall and appointed a spokesperson who gave a two or three minute overview of their design ideas. The Teams then went back to work for about another 45 minutes to finish their drawings. At the end of that time, each Team once again pinned up their sketches and notes, and once again the spokesperson gave a five minute synopsis of their proposal. The workshop ended around 2:30.

Subsequent to the workshop, the DAD Team met and pinned up each group's sketches and notes, comparing them for commonalities, strong ideas and unique ideas. The stronger ideas that were common among all



Northern Study Area-Eubanks Site Facilitated Workshops

(Continued from previous page)

or many of the groups have been graphed in "Citizen Input Scorecard" (see Appendix D). In addition, due to the wide range of drawing styles among the group sketches, DAD members traced all five solutions in one graphic technique so that legibility and neatness would not become a "rating" issue. These findings were then presented to Town Staff, who provided input into the preparation and content of this report.



NORTHERN STUDY AREA - EUBANKS ROAD & DILL ME RD
Town of Eubanks
Eubanks Area Eubanks



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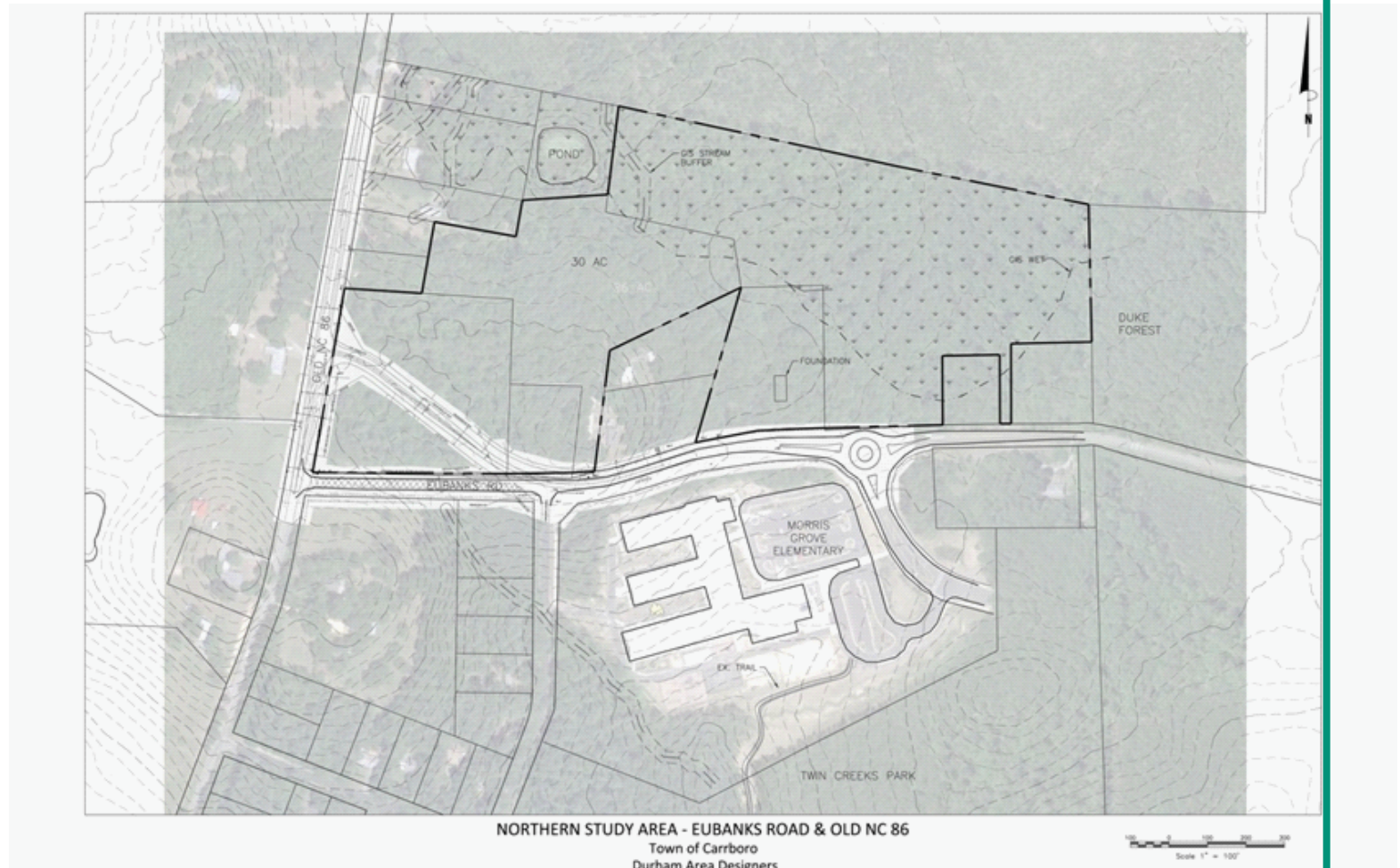


NORTHERN STUDY AREA - EUBANKS ROAD & DILL ME RD
Town of Eubanks
Eubanks Area Eubanks

Northern Study Area-Eubanks Site Facilitated Workshops

The Focus Area

The study site for the design workshop was a 30 acre tract that is an assemblage of lots at the northeast corner of the intersection of Eubanks Road with Old NC 86. The frontage on Old NC 86 is continuous; however, the frontage on Eubanks Road is interrupted by three tracts that are not part of the study area. The land is largely forested with hardwood trees. There is a building foundation on the site; in addition, there was once a rural school on a part of the site. The northeastern part of the site is a designated wetland, and no disturbance or development will be allowed. N.C. DOT has proposed realigning Eubanks Road to the north of its current alignment in order to get longer sight distances at the intersection with Old NC 86.



The Workshop Process

The Public Input Meeting. On February 2 of this year, a public meeting was held at Morris Grove School. It was characterized by a lively discussion with a wide variety of opinions and ideas, often conflicting. The facilitators used this meeting to explain the assumptions behind the design exercise and to set a direction for the design workshop. By the end of the meeting, the discussions became more focused on what the attendees might like to see if the target site were developed as a mixed use village or hamlet.

Agenda:

1. Introductions
2. Background on Northern Study Area (NSA)
3. Description of the “Village Mixed-Use Floating Zone” objectives
4. Examples of small-scale mixed-use through aerial photography and building images
5. Examples of small-scale hamlets and villages, highlighting primary and secondary street patterns and (where applicable) inclusion and location of public open space, such as “village greens” or “commons”
6. Discussion during and following presentations
7. Wrap up and summary of “next steps”

See Appendix B for the list of attendees and for a copy of the presentations.

The Design Workshop. On Saturday, February 26, the Durham Area Designers facilitated a design workshop to develop a vision of a mixed use village development which would be acceptable to the stakeholders. As in the Public Input Meeting, there were widely varying opinions; at the end of the workshop, there were five different plans with very little overlap. There was not a consensus vision; that would take a longer reiterative process, but the facilitators did not feel like consensus was impossible.

Northern Study Area-Eubanks Site Facilitated Workshops

(Continued from previous page)

Agenda:

1. Introductions:
2. Summary of February 2 Public Information Meeting
3. Presentation – History of the area – See Appendix C, Exhibit A for full presentation
4. Presentation – Neighborhood context, including information about site characteristics, transportation issues and existing and future local development – See Appendix C, Exhibit B for full presentation
5. Presentation – Mixed-use village examples and precedent examples – See Appendix C, Exhibit C for full presentation
6. Presentation – Form-based Zoning (brief comments, but not delivered in light of active group discussion of issues raised by preceding presentations) – See Appendix C, Exhibit D for full presentation
7. Discussion of objectives for balance of the charrette
8. Break-up into teams at work tables
9. Team discussion of forms and types of development that would promote small-scale, mixed-use, community-promoting development, and streets friendly to multiple users, including pedestrians, bicyclists and transit
10. Reports of such discussions to the large group
11. Development of concept plans
12. Pinup and discussion of team plans
13. Discussion of next steps

The results of the five team's work follows.

Northern Study Area-Eubanks Site Facilitated Workshops

Team One



NORTHERN STUDY AREA - EUBANKS ROAD & OLD NC 86
Town of Carrboro
Durham Area Designers

Northern Study Area-Eubanks Site Facilitated Workshops

Team One – Susana Dancy, Facilitator

The team stated that the overwhelming problem in this area is traffic along Old 86, especially truck traffic. The volume of truck traffic and the speed it travels significantly diminishes the quality of life for those who live in this area. However, if traffic were calmed, the group supported development in this area, in fact supporting a fairly high level of intensity to increase the viability of a small scale community store, restaurant, or other small business. The team endorsed a human-scale development. One participant, when looking at a photo of a street with houses close to the street with sidewalks and street trees in the planting strip, said: “You mean we could make them have the street look that way? Then it’s definitely got my vote.”

The team saw the intersection of Eubanks Road and Old Highway 86 as an area of community-scale commerce, serving residents in the nearby neighborhoods, parents of children at Morris Grove Elementary School and the future middle school, and visitors to the planned county park and recreational area. Drawing from historical precedent, buildings -- especially commercial buildings -- would be visible from Old Highway 86 to help ensure viability of any businesses located there. Attractive uses would include retirement community, assisted living, medical offices, community/general store, and restaurants. A high value would be placed on traffic calming measures and quality public spaces (streets, squares and parks). The team’s proposal includes:

- Install multiple speed tables to discourage trucks from using this route or to force them to slow significantly.
- Attract small businesses such as medical offices, a retirement community, hospice, a restaurant, or a community store (but not a strip center).
- Create a variety of housing: single-family on small lots, townhouses and multi-family.
- Locate parking, especially for multi-family, behind buildings, on the interior of the block.
- Design the development to serve all ages of the community.
- Design pedestrian-scale streets for the area.
- Front buildings on a community square or green space.

Northern Study Area-Eubanks Site Facilitated Workshops

Team Two



Northern Study Area-Eubanks Site Facilitated Workshops

Team two - Michael Waldroup, Facilitator

The team started its discussion by expressing a strong preference for keeping road alignments the way they were and curing the sight-distance issues at the Old 86/Eubanks intersection by 'shaving' the crest of the hill to its south. Agreeing to accept the NC DOT realignment as a given for the purposes of our deliberations, discussion about the differing character of Old 86 versus Eubanks translated into a desire to protect as much of the existing character of Old 86 as possible by supporting its existing 100' buffer requirements and by creating a parallel shared bicycle/pedestrian path at some distance from the edge of the road.

Concerns about truck traffic along Eubanks generated skepticism that Eubanks could be converted to a vibrant 'village mixed-use' street served by on-street parallel parking; this made it easier to visualize lining the western end of Eubanks with a continuous two-story wing of a retirement community, with, in any case, street trees and a sidewalk running back to the roundabout. It was agreed that getting actual counts on truck traffic would be useful before making a final decision about the feasibility of parallel parking on Eubanks.

The Dromoland alignment dictated the location of a western entry point; narrow space to the east dictated small scale uses against the 'outparcel' extending northward into the Zinn property; the roundabout allows the addition of an additional 'leg', creating the eastern entrance into the property and allowing the formation of an internal loop connecting the two entrances. Development in the triangular area to the northwest of the roundabout should be brought close to the Eubanks Road sidewalk, with major parking put behind the building. Parallel parking on Eubanks close to the roundabout would likely be problematic, so under the best of circumstances, buildings would front the street, but the most active entries would likely be at the rear of the buildings as one got closer to the roundabout.

The team included Omar Zinn, owner of the property, and spent some time discussing what could or could not be served by sewer, recognizing the relationship between infrastructure expense and the economic strength of any first phase of development which has to fund that expense; these considerations made the idea of a retirement community seem most viable. The team did not spend any time on the issue of taking advantage of all possible bike/pedestrian connections to the northeast or south, but likely would have been very supportive of those concepts, particularly for retired residents seeking diversion or exercise.

Northern Study Area-Eubanks Site Facilitated Workshops

- Leave road alignments as-is at intersection of Eubanks and Old 86 and 'shave' the crest of Old 86 south of the intersection to improve sight distances.
- Relocate the intersection of Old 86 and Eubanks as indicated in the NC DOT drawings if it is not possible to implement the first recommendation.
- Preserve a 100' buffer on either side of Old 86.
- Install off-street shared bike and pedestrian pathways along Old 86 such as is being installed at Balentine.
- Develop the character of Eubanks Road to be considerably different from Old 86: posted speeds should be lower; sidewalks, street trees and buildings should be closer to the road, giving it more of a 'hamlet' or small village character.
- Locate a retirement community to the northeast of the Old 86-Eubanks Road intersection. The main structure should be two to three stories and should have a vernacular character. The facade should be articulated and should be brought to the sidewalk. The building should front the street.
- Establish an area of cottages for seniors between the main building and the property line to the north and along the internal street to the east.
- Locate commercial and office uses to the northwest of the traffic circle, fronting Eubanks road. Put parking to the rear.
- Create a landmark structure, again with a vernacular character, on the southeast corner of Eubanks and Old 86, to announce arrival at the edge of a more developed Carrboro; the building would house a use compatible with the retirement community across the street.

Northern Study Area-Eubanks Site Facilitated Workshops

Team Three



NORTHERN STUDY AREA - EUBANKS ROAD & OLD NC 86
Town of Carrboro
Durham Area Designers

Northern Study Area-Eubanks Site Facilitated Workshops

Team Three - Kevin Hamak, Facilitator

In its approach to a design for a mixed use village, Team Three discussed the relationship between the site and the surrounding community as far as current and future traffic concerns and the impact of any proposed development. Concern was raised about current truck traffic and how it would impact any future development of the site. The proposed NCDOT alignment of Eubanks Road and Old 86 was debated as to whether it was necessary or if there were any other options. Eventually the NCDOT alignment was selected in order to improve the safety of the intersection. Traffic calming options such as traffic circles and road widening on Old 86 and on-street parking on Eubanks Road were also discussed.

The team discussed many uses for the site; they included residential and commercial components. The team discussed how to integrate them into a walkable village center. The idea was also posed as to whether the entire village could be a retirement community or have retirement housing and services (or other housing types) and also commercial and civic services that would be useful to the entire surrounding community and especially the adjacent school property and the future county park. The team also discussed the need to maintain views along Old 86 but also wanted to create views into the site in order to create a viable village center.

The team wanted any commercial or civic uses to be primarily for local residents in the surrounding community. Types of buildings were discussed, and it was determined that they should be no more than two stories in keeping with the surrounding architectural character, with possibly a third story occurring in a mansard or dormer roof.

It was determined that Eubanks Road could be a pedestrian friendly street with on-street parking and pedestrian connections to the school and park property south of Eubanks Road by extending the existing trail system through the school property to the site as well as creating a trail along Old 86. The team also wanted to look at options to extend the trail system by connecting through Duke Forest or along Eubanks Road to the future athletic park on Millhouse Road. In summary, the team's design proposed to:

- Provide on street parking on Eubanks.
- Create and maintain views from Old 86 into village center.
- Provide parking to rear of mixed use buildings.
- Provide bike lanes parallel to Old 86.

Northern Study Area-Eubanks Site Facilitated Workshops

- Create a village “commons” at northwest corner of Eubanks and Dromoland intersection and connect the greenway trail with site and with Duke Forest across the traffic circle.
- Make the commercial core just a handful of buildings.
- Explore the possibility that the entire village could be a retirement community.
- Limit buildings to 2 stories although a 3rd floor with a mansard roof or a sloped roof with dormers would be acceptable.
- Investigate traffic calming options on Old 86.
- Provide residential cottages to the east of the outparcel and all along the edge of the wetlands inventory area.
- Widen 86 and provide paved shoulders.

Northern Study Area-Eubanks Site Facilitated Workshops

Team Four



NORTHERN STUDY AREA - EUBANKS ROAD & OLD NC 86
Town of Carrboro
Durham Area Designers

Scale 1" = 100'

Northern Study Area-Eubanks Site Facilitated Workshops

Team Four - Barbara Norton, Facilitator

A lively discussion about traffic issues drove the design decisions of Team four. Design ideas included finishing the connecting road south of the school, adding three-way stops on Old 86 with an adjacent permanent parking spot for the sheriff. Inside the site, tree lined streets would circulate through a mixed-use area with seniors' and children's activities and family housing in close proximity. The Team was adamant that mixed-use or commercial retail would serve this particular neighborhood-scale locale and not become a destination commercial center, ruining the rural character of the area around it. The team's proposal includes:

- Swing Eubanks Road from the traffic circle to the north of the outparcel (this slightly clips a property that is not in the target site; compensate property owner with deeding of additional land from abandoned right of way and the subject property).
- Provide a 3-way stops at the Eubanks and Old 86 intersection for traffic calming.
- Develop a child care center directly north of the school.
- Locate single family, townhouses, or patio homes along Eubanks just north and west of traffic circle; locate recreation facilities (gazebo, tennis courts, etc.) adjacent to housing.
- Re-route the greenway to the west of the school, extend over to Old 86 through the abandoned Eubanks right-of-way.
- Create a courtyard focused retirement community at the SE corner of Eubanks and Old 86 surrounded by single family residential.
- Attract and support neighborhood-focused commercial rather than destination commercial.
- Minimize parking and light pollution
- Create an off-road bike trail and replant area recently cleared by Duke Energy on Old 86 south of Eubanks; allow no new commercial driveways, and limit commercial signage.
- Provide a parking spot for the Sheriff on Old 86
- Provide screening from headlights on west side of the Old 86 and Eubanks intersection.

Northern Study Area-Eubanks Site Facilitated Workshops

- Do not allow gas stations
- Provide street trees on all new streets
- Minimize urban heat island effect by reducing paving; achieve this with TND Street Standards.

Northern Study Area-Eubanks Site Facilitated Workshops

Team Five



NORTHERN STUDY AREA - EUBANKS ROAD & OLD NC 86
Town of Carrboro
Durham Area Designers

Northern Study Area-Eubanks Site Facilitated Workshops

Team Five - Dan Jewell, Facilitator

The team started their discussion with a few fairly strong statements concerning: a) maintaining a rural character along Old 86; b) keeping the village center off of and away from Eubanks Road; c) respecting NCDOT's planned re-alignment of Eubanks; and d) developing something significant at the southeast corner of the new intersection. A significant part of the ultimate design was also influenced by the desires of the Owner of the outparcel in the middle of the assemblage who was part of this team. Her desires to maintain adequate buffering and lower intensity development adjacent to her property were respected by the group. The design to maintain a rural character was also largely driven by a few team members who lived across Old 86 from the study area. The group came to consensus on building heights and development intensity and uses at the core and perimeter. The resulting design fairly clearly articulates all of those discussions and concerns:

- Maintain some level of buffering along Eubanks Road.
- Work with the Eubanks Road re-alignment as proposed by NCDOT.
- Create a village center off of Eubanks to eliminate commercial traffic impacts.
- Locate a retirement Community to north taking advantage of views into wetlands inventory area
- Develop health/medical related complex (2 stories) in area off traffic circle and to east of outparcel; take advantage of views.
- For the village center, create one good block of 2 story residential scale mixed use buildings.
- Provide parking to rear of this block
- Integrate residential component of retirement community into Village core.
- Create some residential component (i.e.; townhomes and patio homes) between village core and Old 86.
- Create a commercial development similar to Homestead Station at the southeast corner of Eubanks Road and Old 86.
- Re-route the greenway trail to the west of the school; build a greenway tunnel under Eubanks Road.
- Connect greenway and trail system to the Duke Forest property.

Footnote on Traffic

At the public information meeting, at the workshop itself, and at a follow up meeting with the stakeholders, there was a pervasive concern with traffic. There was a general feeling that future traffic volumes will make the proposed development unlikely to succeed, and even if the property is not developed, that residents along Old NC 86 and especially along Eubanks Road will suffer from current levels and increasing levels of traffic. These concerns have several sources. The first is the large truck traffic going to and from the Orange County Landfill. It is the reason that several of the teams chose to put the “Main Street” off and away from Eubanks, as the truck traffic would be detrimental to a small scale pedestrian feel and character that is desired in new development here. (It should be noted that there the actual versus perceived volumes of traffic were exaggerated; real traffic counts must be made.)

The second traffic concern relates to the anticipated growth in volume of traffic from future development to the east. There is currently a development application in the Town of Chapel Hill to develop a “big-box” center on Eubanks closer to NC 86. The participants are quite concerned that this will bring a huge influx of additional car trips through western Eubanks, both generated by that and future developments, as well as by more and more people using western Eubanks as a way to avoid future congestion on the eastern end.

Suggested remedies from the participants ranged from traffic calming measures on Eubanks and completion of the Lake Hogan Farm Road from the school south to Homestead to a suggestion to disconnect eastern Eubanks from western Eubanks. It seems certain that any development proposal on Eubanks Road within the Town of Carrboro’s jurisdiction will lead to much discussion on how to mitigate traffic concerns.

Components of the Plan

The goal of the design workshop was to work with the stakeholders to draw a physical plan of what a mixed use village at the corner of old NC 86 and Eubanks Road would look like. As an aid to starting the planning process, the Durham Area Designers presented various examples of possible components of the plan. During the subsequent work sessions the teams of stakeholders discussed the various components, identifying those which seemed appropriate for the village plan. The comments centered on four topics: scale, building types and character, streets, and finally, viable and desirable commercial uses.

Neighborhood Scale and Character. Participants expressed a desire to see a neighborhood scale development. What is a neighborhood? “Neighbor” from Old English “neihgebur” combines “neih” meaning near and “gebur”, meaning inhabitant. In other words, a neighborhood is living near people you would run into on the street, outside your home. It is a place small enough that you know your neighbor, and your neighbor knows you. A neighborhood is walkable; houses and businesses are located close enough together that a five minute walk from your home can lead you to a cup of coffee.

A neighborhood has various sizes of housing to accommodate families, old people, young people, couples, singles, or friends. There is an identifiable center and an identifiable boundary. A center focuses the neighborhood on itself. What goes in the center? A village green, a community garden, a meeting place, a church, or a playground can all be a center. A neighborhood also has edges. One knows when one has entered it and when one has left it.

No major thoroughfares go through a neighborhood. In fact, some of the interior streets do not go all the way through. Parking “lots” are small and the fronts of houses are open to the street, with parking behind, in alleys.

There is commerce in a neighborhood, maybe a small grocery, a cafe, or a restaurant on tree-lined streets with sidewalks, lamp-posts, and a path to ride a bicycle on. Front porches on houses and businesses encourage



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(Continued from previous page)
outdoor living.

If you were lucky enough to grow up in a neighborhood, inevitably, childhood memories recall a certain freedom to explore the area with one or two other children while adults were more or less in the background. You were free to walk or ride a bicycle and arrive at your destination. You were free to visit friends by yourself on foot. A neighborhood is both friendly and protective.

Building Types and Character. A number of examples of different commercial buildings and houses were shown to the participants for their reactions. Many of the examples were local. There was not much comment on housing types though the commercial buildings were of interest. Some examples showed business located in buildings that could also be interpreted as houses. Most were two stories and clearly had businesses on the ground floor. The upper story could be residential. The examples were from small towns; the buildings were located close to one another and were close to the street. The other type of commercial building which met with general approval was the typical general store. Some of these were also two stories. Both types of commercial building had a generous amount of glass on the first level, facing the street.

The great majority of buildings which elicited approval were traditional in style and had a somewhat rural character. The predominant building material was wood; brick was judged to be more urban than was deemed appropriate for a village or hamlet.

The scale of these buildings was small to moderate. To achieve the street character shown will require that lots be sized to maintain the cohesiveness of individual buildings. A critical factor for achieving the identified character is having enough lots sized for businesses, but not having too many and thereby exceeding the market demand. The end result could be that businesses and housing end up separated by a moat of empty lots.

One team explored a different path for developing the study site. They



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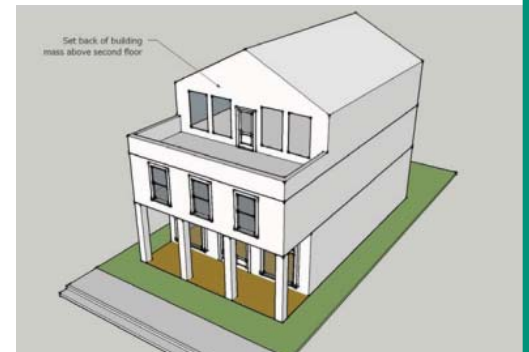
explored how a retirement community might develop as a major component of the village.

As a footnote to the design workshop, it should be noted that some participants sent photographs of village buildings much like the ones presented at the workshop and that they strongly endorsed a smaller scale and a village character.

Street Design. The presentation of street components at the design workshop focused on three approaches to designing and scaling streets. Many participants asserted that there was a lot of traffic on Eubank including trucks going to the dump and that the traffic often sped along Eubank Road. This makes the design of Eubanks Road from the traffic circle at the school to NC 86 very critical if we are to create a walkable village or hamlet core. The three approaches presented to address speed, safety, accessibility, and walkability along roads and streets.

The first approach was to use the principles of Complete Streets in designing the streets. These principles are promulgated by a national coalition which promotes legislative adoption of the Complete Streets design guidelines and policies. Complete Streets are designed to accommodate vehicles, transit, pedestrians, bikers, and people with disabilities, and to do so safely and pleasantly. These guidelines are important because true villages are inherently walkable.

A second approach looked at the appropriate dimensions for streets to accommodate various speeds. Not only do the dimensions allow for greater or lesser speeds, a well-dimensioned road can compel safe speeds. This will be an important tool for calming traffic on Eubanks Road. The presentation cited the NC DOT Traditional Neighborhood Development Street Design Guidelines as one source of dimensions for both Eubanks Road and other road created for residential neighborhoods. The Complete Streets organization is about to publish their own street design guidelines.



Northern Study Area-Eubanks Site Facilitated Workshops

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Finally, the presentation outlined a third approach to street design that seems to have greatest relevance to residential areas. That approach is the shared street which puts vehicles, pedestrians, and bicyclists all on the same surface. The small scale of shared streets insures very slow speeds for vehicles.

NC DOT is proposing to relocate Eubanks Road from the school to Old NC 86. DOT has indicated a willingness to study suggestions for the most effective street section for this new stretch of road.

An additional element of street design is the incorporation of parking. The participants had strong sentiments against setting buildings back from the road and locating the parking in front of the buildings, convenience-store fashion; however, they accepted the idea of on-street parking. On-street parking has two important effects: first, it slows traffic along the street; second, it buffers pedestrians from the moving cars, adding an extra degree of security for pedestrians. It should be noted that the Village Mixed Use District ordinance already allows a business owner to count some on-street parking as helping to meet requirements for parking.

In response to both the concerns about traffic problems on old NC 86 and the suggestions of a couple of the teams, we have included street sections for modifying old NC 86 to make it safer and more pedestrian and bike friendly in Appendix F. The street sections labeled Rural Road with Turn Lane and Rural Road show lane dimensions and pedestrian/bike amenities for a road which does not encourage high speeds and which accommodates all forms of traffic. The other street sections included in Appendix F show dimensions and features which reflect Traditional Neighborhood streets as presented by NCDOT and other agencies.

Viable and Desirable Business. During the Public Input Meeting and the Design Workshop, the participants identified these groups of people as the possible clientele for business in the mixed use village/hamlet:



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Facilitated Workshops

(Continued from previous page)

- Residents of the new village
- Residents of nearby developments
- Parents of students at Morris Grove School
- Students at Morris Grove School
- Teachers at Morris Grove School
- Users of the future sports park
- Drivers using Old NC 86 and Eubanks Road

They identified these as potentially viable businesses:

- Afterschool uses:
 - o Afterschool care; there might also be a demand for before-school care
 - o Dance school
- Daycare facility
- Ice Cream Shop
- Café or coffee shop
- General Store (comparable to various local stores: Hurdle Mills Market & Butcher—which includes a cafe, Saxapahaw General Store, Mast General Store)
- Retirement Community (perhaps with a restaurant open also to the public, or with a drugstore with soda counter and sundries, again, open to the general population.)
- Gas Station (old-fashioned model with snacks and sundries)
- Medical clinic



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- Physicians' offices
- Live/work units for the professional and creative classes
- A local bakery like Guglhupf
- A business modeled on Foster's Market
- Small grocery store (perhaps as part of a café or other eating establishment)
- Store which carries school supplies

Recommendations for Next Steps

As a result of the design workshop, we believe that the participants' preferences for the character and scale of a future development would be well-served if the form-based components of the Village Mixed Use District regulations were strengthened. Form-based codes have been developed to create well proportioned, beautiful, and pedestrian-friendly public spaces. The key elements which are regulated by such codes are 1) a building's relationship to the street or other public way, 2) a building's massing, and 3) the proper location of the different building types described by the code.

In the majority of instances where a municipality or county has adopted a form-based ordinance, the code was aimed at redevelopment within a previously platted and developed area. The stakeholders who created the form-based code had real lot sizes and existing character to work with. However, in this instance, the targeted areas for implementation of a form-based mixed use village zone have not been subdivided. Therefore, there need to be regulations which dictate how the subdivision will occur. Lot sizes are an important factor in creating a village scale.

Creating a Form-Based Village Mixed Use District Ordinance

We recommend that the Town staff, over time, study ways to strengthen the form-based aspects of the Village Mixed Use District. We would propose that these changes be considered:

Subdivision and Regulating Plans. As we mentioned above, the manner in which a proposed mixed use village district is subdivided has implications for both the public and for the potential developer. Lot sizes and distribution must support the creation of a village character. But lot sizes also have implications for the financial viability of such a development; therefore, the staff should consult market specialists to determine viable lot sizes and configurations.

In the Ordinance, the submission of a master plan is required for an application to rezone to VMU (15-141.2 (e)). The master plan requirements should call for a regulating plan and descriptions of the proposed building types.

Building Types and Density. Two factors determine density: the size of lots and the type of building required on a lot by the regulating plan. The regulating plan locates specific building types which have been established according to the form-based provisions in the Village Mixed Use ordinance. A prospective developer should provide examples of village plans that have a comparable density to their proposed development. These examples should also show the total area of the villages used as precedent for their proposal.

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Spatial Consideration. The current requirement for a minimum of fifty contiguous acres may need to be reevaluated for a village-scale development. Similarly, the Village Mixed Use floor area thresholds should be reconsidered.

Supplementary Use Regulations. The supplementary use requirements found in Section 15-176.2 of the Land Use Ordinance can become part of the Regulating Plan and the Building Types Descriptions. We also recommend removing the provisions of 15-176.2 from the Supplementary Use Regulations and assembling all the regulations governing a form-based Village Mixed Use District in a single place. The aim of the form-based ordinances is to create a cohesive set of requirements that produced the desired public space. It is both symbolic and logical to have all the requirements in a single section; this helps everyone to think about the totality which is a real community. Refer to Appendix E for a more detailed discussion of how the current Village Mixed Use requirements can evolve into a form-based instrument.

APPENDIX A Attendance Lists

Public Input Meeting

- Matthew Barton
- John Gant
- Shannon Tennyson
- David Bellin
- Rob Kark
- Anahid Vrana
- Loren Brandford
- Karen Lincoln
- Kim Vrana
- Jay Bryan
- Gordon Mitchell
- Josef Woodman
- Ken Butler
- Joe Phillips
- Venessa Woodman
- David Caldwell
- Erica Schutt
- Omar Zinn
- Stan Cheren

Design Workshop

Team One

- Susana Dancy, Facilitator
- Jean Earnhardt
- Joan Hiskey
- Dick Hiskey
- Alena Callmanis
- Ken Butler
- Sara Minter
- Steve Minter

Team Two

- Mike Waldroup, Facilitator
- Omar Zinn
- Jay Bryant
- Joan Gant
- Bron Skinner
- Sharon Clarke

Team Three

- Kevin Hamak, Facilitator

Team Four

- Barbara Richter-Norton, Facilitator
- Kim Vrana
- Anahid Vrana
- Loren Brandford
- Cinnamon Weaver
- Richard Weaver
- Drew Pilant

Team Five

- Dan Jewell, Facilitator
- Rev. Campbell
- Stan Cheren
- Marsha
- Julie
- Kathy

APPENDIX B

Comments and Questions Raised at the 2/2/11 Presentation:

What is the Impact of this proposed development on property taxes following annexation?

Comment: I did not get all services following annexation in Rogers Rd. area

Is this a conflict of interest with Zinns participating in process? what about DAD?

Answer: The Zinns can develop their property by right under its current zoning. Instead of taking that approach now, they have brought the potential development before community stakeholders at the invitation of the Town of Carrboro to look at what type of development might occur if the property was rezoned for Village Mixed Use. The DAD group was retained by the Town to facilitate a design workshop with interested stakeholders to envision a village mixed use project; DAD is not espousing any particular outcome to this workshop.

Is this a fait accompli?

Answer: No.

What did the owner have in mind?

Answer: currently 1 unit/acre, mentioned Eubanks relocation, impact vs. opportunity

"Like current rural feel of the road"....status of "old 86" as Scenic Highway?

Answer: Old NC 86 is not a Scenic Highway in this area, TM comment about roadway buffers

What kind of commercial is being considered? what would be viable?

Comment: notice the contrast between Eubanks/old 86 vs. Southern Village/Winmore (it has visibility/location relative to street)

Status of connector to park/Lake Hogan Farms? timeframe on connector?

Question about the use of more urban images.

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Comment: avoid urban character; however, 2-story vernacular is OK

Question about elementary school capacity re: surrounding development;

Answer: there is planning in process for new elementary school.

Question about minimum densities required for annexation?

in transitional zone –between rural and urban

Comments about appropriate uses and about approaches:

Café/general store; someplace for parents relative to fields, playgrounds of park; “Chuck’s”; Saxapahaw General Store; food, daycare; commercial after-school activities, ie. dance, music that can’t pay Carrboro rents; “Art Center”

NCDOT “TND street guidelines”;

Use of school parking lot for weekend commercial use, shared parking;

Need to be mindful of Eubanks truck traffic;

Make “form-based district” – allows transition from residential > commercial over time

Small theater

J. Kleaveland – old 86 is part of ‘study area’ – south of this intersection to Ballantyne

Parents dropping off children represent valuable ‘market’ – don’t underestimate.

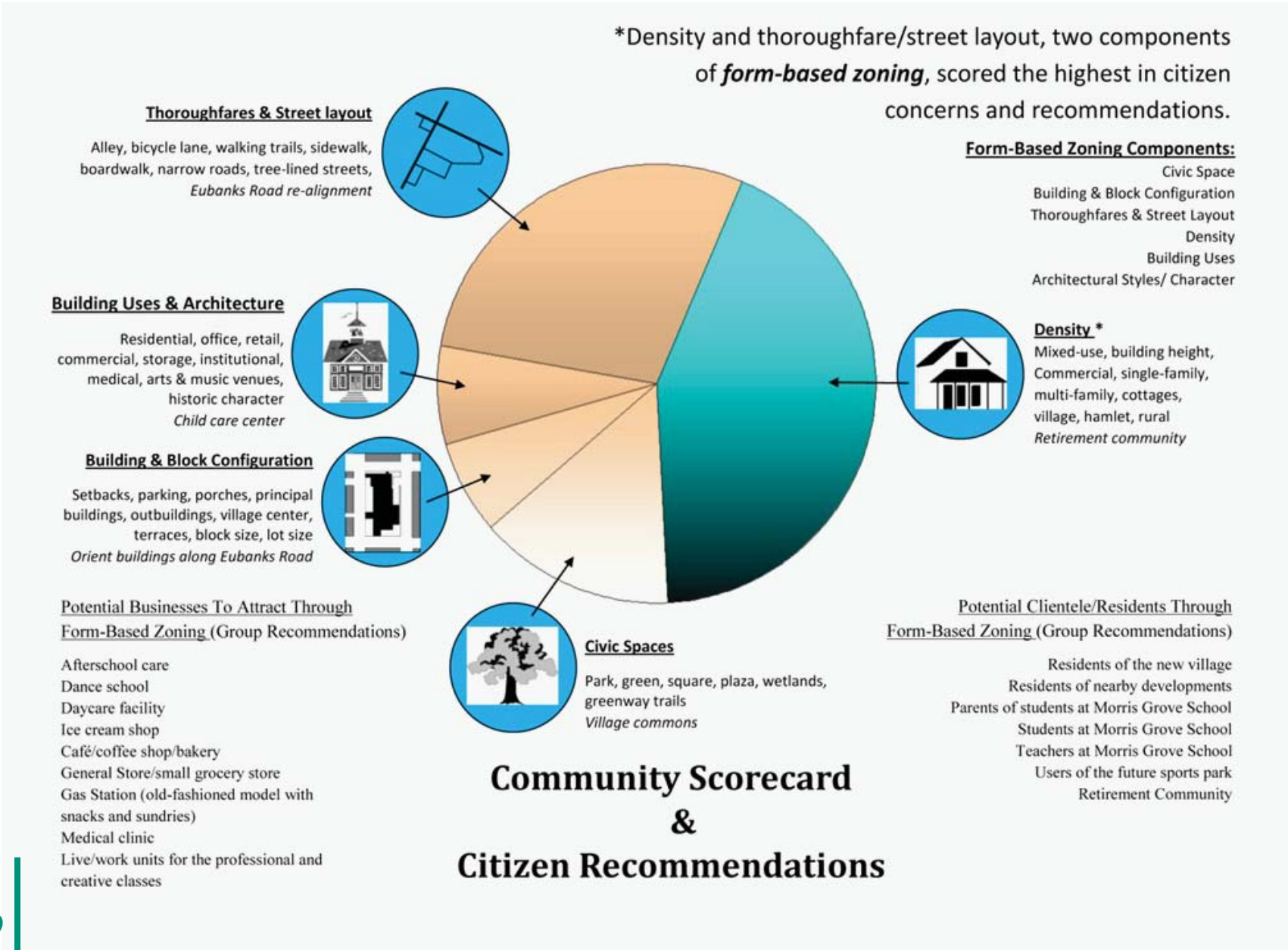
Appendix C

Workshop Presentations

- Exhibit A – History of the Area (see in CD included with this report)
- Exhibit B – Neighborhood Context (see in CD included with this report)
- Exhibit C – Village Concepts (see in CD included with this report)
- Exhibit D – Form-Based Zoning (see in CD included with this report)

APPENDIX D

Community Information Scorecard



APPENDIX E

Recommendations on Amending the VMU Zoning District To Create a Form Based Code

A form-based zoning district is defined by a precise boundary, by a regulating plan which designates which standards shall be applied to specific areas or lots, and by standards which define the form of buildings and public spaces. There cannot be an abstract form-based zoning district since the entire purpose of the creating a regulating plan and standards is to define a specific place.

An additional characteristic of a form based zoning district is that it is developed through a participatory process at the community level; as used here, “community” means all the stakeholders affected by the creation of the district.

The current structure for approving a Village Mixed Use development requires that the applicant submit a master plan as part of the application to rezone to VMU. To change the ordinance to a form-based code, the master plan should become the regulating plan and the standards. This implies that the applicant has conducted the public process to develop the plan and standards. A significant question in this case is who underwrites this effort? It would seem that both the developer and the community have a vested interest in the process and results.

In the Supplementary Use regulations for the Village Mixed Use district, there are already guidelines which would inform the creation of a regulating plan. The designation of the “storefront area” and the “townhouse area(s)” includes requirements for their relative locations. Similarly, specifying the relationship of the storefront area to a specific type of public open space also guides the development of the regulating plan. However, the current ordinance sees these designated areas, storefront and townhouse, as determining uses. In a form-based code, these areas define building types and public space form. Therefore, we recommend moving away from designating use and from arbitrarily limiting it as is the case in Section 15-176.2(a).

There are several reasons to do this. One is that the organic nature of a community includes change and flexibility. In Carrboro, houses at the edge of the town center have become businesses; the advantage to this is that the historic fabric of the town is reserved. Another reason is that the development of a new village may not support enough business at its beginning to populate all the storefront area; nevertheless, it will be critical to have sufficient storefronts to anchor the center of the village. By developing a storefront building type which has a second story that would accommodate a residential use, one can insure the pres-

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ence of people in the storefront area.

Parolek, Parolek, and Crawford in Form-Based Codes identify at least five types of standards that can be developed and included in a Form Based Code:

Public Space Standards:

- Building Form Standards
- Frontage Standards
- Building Type Standards
- Architectural Standards

Normally, these standards would be developed as part of the public participation exercises hand in hand with the regulating plan. The Town of Carrboro has devoted considerable effort to develop some standards within the Village Mixed Use zoning district. These have been part of the approved ordinance for almost a decade. Examples in the existing ordinance include vertical build-to lines and requirements for a specific type of storefront in buildings in the storefront area. To convert these into form-based standards would require more precise descriptions and requirements; nevertheless, one could see the Town developing and adopting the standards in advance of any application for rezoning to VMU. We would recommend, however, that the standards be subject to reconsideration during a specific public participation exercise for a specific site.

The standards for the Village Mixed Use district should include the following:

Public Space Standards:

- Standards for street sections, streetscape elements, lighting, landscaping, and block dimensions.
- Standards for the type, character, and dimension of civic space

Building Form Standards:

- Standards for building placement—build-to lines (horizontal and vertical), setbacks, maximum and

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minimum lot widths.

- Standards for the building form—minimum and maximum building height, floor-to-floor dimensions, ground floor finished height, minimum and maximum building width as well as building depth, maximum accessory building size.
- Standards for parking—required spaces, location.
- Standards for land use. If not considered carefully, the inclusion of land use restrictions or designations can be self-defeating. On the other hand, the designation of special sites for community functions is appropriate and desirable.

Frontage Standards:

- These standards address the interface between the building and the public space. They can include standards for porches, for awnings, for arcades, and similar devices which mediate between the building and public space in front of it.
- These standards would specify the locations of entrances.

Block Standards:

- These standards include block dimensions (maximum dimension, maximum perimeter).
- They also include shape of blocks as well as the interconnection of streets (e.g., some standards forbid the use of cul-de-sacs).
- These standards may also include a requirement for alleys in certain areas of the district.

Building Type Standards:

- These standards would be most appropriately applied to the storefront and townhouse areas.
- Common building types that might be included in the VMU district:
 - o Storefront with second floor
 - o Townhouse with detached garage

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- o Bungalow court
- o Live/work units (either attached or detached)
- o Detached single family house
- Standards would also locate entrances and the permeability of the facades facing public space (expressed as a percentage of the façade given to transparent windows).
- Standards might address the location and size of open space required of a certain building type.

Architectural Standards:

- The current ordinance has non-specific statements stating that the commercial development should be reflect styles, scale, and massing similar to that which already exists in Carrboro. One can develop architectural guidelines which define the style, materials, and architectural detailing of the new construction in a mixed use village. We do not recommend adopting such detailed guidelines since the vitality of a community's architecture comes from the individual and unique contributions of its buildings. The standards mentioned above would be sufficient to ensure compatible massing, fenestration, and location.

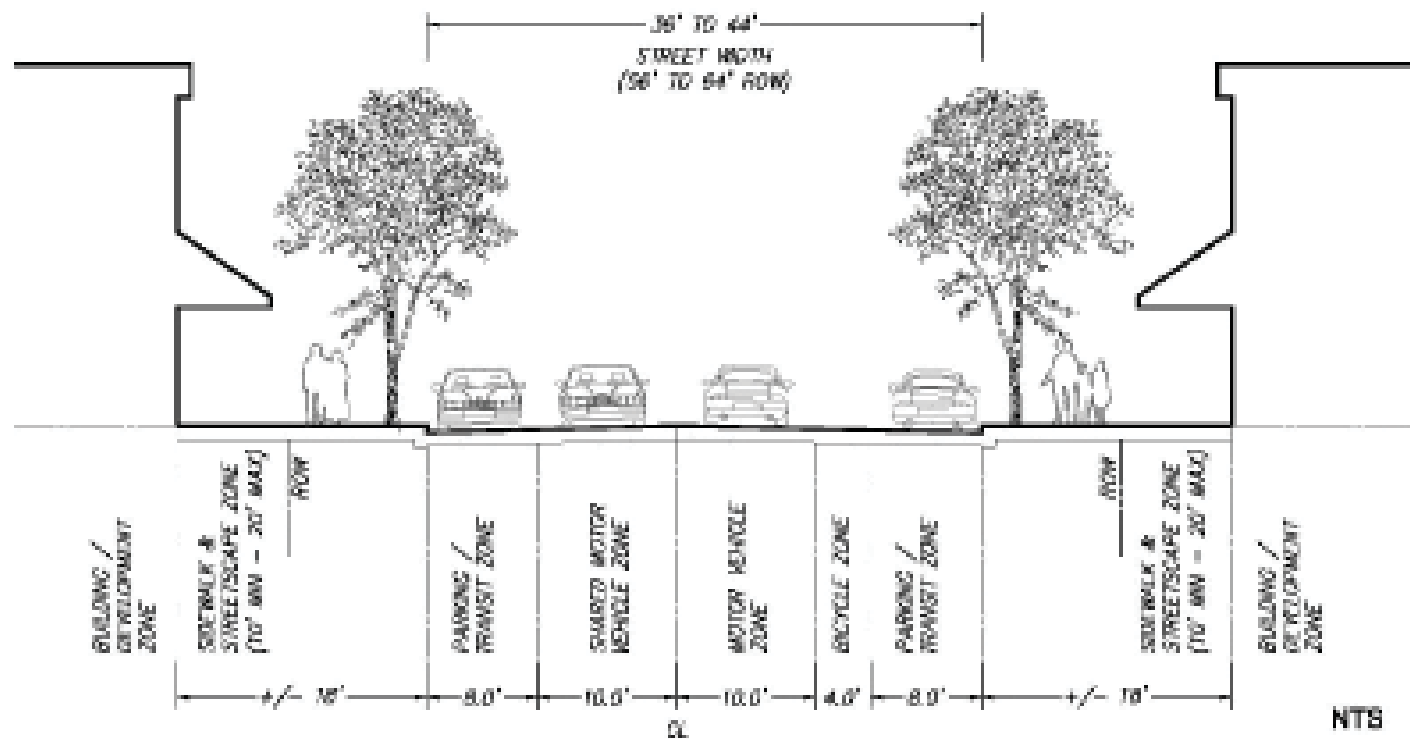
In summary, we feel that Carrboro can modify its current VMU zoning requirements to make the rezoning process one which creates a form-based district.

APPENDIX F

Street Sections for a Village/Hamlet and for Old NC 86

VILLAGE OR HAMLET MAIN STREET

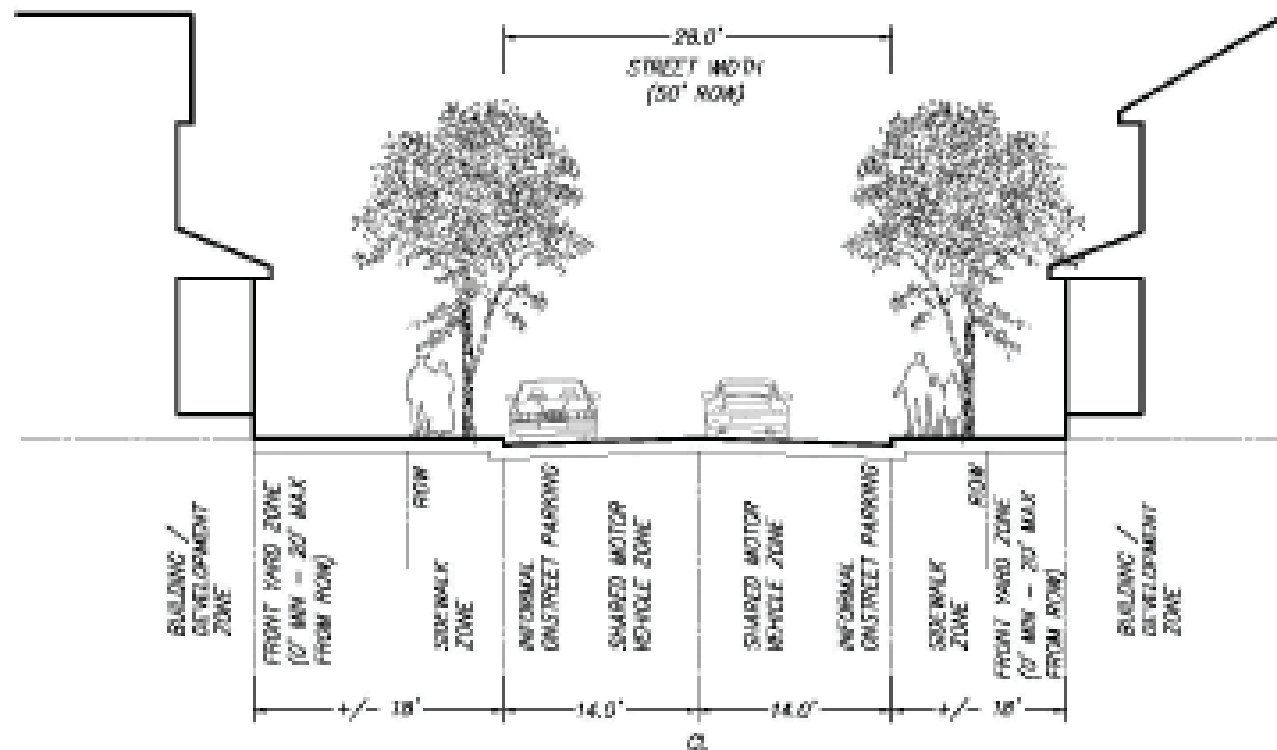
ILLUSTRATIVE STREET CROSS SECTION



1. SIDEWALK SECTION SHOULD ALLOW FOR OUTDOOR DISPLAYS, SEATING, TREE GRATES OR PLANTERS, BINE RACKS, LIGHTING.
2. PARKING ZONE MAY VARY DEPENDING ON WHETHER PARALLEL OR ANGLED PARKING (PARALLEL PARKING SHOWN).
3. SHARED MOTOR VEHICLE ZONES ALLOW FOR BOTH VEHICULAR AND BICYCLE TRAFFIC (NO DEDICATED BICYCLE LANE).

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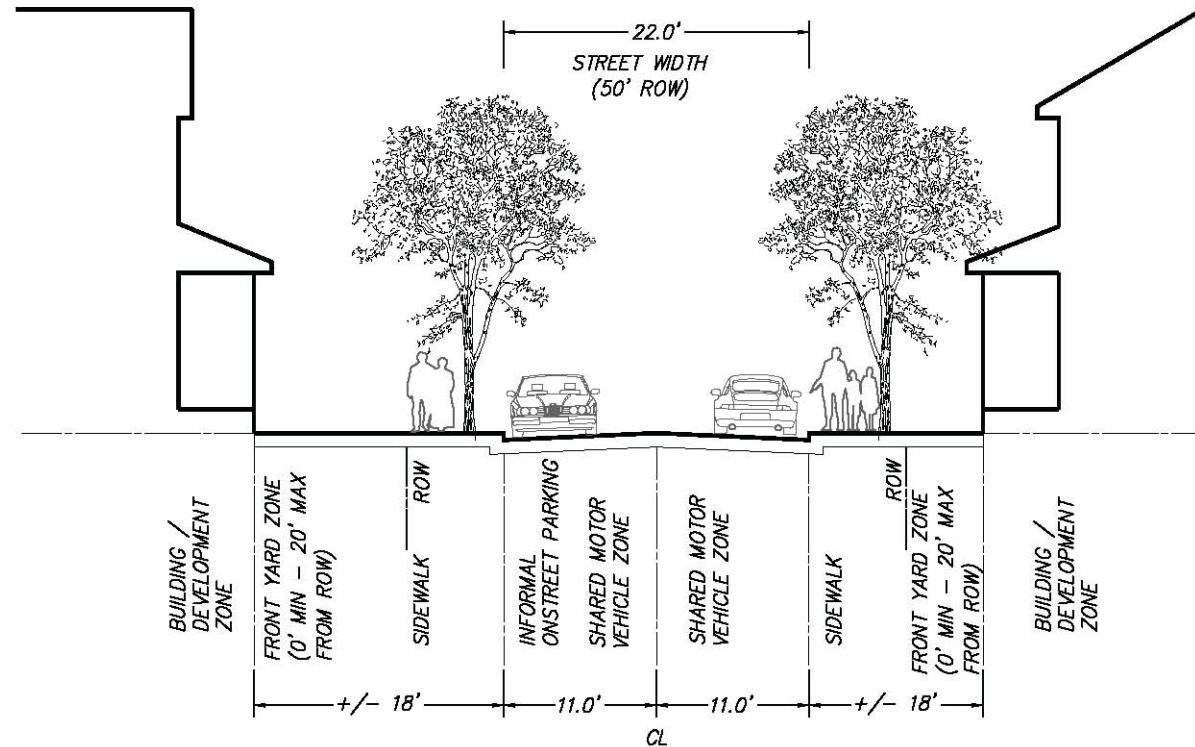
VILLAGE OR HAMLET 28' NEIGHBORHOOD STREET ILLUSTRATIVE STREET CROSS SECTION



1. SIDEWALK MAY BE OFF OF THE BACK OF CURB OR THE RIGHT-OF-WAY.
2. SIDEWALK WIDTH MAY VARY DEPENDING ON THE DEVELOPMENT CIRCUMSTANCES.
3. STREET TREES SHALL BE WITHIN THE RIGHT-OF-WAY.

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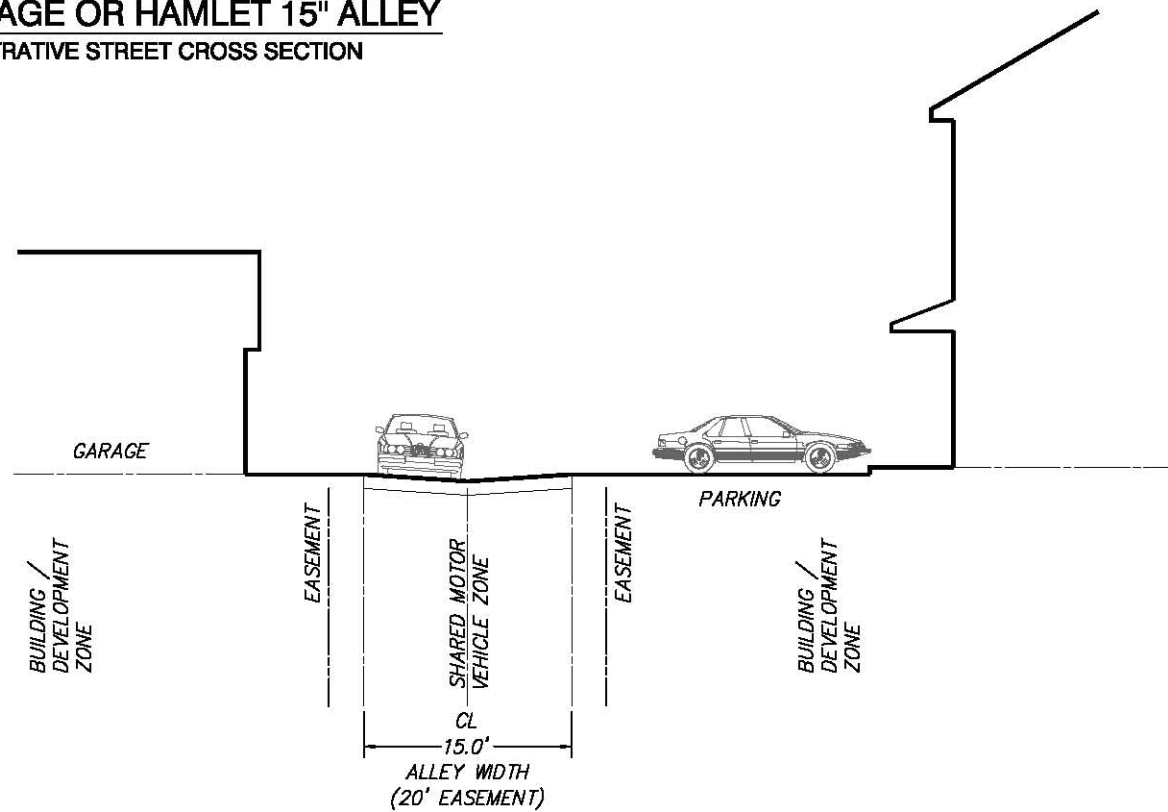
VILLAGE OR HAMLET 22' NEIGHBORHOOD STREET ILLUSTRATIVE STREET CROSS SECTION



NTS

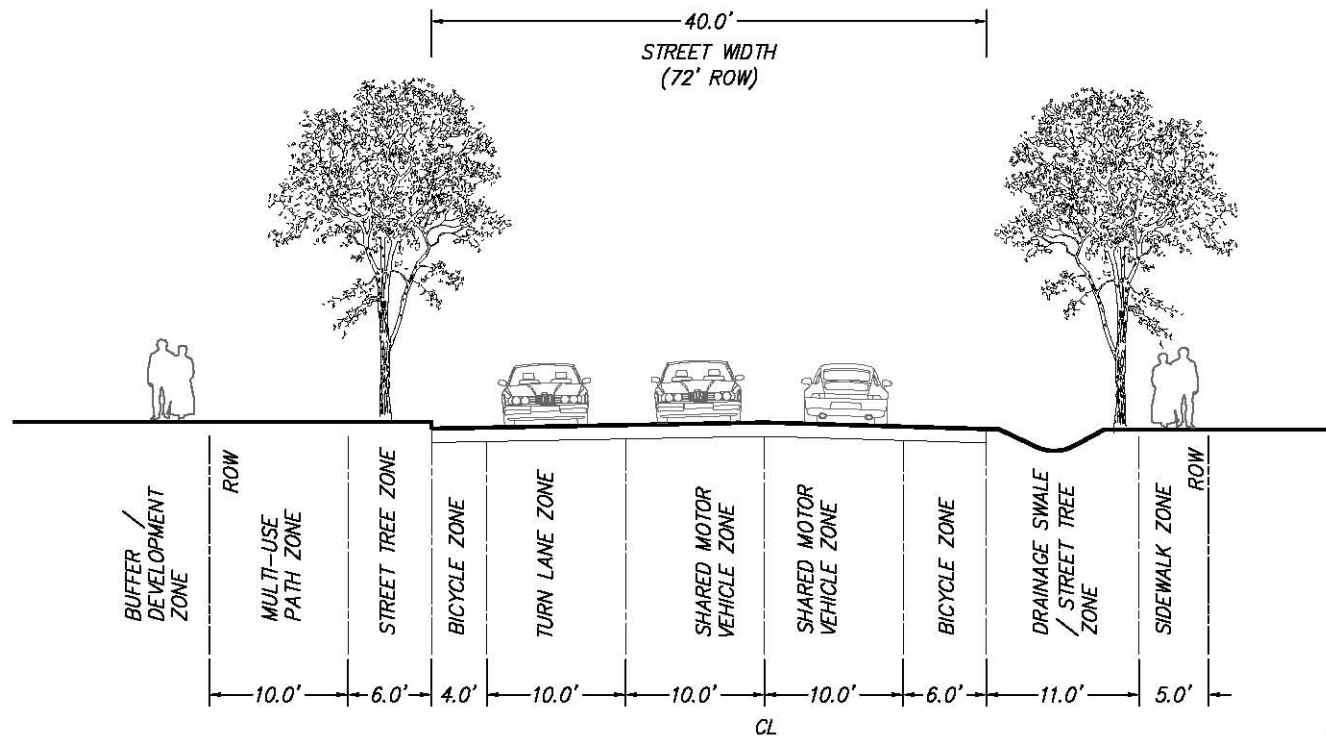
1. SIDEWALK MAY BE OFF OF THE BACK OF CURB OR THE RIGHT-OF-WAY.
2. SIDEWALK WIDTH MAY VARY DEPENDING ON THE DEVELOPMENT CIRCUMSTANCES.
3. STREET TREES SHALL BE WITHIN THE RIGHT-OF-WAY.
4. INFORMAL ONSTREET PARKING ON ONE SIDE OF STREET ONLY.

VILLAGE OR HAMLET 15" ALLEY ILLUSTRATIVE STREET CROSS SECTION



1. NO PARKING WITHIN THE ALLEY EASEMENT.

RURAL ROAD W/ TURN LANES ILLUSTRATIVE STREET CROSS SECTION



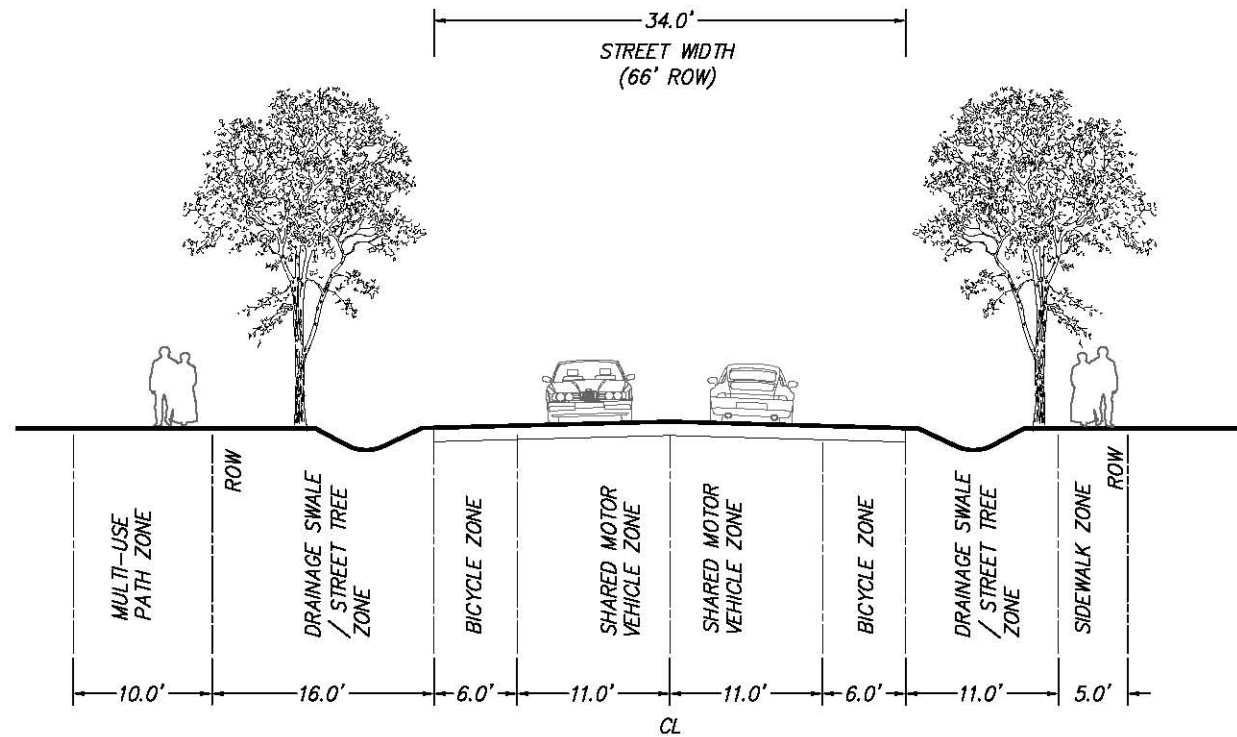
NTS

1. PEDESTRIAN ROUTE MAY BE EITHER A SIDEWALK INSIDE THE RIGHT-OF-WAY OR A MULTI-USE PATH INSIDE AND/OR OUTSIDE THE RIGHT-OF-WAY.
2. SIDEWALK WIDTH MAY VARY DEPENDING ON THE DEVELOPMENT CIRCUMSTANCES.
3. STREET TREES SHALL BE WITHIN THE RIGHT-OF-WAY.
4. EDGE OF PAVEMENT NEXT TO DEVELOPMENT ZONE SHALL BE CURB AND GUTTER.

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RURAL ROAD

ILLUSTRATIVE STREET CROSS SECTION



1. PEDESTRIAN ROUTE MAY BE EITHER A SIDEWALK INSIDE THE RIGHT-OF-WAY OR A MULTI-USE PATH INSIDE AND/OR OUTSIDE THE RIGHT-OF-WAY.
2. SIDEWALK WIDTH MAY VARY DEPENDING ON THE DEVELOPMENT CIRCUMSTANCES.
3. STREET TREES SHALL BE WITHIN THE RIGHT-OF-WAY.

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Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number:17-018

Agenda Date: 2/7/2017

File Type:Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Presentation of the Parking Study Recommendations

PURPOSE: The purpose of this agenda item is for the Board of Aldermen to receive a presentation on the updated findings and associated recommendations as a precursor to adopting the document as a Parking Plan.

DEPARTMENT: Planning

CONTACT INFORMATION: Bergen Watterson, 919-918-7329, bwatterson@townofcarrboro.org <<mailto:bwatterson@townofcarrboro.org>>; Trish McGuire, 919-918-7327, pmcguire@townofcarrboro.org <<mailto:pmcguire@townofcarrboro.org>>; Tina Moon, 919-918-7325, cmoon@townofcarrboro.org <<mailto:cmoon@townofcarrboro.org>>

INFORMATION: Since the initiation of the parking study in November 2015, the Board has received three presentations on the project. Timothy Tresohlay, with VHB Engineering, provided a report of the initial findings from the field data collection on [April 5, 2016](https://carrboro.legistar.com/LegislationDetail.aspx?ID=2680871&GUID=9551606F-2BC8-4B39-AB0B-8C8C9BB5AF9E&Options=&Search=>); <<https://carrboro.legistar.com/LegislationDetail.aspx?ID=2680871&GUID=9551606F-2BC8-4B39-AB0B-8C8C9BB5AF9E&Options=&Search=>>> Town staff provided a general update on [June 15, 2016](https://carrboro.legistar.com/LegislationDetail.aspx?ID=2763176&GUID=F1139C80-1ABE-4F08-9B11-EEB646E6BDF8&Options=&Search=>) <<https://carrboro.legistar.com/LegislationDetail.aspx?ID=2763176&GUID=F1139C80-1ABE-4F08-9B11-EEB646E6BDF8&Options=&Search=>>>; and Mr. Tresohlay provided a presentation on draft recommendations on [November 15, 2016](https://carrboro.legistar.com/LegislationDetail.aspx?ID=2882404&GUID=5872FCAD-D99B-4215-8317-1A4BD692EDCB&Options=&Search=>) <<https://carrboro.legistar.com/LegislationDetail.aspx?ID=2882404&GUID=5872FCAD-D99B-4215-8317-1A4BD692EDCB&Options=&Search=>>>. Prior to finalizing the study findings into a Parking Plan, staff wanted to provide the Board with an opportunity to review the revised report and associated recommendations for input and comment. Staff presented the findings to the Carrboro Business Alliance at its meeting on January 31, 2017. The Board may wish to refer the document to the advisory boards for input and comment as well.

The study report contains detailed data on current parking supply and demand, including occupancy rates for all parking lots in Town and length of stay and turnover rates for public lots and incorporates projections to determine future parking supply and demand based on development projects that are approved but not yet completed. Among other findings, the data analysis revealed the following:

- The existing parking is sufficient to support the current demand in the downtown, and will for at least the next ten years.
- The development and implementation of a management plan will more likely yield the desired result of

mitigating the existing parking supply, particularly during the peak hour strain for centrally located public lots.

- Examples of recommended management strategies include:
 - Facilitating a shared parking system between public and private sector,
 - Installing clear and consistent regulatory and wayfinding signage, and
 - Lighting and sidewalk improvements in study area.

The parking study report, including and outline of the process, public involvement, data collection, findings, and recommendations is provided (Attachment B).

A resolution (Attachment A) is provided that refers the materials to the advisory boards and sets a public hearing to consider adopting the Parking Plan--the study report with its finding and recommendations--for the end of March.

FISCAL & STAFF IMPACT: There is no fiscal impact associated with receiving this presentation.

RECOMMENDATION: Staff recommends that the Board of Aldermen receive the presentation, refer the document to the Advisory Boards and set a public hearing on March 28th, 2017 to consider adopting the plan.

A RESOLUTION RECEIVING A PRESENTATION ON THE PARKING STUDY AND
SETTING A PUBLIC HEARING TO CONSIDER ADOPTION OF A PARKING PLAN

WHEREAS, The Town of Carrboro entered into a contract with VHB Engineering in November 2015 to conduct a parking study of the downtown; and

WHEREAS, the report and recommendations are nearing completion.

NOW, THEREFORE BE IT RESOLVED that the Board of Aldermen, receives the presentation on the draft findings and sets a public hearing on March 28, 2017, to consider adopting the Parking Plan.

BE IT FURTHER RESOLVED that the report is the Town of Carrboro Planning Board, Transportation Advisory Board and the Economic Sustainability Commission for consideration and recommendation prior to the specified public hearing date:

☐ Appearance Commission

☐ Recreation and Parks Commission

☒ Transportation Advisory Board

☐ Northern Transition Area Advisory
Committee

☐ Environmental Advisory Board

☐ _____

☒ Economic Sustainability Commission

☐ _____

This is the 7th day of February in the year 2017.



Carrboro Parking Study

Executive Summary

Since the 1980s the Town of Carrboro has gradually acquired or leased properties to use as municipal parking lots, and currently maintains 655 parking spaces in the downtown area. The Town does not charge for the use of those spaces. Despite this investment, concerns relating to insufficient parking in the downtown have emerged, which has led the Town to reconsider its role in providing or managing parking for public uses. VHB Engineering, NC, P.C. was retained as the transportation consultant to lead the planning effort, involve stakeholders, collect existing conditions data, and identify potential strategies for parking management.

The plan vision was described by Town staff and Board of Aldermen as an inclusive process to examine the current and future states of parking in Carrboro, involving public outreach to identify potential barriers that may be preventing residents from visiting downtown more frequently.

Public Engagement

Public engagement items included a project website, online survey, social media outreach, two public meetings, attendance at the Farmers Market, Coffee with a Cop and Business Alliance meetings, as well as individual meetings with local business owners. The project website received more than 300 page views, and more than 600 individuals responded to the online survey. Feedback received during these public engagement activities helped to inform the planning process and shape the final plan recommendations.



Existing Conditions

Utilizing the Town's existing parking space inventory, VHB organized and conducted a field investigation to verify total spaces and collect utilization throughout the day. Private parking accounted for four out of every five total parking total spaces, public parking accounted for the remaining 16%. Public parking includes 380 spaces that are leased by the Town within four (4) lots and a portion of one (1) parking deck. The Town of Carrboro owns 275 spaces within four (4) parking lots, which accounts for 7% of total parking spaces.

Parking Spaces by Ownership

Parking Type	Spaces	% of Total
Public-owned	275	7%
Public-leased	380	9%
Private	3,293	84%
Total	4,003	

The total number of parked cars were observed at four (4) periods between 9 AM and 9 PM on a typical Thursday in January of 2016. This process was repeated on a typical Thursday in April, as well as a Saturday in April. These counts included all public and private parking areas to determine the maximum parking demand. The January counts observed a peak of 2,029 parked cars during the 11-1 PM lunchtime period. The April counts observed a peak of 2,122 parked cars during the same 11-1 PM lunchtime period, an increase of 5%. During this peak period, private lots were found to be 53% occupied and the public lots were found to be 52% occupied. For reference, the desired parking occupancy rate is between 80-90%, and most of parking lots were well below this target. Parking lots over 90% occupied will contribute to unnecessary traffic circulation as drivers seek those hard-to-find remaining empty spaces.

Observed Parked Vehicles by Time of Day

Count Periods	CARS			OCCUPANCY		
	January	April	Saturday	January	April	Saturday
9 AM to 11 AM	1,858	1,942	1,493	49%	49%	37%
11 AM to 1 PM	2,029	2,122	1,475	51%	53%	37%
2 PM to 5 PM	1,699	1,879	1,487	42%	47%	37%
6 PM to 9 PM	1,426	1,758	1,561	36%	44%	39%

Note: Parking counts include public and private lots (4,003 spaces in total).

The shaded cell represents the maximum number of parked cars, for each period, between all three data collections.



Survey respondents and meeting attendees remarked that the most challenging time of day to find parking within a public parking lot was during the evening (6-9 PM) period, not during lunchtime. Parking counts supported this perspective, as 466 vehicles we observed parking within public lots during the evening period. During this same period, private parking lots were found to be only 39% occupied, suggesting that downtown visitors seek public parking rather than private lots after 6 PM.

Comparison of Parked Vehicles within Public Lots Only (January – April)

Count Periods	CARS			OCCUPANCY		
	January	April	Saturday	January	April	Saturday
9 AM to 11 AM	304	354	361	46%	54%	55%
11 AM to 1 PM	356	368	285	54%	56%	44%
2 PM to 5 PM	339	312	240	52%	48%	37%
6 PM to 9 PM	331	466	457	51%	71%	70%

Note: Parking counts include only public lots (655 spaces in total).

The shaded cell represents the peak period (466 cars for 655 public spaces is 71% occupancy).

Parking occupancy is not evenly distributed among the varying parking lot sizes and locations. The pattern of parking lot occupancy is displayed and discussed further in the Existing Conditions section. In general terms, the high demand areas during the morning period were near O2 Fitness and Rise Biscuit and Donuts. Demand shifted to the restaurant-dense areas within the central portion of downtown Carrboro during the 11-1 PM period. In the mid-afternoon demand becomes more balanced. After 6 PM, demand shifts back to the central public and private parking lots that are close to dinner restaurants.

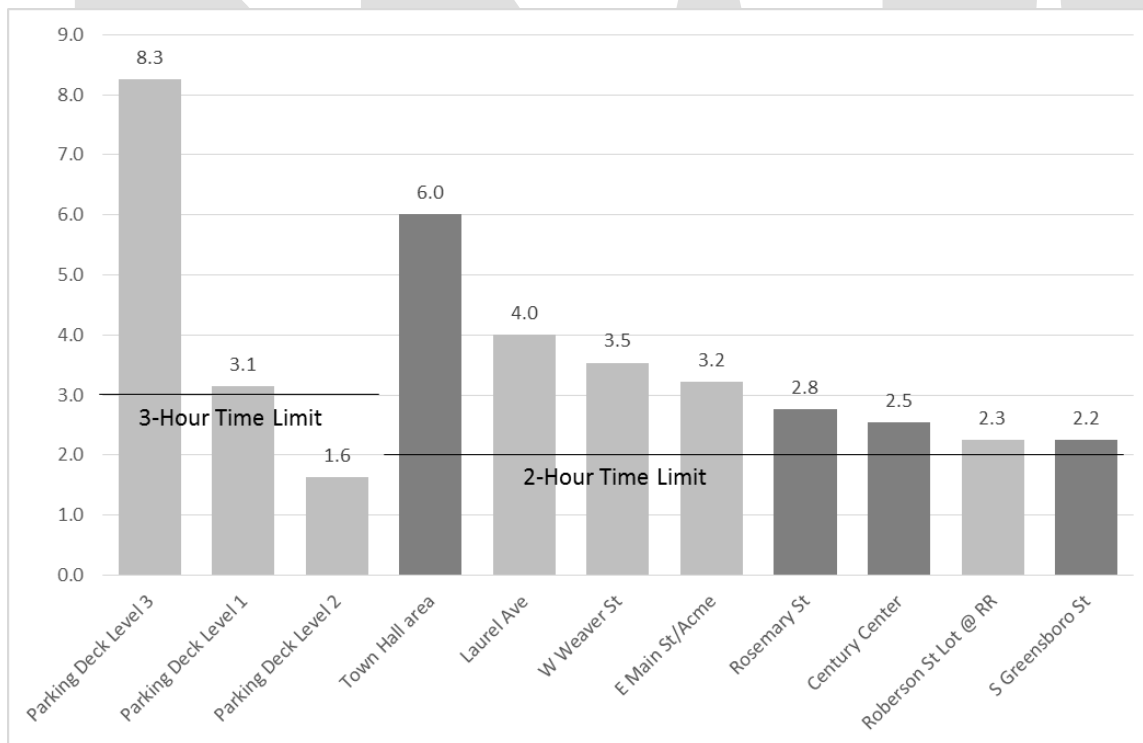
Length of Stay

Data collection also included a length of stay analysis for public parking lots. Vehicle license plates were observed for all nine (9) public parking lots, every hour between the hours of 8 AM and 6 PM. More than 800 unique license plates were collected over a 10-hour period parking within public parking spaces. A majority of vehicles (557 cars, representing 69%) were observed on three (3) or fewer occasions, suggesting that they remained parked for 3-hours or less. A minority of vehicles (151 cars, representing 19%) were observed on seven (7) or more occasions, suggesting that they remained parked in the same spot for most of the day and were likely downtown employees. It is assumed, based on their locations that approximately 50-60 of these vehicles were Town of Carrboro employees, and the remaining 90-95 vehicles were owned by other downtown employees, and seven (7) may have been UNC students parking in the Rosemary Street lot.

These 151 cars represent a small number of total vehicles, however, they occupied public parking spaces for a large portion of the day. Factoring in the 10-hour period of data collection, these 151 cars observed on seven (7) or more occasions accounted for 48% of the total occupied time throughout the day, effectively rendering one-fifth of public parking spaces unavailable to visitors or customers.

An average length of stay was calculated for each parking lot. The public parking lots with the shortest average length of stay (in hours) were found to be the S Greensboro St lot (2.2), Roberson St lot (2.3), and Century Center lot (2.5), all three of which are centrally-located. The Rosemary Street lot is the next lowest (2.8), which is located at the very east end of Carrboro along Rosemary Street. These lots are considered to be more heavily used for short-term visitor parking.

Average Length of Stay (Hours) for Public Parking Lots



Note: Dark shaded bars represent Town-owned parking lots; Light shaded bars represent leased parking lots.

Public parking lots with the longest average length of stay were found to be the 3rd level of the Hampton Inn parking garage (8.3 hours), Town Hall area (6.0), Laurel Ave (4.0) and Weaver Street lot (3.5). These lots are considered to be more heavily used for long-term employee parking, and they are located further from the center of downtown Carrboro than the lots with shorter average length of stay.



Future Conditions

Future parking needs were also examined by constructing a parking demand model to forecast future parking demand. The Town identified ten development projects that are either under construction or anticipated in the next five (5) years, including hotel, residential, retail, civic and mixed use developments. The parking demand model includes assumptions based on input from Town of Carrboro staff and professional judgment, which are described in more detail within the Future Conditions section. **This quantitative analysis does not support the need for the Town to construct or least additional public parking spaces in the next five to ten years.**

Existing Surplus

In general terms, this parking analysis revealed that the current combined public and private parking available in downtown Carrboro can effectively support 3,400 parked cars on a typical day. This study observed a maximum of 2,122 parked cars during field data collection, which represents the actual parking demand. **The calculated existing parking surplus for downtown Carrboro on a typical weekday is 1,281 spaces.** Public parking lots account for a surplus of 236 spaces, while private lots have more than four-times as many. These are surplus spaces for a typical weekday, though they are often filled during special events. Refer to the Future Conditions section of this report for a further discussion and display of surplus parking.

Future Surplus

VHB constructed a parking demand model to estimate the number of parking spaces needed to meet the expected demand for future development projects that are either under construction or anticipated. By 2021 downtown Carrboro may support more than 3,942 parked cars in its public and private lots. VHB estimates the future parking demand to be +900 new spaces. Adding the actual demand from 2016 counts to the new parking demand yields a total future parking demand of 3,021 cars. This leaves an **estimated future surplus of 921 empty spaces**, within a range of +/- 140 throughout the day. Public parking lots will account for a small portion of the surplus parking, while private lots have five-times as many surplus spaces. Refer to the Future Conditions section of this report for a further breakdown of future surplus parking.

Management Strategies

The Town controls a small percentage (18%) of total parking. There is a surplus of parking during the busiest time of the busiest day of a typical weekday for both public and private parking lots. The data collected does not support the need for the Town to provide additional parking spaces today.



or in the next 5-10 years. Rather than construct new parking lots or structured parking, **the Town may wish to more effectively manage its existing supply of 655 parking spaces.** There are many strategies for actively managing parking to achieve better balance of supply and demand. Strategies have been organized into five (5) categories, Education, Encouragement, Enforcement, Evaluation, and Engineering.

A full discussion of potential strategies is included in the Management Strategies section. In the near term the Town of Carrboro should focus on the five (5) potential strategies identified below that are expected to have the most significant impact:

1. Education – Wayfinding and regulatory signage improvements
2. Encouragement – Lighting and sidewalk improvements
3. Enforcement – Time limited parking options
4. Evaluation – Shared parking arrangements between businesses
5. Evaluation – Annual data collection program to count parked vehicles

The intended goal of improving wayfinding and signage is to increase visibility and consistency of all nine (9) public parking lots. Several stakeholders commented that they were unaware of several of these smaller public parking lots.

Lighting and sidewalk improvements are intended to encourage visitors to park once and walk to their destination, a stated goal of the business owners that were involved in this project.

Enforcement strategies are intended to improve parking flexibility by providing a limited number of high turnover spaces in the high demand areas (30-min parking) and long term spaces in lower demand areas (4-hour parking).

Shared parking arrangements are intended to balance the use of the majority of parking (private spaces) within downtown by facilitating agreements between property owners.

Annual data collection may be the most important strategy because data should be used to validate the diverse opinions related to parking, and separate fact from speculation.



Introduction

The Town of Carrboro is located in southern Orange County (NC), and supports a population of 20,984 (US Census 2014 estimate). As the westernmost point in the Triangle region of North Carolina, Carrboro shares a border with the Town of Chapel Hill, and attracts visitors from all over the region for its unique culinary, musical, and cultural events.

Since the 1980s the Town of Carrboro has gradually acquired or leased properties to use as municipal parking lots, and currently maintains approximately 650 parking spaces in the downtown area. The Town does not charge for the use of those spaces. Despite this investment, concerns relating to insufficient parking in the downtown have emerged, particularly as larger-scale development projects have been completed. This has led the Town to reconsider its role in providing or managing parking for public uses. VHB Engineering, NC, P.C. was retained in the fall of 2015 to serve as the transportation consultant to lead the planning effort, involve stakeholders, collect existing conditions data, and identify potential strategies for parking management.

Plan Vision

The plan vision explains its purpose and guides the analysis of data and recommendations. Town staff and members of the Board of Aldermen describe the plan vision as an inclusive process to examine the current and future states of parking in Carrboro, including public outreach, to gather public perceptions, to identify potential barriers that may be preventing residents from visiting downtown more frequently, and a strategy for managing parking in the future.

Plan Objectives

Plan objectives are measurable outputs that support the overall plan vision. The first measurable output involves a full documentation of the existing parking conditions. These data are supplemented by an online survey of residents to identify parking behaviors and perspectives relating to parking. With these quantifiable resources collected, preliminary findings were presented to the public and obtained feedback during the early stages of the project. Incorporating citizen feedback and more refined existing conditions data, business owners were contacted to discuss



concerns and potential parking management strategies for the short-term and long-term growth of the Town.

DRAFT



Public Involvement

The public involvement phase of the project took place between February and August 2016, and included the following items or events.

Public Engagement

Public engagement items were incorporated into this planning process to communicate the purpose of the project and allow citizens to describe their unique parking experiences.

Project website

The project website (parkcarrboro.org) launched in early February 2016 to outline study objectives and inform the public of upcoming events. The website contained helpful links to social media and the parking survey, as well as public meeting presentation slides and videos for those who were unable to attend the public meetings. The project website received more than 300 page views.

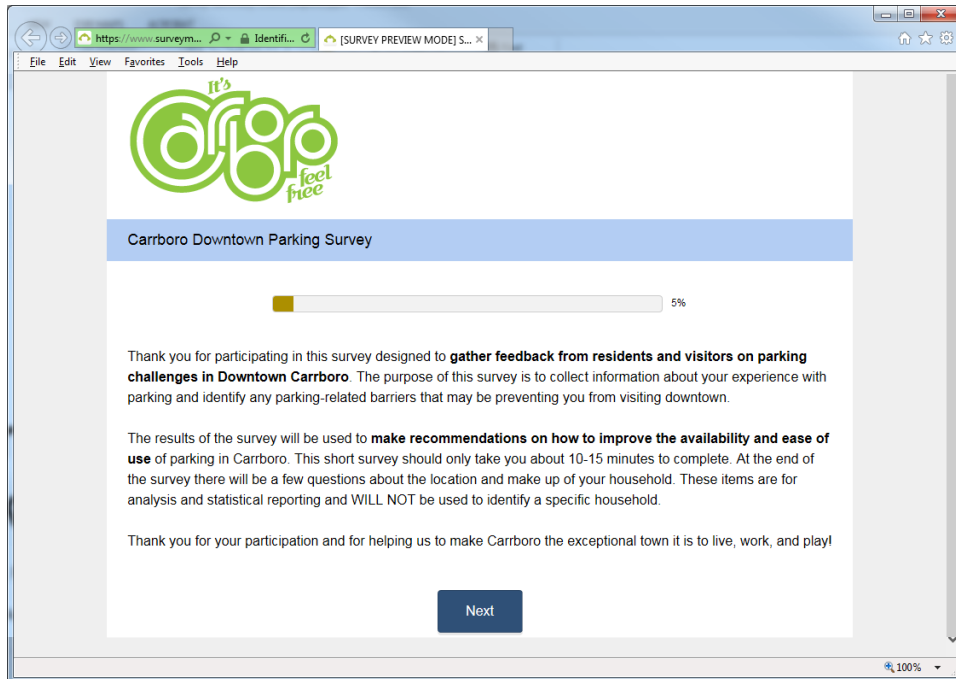
Social Media

In addition to traditional public outreach, social media outlets were employed to share upcoming events and gather feedback from the public. Using the Town of Carrboro's Facebook page, as well as the hashtag #ParkCarrboro, members of the public were given a forum to express their comments and concerns regarding the current parking system in Carrboro. Several tweets were sent marking the public parking lots that were found to be full (or nearly full), including a time of day reference.

Online Survey

An online survey for Carrboro residents, stakeholders and visitors was developed using Survey Monkey. The Carrboro parking survey launched on February 4th, one (1) week before the first public meeting. The survey contained a variety of questions to assess the availability and potential barriers to parking in downtown Carrboro. A total of 602 respondents completed the survey over the six (6) month period, which closed in late August.

Respondents were asked to provide the intersection of the two streets nearest their home location, rather than their home address. This information was requested for the purpose of determining the distribution of responses from Carrboro residents who live more than one-half mile from downtown. These residents are less likely, or unable, to walk or ride a bicycle to visit downtown.



Survey screenshot of online survey instrument

A full summary of the survey results is included in the Appendix section. A brief overview of the survey results suggest the following:

- Over half of all respondents indicated they visited downtown for leisure, with 84% citing shopping and dining as primary reasons.
 - 38% indicated they visited for work-related purposes.
- While 23% of respondents bicycled or walked to downtown, driving (74%) was the largest transportation mode category.
- Most surveyed parked in a public lot (69%) the last time they visited downtown Carrboro.
- 46% of survey respondents indicated that Chapel Hill Transit or Go Triangle was a viable option for reaching downtown, but only 16% of respondents said they used it regularly to visit downtown.
- 17% of respondents indicated that the perception of parking availability negatively affected their plan to visit downtown.
 - 30% indicated that the perceived lack of parking is a barrier for them to visit downtown.



- 64% expressed a negative view of a pay for parking scheme as a potential future option.

Public Events

Public events were designed to engage the general public in the planning process, allow them to speak directly with the project team, and provide feedback on the existing conditions data (described in more detail within the Existing Conditions section of this report).

Public Meetings

Two public meetings were held to present preliminary findings, promote feedback, and understand the parking concerns of residents and business owners.

The first public meeting attracted 30 attendees and was held on Thursday, February 11th at Carrboro Elementary School. Attendees signed in and had the opportunity to identify perceived parking constraints, both spatially on a map of downtown and qualitatively through written comments on poster board displays and comment sheets. VHB presented its preliminary findings from the January parking occupancy counts. Public comments included the need for long-term employee parking to free up the short-term public parking spaces, additional crosswalks along W Main Street, wider sidewalks, ADA improvements along sidewalks and public parking lots (gravel), as well as the need for a wayfinding map of all available public parking lots. Public opinions relating to free public parking versus paid public parking was divided among attendees and represented both ends of the spectrum.

The second public meeting attracted thirteen attendees, and was held on Thursday, June 16th at Town Hall. VHB presented additional data findings from April parking occupancy counts collected on a typical Thursday and a Saturday to compare and contrast the different parking trends throughout the day. Public comments from this meeting included the need to establish a “park once and walk downtown,” as well as an acceptance to charge a fee for public parking where appropriate. Several attendees mentioned that they do not experience difficulty finding a parking space, and that parking shortage is only a perception. One property owner suggested that their most common parking challenge involves tenant businesses asking to arrange long-term employee parking in an off-site location (public lot).



Farmers' Market Attendance

VHB attended the Saturday April 30th, 2016 Farmers' Market to promote the online survey among market customers and generate feedback on the pattern of existing parking utilization. Many customers were interested in discussing parking, and all were provided with a card containing a link to the online survey link.

VHB observed that many Farmers' Market customers drove and waited in a relatively long line of cars to enter the Town Hall parking lot in the hopes of potentially finding an open parking space. Some were successful, while others were forced to seek other parking options nearby. Many sought on-street parking along Elm Street or the adjacent gas station as a result.

Public comments included the identification of sidewalk gaps along several streets including (a) W Main Street between Poplar Ave and Fidelity St, (b) Laurel Ave south of Town Hall, (c) Bim Street behind Town Hall, and (d) S Greensboro Street south of Carr Ave extending all the way to the NC-54 interchange. Customers expressed the significance of these sidewalk gaps as a barrier to walking to downtown from their homes.

Customers also noted the desire for a Farmers' Market park-&-ride option for the Chapel Hill Transit service that operates on Saturdays (CW route).

Coffee with a Cop Attendance

On Friday May 13th, 2016 VHB attended a Carrboro Coffee with a Cop event at Johnny's Gone Fishing Coffee Shop on West Main Street. More than 20 Carrboro residents attended the event, and VHB discussed the purpose of the parking study and asked for their participation in the online survey.

Attendee comments included discussions of the Carr Mill Mall parking lots, and the large (gated) employee parking lot on Roberson Street that is owned by the Carr Mill Mall. Wayfinding signage to identify public parking within the 300. E Main Street parking deck and S Greensboro Street lot was also discussed as a relatively simple improvement to raise awareness of public parking facilities.

Stakeholder Events

The following outreach events were designed to engage downtown stakeholders from both the public and private sector. These events were not open to the general public.



Walkability Micro-Audit

VHB coordinated a walkability micro-audit on Wednesday, April 13, 2016. The purpose of this task was to perform a high-level assessment of potential challenges associated with walking to/from public parking areas toward popular destinations along Main Street in Carrboro. A secondary purpose of this task was to develop a repeatable process and series of evaluation criteria that could be performed for other public parking lots in the future.

This event was limited to eight (8) participants due to potential safety concerns while observing, photographing, and note-taking along roadways. The group of eight (8) individuals were chosen to represent various perspectives, including Town staff from Public Works, Police Department, Recreation and Parks, Planning, and a downtown property owner with on-site parking.

Two starting points were selected (S Greensboro Street lot and Hampton Inn parking garage), and the group walked along existing sidewalks and roadway shoulders, scoring elements of walkability such as sidewalk presence and condition, intersection crossing type, wayfinding signage, and bicycle parking facilities. Scores for each category were summarized and compared between the two routes.

A full summary of the walkability micro-audit is included in the Appendix section.

Business Alliance Meeting

VHB staff attended a regularly scheduled Carrboro Business Alliance meeting on Thursday May 26th, 2016, to discuss the project timeline and promote feedback from business owners. The project website and online survey were provided and participants were asked to help spread the word to employees and customers. VHB staff proposed a list of general parking questions for follow up discussions with business owners who wanted to share their parking insight and perspectives.

Business owner comments and questions included whether downtown employees were a significant generator of parking demand (and visitors represented a smaller portion), whether the project will include a discussion of the leased parking lots that the Town pays for on an annual basis, and whether recent parking occupancy from the Town of Chapel Hill will be included in this project.

Business Stakeholder Meetings

VHB staff attended two (2) meetings with local business owners in August 2016. The purpose of these meetings was to directly involve business owners in the planning process, to discuss their parking needs, and present some potential future strategies for balancing growth and parking. These



meetings were in addition to the two public meetings and the one Business Alliance meeting that also included local business owners.

The discussion centered on the importance of shared parking between adjacent businesses, long-term employee parking options, reserving customer parking during the daytime (8-5 PM), the significance of “walk-by customers”, and competition with suburban shopping centers.

Business owners agreed that the most proximate parking in front of their business should be prioritized for customers during the daytime. Therefore, employees should seek either (a) satellite parking within a private lot, or (b) long-term parking within the public parking lots (2-hour time limited). Issues of personal security for employees walking back to their vehicles was discussed as a recommendation for the Town or NCDOT to improve lighting, streetscape, and sidewalks. These enhancements would improve the perception of safety as well as encourage customers to park once and walk, which reinforces the “walk-by customers.”

Growth of downtown businesses is a desired goal for all stakeholders. This growth can be in the form of an existing business expanding upward or outward, or a new business occupying a currently vacant space. Business owners are looking to the Town to provide the additional (flexible) public parking that is perceived as necessary for this growth, reducing the parking requirement for additional square footage. The Town’s perspective has been data-driven, to allow the existing pattern of parking use (supply and demand) inform this discussion before determining the Town’s role in parking management. All sides are invested in the success and growth of downtown businesses, regardless of the parking management strategies that have been presented and discussed.

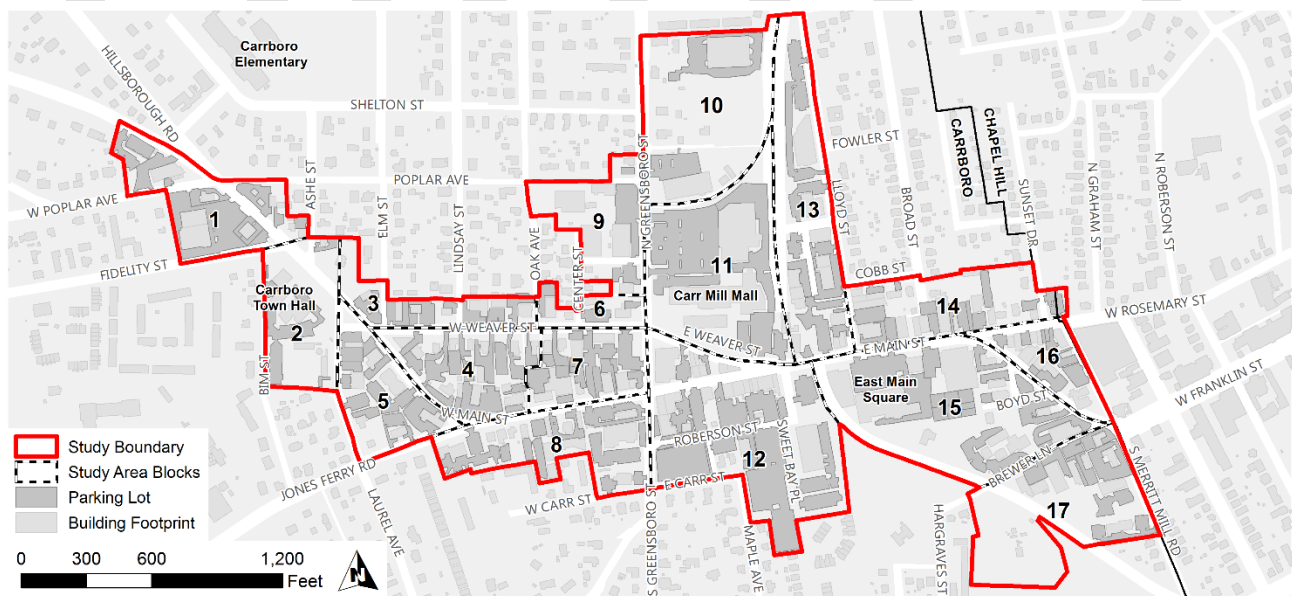
Existing Conditions

Existing Parking Supply and Utilization

Utilizing the Town's existing parking space inventory, which was delivered in ArcGIS format, VHB organized and conducted a field investigation to verify total spaces and collect utilization throughout the day in advance of the first public meeting in February of 2016.

The project study area was defined by Town staff (Figure 1), and includes properties within the B-1 (C), B-1 (G), B2, B3, and CT zones according to the Town Zoning Map. The study area was divided into 17 blocks for the purposes of summarizing and reporting data. Parking occupancy was collected for each individual lot, both public and private. These data will be reported by individual lots, groups of lots by different categories, and at the block-level.

Figure 1: Study Area



Determination of busiest day of the week

To determine the busiest day of a typical work week, VHB installed video equipment at the entrance/exit locations of the Rosemary Street Lot and S Greensboro Street Lots. Vehicle entries and exits were recorded and summarized per hour across a three-day collection period in November (17-19) 2015. The results suggest that Tuesday's peak number of parked vehicles is 15% lower than Wednesday or Thursday, which were effectively equal. Thursday was selected to collect the full parking utilization counts.

Parking Occupancy - January 2016

For the purposes of this report "Public" refers to parking that is either owned or leased by the Town of Carrboro for use by Town staff, visitors, and the general public. "Private" refers to parking that is owned and managed by local businesses for their use to accommodate employees or customers.

A total of 4,003 parking spaces were observed within the downtown study area. Private parking accounted for four (4) out of every five (5) spaces (82%), while public parking accounted for the remaining 18% (Table 1).

Table 1: Parking Spaces by Type

Parking Type	Spaces	% of Total
Public	655	16%
Private	3,348	84%
Total	4,003	

Note: Public includes spaces owned by the Town and leased from private land owners.

Parking occupancy data was collected on Thursday, January 14th, 2016. Orange County public schools were in session, as well as UNC-Chapel Hill spring semester classes. A total of four (4) parking counts were conducted, 9-11 AM, 11 AM-1 PM, 2-5 PM, and 6-9 PM, for all public and private parking areas. The team observed the maximum number of parked vehicles during the 11 AM-1 PM lunchtime period, identifying 2,029 cars for 4,003 spaces (51% occupied). A lunchtime peak is common because the greatest number of employees, customers, and visitors are working, heading to lunch, or running errands during this time.

It is worth noting that during the busiest period of the day, the combined parking occupancy reached 51%. This means that in aggregate, half of all parking was empty during the peak January count period. Private lots were found to be 51% occupied, and the Public lots were found to be 50% occupied. For reference, the targeted parking occupancy for each lot should be between 85% and



90%, or roughly one (1) empty space for every seven (7) to ten parking spaces. This targeted occupancy will ensure that vehicles are not unnecessarily “circling the block” or congesting parking lot aisles in search of that last empty parking space.

Town owned and Town leased Parking

Public parking includes lots that are (a) owned by the Town as well as lots that are (b) leased from private land owners and made available for the public. The Town owns four (4) public parking lots, as well as some miscellaneous parking at the Fire Department and Police Station. The latter are not open to the public. The four (4) public-owned parking lots are: Town Hall lot, Century Center lot, S Greensboro St lot (including adjacent on-street spaces), and the Rosemary St lot.

The Town leases parking within an additional five (5) lots that are distributed across the study area (Figure 2), and listed below from west to east:

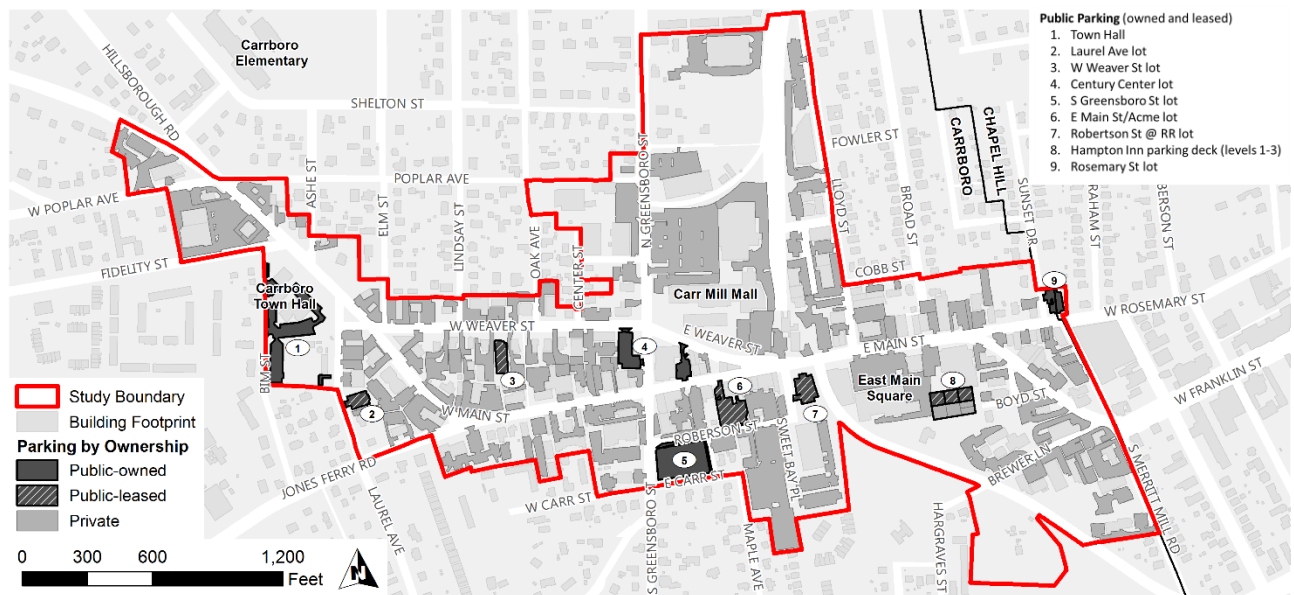
- Laurel Ave lot
- W Weaver St lot
- E Main St/Acme lots (combined into one)
- Roberson St lot @ railroad tracks
- East Main Square (Hampton Inn hotel) parking deck levels 1-3

Leased parking accounts for a large percentage (58%) of the 655 total public parking spaces (Table 2). A majority of this leased parking is within the East Main Square (300 E. Main) parking deck (250 spaces).

Table 2: Parking Spaces by Ownership

Parking Type	Spaces	% of Total
Public-owned	275	7%
Public-leased	380	9%
Private	3,348	84%
Total	4,003	

Figure 2: Parking Lots by Ownership Type

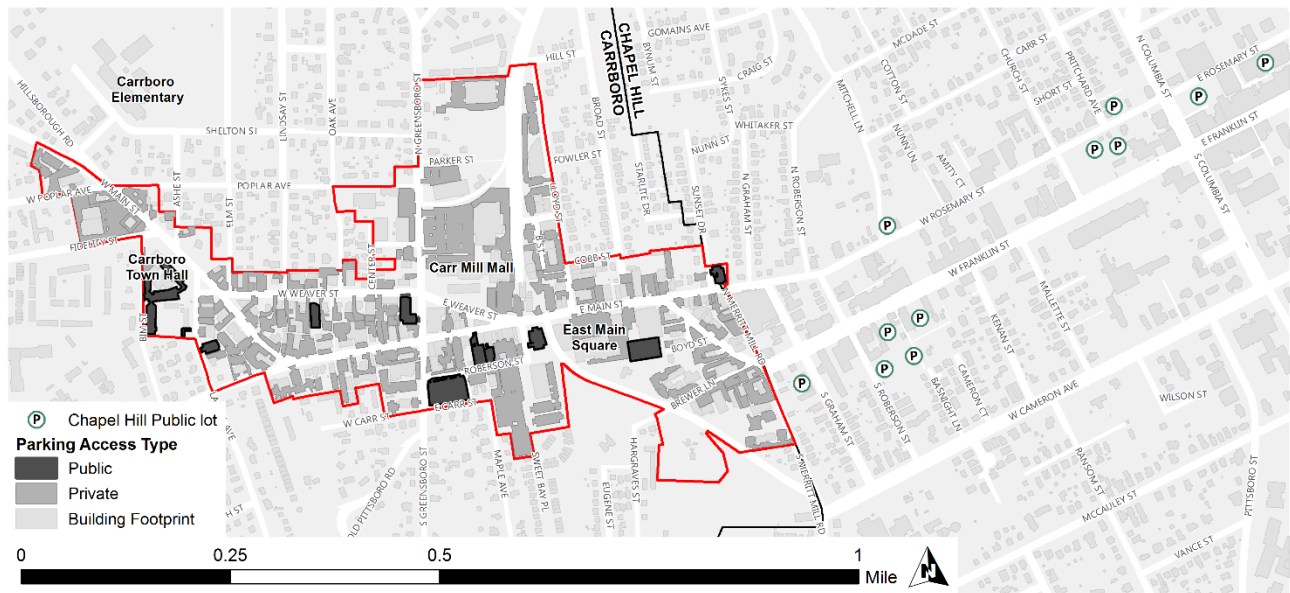


Town of Chapel Hill Parking Data

A similar parking occupancy study was conducted in the neighboring town of Chapel Hill during the same time period. The Chapel Hill parking study is not related to this parking study. However, the data collected by the Town of Chapel Hill was shared with VHB and the Town of Carrboro, and is summarized below for context.

The Town of Chapel Hill collected parking occupancy data for 11 of their public parking lots along Rosemary Street and Franklin Streets in January of 2016. Six (6) of these lots, representing 323 spaces, are located within a quarter-mile of the town boundary between Chapel Hill and Carrboro (Figure 3). The remaining five (5) public lots are more than a half-mile from Carrboro.

Figure 3: Town of Chapel Hill Public Parking Lots



The Town of Chapel Hill counted cars at five (5) periods throughout the day. That study observed the highest total occupancy (651 parked cars, 70% occupancy) during the 11:30 – 2 PM period, the same lunchtime peak as the Town of Carrboro occupancy counts. Parking occupancy dropped during the afternoon to 46% and 42%, but rebounded to 60% occupancy during the 6-8 PM period. It is important to note that the Town of Chapel Hill charges a fee of \$1-\$1.50 per hour, typically between 8 AM and 8 PM.

VHB further investigated the six (6) Town of Chapel Hill parking lots that are nearest to Carrboro. The closest parking lot (S Graham St lot) is reserved for employees during the day, and becomes an hourly pay lot between 6-8 PM. After 8 PM, this lot is free to the public and a total of six (6) cars were observed parking there. The second-closest parking lot (Mitchell Ln lot) is adjacent to the Hargraves Community Center. A total of four (4) cars were observed parking there.

The remaining Chapel Hill lots that are nearest Carrboro are located along W. Franklin Street near several restaurants. The data display a traditional lunchtime and dinnertime peak period of use. These data do not suggest that the proximity to Carrboro is influencing the pattern of parking for these Town of Chapel Hill parking lots. Therefore, no further examination was needed.

Parking Occupancy – April 2016

VHB collected parking occupancy data on Thursday, April 21st, 2016, to confirm the trends observed during the initial counts in January. The same four (4) collection periods were used to directly



compare the total number of cars and occupancy percentages between these two sets. The overall peak period for parking remained during the lunchtime 11-1 PM period, with a maximum number of parked vehicles reaching 2,122 cars for 4,003 spaces (53% occupied).

The greatest number of parked cars were observed during the April occupancy counts, and the difference varied depending upon the time of day. For example, 84 additional cars were observed during the 9-11 AM period, representing a 5% increase. The same 5% increase was observed during the lunchtime peak. A much larger increase was observed during the afternoon and evening (Table 3). To put another way, vehicles left earlier in the afternoon during the January counts, however, remained longer in the afternoon and evening during the April counts. These data suggest that an additional 5% of parked cars can be expected for the spring months. However, this increase may become more significant in the afternoon and evening, when additional outdoor dining and other activities are possible due to warmer weather.

Table 3: Comparison of Parked Vehicles (January – April)

Count Periods	January	April	Increase	% Increase
9 AM to 11 AM	1,858	1,942	+84	5%
11 AM to 1 PM	2,029	2,122	+93	5%
2 PM to 5 PM	1,699	1,879	+180	11%
6 PM to 9 PM	1,426	1,758	+332	23%

Note: Parking counts include public and private lots (4,003 spaces in total)

The shaded cell represents the peak period (2,122 cars for 4,003 spaces is 53% occupancy)

Public Parking Occupancy

Meeting attendees remarked that the total number of parked cars may peak during the lunchtime period, but the most challenging time of day to find parking within a public parking lot was during the evening (6-9 PM) period. This was expressed during the initial project kickoff meeting, during the Farmers' Market and Coffee with a Cop events. VHB removed the private parking lot data from the analysis to evaluate this feedback. Table 4 below reports the same comparison of parking occupancy for only the 655 public parking lots. Note the April peak period was observed during the evening, not the lunchtime.

Table 4: Comparison of Parked Vehicles within Public Lots Only (January – April)

Count Periods	January	% Occu	April	% Occu	Increase	% Increase
9 AM to 11 AM	304	46%	354	54%	+50	16%
11 AM to 1 PM	356	54%	368	56%	+12	3%
2 PM to 5 PM	339	52%	312	48%	-27	-8%
6 PM to 9 PM	331	51%	466	71%	+135	41%

Note: Parking counts include only public lots (655 spaces in total)

The shaded cell represents the peak period (466 cars for 655 public spaces is 71% occupancy)

The reduction of parked cars during the 2-5 PM period, from 339 to 312 in April, represents a data anomaly. The total number of parked cars during this time increased, however a large number of them were parked in private parking lots (+207) as compared with public lots (-27). The net effect is an overall increase of 180 cars in April compared to January's counts.

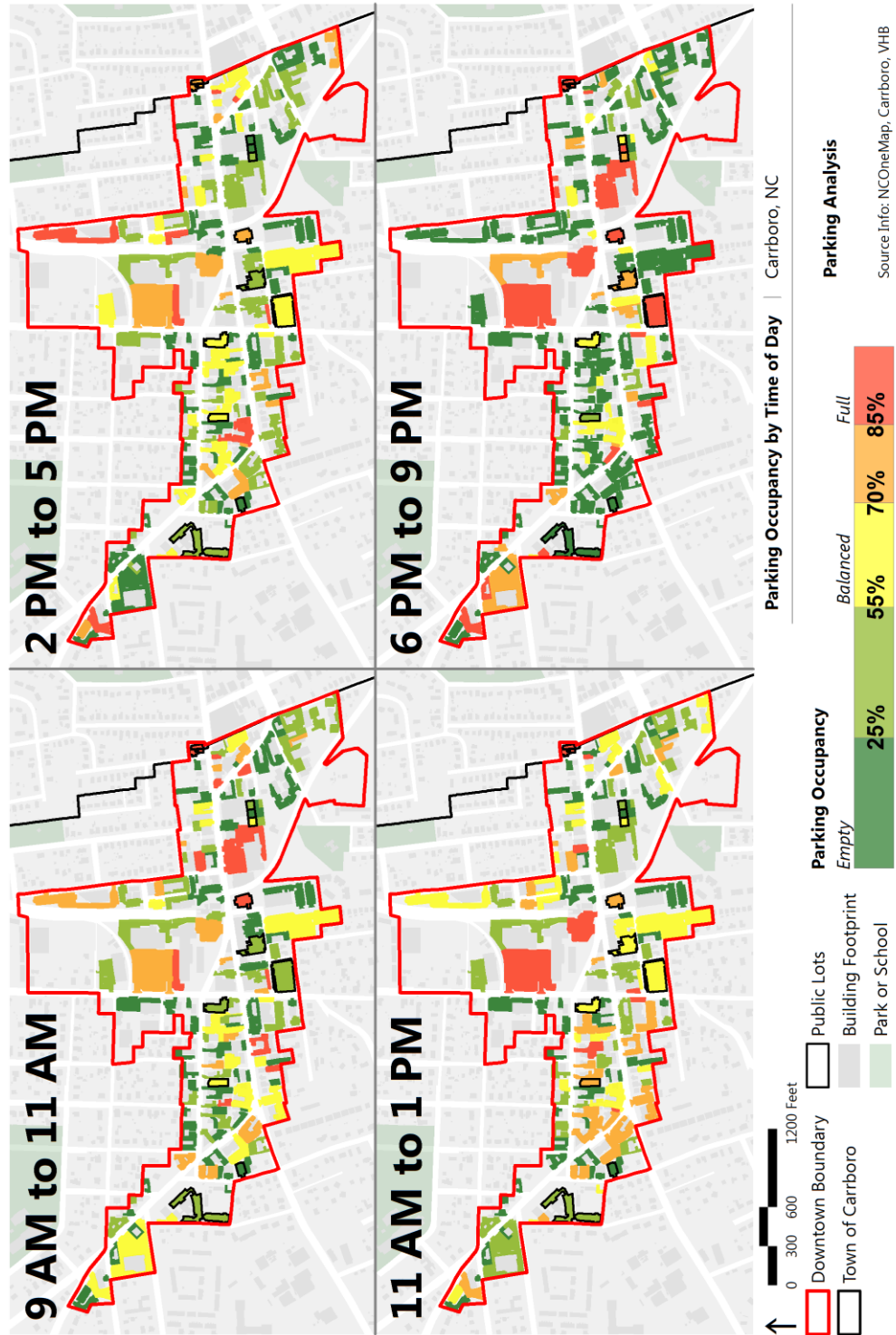
The significant difference between January and April counts is during the 6-9 PM period, where an increase of +135 additional vehicles were observed (41% increase) over the January count period. The 466 parked vehicles within the 655 public parking spaces represents a 71% occupancy rate, which is higher than the lunchtime period for public lots and total parking lots. Nevertheless, there are still empty spaces available. This summary confirms the stakeholder feedback that the most challenging time of day to find parking within a public parking lot is during the evening (6-9 PM) period. Again, this 40% increase is likely due to the influence of weather, drawing more people and their cars to downtown in April, as opposed to January.

Parking Occupancy Pattern

Parking occupancy is not evenly distributed among the varying parking lot sizes and locations. Figure 4 displays the pattern of individual parking lots based on their percent occupied (cars divided by total spaces). Dark and light green lots are considered very low parking occupancy (below 55%). Yellow parking lots are more appropriately balanced (56-70%). Orange lots are approaching the optimal capacity (71-85%), and red parking lots are considered at capacity (> 85%).

The pattern in the morning period (9-11 AM) displays many yellow lots with some orange and red lots. During the lunchtime period, this parking demand pattern shifted to mostly yellow and orange lots, particularly clustered in the center of the study area. During the afternoon period (2-5 PM), fewer lots were found to be yellow, with noticeably more light green lots along Main and Rosemary Streets. The evening period (6-9 PM) is polarized between dark green (low occupancy) lots that were effectively empty and many red or orange lots, particularly in the center of town, that were effectively full (Figure 4).

Figure 4: Comparison of Peak Period Occupancy by Lot (April 2016)



Saturday Occupancy – April 30, 2016

VHB also performed parking occupancy counts on Saturday, April 30th, 2016 to compare the pattern to a typical weekday. The total number of parked cars is lowest on Saturday for the morning, lunchtime and afternoon periods (Table 5). Total parking occupancy on Saturday was between 37-39%, meaning that more parking spaces were empty than occupied. Businesses that are either (a) not open on weekends, such as offices or banks, or (b) open later in the afternoon or evening, such as bars/clubs or dinner-only restaurants, could be one significant explanation for this pattern.

Table 5: Observed Parked Vehicles by Time of Day

Count Periods	Thursday January	Thursday April	Saturday April
9 AM to 11 AM	1,858	1,942	1,493
11 AM to 1 PM	2,029	2,122	1,475
2 PM to 5 PM	1,699	1,879	1,487
6 PM to 9 PM	1,426	1,758	1,561

Note: Parking counts include public and private lots (4,003 spaces in total)

The shaded cell represents the maximum number of parked cars, for each period, between all three data collections

Public Parking Occupancy (Saturday)

Saturday parking occupancy for public lots only is different than the total parking occupancy trend. If all private lots are excluded from the analysis, then the number of vehicles parking in public lots peaks during the evening 6-9 PM period, similar to the typical weekday trend in April. Table 6 below indicates that the Saturday trend is relatively high in the morning during the Farmers' Market, drops during the lunch and afternoon period, and then increases during the evening period nearly to the level of a typical weekday (457 cars for 655 spaces is 70% occupancy).

Empty parking spaces after 6 PM on a Saturday may be found on level 3 of the parking deck (43 empty spaces; 46% occupied), Town Hall (85 empty spaces; 13% occupied), or the W Weaver Street lot (29 empty spaces; 15% occupied). The remaining public lots contained a total of 30 empty spaces, some of which may have been reserved (signed) for ADA, or inaccessible due to diagonal parking.



Table 6: Observed Parked Vehicles within Public Lots by Time of Day

Count Periods	January	April	Saturday
9 AM to 11 AM	304	354	361
11 AM to 1 PM	356	368	285
2 PM to 5 PM	339	312	240
6 PM to 9 PM	331	466	457

Note: Parking counts include only public lots (655 spaces in total)

The shaded cell represents the peak period (evening period for April and Saturday)

Length of Stay Analysis

The length of time that a typical vehicle is parked within a public parking space is an important topic for this parking study to assess. The Town has a 2-hour time limit for most public parking lots between the hours of 7 AM and 5:30 PM Monday through Friday. The parking deck is an exception, which has a 3-hour time limit for public parking on levels 1-3. Town Hall is the other exception, which does not allow overnight parking (3-5 AM).

VHB performed a separate field data collection effort on Thursday January 14th, 2016 to observe and document the vehicle license plates for all nine (9) public parking lots, every hour between the hours of 8 AM and 6 PM. The result is a database containing 813 unique license plates collected over a 10-hour period.

A majority of vehicles (557 cars, representing 69%) were observed on three (3) or fewer occasions, suggesting that they remained parked for 3-hours or less. A minority of vehicles (151 cars, representing 19%) were observed on seven (7) or more occasions, suggesting that they remained parked in the same spot for most of the day and were likely downtown employees. (Table 7). It is assumed, based on their locations that approximately 50-60 of these vehicles were Town of Carrboro employees, and the remaining 90-95 vehicles were owned by other downtown employees, and seven (7) may have been UNC students parking in the Rosemary Street lot.

Table 7: Number of Unique License Plates Observed within Public Parking Lots by Frequency

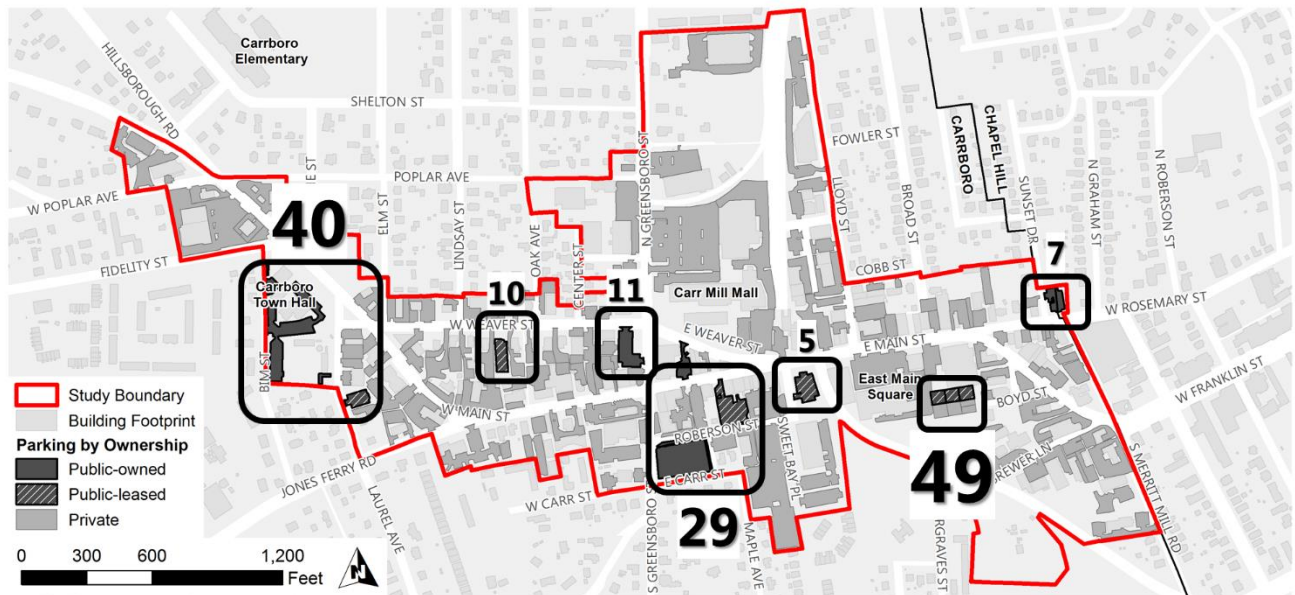
Frequency Observed	Unique Plates	%	%
10	32	4%	19%
9	41	5%	
8	42	5%	
7	36	4%	
6	30	4%	13%
5	27	3%	
4	48	6%	
3	81	10%	69%
2	143	18%	
1	333	41%	
Total	813		

Note: License plates were observed every hour for 10 hours within public parking lots only.

The shaded cell represents 151 vehicles that were observed on seven (7) or more occasions.

Meeting attendees and local business owners suggested that the percentage of vehicles observed parking more than seven (7) hours should be much larger than 19%. This is a widely shared perspective that has been conveyed on multiple occasions. Their suspicion is correct if you consider the effect of total occupied time during the day. The 32 vehicles observed on 10 occasions accounted for 320 occupied hours of time. The 41 vehicles observed on 9 occasions accounted for 369 occupied hours of time, and so on. If we consider that more than 2,646 occupied hours of time were observed during the 10-hour period, then the minority of cars observed on seven (7) or more occasions actually accounted for 48% of the total occupied time throughout the day. For comparison the 69% of vehicles observed on three (3) or fewer occasions accounted for one-third of the total occupied time (Table 8). This analysis validates the perspective that a small number of vehicles (151) are effectively rendering these public parking spaces unavailable to visitors or customers. Figure 5 below displays the location of these 151 vehicles that were observed parking on more than seven (7) occasions. The parking deck and Town Hall area account for 89 of these 151 cars that were observed parking on more than seven (7) occasions. It is interesting to note that the Rosemary St lot contained seven (7) of these long-term parked vehicles. Public feedback suggested that this highly-visible lot was filled by UNC student vehicles for the entire day.

Figure 5: Number of Long-Term Parked Vehicles by Lot



Note: Long-term Parked Vehicle include those observed on more than seven (7) occasions.

Table 8: Comparison of Occupied Time within Public Parking Lots

Frequency Observed	Unique Plates	%	%	Occupied Time	%	%
10	32	4%	19%	320	12%	48%
9	41	5%		369	14%	
8	42	5%		336	13%	
7	36	4%		252	10%	
6	30	4%	13%	180	7%	19%
5	27	3%		135	5%	
4	48	6%		192	7%	
3	81	10%	69%	243	9%	33%
2	143	18%		286	11%	
1	333	41%		333	13%	
Total	813			2,646		

Note: License plates were observed every hour for 10 hours within public parking lots only.

The shaded cell represents the same 151 vehicles, occupying 48% of the total occupied time.

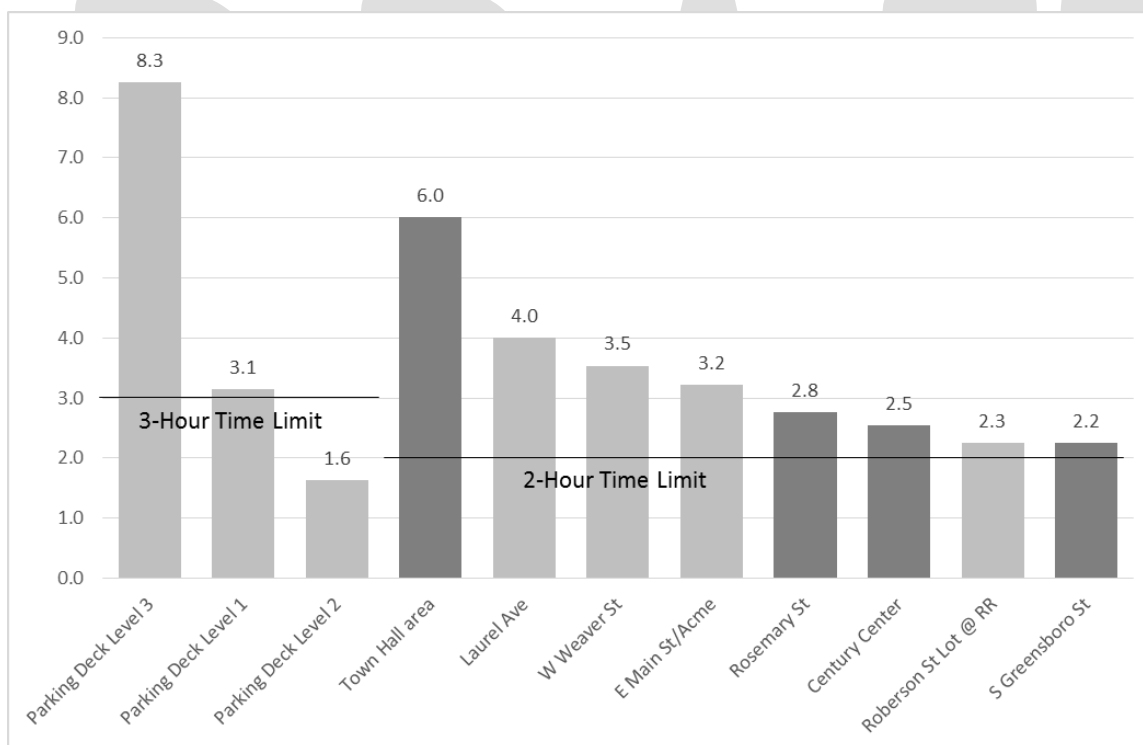
Identifying the public parking lots where these long-term parking vehicles are observed is the next question to address. Figure 6 below displays the average length of stay for each lot. Note that the parking deck allows for 3-hour parking, and only vehicles observed on level 3 were found to stay longer than this threshold of time. These vehicles were identified as employees of the East Main

Square property, who have been instructed to park on level 3, leaving the first two levels for customers.

The remaining lots are 2-hour parking during the day, with the exception of Town Hall. Laurel Ave, and W. Weaver Street lots are both located on the west side of downtown, and these lots averaged the longest length of stay for public lots (4.0, and 3.5 respectively).

The Rosemary lot is perceived by stakeholders as filled by UNC students for a large portion of the day. This analysis reveals that the average length of stay was found to be only 2.8 hours during the day (8 AM to 5 PM). The significance of this issue with UNC students appears to be exaggerated, based on these data.

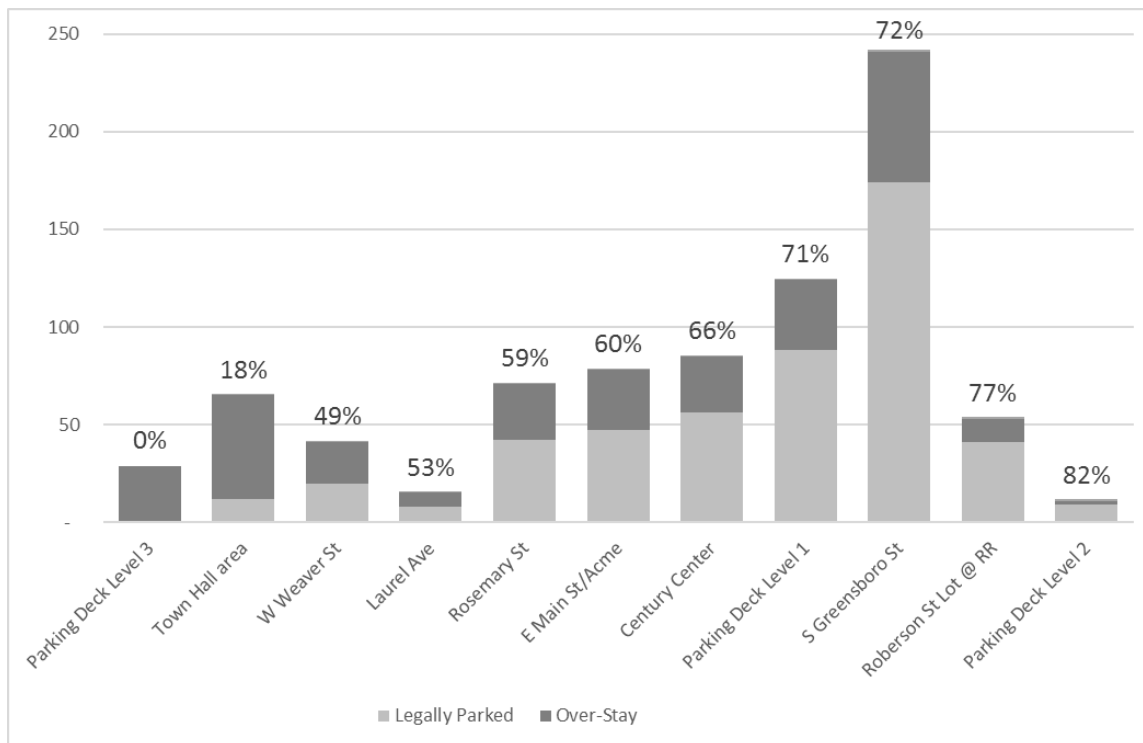
Figure 6: Average Length of Stay (Hours) for Public Parking Lots



Note: Dark shaded bars represent Town-owned parking lots; Light shaded bars represent leased parking lots.

To examine parking compliance with the 2-hour or 3-hour time period, the license plate dataset was queried and the data was summarized by lot from lowest percent compliance to highest. The four (4) parking areas with the lowest percentage of compliance (Parking deck level 3, Town Hall, W Weaver St and Laurel Ave lots) as shown in Figure 7 below, also have the highest average length of stay from Figure 6 above.

Figure 7: Parking Time Limit Compliance for Public Parking Lots



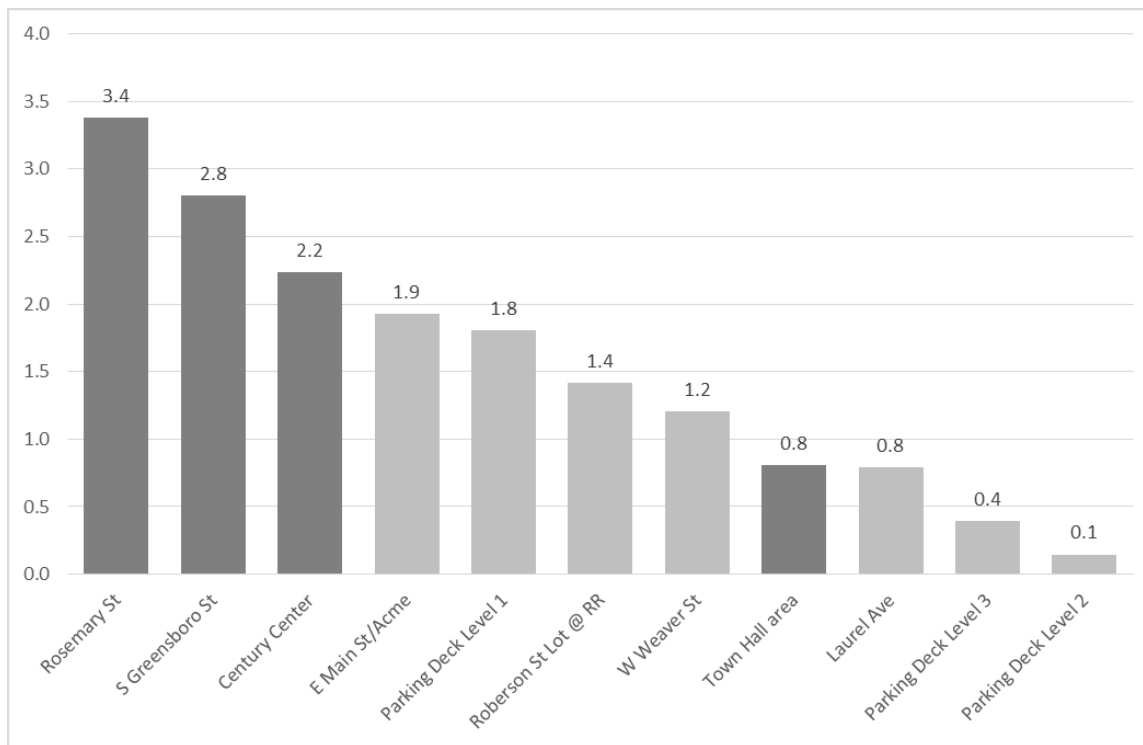
Turnover Rate

A parking turnover analysis is similar to the length of stay analysis, however, turnover represents the total number of different vehicles that utilize a parking lot during the day. Turnover is calculated as the total number of unique license plates found within a lot divided by its number of spaces. A low turnover rate (≤ 1.5) is expected for employee parking areas such as Town Hall. A high turnover rate (≥ 1.75) is expected for customer parking areas such as on-street spaces or centrally-located lots that are enforced regularly. Using the same license plate data, turnover rates were calculated for each public lot and sorted lots from high to low turnover (Figure 8).

The results suggest that the three (3) lots with the highest turnover are all public-owned parking lots. The Rosemary Street lot supported 71 unique license plates for its 21 parking spaces for a turnover rate of 3.4. The S Greensboro Street lot is much larger, and supported 255 unique plates for 91 parking spaces (2.8 vehicles per space). The Century Center lot supported 85 vehicles within its 38 parking spaces (2.2 vehicles per space).

The parking lots with the lowest turnover rate included levels 2 and 3 of the parking deck (0.1 and 0.4 respectively), the Laurel Ave lot (0.8), Town Hall area (0.8), and W Weaver St (1.2).

Figure 8: Turnover Rate for Public Parking Lots



Note: Dark shaded bars represent Town-owned parking lots; Light shaded bars represent leased parking lots.

Turnover rates < 1.0 suggest that fewer cars parked in this lot than the total number of spaces (e.g. 80 cars for 100 spaces).

Public Parking Management and Enforcement

Public parking lots are signed as 2-hour parking between the hours of 7 AM and 5:30 PM. The exceptions are Town Hall (no overnight parking), and the East Main Square parking garage, which is signed as 3-hour parking for levels 1-3. The purpose of the 2-hour limit is to discourage long-term parking and encourage turnover in public-owned lots. Based on the parking occupancy counts in January and April, the S Greensboro St lot (57-64%), E Main St/Acme lot (57-88%), and Roberson St lot (61-83%) are all approaching or near the ideal 85% maximum occupancy. These data suggest that the 2-hour time limit is effective at preventing full parking lots (> 85% occupied) during the lunchtime peak.

Parking Enforcement

Parking Enforcement is handled by the Carrboro Police Department. This is common for many small to mid-sized cities in North Carolina. The challenge with this methodology, however, is that Police



Department staff is often occupied attending to other, more urgent duties. As a result, parking enforcement is not consistent throughout the weekday, and over-stay parking occurs (confirmed by length of stay analysis, Figure 6).

The Town has used new signage at parking lot entrances to encourage voluntary compliance with the 2-hour parking limit, stating that parking citations may be issued. The average length of stay for the S Greensboro St lot was observed to be 2.2 hours, the shortest of all public lots, and the turnover rate was 2.8 (second highest). These data suggest that this lot is used for short-term parking and turns over frequently. It is unclear whether the new signage at the entrances is influencing these conditions because data were not collected before the signs were placed.

Private Parking Signage

Private parking lots are also signed to prevent unauthorized parking. These private signs represent a wide variety of styles and formats, which may contribute to confusion as drivers are attempting to read each unique sign, including the fine print. Private signs often do not include the time of day that parking is reserved, such as: "Reserved Parking, Towing Enforced."

Because they are privately owned, these parking lots are not a viable option for drivers 24-hours per day, 7 days per week, unless they are specifically shopping or patronizing the store. As a result, these parking lots may remain empty for a large portion of the day, night or weekend. Parking occupancy counts seem to confirm that most private lots are less than half-full for a majority of the day and essentially empty after 6 PM (Figure 4).

Future Conditions

Future Parking Demand

VHB constructed a parking demand model to estimate the number of parking spaces needed to meet the expected demand for future development projects. The model may be adjusted or updated as additional information is obtained, or assumptions are revised.

The Town generated a list of current and anticipated development projects within the next five (5) years and the estimated parking associated with each. VHB identified the project locations and assigned each with a respective parking analysis block ID (refer to Figure 1). The estimated number of additional parking spaces created at the conclusion of each individual project can be found in Table 9 below. The list of projects includes hotel, residential, retail, civic, and mixed use developments.

Table 9: Future Development Projects List

#	Project Name	SqFt	Land Use	Parking Removed ¹	Parking Added	Net Balance
1	Hilton Garden Inn	149 beds	Hotel	-	+337	+264
2	East Main Square Buildout	205,000	Mixed Use	-88	+15	
3	Shelton Station A	23,000	Office	-	+40	+170
4	Shelton Station B	130 beds	Residential	-	+130	
5	PTA Thrift Shop	5,000	Retail	-	+30	+30
6	Club Nova	9,000	Office	-20	+26	+6
7	CVS Relocation	11,000	Retail	-26	+50	+24
8	Orange County Library	15,000	Library	-91	+100	+9
9	Museum/Arts	46,000	Civic	-36	+156	+120
SUBTOTAL				-261	+884	+623

Note: ¹ Parking to be Removed represents existing surface parking lots/areas that are expected to be future building sites. These values are estimated by VHB based on site plans, project descriptions, and professional judgement.

Parking added column was generated with input from the Town of Carrboro.

Model Assumptions

Below are the assumptions that influence the future demand modeling process. Adjustments to each input will have iterative effects on other calculations and modify the outputs. Assumptions listed below were made based on input from Town of Carrboro staff and professional judgement.

- The peak period is assumed to be the time of day when the greatest number of parked cars was observed, including public and private parking areas.
- Lunchtime (11 AM to 1 PM) was observed to be the overall peak period, based on parking occupancy counts collected on Thursday April 21, 2016.
- Effective Capacity is assumed to be 85% of total parking spaces within a parking lot.
- Existing building square footages were supplied by the Town of Carrboro, as of July 2016.
- Existing land uses were inferred from permissible use codes and descriptions, which were reviewed by the Town of Carrboro.
- Total future parking demand was calculated from ITE Parking Generation Manual, 85th-percentile values for each land use category. These values represent the future parking demand-high values.
- Time of day reduction factors were applied based on ITE Parking Generation Manual. These values represent the future parking demand-low values.
- List of future development projects were generated by the Town of Carrboro, as of July 2016.
- Estimated parking removed per project is the existing parking spaces removed to accommodate the new development. This was assumed based on project descriptions, site constraints, and professional judgement.
- Town of Carrboro estimated the number of proposed parking spaces gained for each project based on the best available project information and descriptions.
- CVS project assumes relocation from its current location with backfill of a similar business into the existing space.

ITE Manual – Parking Generation

VHB referred to the Institute of Transportation Engineers (ITE) Parking Generation Manual, 4th Edition to estimate the future parking demand generated by each of the nine (9) current and future development projects. The ITE manual contains research from transportation engineering and planning professionals, and is regularly updated with actual parking occupancy counts from urban and suburban locations across the country. This resource is universally accepted as the standard resource for parking generation and guidance.



The ITE Manual provides two points of reference for parking studies. The first is the total parking demand that represents the maximum number of parked vehicles regardless of the time of day (i.e. the worst-case condition). This is essentially the Black Friday shopping condition in late November. The total parking demand influences the maximum number of parking spaces to be built, however it is not the only estimate. This study will refer to this as the future “Demand-High” value.

The second point of reference includes time of day factors (percentage of total) that reduces the total future parking demand down to the expected typical demand over a typical weekday or weekend day. These values influence the expected number of parked vehicles during the AM, lunchtime, PM, or evening periods. This study will refer to this as the future “Demand-Low” value.

These two estimates allow a planning study to compare the worst-case condition (“Black Friday” shopping) with the typical peak period condition, providing a low and high range of future demand and preventing over-supply of parking that will sit empty for the majority of the year. Public outreach comments and survey feedback voiced support of this goal of preventing over-supply of unnecessary parking. Many viewed empty parking spaces as an inefficient use of space that could more desirably be used for development or open space, and preferred the encouragement of alternative modes of travel rather than supply additional parking.

Existing Demand and Balance

To calibrate the parking demand model to the current conditions, VHB calculated parking demand for all buildings within the study area using values from the ITE Manual, and compared these with the actual parking occupancy counts collected in April 2016. Because the Town of Carrboro has applied consistent parking requirements to development projects, we anticipated that the actual parking demand would be very similar to the calculated parking demand.

VHB observed a total of 2,122 cars parked during the lunchtime peak period. This value represents actual parking demand. Using ITE manual for guidance, VHB calculated a current parking demand of 2,096 cars for this same period of the day, which is 98.8% of the observed demand. This comparison validates the model inputs (Table 10).

Table 10: Existing Parking Demand Comparison

Scenario	Spaces	Actual Demand (Cars)	Calculated Demand (ITE)
Existing	4,003	2,122	2,096

Note: Calculated Demand is 98.8% of the Actual Demand. Both estimates represent the 11-1 PM lunchtime period.

Targeted Parking Occupancy

The number of empty parking spaces was observed to be 1,880 during the lunchtime peak period (11 AM to 1 PM). In practice it is undesirable for a parking lot to be 100% full. Rather the targeted parking occupancy for each lot should be between 85% and 90%, or roughly one (1) empty space for every seven (7) to ten parking spaces. This targeted occupancy will ensure that vehicles are not unnecessarily “circling the block” or congesting parking lot aisles in search of that last empty parking space.

Existing Surplus

Applying a desired maximum parking lot occupancy of 85%, the current combined public and private parking available in downtown Carrboro can effectively support 3,403 parked cars. This is also called the Effective Capacity. VHB observed a maximum of 2,122 parked cars, which represents the actual demand. Therefore, **the calculated parking surplus for downtown Carrboro on a typical weekday is 1,281 empty spaces for the existing conditions.** The split between public and private surplus parking spaces is displayed in Table 11.

Table 11: Existing Parking Surplus

Scenario	Spaces	Targeted Occupancy	Effective Capacity	Actual Demand (Cars)	Existing Surplus
Public	655	85%	557	368	189
Private	3,348	85%	2,846	1,754	1,092
Total	4,003	85%	3,403	2,122	1,281

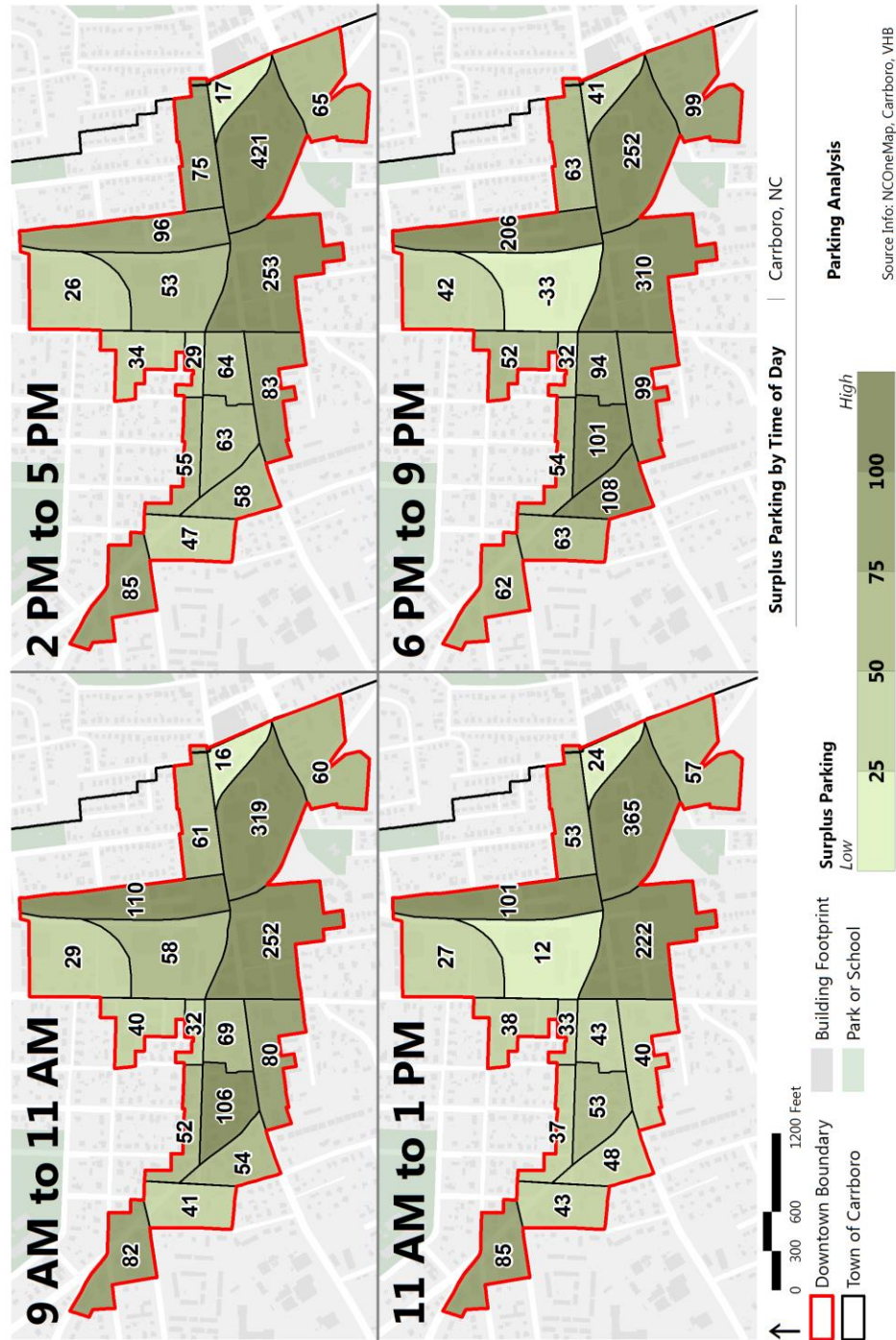
Note: Actual Demand (cars) from the 11-1 PM peak period, collected on Thursday April 21, 2016

Effective Capacity is the total Supply x Targeted Occupancy (4,003 x 0.85)

Existing Surplus is the Effective Capacity – Actual Demand (3,403 – 2,122)

Figure 9 displays how surplus parking spaces are not evenly distributed across all parking analysis blocks within the study area. Some parking analysis blocks have an existing surplus of 10-20 spaces, while others have a surplus of more than 300 spaces, depending upon the time of the day. Note the parking analysis block that includes the Carr Mill Mall has a surplus parking value of -33 during the evening 6-9 PM period. Even though there are 400 spaces available, this negative value is due to the 373 cars observed exceeding the Effective Capacity (340 spaces) of the analysis block.

Figure 9: Comparison of Surplus Parking by Block and Time of Day (Thursday, April 21, 2016)



Note: Refer back to Figure 1 Study Area for a map of the parking analysis blocks, represented above.

Future Demand and Balance

Quantifying the future parking supply-demand balance is valuable information for the Town. This information serves as the justification for potential management strategies and programs that may be aimed at modifying, mitigating or reducing future parking demand (following report section).

VHB applied parking demand rates to each development project with guidance from the ITE Manual and input from the Town (Table 9). Parking demand was compared between the existing and future conditions to quantify the magnitude of new parking demand that is expected as new development or redevelopment projects are approved. The estimated future parking demand is expected to increase within the range of +761 to +1,044 cars during the future peak period. These values represent the two sample points provided by the ITE Manual Parking Generation section, described above (peak time of day adjustment and maximum).

Each project will provide new parking spaces based on the current Town land use ordinance. Some of these projects are anticipated to remove existing surface parking as part of the development process, this is reflected by the Parking to be Removed category. This estimate is conservative for the purposes of this plan, and based on preliminary information. It is likely that projects will be designed to avoid as much parking removal as practical. The net result of parking removed and added is estimated to be +623 parking spaces (Table 12).

Table 12: Future Development Parking Modifications

Parking Modification	Spaces	New Demand-Low	New Demand-High
Parking to be Removed ¹	-261	-	-
Parking to be Added	+884	-	-
Net Balance	+623	+761	+1,044

Note: ¹ Parking to be Removed represents existing surface parking lots/areas that are expected to be future building sites.

VHB will use the average of new demand-low and new demand high $((761 + 1,044) \div 2 = 903)$.

Future Surplus

The future Effective Capacity is calculated by applying the same desired maximum parking lot occupancy of 85% to the future parking supply. Future parking supply is expected to increase by +623 spaces due to the anticipated future projects. By 2021 downtown Carrboro will support 3,942 parked cars (Effective Capacity). VHB estimates the future parking demand to be +903 new spaces, which is the average of the low and high demand values from Table 12. Adding the actual demand from 2016 counts to the new demand yields a total future parking demand of 3,024 cars. This leaves

an **estimated future surplus of 908 empty spaces**, within a range of +/- 140 throughout the day. The pattern of future parking surplus is displayed in Figure 10.

Public parking lots will account for a small surplus of parking spaces, while private lots are expected to have nearly five-times as many surplus spaces in the future (Table 13). A mechanism to allow for public use of private lots during the evenings or weekends, when the business is no longer open, is not currently in place. As a result, these private parking spaces remain empty. Suggestions for better utilization of these spaces are addressed in the Management Strategies section to follow.

Table 13: Future Parking Surplus

Scenario	Future Spaces	Targeted Occupancy	Effective Capacity	Future Demand	Future Surplus
Public	784	85%	666	524	142
Private	3,842	85%	3,266	2,500	766
Total	4,626	85%	3,932	3,024	908

Note: Future Spaces estimated from future development projects.

Effective Capacity is the total Supply x Targeted Occupancy (4,626 x 0.85).

Future Demand is calculated as the average between the Low and High Demand estimates, added to the existing demand.

Future Surplus is the Effective Capacity – Future Demand (3,932 – 3,024)

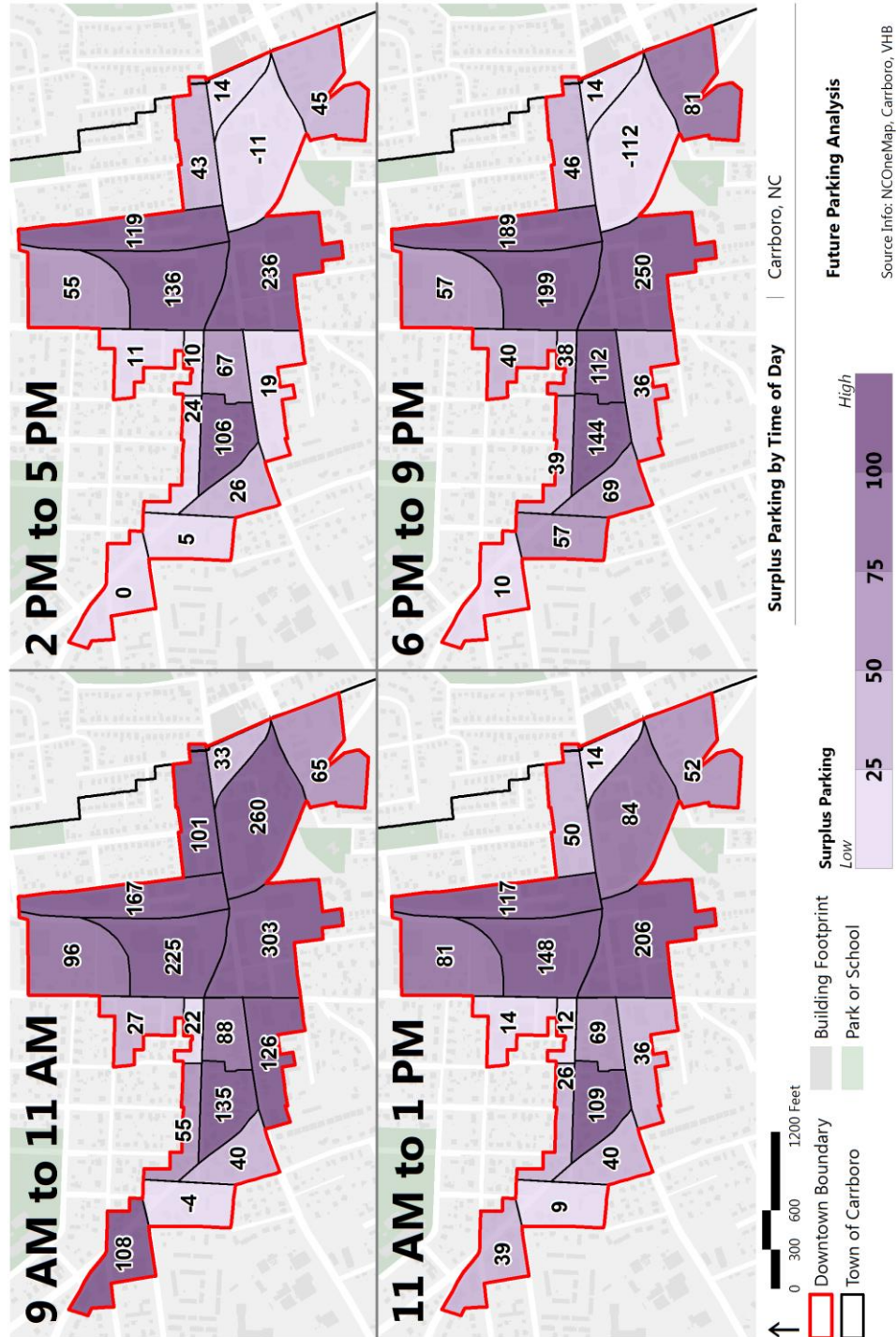
Future Surplus of Public Spaces

Private parking is included within this future demand model because eight (8) of the 10 future development projects are private, and private parking accounts for 82% of total parking. The two (2) future development projects involving public parking (though still considered private developments) are both within the same block (#12), south of Main Street between S Greensboro Street and the railroad tracks. For the purposes of this section, all other public parking lots are assumed to be unchanged from current supply and demand.

Block #12 has 196 public parking spaces within three (3) public lots. Utilization counts observed a maximum of 158 parked vehicles parked during the busiest period, which happened to be the evening 6-9 PM period.

The future parking demand model anticipates a net gain of +129 parking spaces for this block from the two development projects (Library and Museum/Arts), yielding 325 parking spaces for public use. Assuming the same targeted occupancy of 85%, these lots will support 276 parked vehicles. The estimated new demand generated by these two projects is +232 cars with a range of +/- 15, leaving a surplus of 44 empty spaces in the future.

Figure 10: Estimated Future Parking Surplus by Block and Time of Day



What does this mean for the Town of Carrboro

The Town controls a small percentage (18%) of total parking. There is a surplus of parking during the busiest time of the busiest day of a typical weekday for both public and private parking lots. The data collected does not support the need for the Town to provide additional parking spaces today.

Over the course of the next five years parking demand is expected to increase by 900 new parking spaces due to new development, and these projects should provide a sufficient number of additional new spaces to mitigate this demand. The balance of spaces needed will reduce the existing surplus of more than 1,200 spaces to approximately 900 surplus spaces, which factors in an artificial maximum occupancy of 85% (leaving 15% of spaces empty). This quantitative analysis does not support the need for the Town to construct additional parking spaces in the next five years.

Rather than construct new parking lots or structured parking, **the Town may wish to more effectively manage its existing supply of 655 parking spaces.** These qualitative improvements to parking supply would include, in the immediate-term, reviewing all 63 reserved parking spaces (non-ADA signs) to identify whether they are needed, or if they may be removed. This would also include ensuring that all public parking lots are consistently signed, striped, maintained and easily accessible so that visitors are aware and willing to park in any of these lots.

The following section outlines additional potential strategies that would allow the Town to more effectively manage and encourage people to use the existing parking resources.

Management Strategies

Management Strategies of Parking Systems

Future parking demand is not evenly distributed across the entire study area, just as the existing parking demand and surplus is not evenly distributed. Some downtown locations will experience a parking shortfall during peak periods while other locations in downtown will have excess parking. There are many strategies for actively managing parking to achieve better balance of supply and demand, described below. Strategies have been organized into five (5) categories, Education, Encouragement, Enforcement, Evaluation and Engineering.

The first four (4) categories offer a variety of cost-effective management strategies with the goal of reducing or balancing demand throughout the existing parking supply. The final category (Engineering) involves physically constructing new parking lots/garages. Public opinions received during the online survey process, public meetings, outreach events and business owner discussions, suggest that citizens of Carrboro prefer a variety of parking management approaches rather than a build-more-parking solution.

Education

Education strategies seek to inform citizens of the principles, vision and goals of the parking system management strategy in the hopes of modifying parking behavior. Initiatives should reinforce the Town's message relating to parking:

1. Carrboro supports a dynamic, mixed-use and multi-modal downtown
2. Carrboro desires convenient parking for its short-term visitors
3. Carrboro acknowledges that reducing unnecessary vehicular circling will benefit everyone
4. Carrboro encourages a park once and walk strategy
5. Carrboro encourages long-term parking in low-demand lots
6. Carrboro will use strict enforcement (citations) as a last-resort option
7. Carrboro will continually evaluate parking demand and manage parking accordingly

The following subsections provide more detailed education considerations for the Town, including signage, employee parking, walk-time perceptions, alternative transportation, costs and land uses.

Wayfinding and regulatory signage standards

Signage was routinely discussed by stakeholders throughout the planning process. Standard signage provides a level of familiarity and peace of mind for drivers, especially if they are first-time visitors to Carrboro. Public parking lots currently have similar signage at the parking lot entrances, though improvements can be made to improve consistency. The 2-hour parking time limit between 7 AM and 5:30 PM is clearly marked, however the language is slightly different. Examples include:

- "2 HR Parking Enforced All Spaces"
- "2 HR Parking Enforced"
- "2 HR Parking"
- "2 HR Limit"

More important than the language is the actual sign size, shape, color and placement. These four (4) messages are displayed on three different sign types (Figure 11). These example signs range in size from 4" to 18" in height, 12" to 24" in width, and mounted from 1' to 7' above the ground. One sign has a brown background with white lettering, another is white with black lettering, and the other two are white with green lettering. These inconsistencies can lead to driver indecision, especially unfamiliar visitors, when attempting to find available public parking.

Loading zone parking spaces along E. Weaver Street are reserved between 7:30 AM and 5:30 PM. To promote consistency with public parking lots, the restriction should be adjusted to begin at 7 AM.

Figure 11: Existing Public Parking Signage



Public parking signs specify when the 2-hour time limit is enforced. It is assumed that after 5:30 PM these parking lots are unrestricted and open to the public.

Private parking signs display similar restrictions for customer parking (Figure 12). The time of day that towing is enforced is inconsistently displayed. Some private signs specify "24/7", while others provide the specific hours, and some simply state "Permit Required" or "Towing Enforced." Private parking signs have a variety of sizes, shapes, colors and placement, which inadvertently promotes confusion or even fear of parking incorrectly.

Private parking signs that do not specify the hours of towing enforcement are assumed to be unavailable for the entire 24-hour day. Even if the hours are displayed (e.g. 7:30 AM to 5:30 PM), drivers will choose not to park after the restriction ends in fear of being towed. This behavior may explain the 6-9 PM parking utilization pattern (Figure 4), where most private parking lots were nearly empty (green) while public lots were nearly full (orange/red).

Figure 12: Existing Private Parking Signage



The Town of Carrboro does not have authority to regulate private parking signs that are beyond the roadway right-of-way. This should not preclude the Town from working with the Chapel Hill-Carrboro Chamber of Commerce and Carrboro Business Alliance to discuss how these inconsistencies may contribute to unsatisfied customers, initiate standardization of signage and seek methods to incentivize businesses to replace their existing signs.

The Town of Carrboro should adopt a set of parking signage guidelines that are compliant with the Manual on Uniform Traffic Control Devices (MUTCD), and begin to incrementally replace existing public parking signs over time. The new signs must include standard language and consistent hours of enforcement, as well as stipulate that public parking is unrestricted after 5:30 PM. Preferably, the latter will be in the form of a separate sign plaque, that may be attached below any existing signs (public or private). The overall cost of improving public parking signage could be in the range of \$1,000 to \$5,000.

Long-term employee parking

Many business owners encourage their employees to park furthest from the front door, or within an adjacent public parking lot in order to leave parking spaces for customers. This practice benefits businesses that may have a limited number of convenient spaces, or a large number of staff (e.g. restaurants). The potential down-side to this practice is that the limited number of public spaces are virtually unavailable for large portions of the day (see length of stay report section). If the Town began to strictly enforce the 2-hour time limits, then these employees would potentially face a parking citation.

One approach would be to designate a limited number of spaces as long-term employee parking, preferable in low-demand lots, located in the furthest corners of the lot. A second option would involve coordination between adjacent business owners to allow a limited number of employees to share parking between two or more businesses. The total number and time of day would have to be agreed upon in advance and evaluated after additional parking utilization data is collected.

Walk-times Map

Overcoming perception is a challenge for parking system management. Customers often remark that a certain parking lot is “too far to walk” unless they have a direct line of sight to their destination. One strategy to overcoming perception of walking distances is to develop a walk-times map that displays the approximate number of minutes between certain locations.

Rather than create a new product from scratch, the approximate walking time (in minutes) could be added to existing publications:

- Walk Carrboro Attractions Map <http://www.walkcarrboro.com/map.html>
- Public Parking Map <http://gis.ci.carrboro.nc.us/GIS/downloads/printmap/BWParking.pdf>
- Downtown Parking Map <http://gis.ci.carrboro.nc.us/iCarrboro/cParking.html>

The average person walks at a rate of 3 miles per hour (+/- 0.75), which equates to one mile in 20 minutes. This reasonably concludes that a quarter-mile distance (1,320 feet) can be covered by a 5-minute walk. The distance between Town Hall and the Hampton Inn hotel is approximately 2,800 feet, or a 10-minute walk-time.

Only 7% of survey respondents indicated that the last time they chose to drive to downtown the walk to their destination was more than 5-minutes, and only 3% found their walking time to be “Long.” This finding suggests that respondents are willing to park and walk a reasonable distance from free public parking lots, and this distance is likely greater than one-quarter mile (5-minutes).

The overall cost of preparing a walk-times, published to the Town's website, could be in the range of \$1,000 to \$10,000 depending upon whether a graphic designer is involved.

Guerrilla Wayfinding

Guerrilla Wayfinding (also known as Tactical Urbanism) is a recent movement to promote walking and bicycling through the grassroots installation of temporary signage by citizens (as well as the Town/City government). This idea was mentioned by attendees at the first Carrboro public meeting, referencing Matt Tomasulo, the originator of the Walk [Your City] movement in 2012.

The signs are approximately 1'x1' in size, made of water-resistant material, and attached to existing poles or posts with plastic zip ties (displayed below). Each sign displays an encouraging message, such as "It is a 5-minute walk to a grocery store" or similar destinations. Signs are \$20 each regardless of the number of signs ordered, and this does not include shipping. The project website contains information on the movement and its success in three short years <https://walkyourcity.org/>



Photo source: Blue Cross and Blue Shield of NC

For the purposes of this study, [the Town should consider a pilot program to encourage walking from distant public parking lots](#) by installing signs at those lots (such as the Rosemary Street lot, or Town Hall) with messages such as "If you park here it is a 5-minute walk to the Weaver Street Market" or even "delicious coffee" if additional encouragement is needed. For the opposite direction, signs along Weaver Street could reference the short distance to "free public parking" in both directions. The goal of this initiative is to modify a person's perception of walking distances. The overall cost of planning and installing Walk Carrboro signs could be in the range of \$500 to \$2,000.

Alternative transportation mode shift

The Town of Carrboro encourages the use of alternative modes of transportation very effectively. The amenities (programs) and facilities (infrastructure) to promote bicycling, walking and transit are



apparent all over town as well as during conversations with the public. Parking demand is directly linked to the number of individuals who choose alternative modes of transportation.

Rather than invest in the acquisition of land and construction of surface parking or structured parking garages, the Town chose to invest in infrastructure such as sidewalks, bicycle lanes, shared use paths, and bicycle parking as well as non-physical amenities, like public transit, to encourage non-automotive travel. For additional parking flexibility the Town chose to begin leasing properties from private land owners for use as public parking lots for those who may not be able to choose an alternative mode. The overall program cost of improving sidewalks and installing bicycle facilities and amenities could be in the range of \$50,000 to \$500,000 per year, with some grant funding potential if there is a dedicated local match.

Limiting the potential barriers that prevent citizens from choosing alternative modes is the primary objective of this management strategy initiative. Based on the public survey the following items may serve as potential barriers to be addressed by the Town:

- 65% of respondents would like more bicycle racks, and 24% believe there are too few.
- 19% of respondents do not own a bicycle, and 41% were unlikely to ride a bicycle.
- 6% of respondents indicated that possible barrier to visiting downtown more frequently were related to alternative modes of transportation. Specific references were made to:
 - Improved bus frequency, particularly later into the evenings and on weekends
 - Sidewalks and bicycle lanes extending further from downtown
 - Clearing debris/ice/snow from bicycle lanes more frequently
 - Unsafe bicycling due to frequency of driveways

Additional Tradeoffs

If reducing future parking demand through alternative transportation options seems like a challenge for some citizens, then perhaps linking this initiative to individual cost-savings will tip the scales. Commuter calculator tools are commonly used estimating weekly, monthly, or annual expenses relating to driving to work. Some of these online tools may be found by performing a Google search of "commute calculator". A couple of notable results include:

1. www.transportationchoices.org/reasons/commute-calculator
 - Includes estimate of monthly greenhouse gas reduction
2. www.commutesolutions.com/commute-cost-calculator/
 - Includes widget to embed into your own website
3. www.commuterpage.com/pages/tools-resources/calculators/cost-of-commuting-calculator/
 - Includes links to TDM programs in Northern Virginia/Washington, DC

4. www.commutesmart.info/commute-cost-calculator.asp
5. www.bestworkplaces.org/calculat/calc508.html

These tools can also be used to estimate the round-trip cost of driving to downtown Carrboro from a person's home or place of employment. Reduction of greenhouse gases are included on some online commuter calculator tools (item #1 in the above list) to link this parking management strategy to environmental quality benefits.

Encouragement

Encouragement strategies seek to incentivize citizens and downtown employees to utilize all parking lots, especially low-demand parking lots that are furthest from the center of downtown. The goal is to seek voluntary compliance without the use of parking enforcement, through incentives for individuals and/or free publicity for businesses that encourage parking behavior that benefits downtown. This type of "Support Local Businesses" campaign is already prevalent in Carrboro, and simply needs to be reinforced to promote parking and walking.

Incentives for individuals may include coupons for a free cup of coffee, half-price lunch, discounted tickets to an upcoming event, or branded merchandise (t-shirt, coffee tumbler) from participating downtown merchants. Business recognition may include free or discounted advertisement in a local paper, website, social media page, or radio broadcast. [The Town Government should serve as the administrator of these initiatives](#) through the Carrboro Business Alliance and regular meetings with merchants, boards and various committees, or even the weekly Farmer's Market events.



Image source: Carrboro Business Alliance

Lighting and sidewalk improvements

Local business stakeholders discussed qualitative improvements, such as lighting and sidewalks when talking about customers visiting multiple shops without the need to re-park each time. These types of amenities reinforce the unique sense of place where visitors feel safe and decide to spend

additional leisure time. Carrboro businesses are reliant upon customer “walk-by” traffic, choosing to enter their store even if they didn’t come to downtown for that specific reason. Encouraging this behavior may involve reinvestment in sidewalk infrastructure, pedestrian crossing at intersections, landscape lighting improvements or even the addition of outdoor music. For instance, lighting and music improvements may be most valuable at West Weaver Street near the public parking lot, but should also include other portions of downtown, such as along Roberson Street where sidewalks and crosswalks were observed to be lacking during the walkability micro-audit.

The concept is to encourage more exploration on foot by making the streetscape more inviting to visitors, who may then choose to spend additional time (and dollars) in downtown. The costs of improving sidewalk lighting or adding music would be tied to a general streetscape enhancement plan. These types of projects would also include access management (limiting driveways), accessibility and intersection safety improvements, and the addition of street trees. This type of capital improvement project would require various sources of public and private funding.

Improved perception of security

Related to lighting improvements is the perception of safety. This encouragement program involves crime prevention through environmental design (CPTED), which believes that proper design of buildings and public spaces can lead to a reduction in crime and the perception of fear. Training programs for CPTED concepts are available through the National Crime Prevention Association (NCPA) www.ncpc.org. Elements from CPTED include:

- Controlling the number of entrance/exit points to a parking lot or building
- Incorporating natural surveillance (for maximum visibility)
- Territoriality (such as fencing or landscaping treatments to define a space), and
- Maintenance of public areas

This project’s public survey found that 4% of survey respondents felt “Sometimes unsafe” within public parking lots. This represents a small portion of respondents, however, perception of safety is a critical element to the success of a parking management system. The perception of security relates back to the importance of walk-by customers discussed by business stakeholders. Downtown businesses will benefit from more customers spending additional time walking (and not driving) in the downtown.

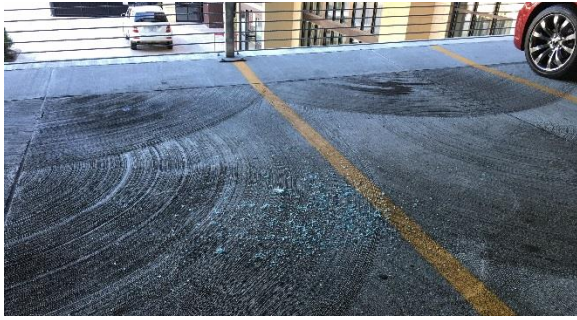


Photo source: VHB. Broken glass observed within parking deck.

Bicycle Friendly Businesses

Carrboro has 30 registered Bicycle Friendly Businesses through the Carrboro Bicycle Coalition (<http://bikecarrboro.com/what-we-do/bike-friendly-business-program>). Benefits of such a designation may include: free promotion and recognition of your business, a plaque to display in the store/shop, enhanced health and wellness of employees, reduced absenteeism, and connection with the local community. The Carrboro Bicycling Coalition (CBC) assists businesses with the application process, and the physical installation of bicycle racks.

Encouraging and promoting bicycle friendly businesses will indirectly contribute to the goal of balancing future parking demand by reducing the need for long-term employee parking. Bicycle friendly businesses are indirectly contributing to this project's vision and goals by limiting the potential barriers to bicycling, such as limited bike parking locations. This initiative may not have a significant impact on future parking demand as compared with others, however, one or two additional empty parking spaces may have an important effect within a small parking lot. The overall program cost of encouraging and promoting the Bicycle Friendly Business initiative could be in the range of \$1,000 to \$5,000 per year.



Photo source: Carrboro Bicycle Coalition

Healthy Lifestyles Initiative

Parking and walking from a distant parking lot may be rolled into a healthy lifestyles campaign to promote 10,000 steps per day. Pedometers are low-cost branded merchandise that can be used as an incentive. This campaign may also consider a monthly step challenge among organizations to see which group can tally the greatest number of steps, and win prizes (donations). Healthcare benefit providers (BCBS, Humana, etc.) offer similar wellness programs to incentivize employees to live more active lifestyles. The concept is to unite groups based on their common business interest of maximizing convenient parking for customers, while providing incentives for employees to participate. The program costs for this type of healthy lifestyles initiative would be negligible, as they are likely tied to private company insurance providers.

All of these encouragement initiatives, collectively, may only shift parking behaviors temporarily, or on a small scale. For more widespread behavior shifts, the Town may consider enforcement initiatives, discussed in the next section.

Enforcement

This section outlines parking enforcement strategies that promote vehicle turnover. Strict enforcement through the issuance of citations (fees) should be a last-resort strategy; however, it may be necessary for high-demand areas between the N. Greensboro and Lloyd Streets.

Parking enforcement is currently performed by the Carrboro Police Department on an as-needed basis. If a parking citation is issued, the current fee is \$35 for the first offense, \$50 for the second



offense, and \$100 for each subsequent offense within a 365-day period. The parking citation for violation of an ADA/accessibility parking space is a \$50 fee.

Downtown Ambassador Initiative

Parking Enforcement does not need to be a punitive initiative. Town of Carrboro enforcement officers should be visibly present within areas of high parking demand; however, their role should be adjusted towards an “Ambassador of Downtown.” This parking study has identified the locations of greatest parking demand, and the busiest time of the day (lunchtime) for a typical weekday. [Parking Ambassadors should perform more frequent “tours” of the high-demand parking areas, be visible and friendly, and offer direction to nearby parking areas for long-term parking.](#) This goal of this initiative is not to write a parking citation, but rather to encourage visitors to voluntarily comply with the 2-hour time limit for public parking lots and to educate them about parking options.

[Parking Ambassadors should interact directly with downtown merchants, ask what their customer’s parking needs are and report back to the Town or Downtown Business Alliance.](#) This strategy does not require money for new equipment to purchase, or a new funding source from the Town, but will involve staff time for coordination and communication.

Results from the length of stay analysis should inform the priority lots for targeted enforcement. [The Town should collect future parking utilization counts on an annual or semi-annual basis and the results should be used to identify targeted enforcement areas.](#)

Time Limited Parking

Parking enforcement seeks a balance between the needs of many different users. Some users may only need a 30-minute parking space, while others are seeking 1-hour, 2-hour, or longer-term parking. This places parking enforcement in a difficult, occasionally hostile situation of enforcing the variety of parking options equally and consistently.

The Town has 30-minute parking within the Century Center parking lot along N Greensboro Street. Parking utilization counts found that this lot was mostly full during the daytime, and 100% occupied on Saturday evening after 6 PM. [The Town should consider adding a limited number of individually-signed 30-minute parking spaces in strategic locations within other high-demand parking locations.](#) These locations could be identified by business owners and supported by actual parking count data. One such location would be the E Main St/Acme lot, as this is highly visible and centrally located. Coordination with the Police Department is essential prior to installing new parking signs. The overall cost of adding time limited parking signage in certain locations could be in the range of \$500 to



\$5,000 depending upon the sign fabrication costs of the Carrboro Public Works Department, which has the ability to produce signs in-house.

A limited number of long-term parking spaces may also be beneficial, perhaps as few as 4-5 spaces as a pilot program. The average length of stay analysis identified several potential candidates for long-term parking, such as the parking deck level 3, Laurel Ave, and W Weaver St lots (all averaging more than 3.5 hours).

Employees of the East Main Square development are directed to park on level 3 of the parking deck. It may be beneficial in the future to relocate these vehicles to the roof level, which may involve issuing a permit to park here, in order to free up public parking on level 3. A second option would be to issue hangtag permits that allow for long-term parking beyond the 3-hour limit. In the near-term these suggestions are unnecessary since the deck does not reach capacity during the typical weekday period.

The Laurel Ave and W Weaver St lots appear to include private business employee parking, and this was confirmed by discussions with business stakeholders. One potential approach would be to sign a limited number of spaces at the rear of these lots for 4-hour or 6-hour parking. A second option would be to issue hangtag permits that would prevent a parking citation for overstay parking. Neither of these options is an ideal approach, as they do not reduce future parking demand. However, they are options to discuss with business owners.

Citation and Appeals procedures

If the Town desires to actively enforce the 2-hour time limits and issue parking citations, then a full enforcement and appeals process would need to be initiated, including lengthy public involvement. Some important considerations for such a program would include:

- Institute a grace-period of several days or weeks at the beginning of the initiative
- Institute a no-charge warning citation for first-time citations. Include information on where long-term parking is available as well as alternative transportation options.
- Offer a streamlined citation appeals process; be fair and consistent to avoid the appearance of favoritism at all costs.
- Offer a discounted citation amount if it is paid within 96 hours (or another specified time); escalate the fee if it is paid after a specified time (four weeks).
- Investigate an electronic parking management and enforcement software solution that integrates with DMV license plate database. Examples include T2 Systems, TickeTrak, or AIMS, as well as others.



- Contact nearby municipalities and inquire about their enforcement software solution capabilities and limitations.
- Contact vendors of enforcement software to request a demonstration.
- Select a software vendor that offers compatibility with tablet/mobile phone hardware of your choosing (Android most likely).
- Coordinate with Town and County IT Departments to establish a database of repeat parking offenders (scofflaw list), and include a policy for escalating fees for these individuals.

The overall parking enforcement program cost could be in the range of \$50,000 to \$250,000 per year depending upon the desired number of staff, equipment and vehicles, hardware and software, and/or training. The first year startup costs to purchase equipment and integrate software would be additional.

Evaluation

This section outlines administrative strategies to collect additional data, utilization trends over time and evaluate parking demand as it changes.

Annual data collection program

This project prepared materials for a field data collection of parking lot occupancy for four (4) periods throughout a typical weekday. Occupancy counts are best performed semi-annually as needed, or as requested to establish a baseline trend throughout the year. These data points are important for separating fact from opinion, and may be used to justify future parking management changes to businesses and the public. Without a record of parking occupancy counts collected across multiple days and months, there may not be a consensus on how to adequately manage public parking. The overall cost of a data collection program could be in the range of \$500 to \$15,000 per year depending upon whether the field crew consists of Town staff, interns, or outsourced, and whether any equipment is leased for data collection or analysis.

Online Survey

Online survey instruments, such as the one that was completed by this study, are an effective measure of public opinions relating to parking, especially as they change over time. The field counts described above represent actual parking utilization, whereas a public survey will measure the perception of parking and whether any previous management adjustments are having a desired



impact. The design of such parking behavior surveys should focus on being brief and repeatable so that many data points may be collected over time (no more than twice a year). The overall cost of an online survey could be in the range of \$500 to \$5,000 per year depending upon marketing and promotion of the survey, format (digital or hard copies), and analysis of data.

Minor changes to the parking management system must be supported by data, not opinion. Data may include the online survey or parking utilization counts. The purpose of these data are to establish a baseline and track the shift of parking demand as a result of parking management changes. The Town should post results of the survey [to a Town website for education of the public and evaluation of the parking program](#).

Formation of Downtown Parking Board

Parking has been managed on an ad-hoc basis, however, it could be more formalized with stakeholder representation. The Town may benefit from discussing public parking issues during an existing board/committee meeting, such as the Carrboro Business Alliance meetings. Stakeholder involvement is essential, and therefore this existing board or committee must have representation from the Town, County, Police, downtown merchants and property owners. Perhaps in time, this group will grow into a more formalized Downtown Parking Board as needed. This is not essential however. In the meantime, this group could simply discuss parking challenges related to high-demand parking areas. The initial costs for a Downtown Parking Board would be negligible, as this would arise from an existing board or committee meeting.

Parking occupancy collected on different weekdays throughout the year will identify areas that are consistently under-utilized. With this information the Town or Parking Board can work with property owners on shared parking arrangements (subsection to follow) to allow shared use of parking lots during low-demand periods of the day. For example, banks and churches have relatively low parking demand during the busiest part of a typical weekday (lunchtime), and offices have very few parked cars during the evening dinnertime period. These are both opportunities for formal or informal arrangements between adjacent businesses. These arrangements must be data-driven.

Special events are considered atypical from weekday trends, and therefore traffic and parking accommodations for special events may best be handled separately by the Police Department or another agency with staffing capabilities. [Town-sponsored events should have a default parking management plan with overflow parking available](#) at the Town Hall, Carrboro Elementary School or similar locations, should the need arise.

Shared Parking Arrangements

Working through the Downtown Parking Board, arrangements to share parking lots should be encouraged. These arrangements would be particularly relevant to adjacent property owners and apply during specified times of the day. This message should be consistently marketed from multiple public and private agencies as a constant reminder to employees and employers: high-demand parking is for customers; low-demand parking is for employees.

The Town of Carrboro should take an active role in facilitating shared parking arrangements between business owners. Shared parking is especially important to Carrboro since private parking constitutes such a large percentage (82%) of total parking. The official Land Use Ordinance has required an appropriate number of parking spaces for each business on an individual basis. Adjacent properties are busy at different times of the day (or months of the year), and therefore surplus parking is available for shared use during the day or evening. **The significance of this initiative cannot be understated.** Parking utilization counts identified the greatest number of parked vehicles during lunchtime (11-1 PM). However, parking demand within public lots was greatest during the 6-9 PM period when very few private spaces were occupied.

To communicate parking arrangements to the public, the Town should recommend, and create, a standard sign or plaque added to an existing sign that specifies "Public Parking after ___ PM" or another similar message at the entrance to the private lot. The overall cost of generating a standard sign plaque could be in the range of \$500 to \$5,000 depending upon sign shop for fabrication. This is intended to be a voluntary agreement to support downtown merchants. The Town would play a limited role in facilitating the discussion and fabricating the sign plaque.

Engineering

Engineering solutions involve the planning, design and construction of new parking facilities. This category is presented last because the low-cost and quick-return Education, Encouragement, Enforcement and Evaluation strategies should be programmed for the short-term, while Engineering considerations are being considered for the long-term. If the initial strategies have a desired reduction of parking demand, then perhaps the need for engineering solutions is delayed or reduced significantly.

Lot Design and Restriping

Many of the existing public parking lots are unpaved (gravel) with concrete wheel stops to mark individual parking spaces. Because there are no parking stall lines, people will naturally leave

additional space between their vehicle and the adjacent vehicle to avoid door dings. It is also possible for vehicles to inadvertently park askew or diagonal without the painted stall lines for guidance. This behavior reduces the total number of vehicles than can park within the lot, and therefore impacts utilization counts.



Public Parking Lot



Private Parking Lot

To maximize the capacity of the existing parking lots, the Town could either (a) pave and stripe these lots, or (b) stripe the gravel with paint rather than traditional thermoplastic markings. Paving each lot would also require civil engineering design plans for stormwater management. This approach is more expensive, and conflicts with the overall vision for the Town as an environmentally-sensitive community. The negative aspects of gravel parking lots include higher maintenance costs and poor aesthetic-quality for the visitor in addition to inefficient parking habits.

Striping the gravel parking lots will require frequent maintenance to ensure that the painted lines are visible. This may be a low-cost approach to indirectly gain additional parking spaces without new construction. Individual parking lot layout and design plans could be developed using AutoCAD software to identify the most efficient parking lot layout that would fit within the constraints of the property. The overall cost of an engineering parking lot striping plan could be in the range of \$1,500 to \$5,000 per lot depending upon the availability of planimetric data, aerial imagery, stormwater control infrastructure, lighting, and engineering seal requirements.

Paid Parking Options

Management strategies presented above reference different methods for actively managing a parking system. The term “actively” is deliberately chosen because a parking system that is left unmanaged will quickly be ignored, abused, and become ineffective or problematic. Incorporating



hourly paid parking lots is one particularly effective strategy for promoting turnover in high-demand areas, though it is not the only strategy.

Utilization data collected by this project does not support the need for paid parking options in Carrboro. There are empty parking spaces available in close proximity to high-demand areas during all weekday and weekend periods. Installation of a paid parking system within one or few public parking lots will simply encourage drivers to illegally park in the empty private parking lots or park further away and walk. The likely result is empty parking in high-demand areas and further parking frustration elsewhere.

There is no “trigger” to identify the moment or conditions that a paid parking system is needed. Support for the installation of parking meters will come from the business owners, downtown employees, residents, visitors, and Town government. This support will likely arise from a commonly observed parking problem or recurring challenge that is shared by all user groups and verified by data collected over time. Support for paid parking may also build following a pilot study where a single Carrboro lot is converted to hourly parking. The Rosemary Street lot would be an excellent candidate for this, given its single entry, relatively small size and highly visible location. The public response from this pilot study lot may determine whether additional public lots are feasible for paid parking options.

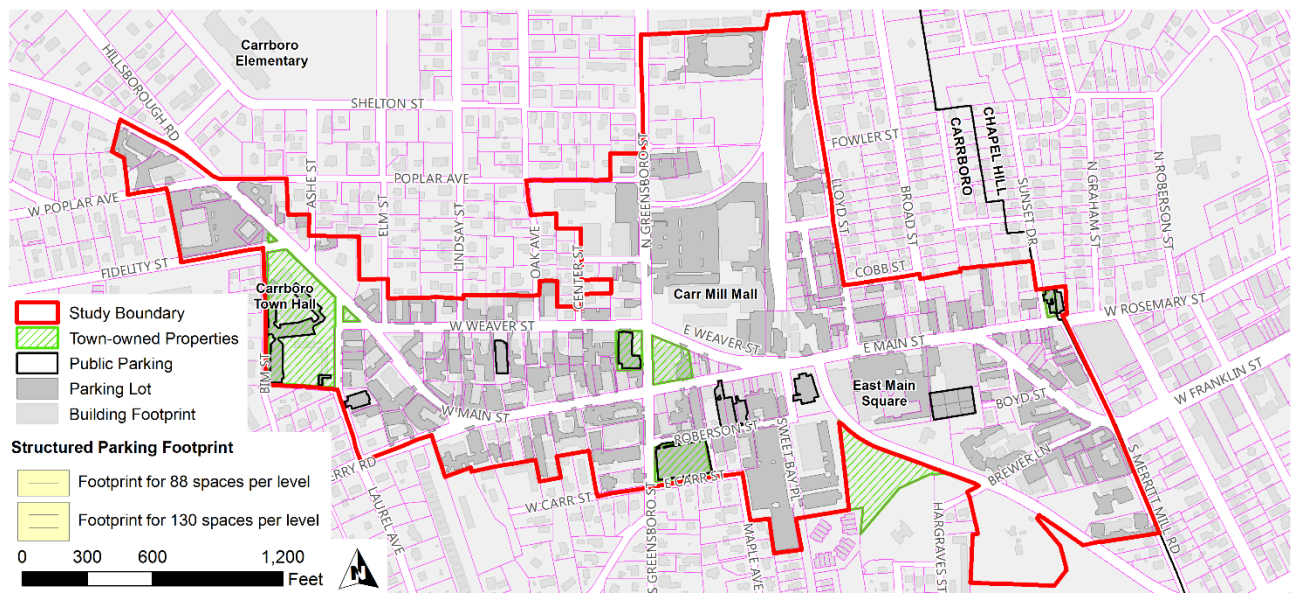
As downtown Carrboro further develops, and parking demand intensifies to a point where paid parking options could be considered, it is important that parking enforcement initiatives discussed above have been set in motion. In particular, it is vital that the parking citation and appeals procedures have been streamlined and integrated within an electronic parking enforcement software solution. Enforcement of paid parking areas is critical to its success. A paid parking lot provides premium parking to those who are willing to pay for this convenience. Consequently, there is an expectation that this premium parking will be available (less than 85% occupied) when needed.

Structured Parking Options

The Town should plan for longer-term structured parking options, while simultaneously working to delay or avoid the need for such construction through other parking management strategies presented above. The first step is to identify potential sites for a structured parking garage or surface parking lots, and perform a feasibility level analysis (Preliminary Engineering Report). The Town of Carrboro is constrained by available land of reasonable size to support a structured parking deck. Unless private property is to be purchased, the Town of Carrboro has very limited locations where a parking deck could be constructed.

The minimum width for a standard 2-bay parking deck is 120' wide, and a standard 3-bay parking deck is 180' wide. Exceptions can be made to narrow the drive isle and convert to one-way traffic flow, however these exceptions often result in fewer parking spaces per level and a less-efficient overall design. Figure 13 displays two minimum footprints needed to support a structured parking garage in Downtown Carrboro. One footprint will support 88 spaces per level and has two bays of parking. The second footprint will support 130 spaces per level and has three bays of parking. As you may observe, there are very few properties that are large enough to fit such a footprint, and even fewer properties are owned by the Town of Carrboro.

Figure 13: Approximate Footprint Required for Structured Parking



Nearly all buildings in downtown are 1-2 stories tall. Each level of a parking garage would be 10-12' high. Assuming a minimal height of 10' and a minimum of three (3) levels, a potential structured parking deck would be taller than any surrounding building other than the East Main Square development.

Cost of construction, maintenance, and operation

Typical construction costs for surface parking range between \$4,000 and \$10,000 per space, while parking deck construction cost range between \$15,000 and \$24,000 per space (Carl Walker, 2016).

Parking planning studies use \$5,000 per space for surface parking, and \$20,000 per space for structured parking. The actual construction costs will vary depending on the site constraints such as topography, underground utilities and stormwater control devices, as well as labor and material



considerations (fluctuating price of steel or concrete). The existing 275 public parking spaces that are owned by the Town would cost \$1.4 million if they were to be constructed today. Likewise, the 380 leased parking spaces (most of which are structured parking) would cost \$5.6 million if they were to be constructed today. The total value of all public parking assets is estimated to be worth \$7.0 million.

Annual operation and maintenance costs are above and beyond the cost to construct. Operations and maintenance (O&M) include parking management staff, inspecting the structure, making repairs, pressure washing, supplying electricity for lighting, and removing waste costs are also highly variable depending upon the total number of facilities. Annual maintenance costs can average between \$50 for surface parking lots only, to \$200-\$800 per space for structured parking facilities (VTPI, 2016).

Parking and maintenance cost estimate sources:

Carl Walker (2016), Mean Construction Costs, Carl Walker Consulting (www.carlwalker.com); at <http://www.carlwalker.com/wp-content/uploads/2016/05/2016-Carl-Walker-Cost-Article.pdf>

Todd Litman (2016), "Transportation Cost and Benefit Analysis II – Parking Costs, VTPI (<http://www.vtpi.org>); at <http://www.vtpi.org/tca/tca0504.pdf>

Land tradeoffs

Parking accounts for a large portion of any downtown, specifically if surface parking lots are more prevalent than structured parking garages. Utilizing available GIS data resources, VHB performed a summary of the study area to determine the approximate percentage of area that is devoted to parking. This analysis is summarized in Table 14 and Figure 14 below, finding that parking lots and driveways account for 43 acres, which is 30% of the total 141 acres of land.

Table 14: GIS-Summary of Land Categories within Downtown Carrboro

Land Categories	SqFt	Acres	% Total
Buildings	1,247,374	28.6	20%
Landscape/Open Space	2,026,271	46.5	33%
Parking/Driveway	1,873,650	43.0	30%
Sidewalks, Roadway Right-of-Way	810,195	18.6	13%
Railroad Right-of-Way	212,834	4.9	4%
Total	6,170,324	141.7	

Note: Area calculated from available GIS datasets.

Square Footage (SqFt) represents 2-dimensional area (building footprint).

Right-of-Way represents area beyond individual property boundaries (parcels).

Figure 14: Land Categories within Downtown Carrboro



Constructing new public parking would be a significant investment in land, in addition to the cost of construction discussed in the previous section. A 100-space surface parking lot, for example, would require approximately 33,000 square feet (0.76 acres) of land. There are very few parcels of land within the study area where such a lot could be constructed.

Structured parking (also referred to as a deck or garage) is a viable option for many downtowns that are constrained by land or topography. The same acreage of land is able to support three to five times as many spaces, depending upon the number of levels in the garage. Because structured parking is roughly four times the cost of surface parking, most decks are at least four levels tall. There are two important considerations for structured parking, net gain of spaces and scale of economies. Converting an existing surface parking lot into a structured parking deck involves removing existing parking spaces during construction and yielding a smaller net gain of parking when complete. The overall benefit of a 450 space parking garage should factor in the number of spaces removed (e.g. 75 spaces) for a net gain of +375 spaces by the project. The other consideration is scale of economies, which suggests that smaller parking decks will be less cost-effective than larger parking decks. The rule-of-thumb is to maximize the available site rather than build a certain number of desired spaces. Constructing a stand-alone, four-level, 160-space deck would not be a cost-effective solution, whereas these same 160 spaces incorporated into a mixed-use development that wraps around structured parking would likely be a more-effective use of the available site.

Implementation

Implementation Plan

The purpose of this section is to organize a general plan of action for the Town of Carrboro that is based on stakeholder feedback and professional judgement. Parking initiatives identified below constitute a change to the “Business as Usual” role that the Town has been operating within. [The Town should become a facilitator of shared parking arrangements between adjacent properties](#), relying upon regular parking occupancy data as the basis for any agreements. This approach will have the greatest return on investment, maximizing existing surface parking without the need to construct new spaces.

Public outreach was a significant portion of this planning process, as described earlier. During the June 2016 mid-point public meeting, attendees were presented with several potential parking management strategies and asked to vote for the categories that had the greatest potential benefit on parking. Education, Engineering and Enforcement strategies received the highest number of votes from participants. Engineering scenarios, as they pertained to this meeting, included connecting sidewalks, leasing additional parking from private landowners, as well as constructing new parking.

Action items for the Town to consider have been identified and grouped as near-term and long-term initiatives. Near-term initiatives are looking 1-5 years ahead, while initiatives for the Long-term should begin now and plan for 5-10 years ahead.

Near-term

Near-term initiatives are programming for the short-term and seek low-cost, quick implementation improvements that will reduce future parking demand. The goals of these initiatives are to:

- Promote shared parking arrangements between businesses.
- Collect regular parking occupancy data during the peak period.
- Deploy more consistent parking regulatory signs.
- Encourage vehicle turnover in high-demand parking areas.
- Encourage use of low-demand parking areas.
- Encourage the use of alternative transportation modes to reduce future parking demand.

Long-term

Long-term goals will require some time to develop, or are dependent upon data collection following the near-term programs. The goals of these initiatives are to:

- Coordinate and leverage redevelopment opportunities and identified stakeholders.
- Identify potential sites for a parking deck.
- Discuss Public-Private Partnership options, and potential land swap arrangements.
- Seek a compromise that will benefit parking and businesses.
- Perform a Preliminary Engineering Report (PER) for structured parking.

To support these goals, the parking management strategies identified in the previous report section were organized into a phased 10-year implementation plan (Table 15). It is not necessary for the Town to follow the sequence in a prescriptive manner, but rather use the table below as a suggestion for the types of initiatives to consider within stages of a 10-year process to improve parking. This recommended sequence should be revisited each year based on a continual evaluation of parking demand and utilization patterns.

Table 15: Recommended Implementation by Year

Category	Management Strategy	Year									
		1	2	3	4	5	6	7	8	9	10
Education	Wayfinding and regulatory signage										
	Long-term employee parking										
	Walk-times map										
	Alternative transportation mode shift										
Encouragement	Lighting and sidewalk improvements										
	Improved perception of security										
	Bicycle friendly businesses										
	Healthy lifestyles initiative										
Enforcement	Downtown Ambassador Initiative										
	Time Limited Parking										
	Citation and Appeals procedures										
Evaluation	Annual data collection program										
	Online survey										
	Formation of Downtown Parking Board										
	Shared Parking Arrangements										
Engineering	Lot Design and Restriping										
	Structured Parking Options										
	Cost of construction, O&M										
	Land tradeoffs										

Near-term Initiative

Long-term Initiative



Town of Carrboro

Town Hall
301 W. Main St.
Carrboro, NC 27510

Agenda Item Abstract

File Number: 17-020

Agenda Date: 2/7/2017

File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Discuss Options for Shared Rosemary Parking Lot

PURPOSE: The purpose of this item is to discuss options for management and maintenance of the shared parking lot at Rosemary and Sunset.

DEPARTMENT: Economic and Community Development

CONTACT INFORMATION: Annette D. Lafferty, AICP Economic and Community Development Director

INFORMATION: The Town of Chapel Hill has requested that Town of Carrboro allow them to take over management and maintenance of a public parking lot that is currently owned jointly by Carrboro and Chapel Hill. The lot is located at the corner of Rosemary and Sunset; it is currently managed and maintained by Carrboro. Chapel Hill has acquired the right to lease a parcel immediately adjacent (east) to this lot and would like to expand and develop the new lot and redevelop the existing shared Rosemary lot, consistent with other parking lots that are metered in downtown Chapel Hill.

The new lot being created by Chapel Hill (see attachment 1) contains 23 spaces, 12 of which are being reserved as private parking and leased back to the owner of the lot, 7 spaces are being created for monthly permit only parking (\$95/mo) and 5 new, including 1 handicap, paid public parking spaces. Chapel plans to meter the 13 existing public spaces that are located on the Chapel Hill side of the Rosemary lot and have offered to meter the entire lot.

Town staff has identified four possible options for this lot.

- 1) Do nothing and leave the spaces as they are, unmarked.
- 2) Install signs on the Carrboro spaces stating that the spaces are reserved for Carrboro businesses and their customers only with no leases.
- 3) Install signs and lease the spaces to Carrboro businesses and their employees for \$350 annual fee for their private use.
- 4) Allow Chapel Hill to number and add the spaces to their parking management system, but keep them free and enforce time limits; 4a) or don't enforce time limits.

FISCAL & STAFF IMPACT: Fiscal & staff impact will depend on policy direction taken by the Board.

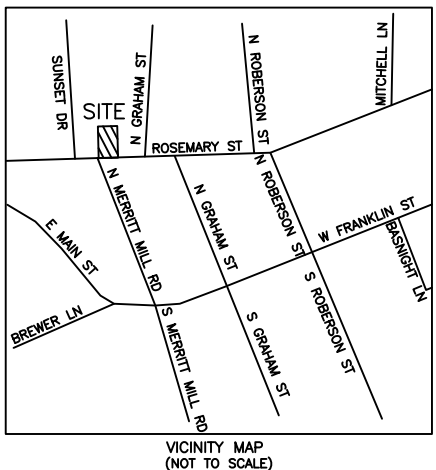
Agenda Date: 2/7/2017

File Type:Agendas

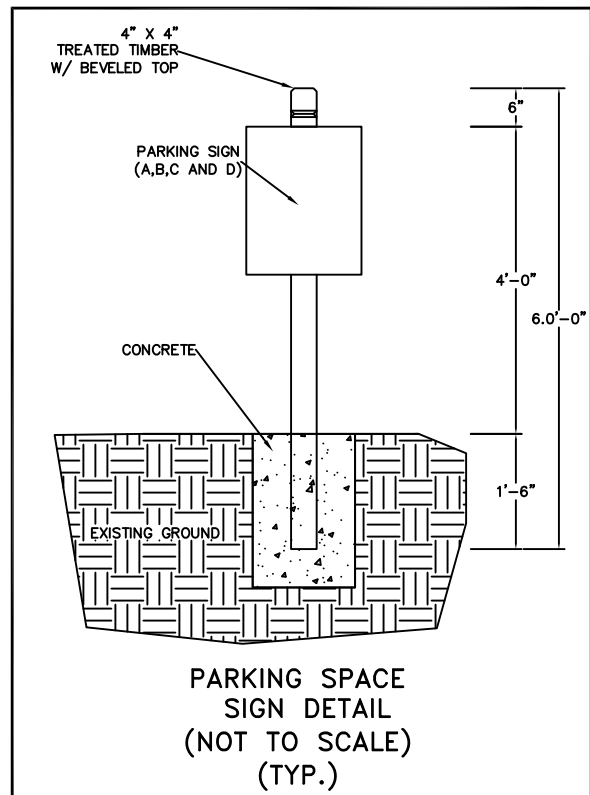
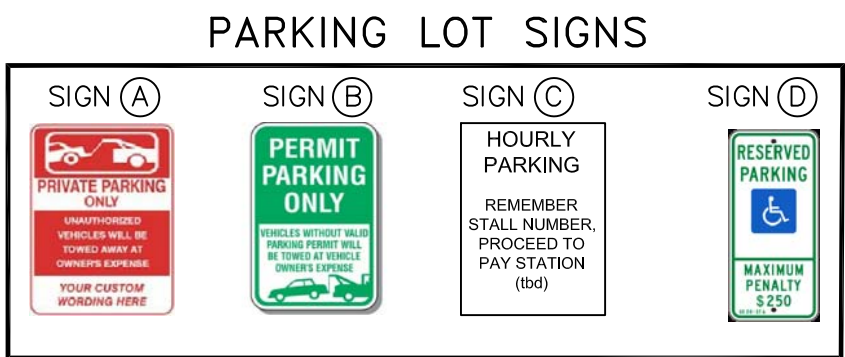
In Control: Board of Aldermen

Version: 1

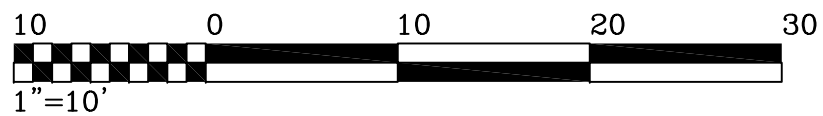
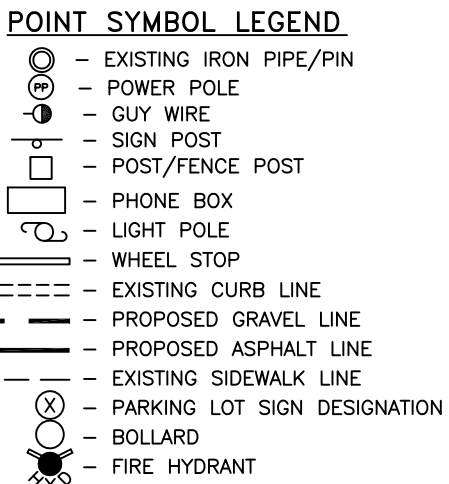
RECOMMENDATION: Staff recommends the Board discuss options.



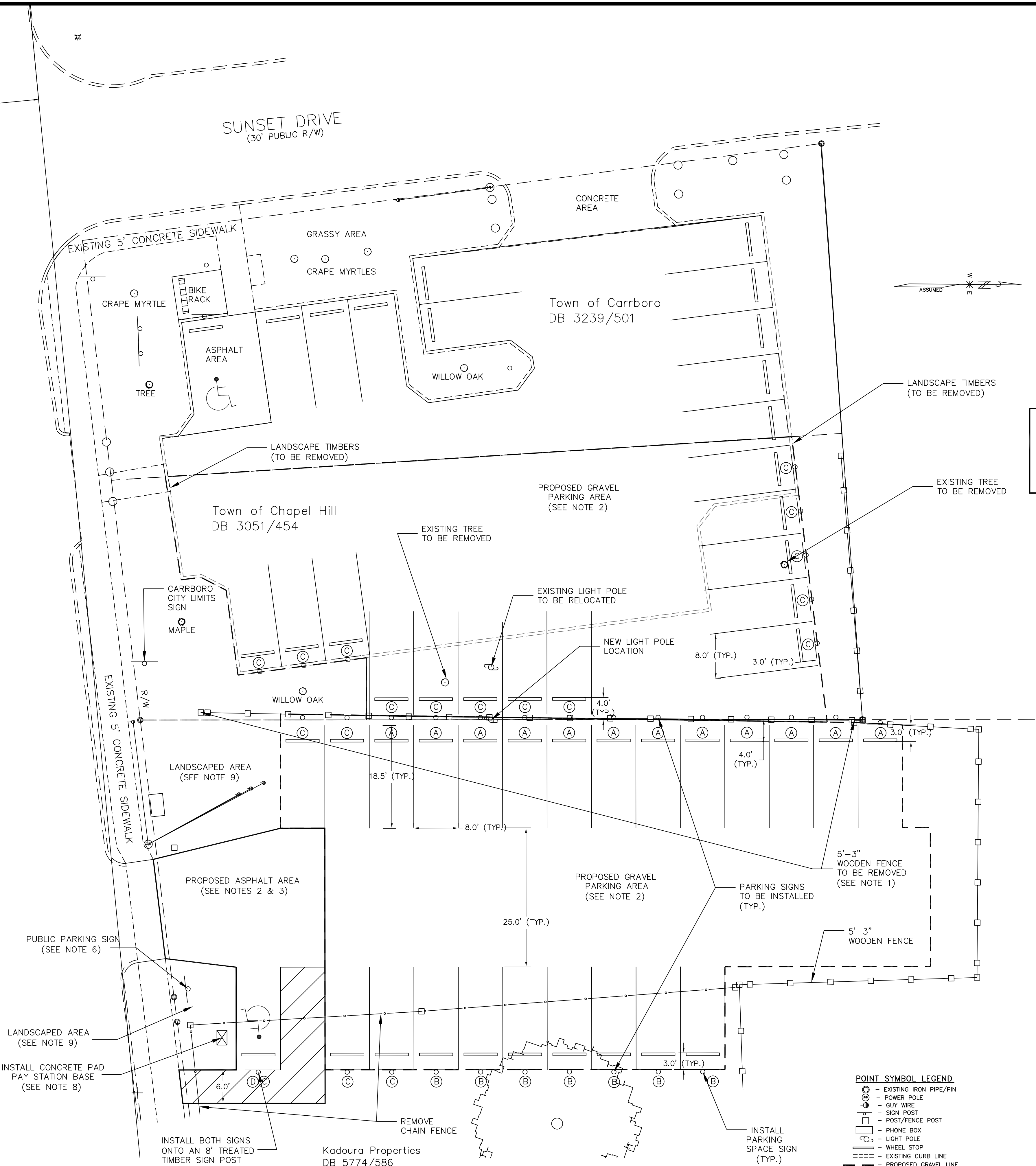
PRELIMINARY PLAT
NOT FOR RECORDING, SALES
OR CONVEYANCE.
THIS DOCUMENT WAS PREPARED FOR
ILLUSTRATION PURPOSES ONLY.
FOR FURTHER INFORMATION:
CONTACT THE ENGINEER/SURVEYOR
AS NOTED.



- NOTES:
1. REMOVE APPROXIMATELY 118 LF OF EXISTING 5' WOODEN FENCE. CONTRACTOR SHALL ENSURE THE NEW FENCE END IS SUPPORTED AND TIES INTO THE REMAINING EXISTING FENCE.
 2. INSTALL ABC STONE TO A MINIMUM DEPTH OF 4" OVER THE ENTIRE PARKING AREA (INCLUDING PROPOSED ASPHALT AREA) AS SHOWN AND AS DIRECTED BY THE ENGINEER. PRIOR TO ABC STONE INSTALLATION, CONTRACTOR SHALL SPRAY CONSTRUCTION AREA WITH ROUNDUP OR APPROVED HERBICIDE.
 3. INSTALL 3" OF ASPHALT SURFACE COURSE AT ENTRANCE AREA, ACCESSABILITY PARKING SPACES AND WALKWAY AS SHOWN. CONTRACTOR IS RESPONSIBLE FOR ENSURING ACCESSABILITY PARKING AND WALKWAY MEET CURRENT ADA REQUIREMENTS.
 4. INSTALL WHEEL STOPS AT PARKING SPACES AS DIRECTED BY THE ENGINEER.
 5. INSTALL PAVEMENT MARKINGS ON ASPHALT AREA TO DESIGNATE ACCESSIBLE PARKING AND WALKWAY AS DIRECTED BY THE ENGINEER.
 6. INSTALL PUBLIC PARKING LOT SIGN AS DIRECTED BY THE ENGINEER. SIGN WILL BE SUPPLIED BY TOCH PARKING SERVICES.
 7. INSTALL PARKING SIGNS AT EACH PARKING SPACE AS SHOWN AND DIRECTED BY THE ENGINEER.
 8. INSTALL CONCRETE PAD FOR PLACEMENT OF PAY STATION METER BASE AS DIRECTED BY THE ENGINEER. CONTACT BRENDA JONES, PARKING SUPERINTENDENT, PARKING SERVICES (919)968-2835 FOR CONCRETE PAD THICKNESS AND DIMENSIONS.
 9. REMOVE APPROXIMATELY 6" OF EXISTING SOIL FROM THE LANDSCAPED AREAS AND REPLACE WITH 6" OF TOPSOIL AS DIRECTED BY THE ENGINEER.
 10. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE DEPTH OF ALL EXISTING UTILITIES WHICH MAY BE ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL HAVE NO CLAIMS FOR DELAY OR EXTRA COMPENSATION AS A RESULT OF CONFLICTS WITH SAID UTILITIES.



WEST ROSEMARY STREET
(60' PUBLIC R/W)



Town of
Chapel Hill

ENGINEERING AND DESIGN SERVICES



No.	Revision/Issue	Date

TOWN OF CHAPEL HILL

PUBLIC WORKS DEPARTMENT
ENGINEERING AND DESIGN SERVICES DIVISION
6850 MILLHOUSE RD
CHAPEL HILL, NC 27516

Project Name and Address

PROPOSED PARKING IMPROVEMENTS
CARRBORO-CHAPEL HILL PARKING LOT
ROSEMARY ST
Chapel Hill, NC

Project Corrhilladditionfinal.dwg	Sheet 1
Date 09/12/16	
Scale 1" = 20'	