

Town of Carrboro

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



Meeting Agenda Board of Aldermen

Tuesday, March 27, 2018

7:30 PM

Board Chambers - Room 110

7:30-7:35

A. POETRY READING, RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

7:35-7:40

B. ANNOUNCEMENT OF UPCOMING MEETINGS

<u>7:40-8:00</u>

C. CONSENT AGENDA

1. <u>17-455</u> Approval of Previous Meeting Minutes of March 6th, 2018

PURPOSE:

2. <u>17-447</u> Request to Set a Public Hearing for a Establishment of a Stormwater

Rate Structure

PURPOSE: The purpose of this agenda item is to set a public hearing on May

15th for a proposed stormwater utility rate structure.

Attachments: Attachment A - Resolution

Attachment B SWAC recommendation

Attachment C - Rate Structure

3. <u>17-449</u> Request-to-set Public Hearings for Voluntary Annexation and

Conditional Rezoning at 905 & 921 Homestead Road

PURPOSE: The Town has received petitions to voluntarily annex and to rezone property at 905 and 921 Homestead Road, also known as the Hutchins property. The requested rezoning to R-10-Conditional (R-10-CZ) would allow subsequent submittal of an application to develop an Architecturally Integrated Subdivision (AIS). The Board must receive public comment before considering these petitions. Resolutions setting public hearings are provided for the Board's use.

Attachments: Attachment A-1 - Resolution for Annexation

Attachment A-2 - Resolution for Rezoning

Attachment B - Vicinity Map

Attachment C - Petition for Conditional Rezoning for 905 & 921

Homestead Rd 3-19-2018
Attachment D - Rezoning Exhibit
Attachment E - Draft Conditions

Attachment F - Relevent LUO Excerpts

Attachment G - Petition for Annexation - 905and921Homestead

D. PUBLIC HEARING

8:00-9:30

1. 17-444 Public Hearing on the Conditional Use Rezoning and Conditional Use Permit for 802 & 806 Merritt Mill Road

PURPOSE: The Town has received applications for an R-2-conditional use rezoning and a conditional use permit (CUP) to allow for the construction of a twenty-four (24) unit affordable apartment complex at 802 and 806 Merritt Mill Road. Prior to reaching a decision, the Board of Aldermen must hold a public hearing to receive input on the rezoning request and the CUP.

<u>Attachments:</u> Part I. Attachment A - Consistency Resolution

Part I. Attachment B - Draft LUO Map Amendment 802-806 S Merritt Mill

Part I. Attachment C - Vicinity Map

Part I. Attachment D - Petition for Rezoning - CASA

Part I. Attachment E - Staff Report - Rezoning

Part I. Attachment F - Legal Certification packet

Part I. Attachment G - Combined Comments-PB-TAB-EAB-AHAC

Part II Attachment A - Staff Report

Part II Attachment B - Vicinity Map

Part II Attachment C - Complete Plans

Part II Attachment D - Neighborhood Information Meeting

Part II Attachment E - Staff Advisory Boards Summary Sheet

Part II Attachment F - Traffic Impact Information

Part II Attachment G - Tree Removal Justification

Part II Attachment H - CUP Worksheet

2. 17-454 Public Hearing on Land Use Ordinance Amendments Relating to Tree Protection, Shade Trees, Canopy Coverage and Replacement Standards

PURPOSE: The purpose of this item is for the Board of Aldermen to receive public comment on text amendments to the Land Use Ordinance relating to the provisions in Article XIX, Screening and Trees, and the associated appendices A and E. A draft ordinance has been prepared.

Attachments: Attachment A - Consistency Resolution

Attachment B - Draft Amendment Landscaping-shading and

buffers 3-22-2018

Attachment C - Overview of ordinance changes

Attachment D - ART-XIX with tracking 3-23-2018

Attachment E - APPEND-A with tracking

Attachment F - APPEND-E with tracking 3-23-2018

Attachment G - OC and Advisory Board Comments

Attachment H - Alderman Slade Comments (January 23, 2018 Meeting)

<u>9:30-10:00</u>

- E. OTHER MATTERS
- F. MATTERS BY BOARD MEMBERS
- G. MATTERS BY TOWN MANAGER
- H. MATTERS BY TOWN ATTORNEY
- I. MATTERS BY TOWN CLERK



Town of Carrboro

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

Agenda Item Abstract

File Number: 17-455

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Approval of Previous Meeting Minutes of March 6th, 2018

PURPOSE:

DEPARTMENT:

CONTACT INFORMATION:

INFORMATION:

FISCAL & STAFF IMPACT:

RECOMMENDATION:



Town of Carrboro

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

Agenda Item Abstract

File Number: 17-447

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Request to Set a Public Hearing for a Establishment of a Stormwater Rate Structure **PURPOSE:** The purpose of this agenda item is to set a public hearing on May 15th for a proposed

stormwater utility rate structure.

DEPARTMENT: Public Works

CONTACT INFORMATION: Randy Dodd, 919 918-7341, rdodd@townofcarrboro.org

INFORMATION: In June, 2017, the Board of Aldermen authorized the creation of a Stormwater Utility Enterprise Fund for the purpose of comprehensively addressing the stormwater management needs of the Town. The Board of Aldermen held a work session on March 13th and directed staff to schedule a public hearing on the adoption of a proposed rate structure to be effective July 1, 2018. This agenda item is a follow up to that action. Staff will also be pursuing the other follow up items including community outreach, Stormwater Advisory Commission review, and working with the County on an Interlocal Agreement for billing. Community outreach efforts will include two drop in sessions, presence at Carrboro Day, extensive use of online/social media tools, and meetings with and availability to community stakeholders.

FISCAL & STAFF IMPACT: There will not be any fiscal impact to holding a public hearing, however, once a rate structure is adopted there will be funds dedicated for use for stormwater management.

RECOMMENDATION: It is recommended that the Board adopt the attached resolution setting a public hearing for May 15th on the establishment of a stormwater utility rate structure, to become effective July 1, 2018.

A RESOLUTION CALLING A PUBLIC HEARING ON THE ESTABLISHMENT OF A STORMWATER UTILITY RATE STRUCTURE

WHEREAS, the Town of Carrboro modified the Town Code in June, 2017 to create a Stormwater Utility and Stormwater Enterprise Fund and created a new Stormwater Advisory Commission which began meeting in February, 2018; and

WHEREAS, staff and the Stormwater Advisory Commission are studying the options and details for creation of a rate structure for the Stormwater Utility; and

WHEREAS, the Town is pursuing community outreach on the rate structure.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen call a public hearing on May 15, 2018 to consider the draft rate structure.

BE IT FURTHER RESOLVED that, in addition to the Stormwater Advisory Commission, the rate study be referred to the Town of Carrboro Planning Board and the following Town of Carrboro advisory boards and commissions 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 27^{th} day of March in the year 2018.



TOWN OF CARRBORO

Stormwater Advisory Commission

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

MARCH 21, 2018

Stormwater Utility Rate Structure

Motion was made by Cox and seconded by Hoban that the Stormwater Advisory Commission recommends that the Town:

- 1. Adopt the rate structure shown in Table 11 of the Draft Rate Study.
- 2. After adoption, revisit the flat residential rate and investigate implementing a tiered residential system.
- 3. Further investigate options for assistance for low-income and fixed-income payees.

for

VOTE:

AYES: (Brigham, Cox, Dickson, Hay, Hoban, O'Connor, Paul)

ABSENT/EXCUSED: ()

NOES: ()

ABSTENTIONS: ()

Ra Coll (. Doll 3/21/2018

(Chair)

Date)

Stormwater Rate Structure Establishment Milestones

(SWAC=Stormwater Advisory Commission meeting)

(Advisory Board; Aldermen; Outreach Event; County)



Draft Rate Structure

(ERU= Equivalent Residential Unit; 2800 square feet impervious area)

Residential (1 ERU)\$75
Non-residential:
Tier 1 (1 ERU) \$75
Tier 2 (5 ERUs)\$375
Tier 3 (11 ERUs) \$825
Tier 4 (17 ERUs) \$1275
Tier 5 (25 ERUs) \$1875
Additional Tiers (+10 ERUs)*add \$750 from the immediately adjacent lower tier

Complete Non-residential Rate Structure (Draft)

(IS = impervious surface in square feet)

(# = number of properties
 in tier)

<u>Tier</u>	<u>Minimum IS</u>	<u>Maximum IS</u>	<u>Median IS</u>	<u>ERUs</u>	<u>Fee</u>	#
1	500	5,999	3,250	1	\$75	29
2	6,000	23,999	15,000	5	\$375	117
3	24,000	41,999	33,000	11	\$825	61
4	42,000	59,999	51,000	17	\$1,275	30
5	60,000	89,999	75,000	25	\$1,875	17
6	90,000	119,999	105,000	35	\$2,625	15
7	120,000	149,999	135,000	45	\$3,375	7
8	150,000	179,999	165,000	55	\$4,125	5
9	180,000	209,999	195,000	65	\$4,875	6
10	210,000	239,999	225,000	75	\$5,625	6
11	240,000	269,999	255,000	85	\$6,375	4
12	270,000	299,999	285,000	95	\$7,125	1
13	300,000	329,999	315,000	105	\$7,875	3
14	330,000	359,999	345,000	115	\$8,625	1
15	360,000	389,999	375,000	125	\$9,375	2
16	390,000	419,999	405,000	135	\$10,125	1
17	420,000	449,999	435,000	145	\$10,875	2
18	450,000	479,999	465,000	155	\$11,625	1
19	480,000	509,999	495,000	165	\$12,375	2
20	510,000	539,999	525,000	175	\$13,125	0
21	540,000	569,999	555,000	185	\$13,875	0
22	570,000	599,999	585,000	195	\$14,625	1
23	600,000	629,999	615,000	205	\$15,375	0
24	630,000	659,999	645,000	215	\$16,125	0
25	660,000	689,999	675,000	225	\$16,875	0
26	690,000	719,999	705,000	235	\$17,625	1
27	720,000	749,999	735,000	245	\$18,375	1
28	750,000	779,999	765,000	255	\$19,125	1



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Agenda Item Abstract

File Number: 17-449

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Request-to-set Public Hearings for Voluntary Annexation and Conditional Rezoning at 905 & 921 Homestead Road

PURPOSE: The Town has received petitions to voluntarily annex and to rezone property at 905 and 921 Homestead Road, also known as the Hutchins property. The requested rezoning to R-10-Conditional (R-10-CZ) would allow subsequent submittal of an application to develop an Architecturally Integrated Subdivision (AIS). The Board must receive public comment before considering these petitions. Resolutions setting public hearings are provided for the Board's use.

DEPARTMENT: Planning

CONTACT INFORMATION: Christina Moon - 919-918-7325; Patricia McGuire - 919-918-7327; Bob Hornik - 919-929-3905; Marty Roupe - 919-918-7333

INFORMATION: The Town has received petitions for voluntary annexation and rezoning from Parker Louis, LLC related to two parcels, totaling just under 4.8 acres, along the south side of Homestead Road. The rezoning petition seeks to amend the zoning map for these properties from R-15 to R-10-Conditional (R-10-CZ) for the purpose of developing a twenty-lot Architecturally Integrated Subdivision (AIS). The parcels, shown on the attached vicinity map (*Attachment B*) may be more specifically identified as Orange County PIN #9779-27-6322 and 9779-27-8209. Should the Board approve the rezoning, the applicants would follow with an application for a Conditional Use Permit.

Materials submitted by the applicant (Attachments C and D) include the formal petition for annexation, petition for change of zoning and answers to the four-part question seven, a short narrative of the project, and a conceptual site plan. Draft conditions are provided as (Attachment E), and it is anticipated that these may be further refined during advisory board review and the public hearing process.

The Board of Aldermen must receive public comment before taking action on a petition for voluntary annexation (Attachment G) before adopting map amendments to the Land Use Ordinance. Planning Board review of the map amendment is also needed. Section 15-141.4 of the Land Use Ordinance, Conditional Zoning Districts, describes the procedure for the Board to consider a conditional rezoning and Section 15-322 describes the role of the Planning Board and other advisory boards in the review of rezonings (Attachment F).

The process for considering the petitions would be to hold both public hearings sequentially on the same night.

Agenda Date: 3/27/2018 File Type: Agendas

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The Board would open the hearing for the annexation first, followed by the rezoning.

FISCAL & STAFF IMPACT: The petitioner has submitted materials and fees, where applicable, for reviewing and processing these requests, including envelopes for mailed notice. Staff time will be necessary for public notice and agenda preparation for the public hearings.

RECOMMENDATION: Staff recommends that the Board of Aldermen consider the attached resolution (*Attachment A-1*) setting a public hearing on April 24[,] 2018 on the voluntary annexation petition and the attached resolution (*Attachment A-2*) setting a public hearing on April 24, 2018 on the map amendment and referring the petition for change of zoning to the Planning Board and other advisory boards as appropriate.

A RESOLUTION CALLING A PUBLIC HEARING ON CONSIDERATION OF A PETITION FOR VOLUNTARY ANNEXATION OF PROPERTIES

WHEREAS, a petition for the voluntary annexation of the properties listed below has been submitted to the Town; and

- 1) 905 Homestead Road PIN 9779276322
- 2) 921 Homestead Road PIN 9779278209

WHEREAS, the Board of Aldermen must hold a public hearing to consider this request.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen call a public hearing on Tuesday, April 24, 2018 to receive public comments and to consider the petition for voluntary annexation of these properties.

This the 27th day of March in the year 2018.

A RESOLUTION CALLING A PUBLIC HEARING ON THE PROPOSED CONDITIONAL DISTRICT REZONING AT 905 & 921 HOMESTEAD ROAD

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

WHEREAS, an application has been received for a Conditional District Rezoning for the property located along Homestead Road, known as 905 and 921 Homestead Road; and

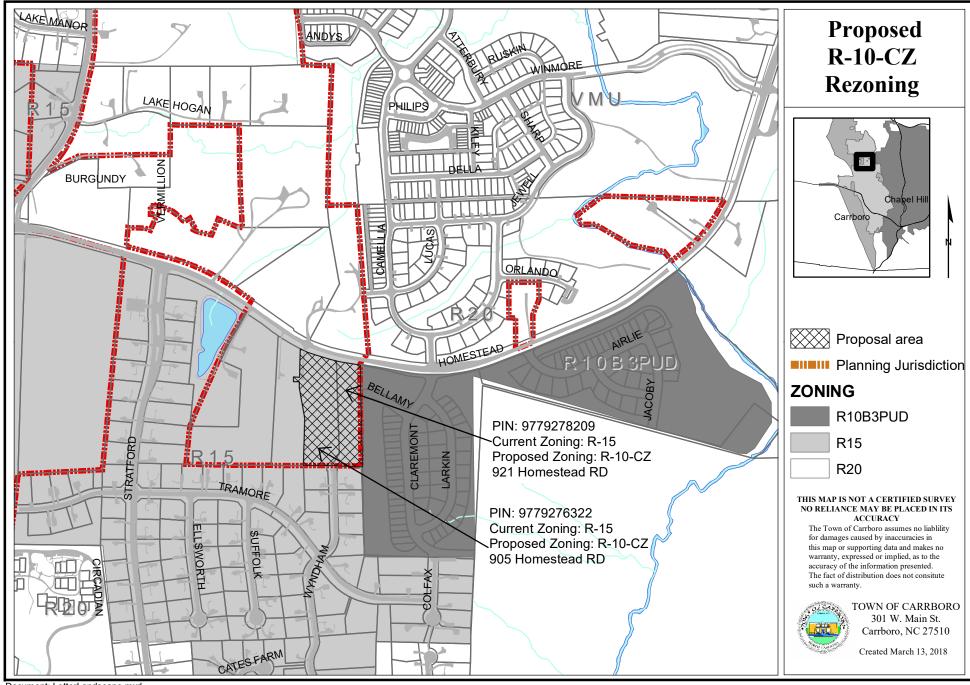
WHEREAS, the application includes a petition to rezone two properties that may be identified by Orange County PIN Numbers (#9779-27-8209 and #9779-27-6322) from R-15 to R-10, Conditional.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen call a public hearing on April 24, 2018 to discuss the rezoning petition.

BE IT FURTHER RESOLVED that the rezoning petition is referred to the Town of Carrboro Planning Board and the following Town of Carrboro advisory boards and commissions for consideration and recommendation prior to the specified public hearing date:

	Appearance Commission	Recreation and Parks Commission
\boxtimes	Transportation Advisory Board	Northern Transition Area Advisory Committee
	Environmental Advisory Board	
	Economic Sustainability Commission	

This is the 27th day of March in the year 2018.



Document: LetterLandscape.mxd

Conditional Rezoning Application for Hutchins/Jones tract.

Parker Louis, LLC is submitting a petition for change of zoning for the Hutchins/Jones tracts (4.784 acres combined) located off of Homestead Road bordering the Claremont South neighborhood.

The current zoning (R-15) would allow 12 single family homes. We feel a better use of the land would be to change the zoning to R-10-CZ to allow for a more dense subdivision. With the increased density, lot sizes would be reduced and the end product would be homes in the 1100-2000 square foot range. This product has done very well in Claremont South and is rarely available as a new home in Carrboro.

Please find the formal petition for change of zoning included in this packet of material.

Currently we are not proposing any conditions other than the standard condition to link the rezoning to the subsequent Conditional Use Permit. We are happy to consider other conditions as this project moves through the approval process. As shown on the attached (Rezoning Exhibit R-15 to R-10-CZ), we are developing the site as a small lot and size limited (25%) neighborhood.

Please find a site plan attached (Rezoning Exhibit R-15 to R-10-CZ).

APPENDIX A - 2

PETITION FOR CHANGE OF ZONING FORM

CARRBORO DEVELOPMENT GUIDE APPENDIX A

TOWN OF CARRBORO



PETITION FOR CHANGE OF ZON	ING	

PETITIONER:

DATE:

Parker Louis, LLC

The Petitioner named above respectfully requests the Board of Aldermen of the Town of Carrboro to rezone the below-described property from 2-15 to 2-10 coning classification. The Petitioner furthermore submits the following information in support of this petition.

		PETITIONER'S NAME Parker Lou	TS LLC	
	-	ADDRESS: 301 Montclair	way, chape	[Hill, NC 27516
		TELEPHONE #:(919) 422-6477		
દ.		INTEREST IN PROPERTY (IES):		<u> </u>
3. -		OAD DESCRIPTION OF PROPERTY AREAS SOUGHT TO BI		
	07	F Clarement South Phase 5 o	ind Bellamy	Lane
ļ.	DES	SCRIPTION OF INDIVIDUAL LOTS SOUGHT TO BE REZON	ÆD:	
	a.	OWNER: Parker Louis	LLC	
		TAX MAP: BLOCK: LOT	ACREAGE 3.054	PARCEL: 9779-27-6322
		SUBDIVISION NAME: N/A	FRONTAGE	DEPTH:
		existing structures and uses: 5 mg/e family home		_
		0	<u> </u>	
	b.	OWNER: Parker Louss, L	LC.	
		TAX MAP: BLOCK: LOT:	ACREAGE 1.730	PARCEL: 9779-27-8209
•		SUBDIVISION NAME: N/A	FRONTAGE	DEPTH:
				· .

CARRBORO DEVELOPMENT GUIDE APPENDIXA

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•	OWNER:			A CDFA CF	DADCEI •
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CARRBORO DEVELOPMENT GUIDE APPENDIX A

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	property proposed for rezoning peculiarly/particularly suited for the	•
potential uses of th	see attached	
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(c) How will the propo	osed rezoning affect the value of nearby buildings?	
	54 attached	
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	the rezoning encourage the most appropriate use of the land in the	
planning jurisdiction	on? C [1.1.1	
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	VER REQUESTS THAT THE OFFICIAL ZONING MAP BE AMENDED AS SET OUT	
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Petition for Change of Zoning from R-15 to R-10-CZ

- 7(a) The existing character of the area is predominantly a mix of newer neighborhoods (Claremont, Claremont South, Winmore) and existing neighborhoods mostly developed in the 1990's. The subject properties (totaling 4.784 acres) borders Claremont South (R-10 B-3 PUD) and more specifically, the 23 size limited homes in Claremont South. The requested rezoning change will allow us to continue to develop smaller lots, which will breed smaller, more affordable homes. It also speaks directly to Carrboro Vision 2020, Development section 2.52, to "require the construction of a diverse housing stock."
- (b) Under current zoning laws (R-15), the property would produce 12 single family lots. It is better suited for a denser subdivision in the R-10-CZ classification. The tremendous success of the smaller homes in the adjoining Claremont South neighborhood has strengthened our belief that the market for homes in the 1100-2000 square foot range in Carrboro is a product that has demand.
- (c) The proposed rezoning will have a positive impact on the value of nearby buildings. Connectivity to Wexford should be a seamless event and buyers/sellers in the area will continue to have a choice of product. The coexistence of smaller and larger homes in Claremont South has shown that a mix of product (with careful aesthetic approval) can thrive.
- (d) The most appropriate use of this property is to rezone it to increase density. If not, it will be developed with less affordability for the end user. The town of Carrboro has consistently stated a desire to increase density in this area and this rezoning will accomplish that. Moreover, it provides a product that appeals to more homeowners based on affordability alone and coincides with the Town's vision.

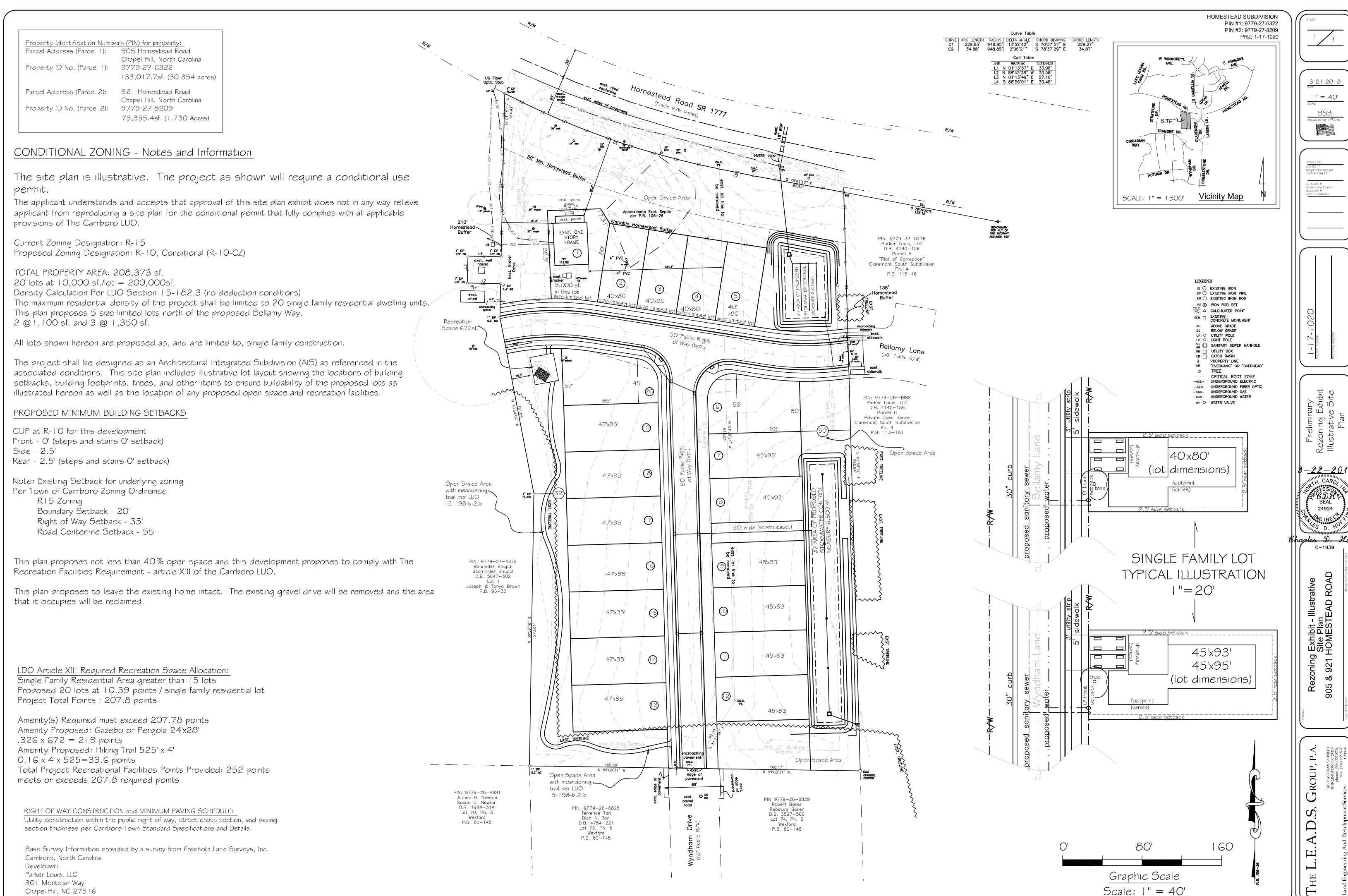
3-21-2018

I" = 40'

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C-1939

y Exhibit - Illustrative Site Plan HOMESTEAD ROAD



Hutchins Property Conditional Zoning

Draft Conditions

1.	The Concept Plan labeled "Rezoning Exhibit Illustrative Site Plan – 905 & 921 Homestead
	Road Conditional Rezoning," dated is approved and incorporated herein to
	indicate all potential land uses, the general location and size of buildings and parking
	areas, vehicular and bicycle-pedestrian access points, general circulation patterns,
	setbacks, and other landscaped areas. Other features and issues remain to be decided at
	the time a conditional use permit is requested for the development. Those features and
	issues include, but are not necessarily limited to, the location of stormwater management
	features, traffic improvements at Homestead Road, and the cross section of the proposed
	internal streets.

- 2. The project shall be designed as an Architectural Integrated Subdivision (AIS). As referenced in condition #1 above, the conceptual plan shall include Illustrative lot layouts showing the location of setbacks, building footprints, trees, parking area, etc. to ensure the buildability of the proposed lots, as well as the location of proposed open space and recreation facilities.
- 3. The maximum residential density of the project shall be limited to 20 dwelling units.
- 4. The applicant has expressed interest in pursuing size-limited dwelling units, and will include up to 25% size limited units. If the project does not include 15% affordable units, the applicant shall participate in an affordable housing meeting with the Board of Aldermen.
- 5. Per the Town's connectivity requirements, the proposed north-south internal road shall be constructed to provide a full connection to Wyndham Drive. The proposed east-west internal road may require a T-turnaround or similar feature as determined during the CUP and construction plan approval to allow solid waste/recycling service.
- 6. The project shall include the construction of a sidewalk or sidepath along Homestead Road, unless determined to be impracticable during the conditional use permit process.

ARTICLE IX

ZONING DISTRICTS AND ZONING MAP

PART I. ZONING DISTRICTS

Section 15-135 Residential Districts Established.

(a) The following basic residential districts are hereby established: R-20, R-15, R-10, R-7.5, R-3, R-2, R-R, R-S.I.R., and R-S.I.R.-2. The purpose of each of the foregoing residential districts is to secure for the persons who reside there a comfortable, healthy, safe, and pleasant environment in which to live, sheltered from incompatible and disruptive activities that properly belong in non-residential districts. (AMENDED 5/12/81; 12/7/83; 2/4/86)

Section 15-141.4 Conditional Zoning Districts (AMENDED 5/27/08)

(a) Conditional zoning districts are zoning districts in which the development and use of the property so zoned are governed by the regulations applicable to one of the general use zoning districts listed in the Table of Permissible Uses, as modified by the conditions and restrictions imposed as part of the legislative decision creating the district and applying it to the particular property. Accordingly, the following conditional zoning districts may be established:

 $R\text{-}20\text{-}CZ,\,R\text{-}15\text{-}CZ,\,R\text{-}10\text{-}CZ,\,R\text{-}7.5\text{-}CZ,\,R\text{-}3\text{-}CZ,\,R\text{-}2\text{-}CZ,\,R\text{-}R\text{-}CZ,\,R\text{-}S.I.R.\text{-}CZ}$, and R-S.I.R.-2-CZ

B-1(C)-CZ, B-1(G)-CZ, B-2-CZ, B-3-CZ, B-3-T-CZ, B-4-CZ, CT-CZ, O-CZ, OACZ, M-1-CZ, M-2-CZ (**AMENDED 4/27/10; 06/23/15**)

- (b) The conditional zoning districts authorized by this section may be applied to property only in response to a petition signed by all the owners of the property to be included within such district.
- (c) Subject to the provisions of subsections (f) and (g), the uses permissible within a conditional zoning district authorized by this section, and the regulations applicable to property within such a district, shall be those uses that are permissible within and those regulations that are applicable to the general use zoning district to which the conditional district corresponds, except as those uses and regulations are limited by conditions imposed pursuant to subsection (d) of this section. For example, property that is rezoned to a B-2-CZ district may be developed in the same manner as property that is zoned B-2, subject to any conditions imposed pursuant to subsection (d). (AMENDED 11/9/11)
- (d) When a rezoning petition for a conditional zoning district is submitted (in accordance with Article XX of this chapter), the application shall include a list of proposed conditions (which may be in the form of written statements, graphic illustrations, or any combination

thereof) to be incorporated into the ordinance that rezones the property to the requested conditional zoning district. (AMENDED 10/25/16)

- (d1) A rezoning petition may be submitted to allow use classification 3.260 Social Service Provider with Dining within a building of more than two stories or 35 feet in height. (AMENDED 10/25/16)
 - (1) The petition shall include information that demonstrates that, if the project is completed as proposed, it:
 - a. Will not substantially injure the value of adjoining or abutting property; and
 - b. Will be in harmony with the area in which it is to be located. The manner in which a project is designed to accommodate additional building height including, but not limited to, scale, architectural detailing, compatibility with the existing built environment and with adopted policy statements in support of vibrant and economically successful and sustainable, mixed-use, core commercial districts shall be among the issues that may be considered to make a finding that a project is or is not in harmony with the area in which it is to be located. The applicant may use a variety of graphic and descriptive means to illustrate these findings; and
 - c.Will be in general conformity with the Land Use Plan, Thoroughfare Plan, and other plans officially adopted by the Board. (AMENDED 03/22/16, 10/25/16)
 - (2) All relative 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 conditions incorporated into the conditional zoning district described in subsection (d1) above. (AMENDED 10/25/16)
- (e) The list of proposed conditions may be modified by the planning staff, advisory boards, or Board of Aldermen as the rezoning application works its way through the process described in Article XX, but only those conditions mutually approved by the applicant and the Board may be incorporated into the conditional zoning district shall be limited to (i) those that address the conformance of the development and use of the site to the provisions of this chapter or to applicable plans adopted by the Board, and (ii) those that address the impacts reasonably expected to be generated by the development or use of the site. (AMENDED 03/22/16, 10/25/16)
- (f) All uses that are permissible in the conditional zoning district shall require the issuance of the same type of permit that such use in the corresponding general use district would ordinarily require (according to the Table of Permissible Uses), i.e. a zoning permit, special use permit, or conditional use permit.

- (g) Notwithstanding the foregoing, in approving a rezoning to a B-1(g) CZ zoning district, the Board of Aldermen may authorize the property so zoned to be developed at a higher level of residential density than that otherwise permissible in B-1(g) zoning districts under Section 15-182 if the rezoning includes conditions that provide for site and building elements that will create a more vibrant and successful community. Site and building elements are intended to be selected from at least three of the following seven areas: stormwater management, water conservation, energy conservation, on-site energy production, alternative transportation, provision of affordable housing, and the provision of public art and/or provision of outdoor amenities for public use. Conditions that may be included to meet the above stated objective include but shall not be limited to the following: (AMENDED 11/9/11)
 - (1) Reduction in nitrogen loading from the site by at least 8% from the existing condition, as determined by the Jordan Lake Accounting Tool
 - (2) Energy performance in building requirements to meet one or more of the following
 - a. Achieve 40% better than required in the Model Energy Code, which for NC, Commercial is ASHRAE 90.1-2004-2006 IECC equivalent or better, and Residential is IECC 2006, equivalent or better).
 - b. "Designed to Earn the Energy Star" rating.
 - c. Architecture 2030 goal of a 50 percent fossil fuel and greenhouse gas emission reduction standard, measured from the regional (or country) average for that building type.
 - d. AIA goals of integrated, energy performance design, including resource conservation resulting in a minimum 50 percent or greater reduction in the consumption of fossil fuels used to construct and operate buildings.
 - e. LEED certification to achieve 50% CO2 emission reduction, or LEED silver certification
 - f. US Conference of Mayors fossil fuel reduction standard for all new buildings to carbon neutral by 2030.
 - g. Specific energy saving features, including but not limited to the following, are encouraged..
 - i. Use of shading devices and high performance glass for minimizing heating and cooling loads
 - ii. Insulation beyond minimum standards;
 - iii. Use of energy efficient motors/HVAC;
 - iv. Use of energy efficient lighting;
 - v. Use of energy efficient appliances
 - vi. LED or LED/Solar parking lot lighting (50-100% more efficient).
 - vii. Active and passive solar features.
 - (3) Provision of onsite facilities (e.g. solar, wind, geothermal) that will provide 5% of electricity demand associated with the project.
 - (4) Use of harvested rainwater for toilet flushing.

- (5) Parking lot meets the standard for a "green" parking lot, per the EPA document Green "Parking Lot Resource Guide."
- (6) Inclusion of Low Impact Development features.
- (7) Provision of covered bike parking sufficient to provide space for one space per every two residential units.
- (8) Provision of a safe, convenient, and connected internal street system or vehicle accommodation area designed to meet the needs of the expected number of motor vehicle, bicycle, pedestrian, and transit trips
- (9) Inclusion of at least one (1) parking space for car sharing vehicles
- (10) Provision of public art and/or outdoor amenities for public use.
- (11) Use of surface materials that reflect heat rather than absorb it.
- (12) Use of devices that shade at least 30% of south-facing and west-facing building facades.
- (13) Provision of affordable housing in accordance with Town policy.
- (h) If a B-1(g) CZ zoning district is created and, pursuant to subsection (f) of this section, a higher level of residential density than that otherwise permissible in B-1(g) zoning districts is approved for that district, then it shall be a requirement of such district that at least twenty percent (20%) of the total leasable or saleable floor area within all buildings located within such zoning district shall be designed for non-residential use. Occupancy permits may not be given for residential floor area if doing so would cause the ratio of residential floor area for which an occupancy permit has been issued to non-residential floor area for which an occupancy permit has been issued to exceed four to one (4:1). (AMENDED 11/9/11)

PART II. ZONING MAP

Section 15-142 Official Zoning Map.

- (a) There shall be a map known and designated as the Official Zoning Map, which shall show the boundaries of all zoning districts within the town's planning jurisdiction. This map shall be drawn on acetate or other durable material from which prints can be made, shall be dated, and shall be kept in the planning department.
 - (b) The Official Zoning Map dated April, 1973 is adopted and incorporated herein by reference. Amendments to this map shall be made and posted in accordance with Section 15-143.
 - (c) Should the Official Zoning Map be lost, destroyed, or damaged, the administrator may have a new map drawn on acetate or other durable material from which prints can be made. No further board authorization or action is required so long as no district boundaries are changed in this process.

Section 15-143 Amendments to Official Zoning Map (AMENDED 4/27/10; 10/26/10); 09/24/13

- (a) Amendments to the Official Zoning Map are accomplished using the same procedures that apply to other amendments to this chapter, as set forth in Article XX.
- (b) The administrator shall update the Official Zoning Map as soon as possible after amendments to it are adopted by the Board. Upon entering any such amendments to the map, the administrator shall change the date of the map to indicate its latest revision. New prints of the updated map may then be issued.
- (c) No unauthorized person may alter or modify the Official Zoning Map.
- (d) The planning department shall keep copies of superseded prints of the zoning map for historical reference.

TOWN OF CARRBORO

PETITION FOR ANNEXATION CONTIGUOUS PROPERTY



TO THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO:
I) The undersigned, being the owner of all real property located within the area described in paragraph #2 below, requests that such area be annexed to the Town of Carrboro, North Carolina.
2) THE AREA TO BE ANNEXED IS CONTIGUOUS TO THE TOWN OF CARRBORO, AND IS LOCATED AT 405: 421 Homestead Rand tax map referenced to the Boundaries of such territory are as shown on the metes and bounds description attached hereto. 3) A Map (no larger than 18" x 24") of the foregoing property, showing its relationship to the existing corporate limits of the town, is also attached hereto.
4) THE TOTAL ACREAGE AND DWELLING UNITS LOCATED ON THIS PROPERTY ARE AS
FOLLOWS: 4.784 ACRES DWELLING UNITS
RESPECTFULLY SUBMITTED THIS 15th DAY OF September, 2017.
NAME: Parker Lovis LLC
ADDRESS: 301 Montclair Way
Chapet Did NC 27516
OWNER/PRESIDENT: Adam Z:nn
ATTEST: SECRETARY
I, Cora Houston, Deputy Town Clerk of the Town of Carrboro, do hereby certify that the sufficiency of the above-reference petition has been checked and found to be in compliance with G.S. 160A-31.
This the 23rd day of March , 20 18.
Deputy Town Clerk:

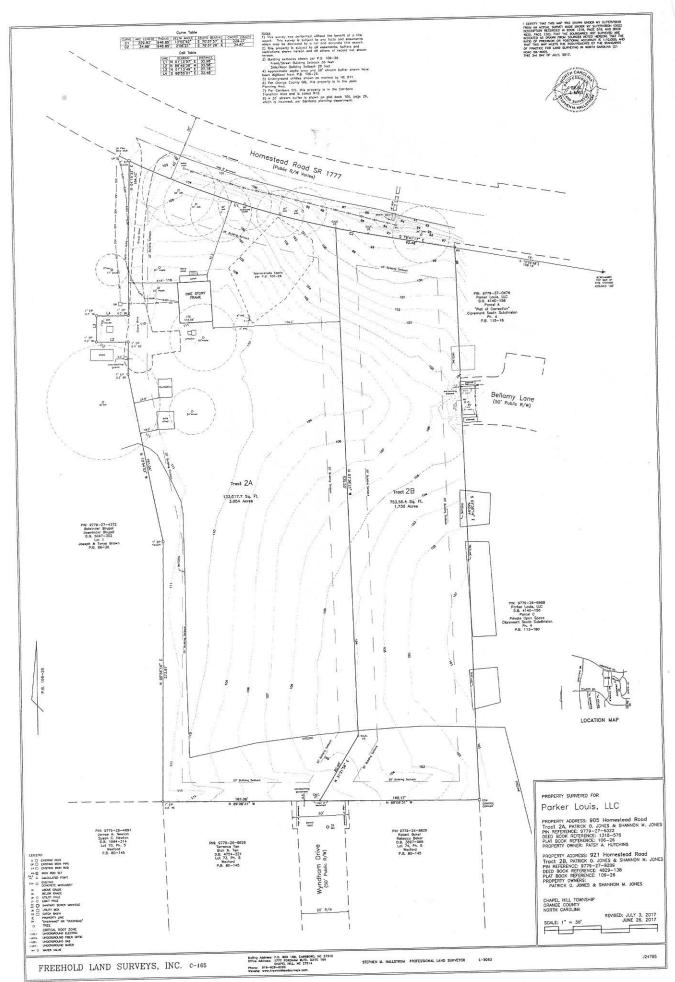


Exhibit A

A combined legal description of 905 Homestead Road and 921 Homestead, Chapel Hill

BEGINNING AT A POINT IN THE SOUTHERN RIGHT OF WAY OF HOMESTEAD ROAD (S.R. 1777), BEING 411.81 FEET FROM THE CENTER LINE OF THE INTERSECTION OF HOMESTEAD ROAD (S.R. 1777) AND CLAREMONT DRIVE, THENCE RUNNING SOUTH 01° 38' 14" EAST FOR 582.94 FEET TO AN IRON FOUND IN A CONCRETE MONUMENT; THENCE RUNNING NORTH 89° 08' 18" WEST FOR 333.24 FEET TO AN EXISTING IRON PIPE OR STAKE; THENCE RUNNING NORTH 00° 33' 31" EAST 273.76 FEET TO AN IRON PIPE OR STAKE; THENCE NORTH 10° 54' 57" WEST FOR 181.05 FEET TO AN IRON PIPE OR STAKE; THENCE RUNNING NORTH 01° 13' 07" EAST FOR 34.01 FEET TO AN IRON PIPE OR STAKE; THENCE RUNNING NORTH 88° 46' 53" WEST FOR 33.59 FEET TO AN IRON PIPE OR STAKE; NORTH 01° 13' 07" EAST FOR 27.13 FEET TO AN IRON PIPE OR STAKE; RUNNING THENCE SOUTH 88° 46' 53" EAST FOR 33.59 FEET TO AN IRON PIPE OR STAKE RUNNING THENCE NORTH 01°13' 07" EAST 164.59 FEET TO AN IRON PIPE SET IN THE RIGHT OF WAY OF HOMESTEAD ROAD (S.R. 1777); CONTINUING THENCE ON A CURVE IN A COUNTERCLOCKWISE WITH A RADIUS OF 948.85 FEET, AN ARC LENGTH OF 229.97 FEET AND WHOSE LONG CHORD BEARS SOUTH 70° 38' 11" EAST A DISTANCE OF 229.40 FEET TO AN IRON PIPE SET; CONTINUING THENCE ON A CURVE IN A COUNTERCLOCKWISE DIRECTION WITH RADIUS OF 948.85 FEET, AN ARC LENGTH OF 34.88 FEET AND WHOSE LONG CHORD BEARD SOUTH 78° 37' 58" EAST A DISTANCE OF 34.88 FEET TO A MATHEMATICAL POINT; RUNNING THENCE SOUTH 79° 41' 17 EAST FOR 92.48 FEET TO THE POINT AND PLACE OF BEGINNING, AND MORE PARTICULARLY DESCRIBED BEING ALL OF TRACT 2A, CONTAINING 3.054 ACRES AND TRACT 2B, CONTAINING 1.730 ACRES ACCORDING TO SURVEY AND PLAT ENTITLED, FINAL PLAT MINOR SUBDIVISION FOR PATRICK O. JONES & SHANNON M. JONES," AS PREPARED BY HOLLAND LAND SURVEYING, DATED JUNE 29, 2009, REVISED JULY 17, 2008 AND RECORDED IN PLAT BOOK 106, PAGE 26, ORANGE COUNTY REGISTRY.



Town of Carrboro

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

Agenda Item Abstract

File Number: 17-444

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Public Hearing on the Conditional Use Rezoning and Conditional Use Permit for 802 & 806 Merritt Mill Road

PURPOSE: The Town has received applications for an R-2-conditional use rezoning and a conditional use permit (CUP) to allow for the construction of a twenty-four (24) unit affordable apartment complex at 802 and 806 Merritt Mill Road. Prior to reaching a decision, the Board of Aldermen must hold a public hearing to receive input on the rezoning request and the CUP.

DEPARTMENT: Planning

CONTACT INFORMATION: James Thomas 919-918-7335; Christina Moon 919-918-7325; Marty Roupe 919-918-7333; Patricia McGuire 919-918-7327

INFORMATION: The Town has received an application from CASA NC for a conditional use rezoning/conditional use permit for property at 802 and 806 South Merritt Mill Road to allow for the development of an affordable multi-family apartment complex. The total project encompasses four properties, two in the Town of Carrboro and two in the Town of Chapel Hill. The Carrboro parcels, containing approximately 1.99 acres (86,833 square feet), are currently zoned R-7.5. The proposal is to rezone both parcels to R-2-Conditional Use (R-2-CU). The parcels may be more specifically described by their Orange County PIN numbers 9778-93-1183 and 9778-93-0153. Materials relating to the rezoning are included as Part I. (Attachments A-G).

CASA NC has also submitted an application for a Conditional Use Permit (CUP) for the multi-family apartment complex. This will be a three (3) story building that will contain twenty-four (24) units with two (2) bedrooms within each unit (Use Classification #1.300). As noted above, the project will also include an additional twenty-four (24) apartments on the two parcels in Chapel Hill, which are being developed subject to Chapel Hill requirements. Of note, some portions of the project located on the Chapel Hill side of the site are being utilized to demonstrate compliance with Town of Carrboro Land Use Ordinance provisions. This is permissible under the Town's definition of lot. Materials relating to the CUP are included as Part II. (Attachments A-H).

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

All the units will be affordable as CASA is a non-profit housing developer and the units will be affordable to households below the 60 percent of the AMI, with priority for people who are homeless and/or who have disabilities.

FISCAL & STAFF IMPACT: Public hearings involve staff and public notice costs associated with advisory board and Board of Aldermen review; staff time is also required for plan review and processing. The Board approved a request from the applicant to waive the fees for the rezoning and CUP review on March 13th.

RECOMMENDATION: Part I. R-2 Conditional Use Rezoning: Town staff recommends that the Board of Aldermen receive public comment and consider if the proposed rezoning is consistent with Town plans and policies as well as the advancement of the public health, safety and welfare of the Town (*Attachment A for consistency and Attachment B for the map amendment ordinance*). Approval would be subject to conditions specified in association with the conditional use permit application for the development of the multifamily apartment units.

Part II. Conditional Use Permit Application: If the rezoning is found to be appropriate, Town staff recommends that the Board of Aldermen review the Conditional Use Permit application for the development of the site for affordable multi-family housing.

Town staff recommends that the Board of Aldermen review the Conditional Use Permit proposal with the following staff conditions and prepare recommendations. The CUP Worksheet is attached (see *Attachment H*):

- 1. That the applicant shall provide to the Zoning Division, prior to the recordation of the final plat for the project or before the release of a bond if some features are not yet in place at the time of the recording of the final plat, Mylar and digital as-builts for the stormwater features of the project. Digital as-builts shall be in DXF format and shall include a base map of the whole project and all separate plan sheets. As-built DXF files shall include all layers or tables containing storm drainage features. Storm drainage features will be clearly delineated in a data table. The data will be tied to horizontal controls.
- 2. That the developer shall include a detailed stormwater system maintenance plan, specifying responsible entity and schedule. The plan shall include scheduled maintenance activities for each stormwater BMP in the development, performance evaluation protocol, and frequency of self-reporting requirements (including a proposed self-reporting form) on maintenance and performance. The plan and supporting documentation shall be submitted to Town Engineer and Environmental Planner for approval prior to construction plan approval.
- 3. That prior to construction plan approval, the applicant receive a driveway permit from NCDOT in accordance with any conditions imposed by such agency including but not limited to encroachment/maintenance agreement for installation of necessary infrastructures.

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

4. That if any substantive changes to the site design are necessary to meet all applicable stormwater related provisions of the LUO, then the applicant will bring such changes back to the Board of Aldermen for review, including an additional public hearing if deemed necessary.

5. That deed restrictions must be placed on the property restricting use of the land to only affordable housing, in accordance with LUO Section 15-182.4, for a period of 99 years.

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S REASONS FOR ADOPTING AN AMENDMENT TO THE MAP OF THE CARRBORO LAND USE ORDINANCE (N.C. Gen. Stat. 160A-383)

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO ZONING MAP TO REZONE APPROXIMATELY 1.99 ACRES OF PROPERTY KNOWN AS 802 AND 806 SOUTH MERRITT MILL ROAD FROM R-7.5 (RESIDENTIAL, 7,500 SQUARE FEET PER DWELLING UNIT) TO R-2-CU (RESIDENTIAL, 2,000 SQUARE FEET PER DWELLING UNIT, CONDITIONAL USE)

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board has reviewed the draft amendment to the map of the Land Use Ordinance and concludes that the proposed amendment is:

_____ Consistent with current adopted plans, Carrboro Vision2020 (provisions 1.35. 2.11, 2.22, 6.11 and 6.17) and the Town's Affordable Housing Strategy (provisions 2.1 and 2.3), for the following reason(s):

- **1.35** The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.
- **2.11** Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.
- **2.22** Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.
- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.
- **2.1** Increase the number of rental units that are permanently affordable to individuals and families earning less than 60% of Area Median Income (AMI).
- **2.3** Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

	<i>Inconsistent</i> with current adopted plans. The proposed action is <i>inconsistent</i> with the nensive plan for the following reason(s):
-	
circums	<i>Inconsistent</i> with the current adopted plans; however, because of the following changed tance(s), the Board of Aldermen's approval shall also be deemed an amendment to the existing plan,, as described below.
	Changed circumstance(s):
-	
	Amendment to current adopted plan:
-	
-	

Section 2. The Board of Aldermen's action is reasonable and in the public interest for the following reason(s):

The above described amendment is reasonable and in the public interest because it uses a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

Section 3. Therefore, the Carrboro Board of Aldermen has: <u>approved / denied</u> the proposed amendment to the map of the Carrboro Land Use Ordinance.

Section 4. This resolution becomes effective upon adoption.

Adopted by the Carrboro Board of Aldermen this the 27th day of March 2018.

Attachment C

CONDITIONAL USE REZONING/ CONDITIONAL USE PERMIT DRAWINGS

FOR

MERRITT MILL AFFORDABLE HOUSING

CHAPEL HILL & CARRBORO

9778-93-3103 PINs:

9778-93-4008

9778-93-0153

9778-93-1183

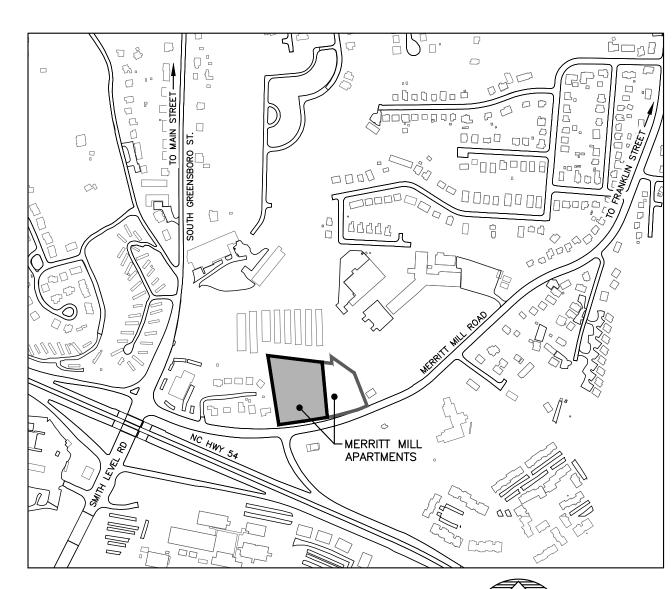


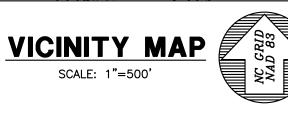






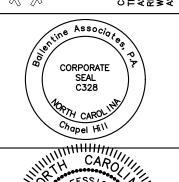
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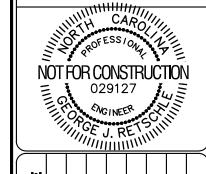


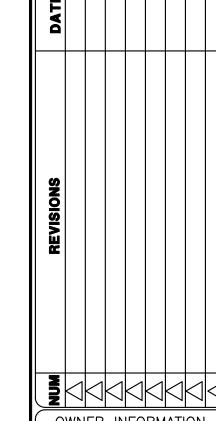


DRAWING LIST

	DRAWING LIST
<u>SHEET</u>	DRAWING TITLE
G0001	COVER
C0100	AREA MAP
C0101	EXISTING CONDITIONS, DEMOLITION & LANDSCAPE PROTECTION PLAN
C1001	PRELIMINARY SITE PLAN
C1002	PRELIMINARY RECREATION AREA & OPEN SPACE PLAN
C1101	UTILITY OVERVIEW
C1102	PRELIMINARY LIGHTING PLAN
C1201	GRADING & STORMWATER MANAGEMENT PLAN
C4201	STORMWATER CONTROL MEASURE ENLARGEMENT
C4202	BIORETENTION CELL SECTIONS & DETAILS
C4203	STORM FILTER & UNDERGROUND DETENTION SECTIONS & DETAILS
C5001	SITE DETAILS
C5002	SITE DETAILS
C5201	STORM DRAINAGE DETAILS
C5202	STORM DRAINAGE DETAILS
L1001	PRELIMINARY LANDSCAPE PLAN
A1.1.1	1 BR BUILDING (FLOOR PLANS - EAST)
A1.1.2	1 BR BUILDING (FLOOR PLANS - EAST)
A1.2.1	2 BR BUILDING (FLOOR PLANS - WEST)
A1.2.2	2 BR BUILDING (FLOOR PLANS - WEST)
A3.1	BUILDING ELEVATIONS (EAST)
A3.2	BUILDING ELEVATIONS (WEST)
A4.1	ONE BEDROOM UNIT (EAST)
A4.2	TWO BEDROOM UNIT (WEST)





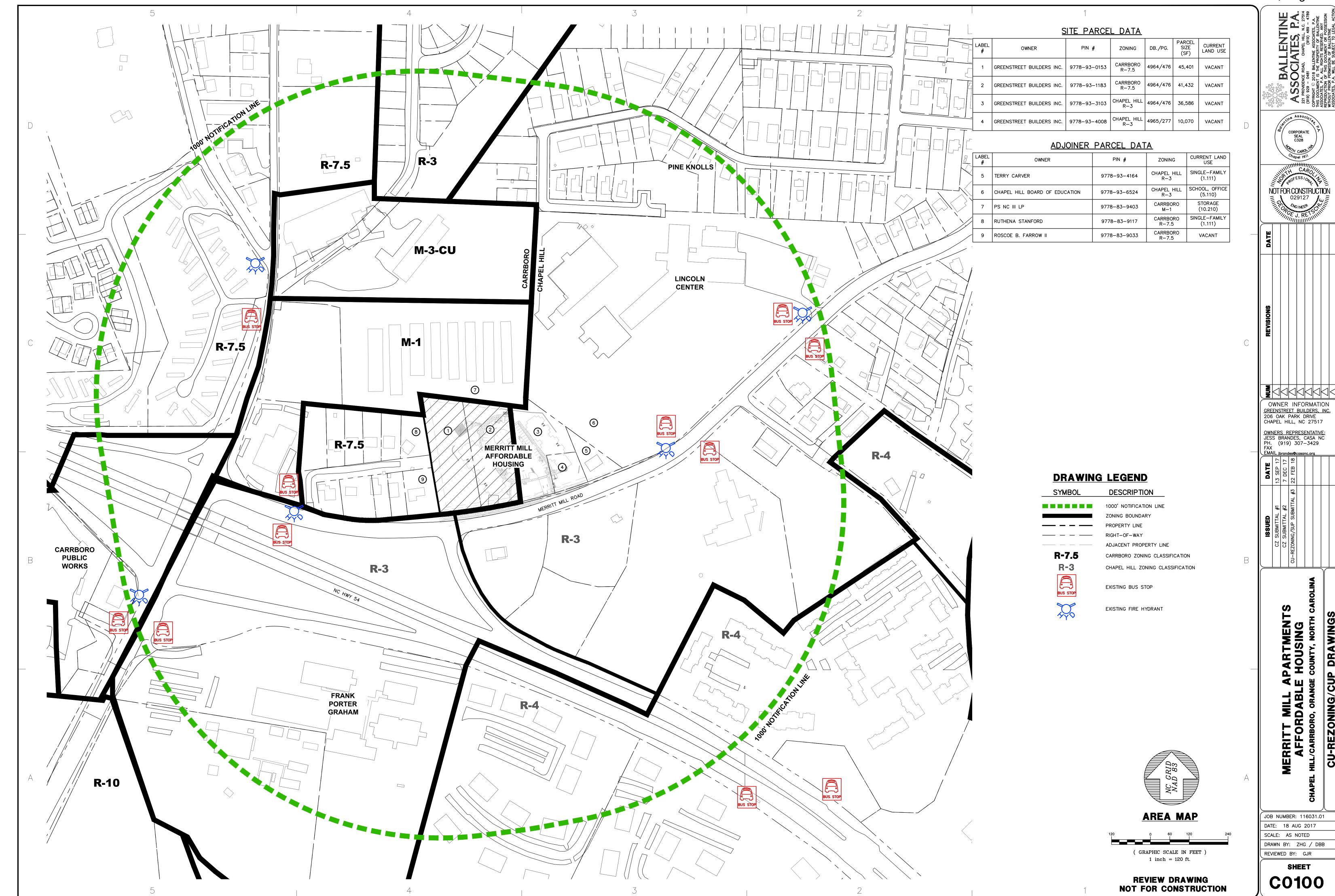


MERRITT MILL / AFFORDABLE

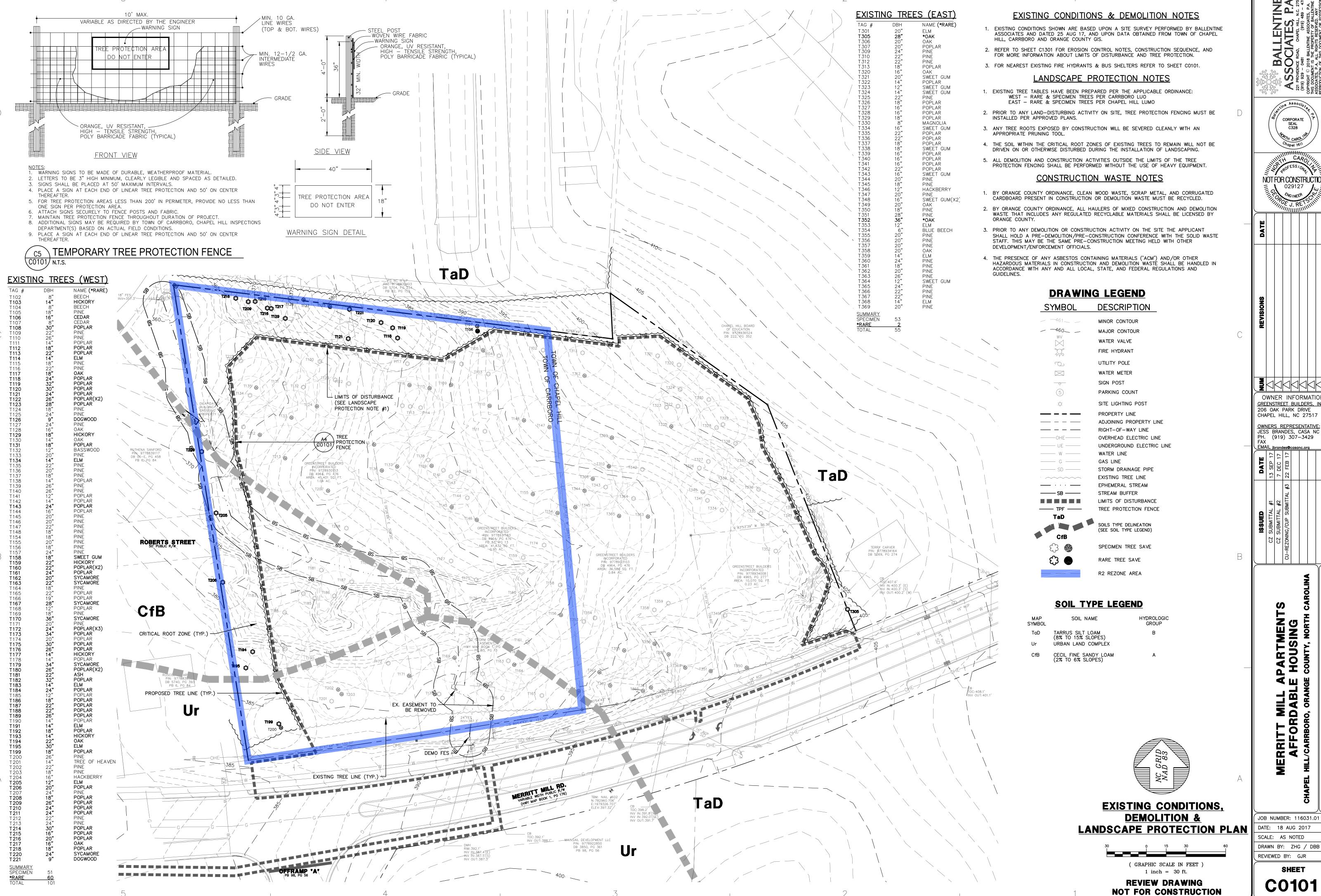
JOB NUMBER: 116031.01 DATE: 18 AUG 2017 SCALE: AS NOTED

DRAWN BY: ZHG / DBB REVIEWED BY: GJR

SHEET



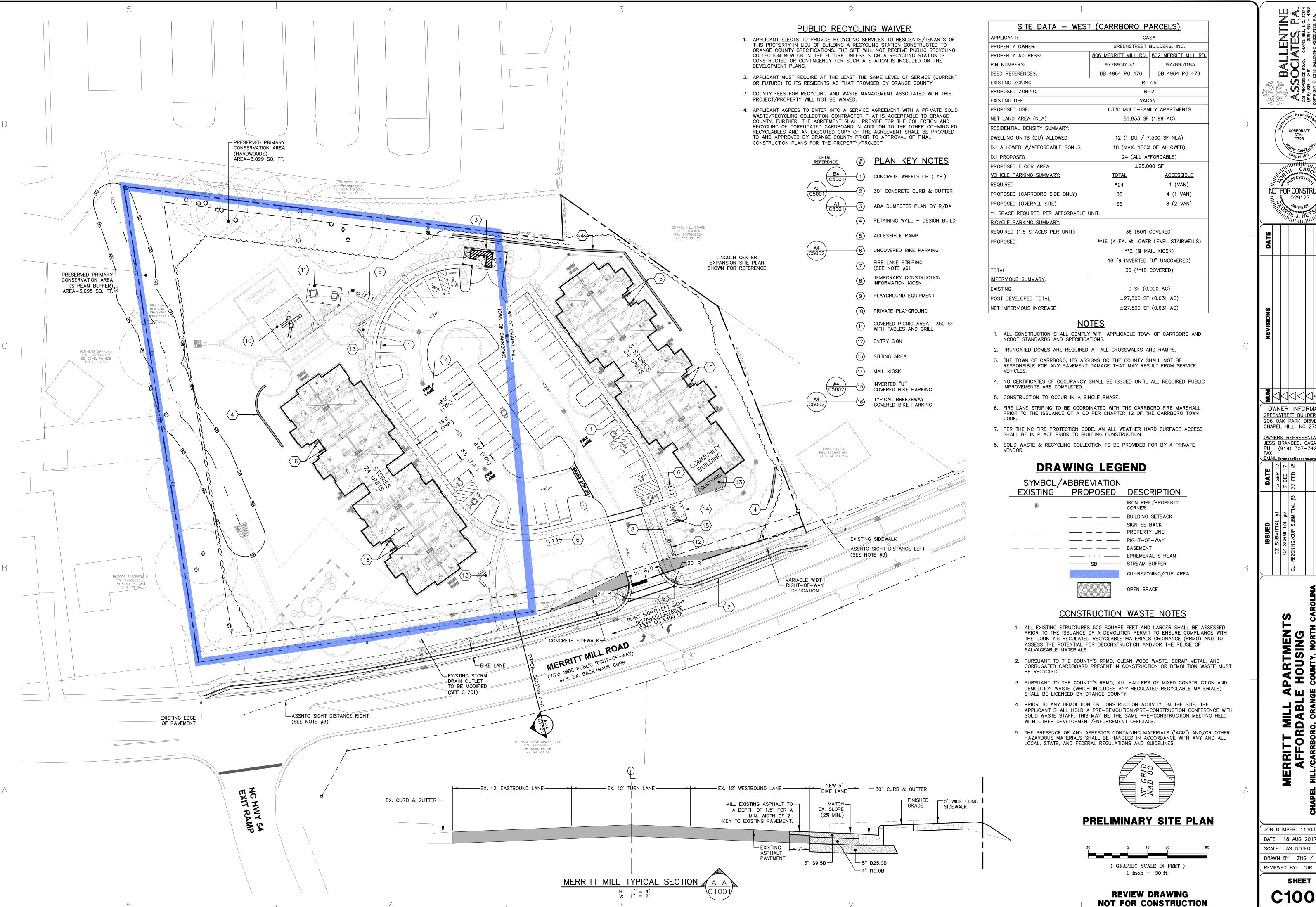
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NOT FOR CONSTRUCTION

OWNER INFORMATION GREENSTREET BUILDERS, INC

JOB NUMBER: 116031.01 DATE: 18 AUG 2017 DRAWN BY: ZHG / DBB



CORPORATE SEAL C328 NOT FOR CONSTRUCTION

029127

OWNER INFORMATION GREENSTREET BUILDERS, INC. 206 OAK PARK DRIVE CHAPEL HILL, NC 27517

OWNERS REPRESENTATIVE: JESS BRANDES, CASA NC PH. (919) 307-3429 EMAIL jbrandes@casanc.org **1** 17 17 18 18

JOB NUMBER: 116031.01 DATE: 18 AUG 2017 SCALE: AS NOTED DRAWN BY: ZHG / DBB

RITT MILL

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REVISIONS DATE

DA

OWNER INFORMATION
GREENSTREET BUILDERS, INC.
206 OAK PARK DRIVE
CHAPEL HILL, NC 27517

OWNERS REPRESENTATIVE:

CZ SUBMITTAL #1 13 SEF
CZ SUBMITTAL #2 07 DE/
CU-REZONING/CUP SUBMITTAL #3 22 FEF
CU-REZONING/CUP SUBMITTAL #4 08 MA

ORDABLE HOUSING
RBORO, ORANGE COUNTY, NORTH CAROLIN

JOB NUMBER: 116031.01

DATE: 18 AUG 2017

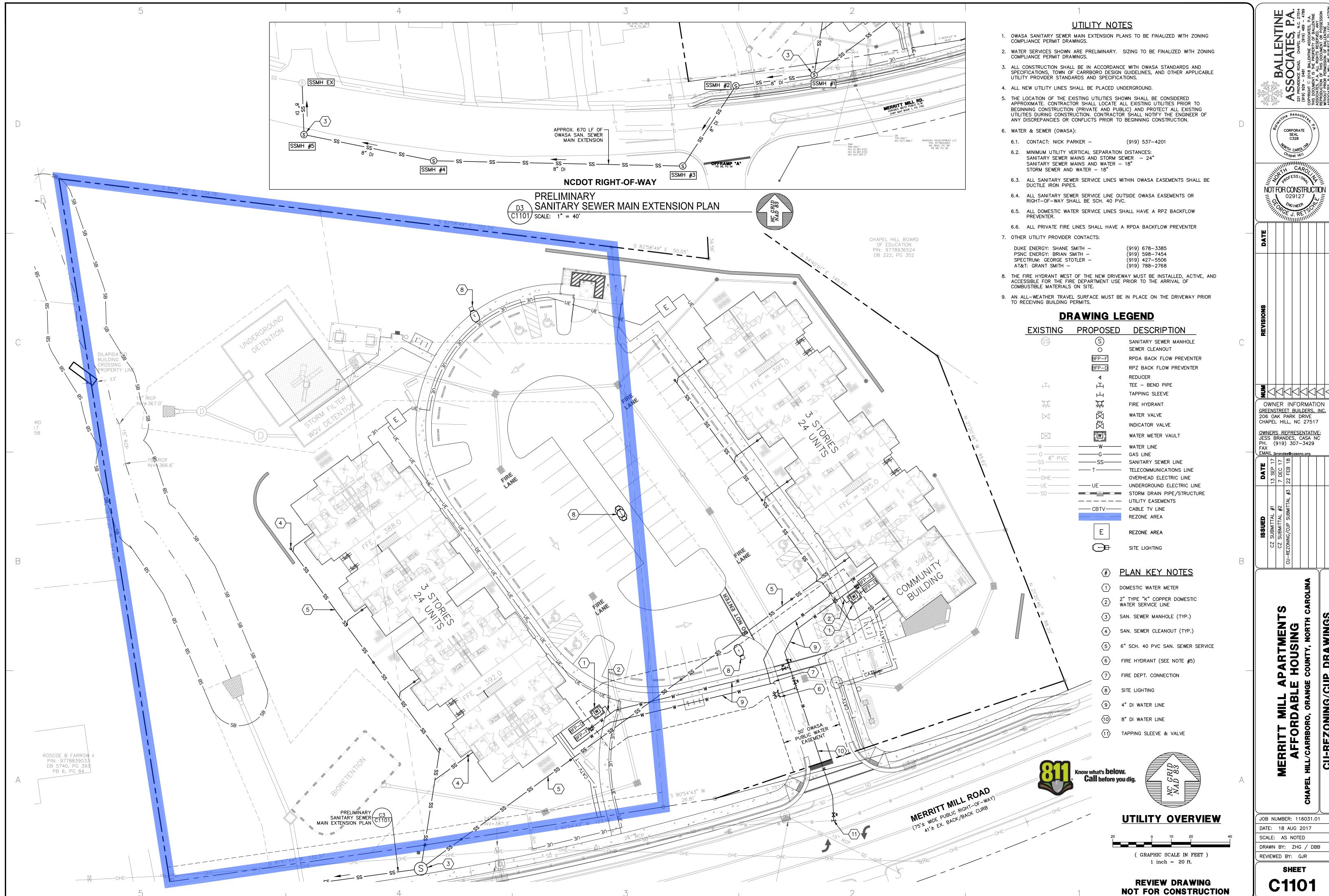
DATE: 18 AUG 2017

SCALE: AS NOTED

DRAWN BY: ZHG / DBB

REVIEWED BY: GJR

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NOT FOR CONSTRUCTION

NOT FOR CONSTRUCTION

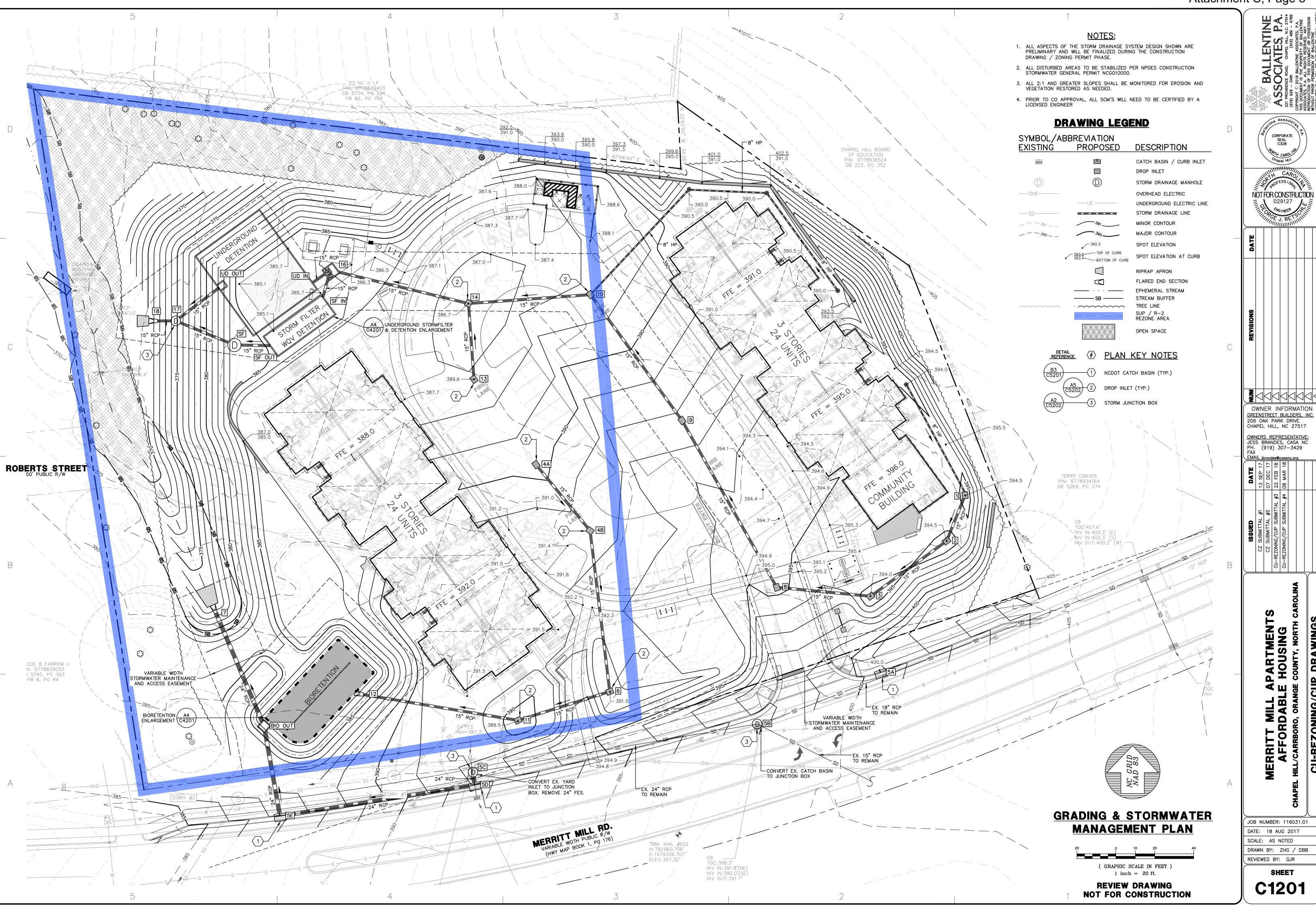
GREENSTREET BUILDERS, INC 206 OAK PARK DRIVE OWNERS REPRESENTATIVE
JESS BRANDES, CASA NO

PH. (919) 307-3429

IT. FOR

JOB NUMBER: 116031.01 DATE: 18 AUG 2017 SCALE: AS NOTED DRAWN BY: ZHG / DBB REVIEWED BY: GJR

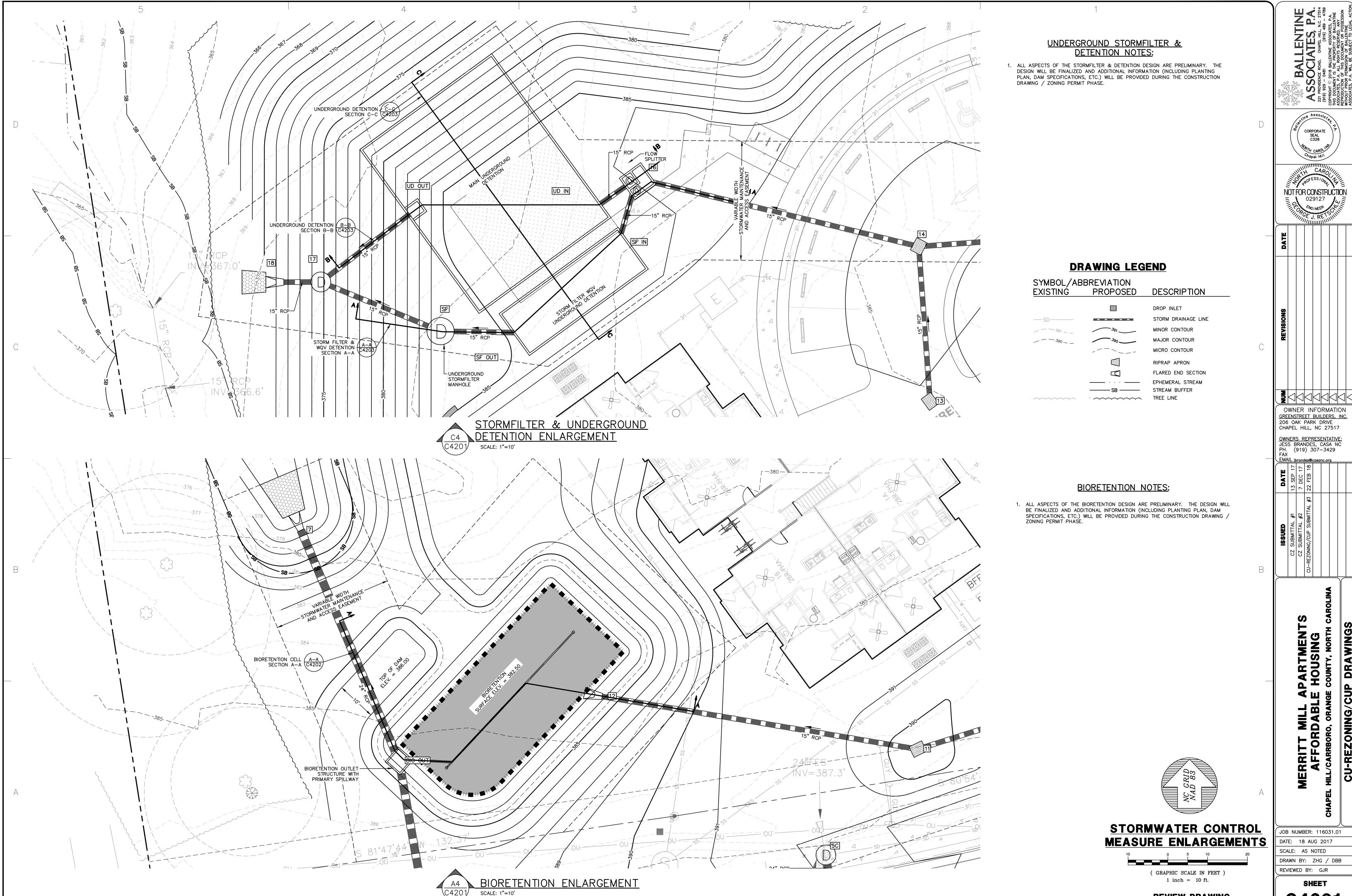
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NOT FOR CONSTRUCTION

OWNERS REPRESENTATIVE: JESS BRANDES, CASA NC PH. (919) 307-3429

JOB NUMBER: 116031.01



CORPORATE SEAL C328

NOT FOR CONSTRUCTION
029127

OWNER INFORMATION
GREENSTREET BUILDERS, INC.
206 OAK PARK DRIVE
CHAPEL HILL, NC 27517

OWNERS REPRESENTATIVE: JESS BRANDES, CASA NC PH. (919) 307-3429 EMAIL jbrandes@casanc.org

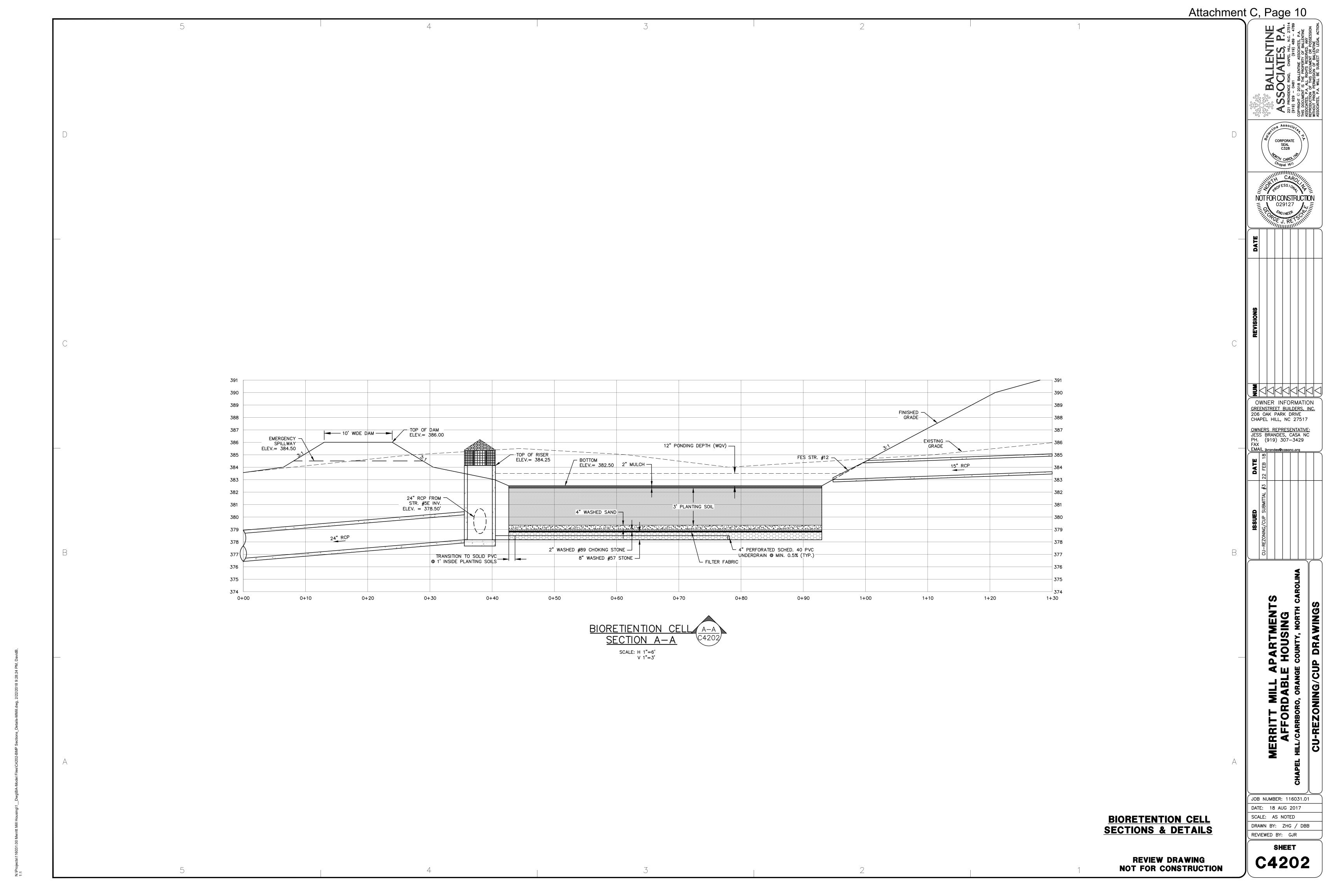
MERRITT MILL AFFORDABLE HILL/CARRBORO, ORANG

JOB NUMBER: 116031.01 DATE: 18 AUG 2017 SCALE: AS NOTED DRAWN BY: ZHG / DBB

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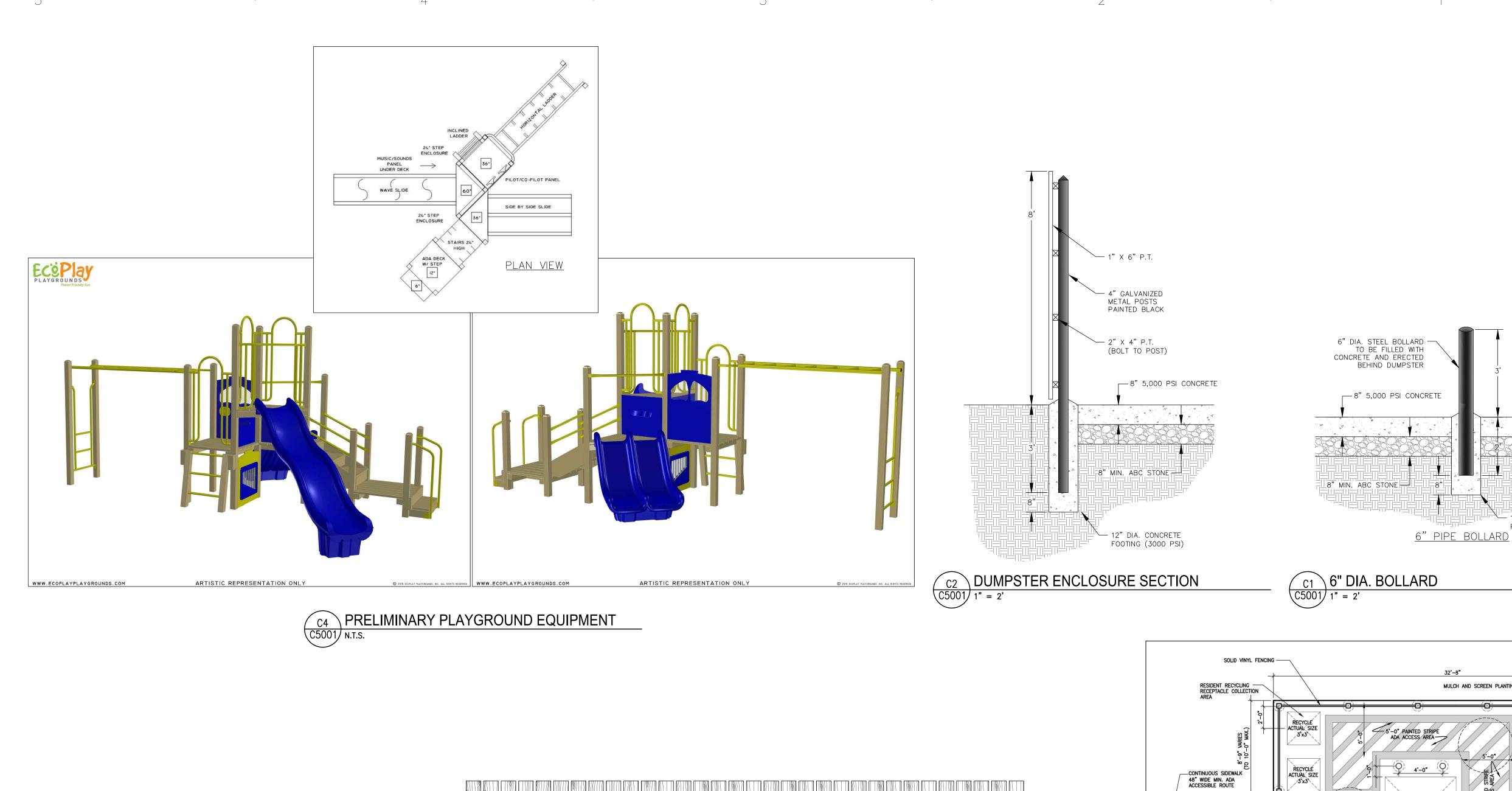
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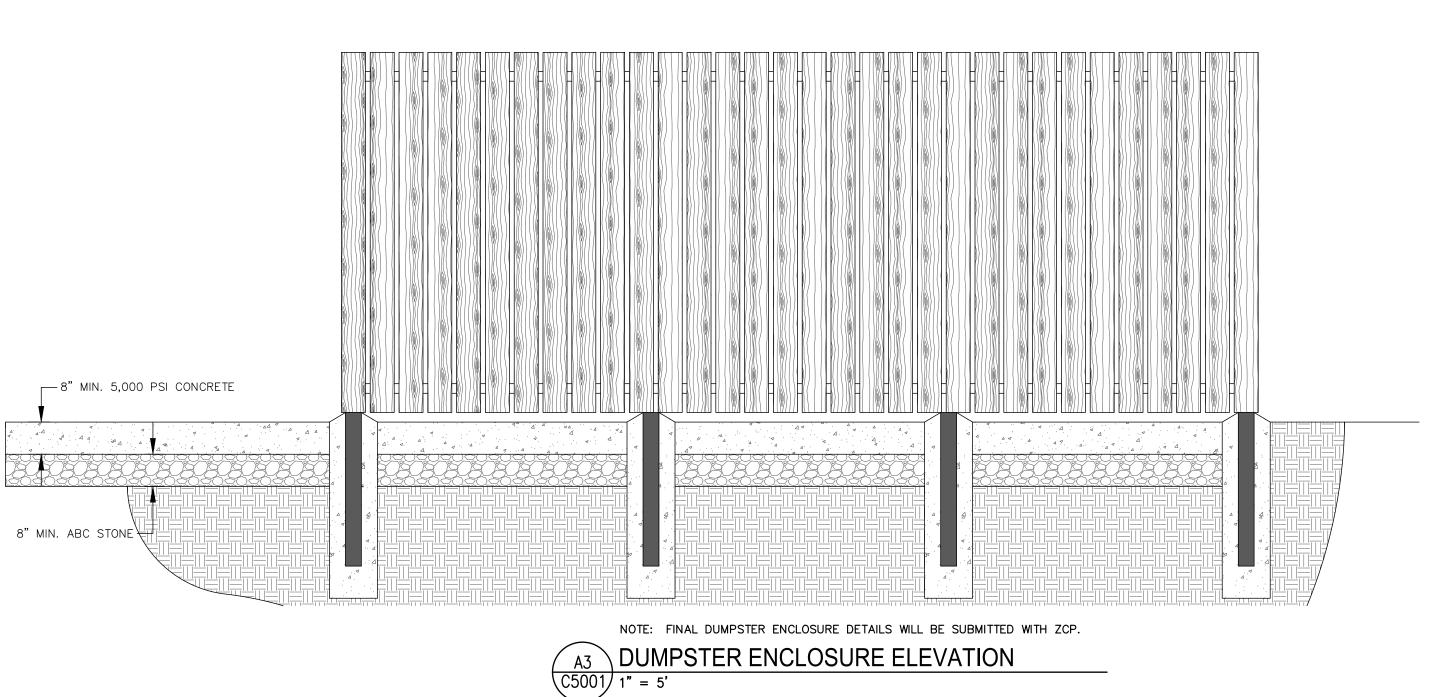
ADA ACCESS MAX. SLOPE 1:20

(2) SOLID VINYL—— GATES PER CITY REQ'D

'no parking' sign —

NOTES:





CORPORATE SEAL C328

NOT FOR CONSTRUCTION

029127

OWNER INFORMATION GREENSTREET BUILDERS, INC.

206 OAK PARK DRIVE

CHAPEL HILL, NC 27517

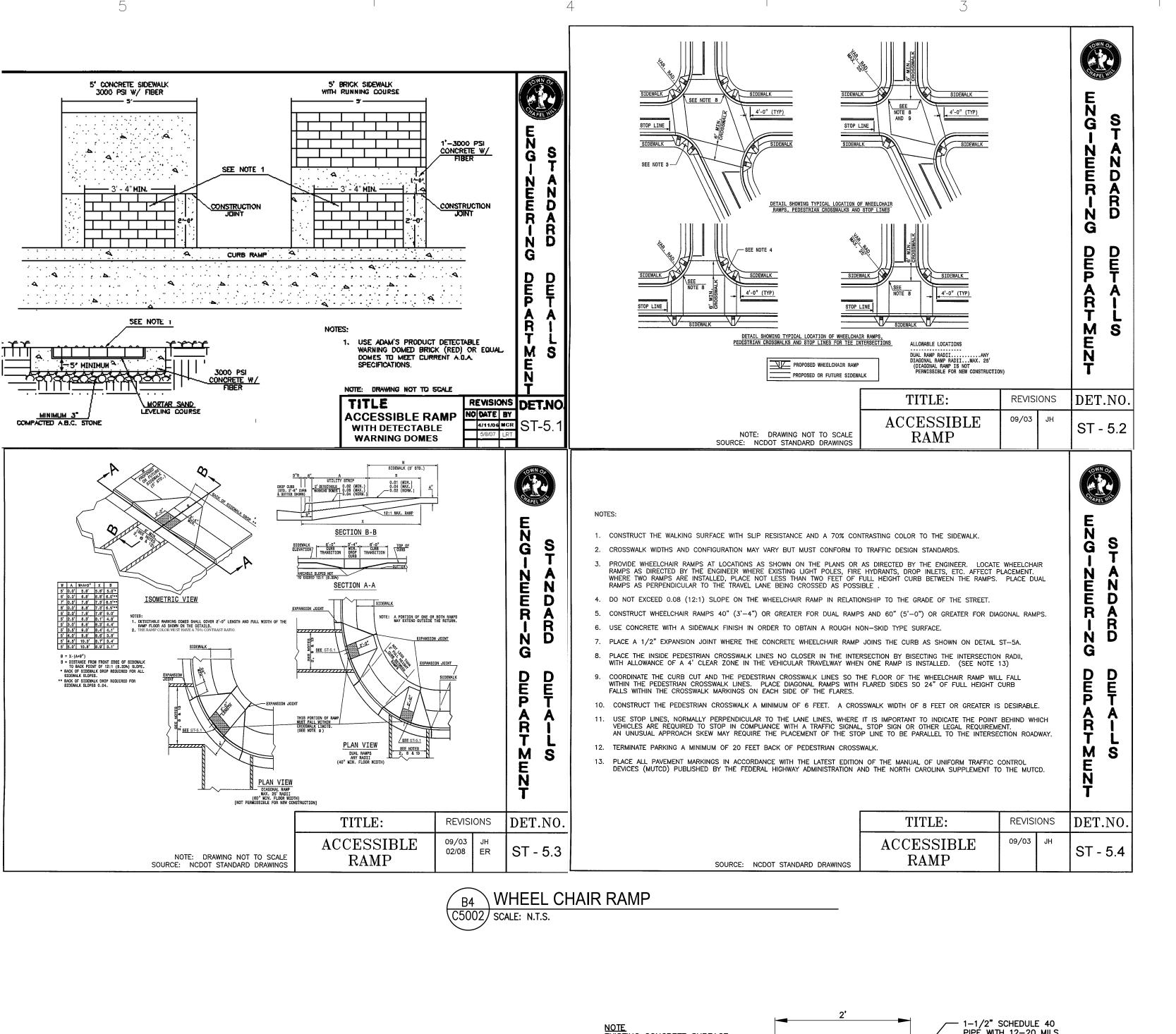
OWNERS REPRESENTATIVE: JESS BRANDES, CASA NC

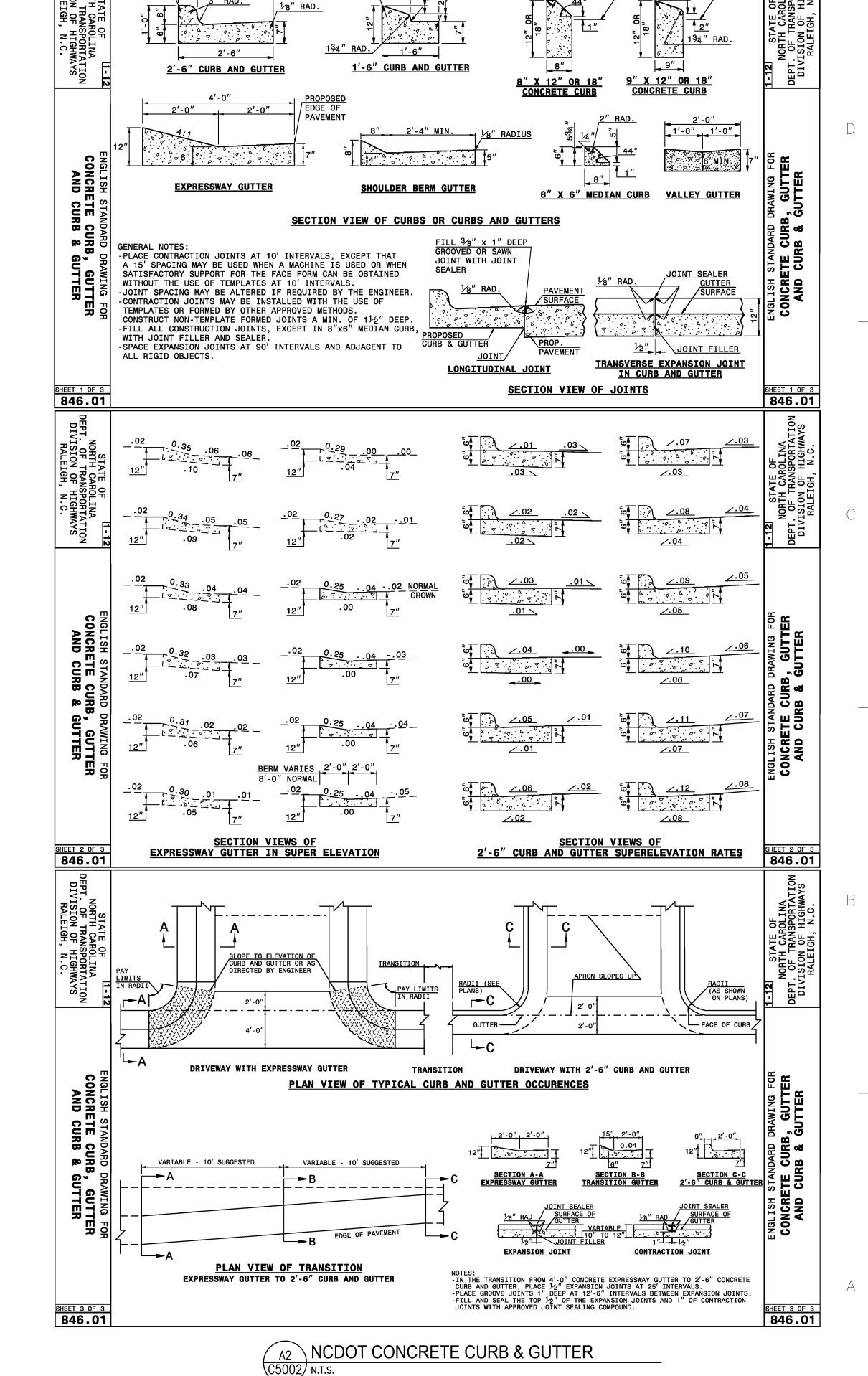
DRAWING

CU-REZONING/CUP

PH. (919) 307-3429

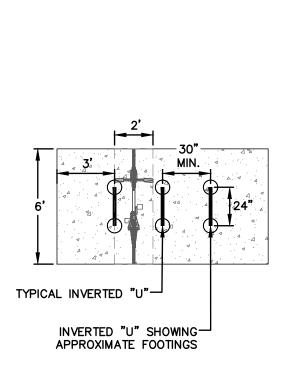
EMAIL jbrandes@casanc.org



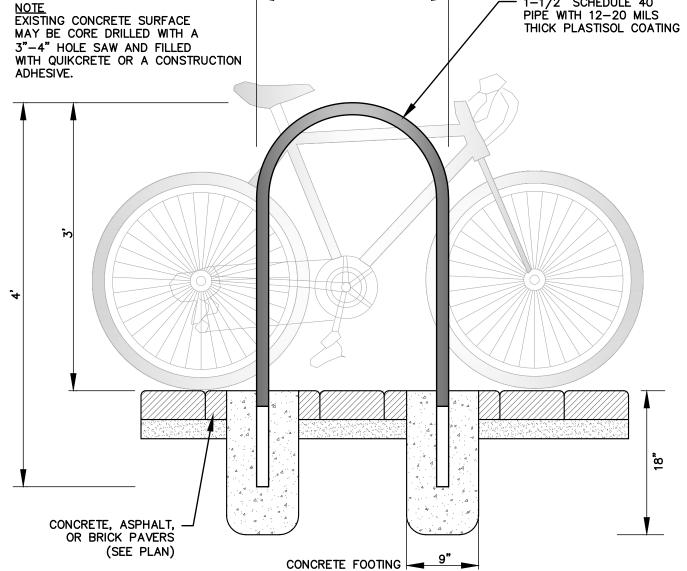


TYPICAL INVERTED "U" -EXTERIOR BUILDING WALL-

TYPICAL BREEZEWAY COVERED PLAN VIEW SCALE: 1" = 5



TYPICAL UNCOVERED <u>PLAN VIEW</u> SCALE: 1" = 5'



TYPICAL INVERTED "U" SCALE: NTS

BIKE RACK DETAILS C5002 SCALE: N.T.S.

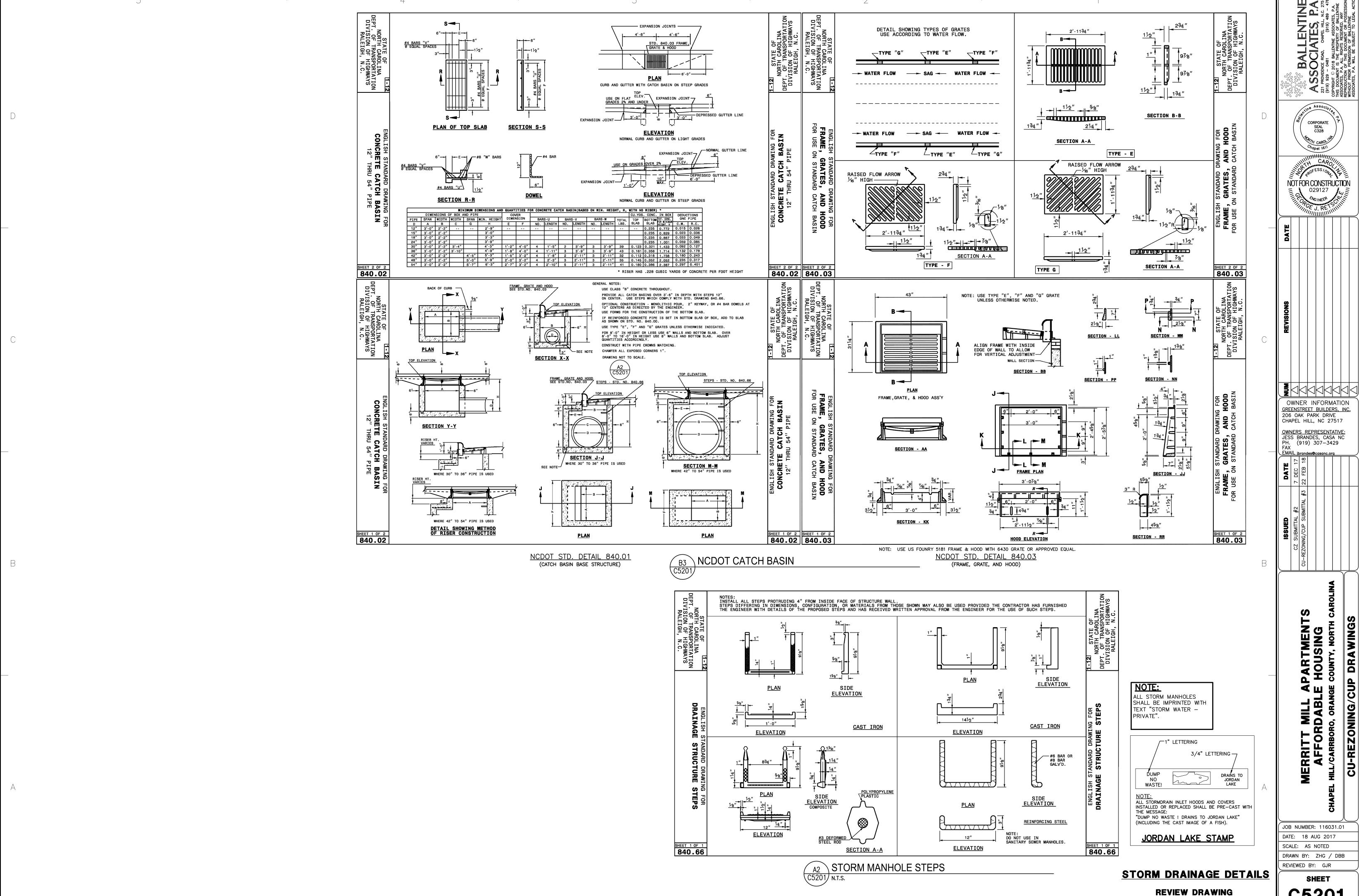
SITE DETAILS

REVIEW DRAWING NOT FOR CONSTRUCTION

DATE: 18 AUG 2017 SCALE: AS NOTED DRAWN BY: ZHG / DBB REVIEWED BY: GJR SHEET

JOB NUMBER: 116031.01

IERRITT MILL AFFORDABI

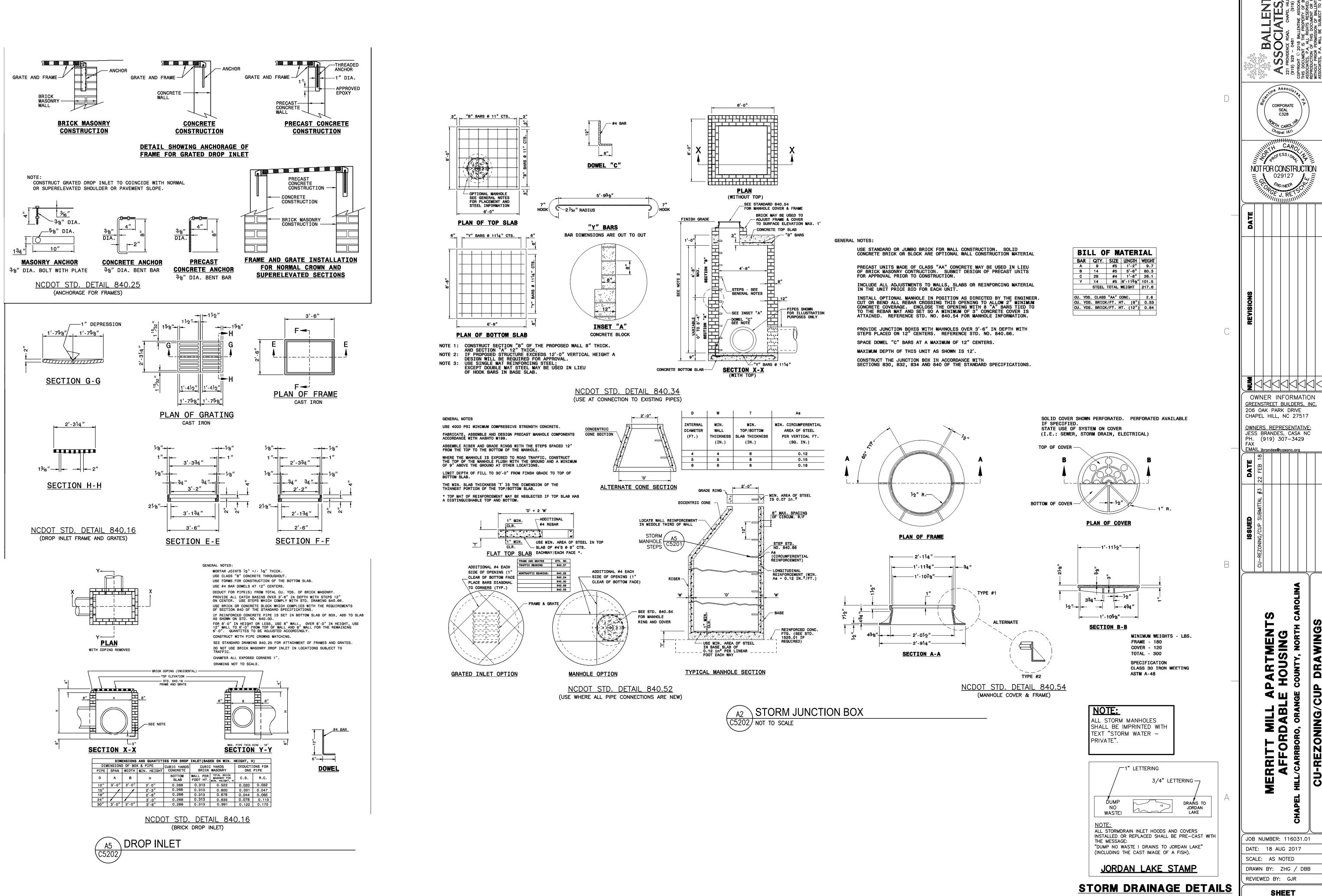


NOT FOR CONSTRUCTION

CORPORATE

SEAL C328

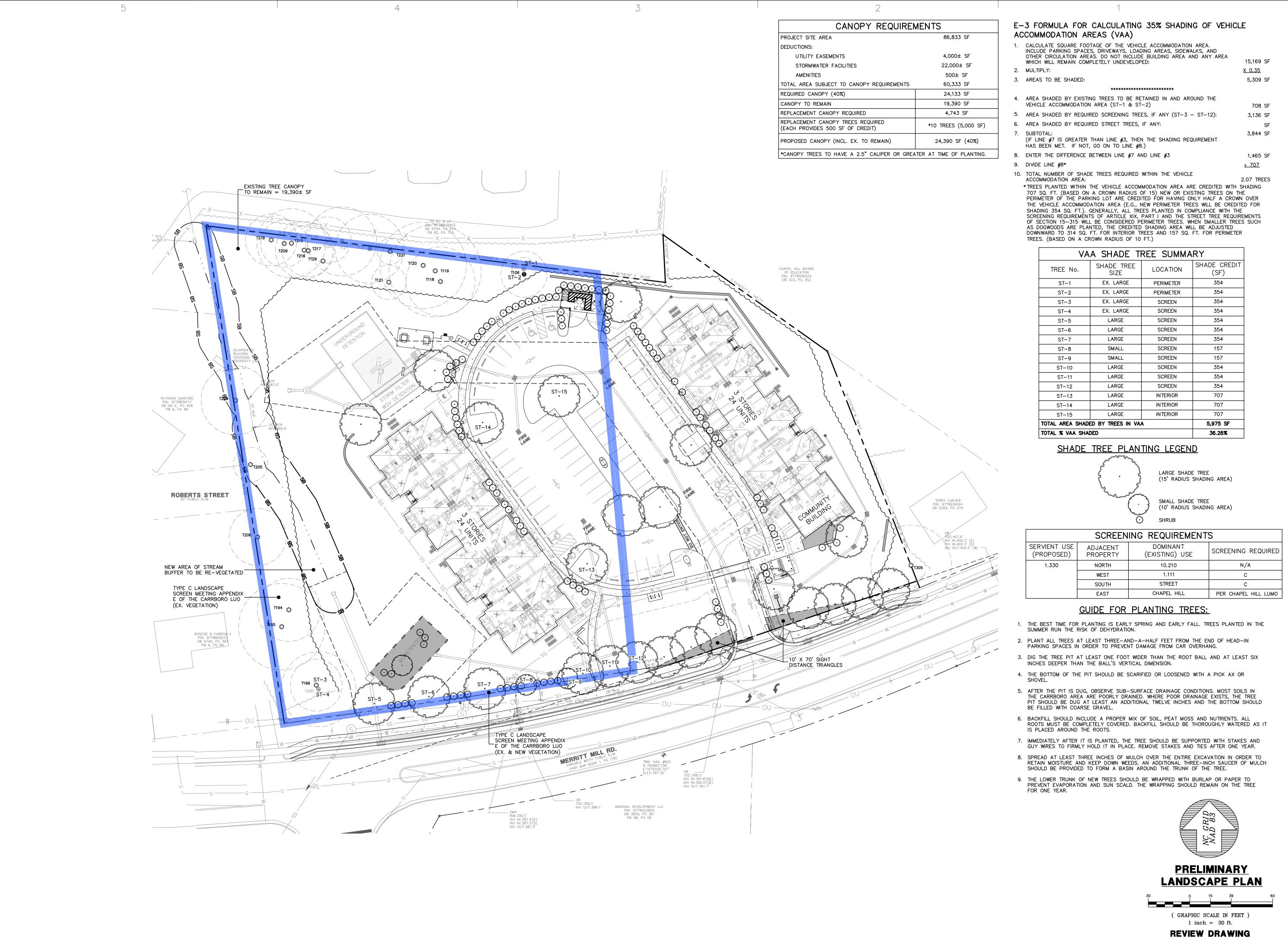
029127



SHEET

REVIEW DRAWING NOT FOR CONSTRUCTION C5202

IERRITT MILL AFFORDABLI



CORPORATE

NOT FOR CONSTRUCTION 029127

OWNER INFORMATION GREENSTREET BUILDERS, INC. 206 OAK PARK DRIVE CHAPEL HILL, NC 27517

OWNERS REPRESENTATIVE: JESS BRANDES, CASA NC

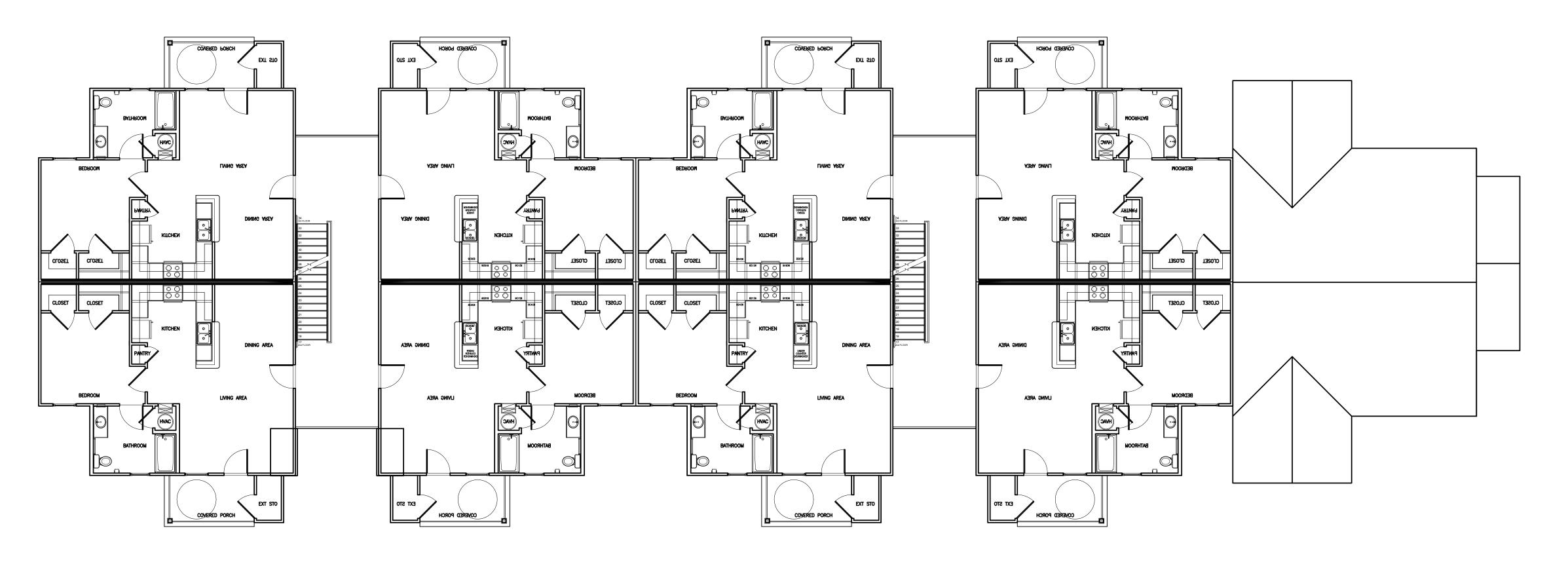
PH. (919) 307-3429 EMAIL jbrandes@casanc.org . | 2 | 2 | 2 | . .

REVIEW DRAWING **NOT FOR CONSTRUCTION** JOB NUMBER: 116031.01 DATE: 18 AUG 2017 SCALE: AS NOTED DRAWN BY: ZHG / DBB

RITT M

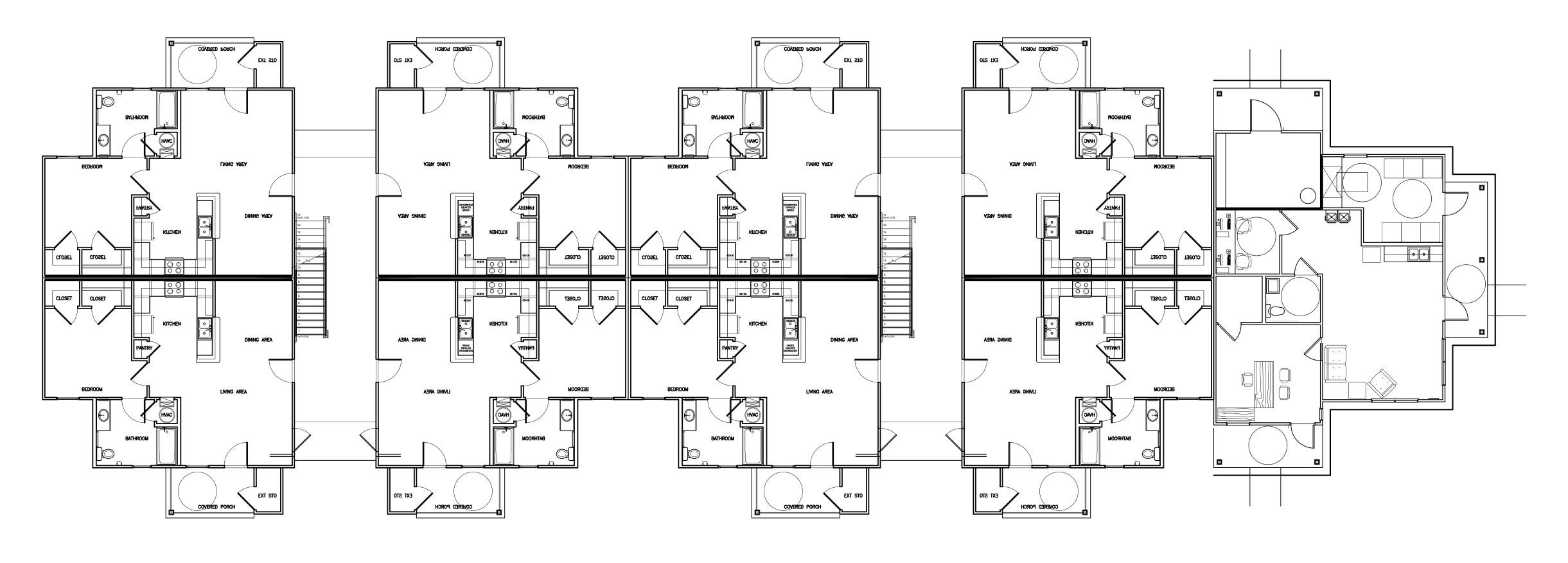
REVIEWED BY: GJR SHEET





Second Floor Plan

Scale: 1/8" = 1'-0"



First Floor Plan

Scale: 1/8" = 1'-0"

Merritt Mill

Chapel Hill/Carrboro, North Carolina

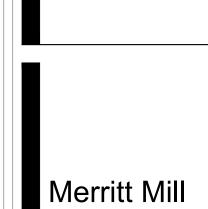
18-502.00

DATE: August 30, 2017
ISSUED FOR: Review

1BR Building

A 1.1.1





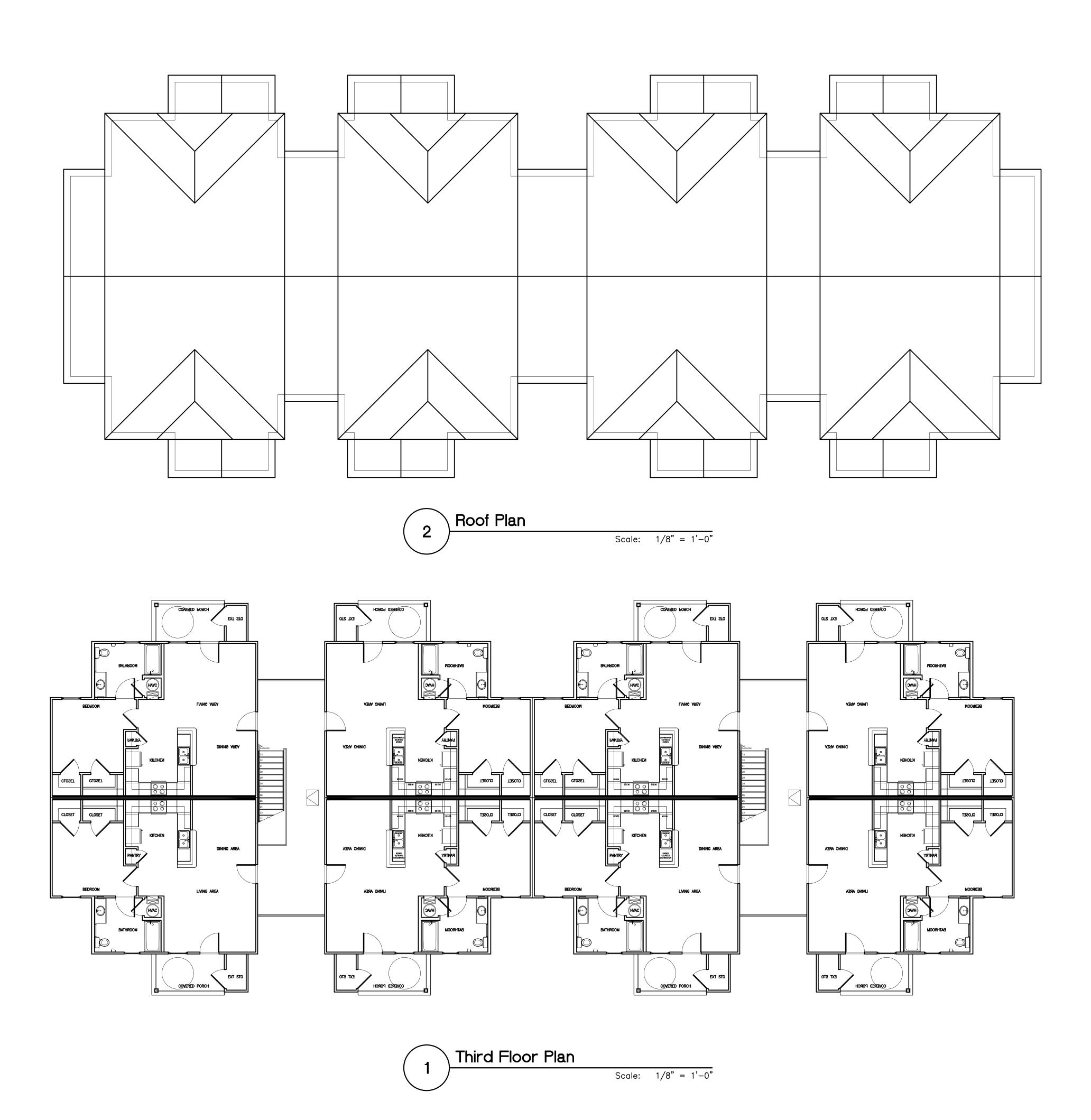
Chapel Hill/Carrboro, North Carolina

18-502.00

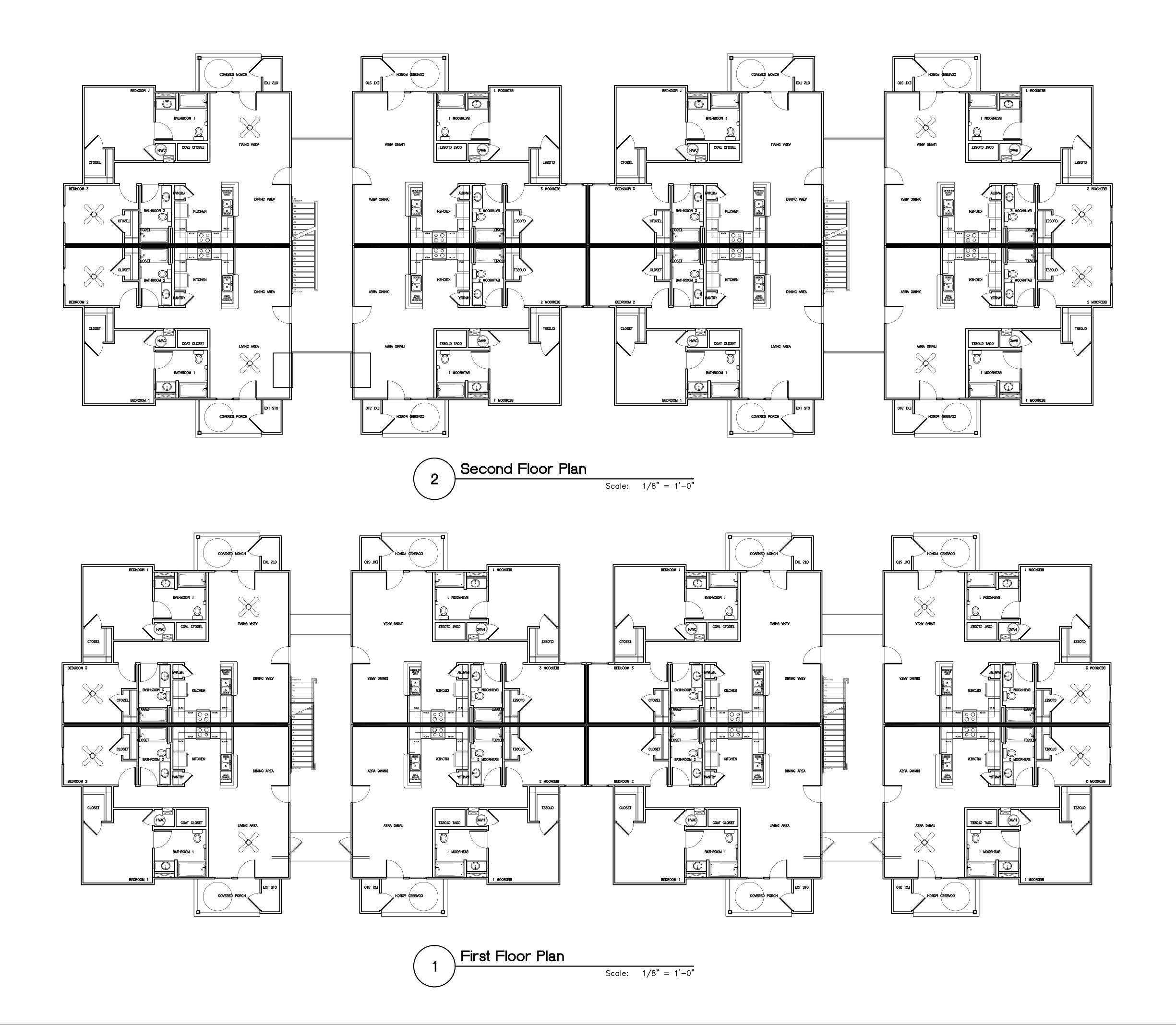
DATE: August 30, 2017
ISSUED FOR: Review

1BR Building

SHEET OF DRAWN BY:







Merritt Mill

Chapel Hill/Carrboro, North Carolina

18-502.00

DATE: August 30, 2017
ISSUED FOR: Review

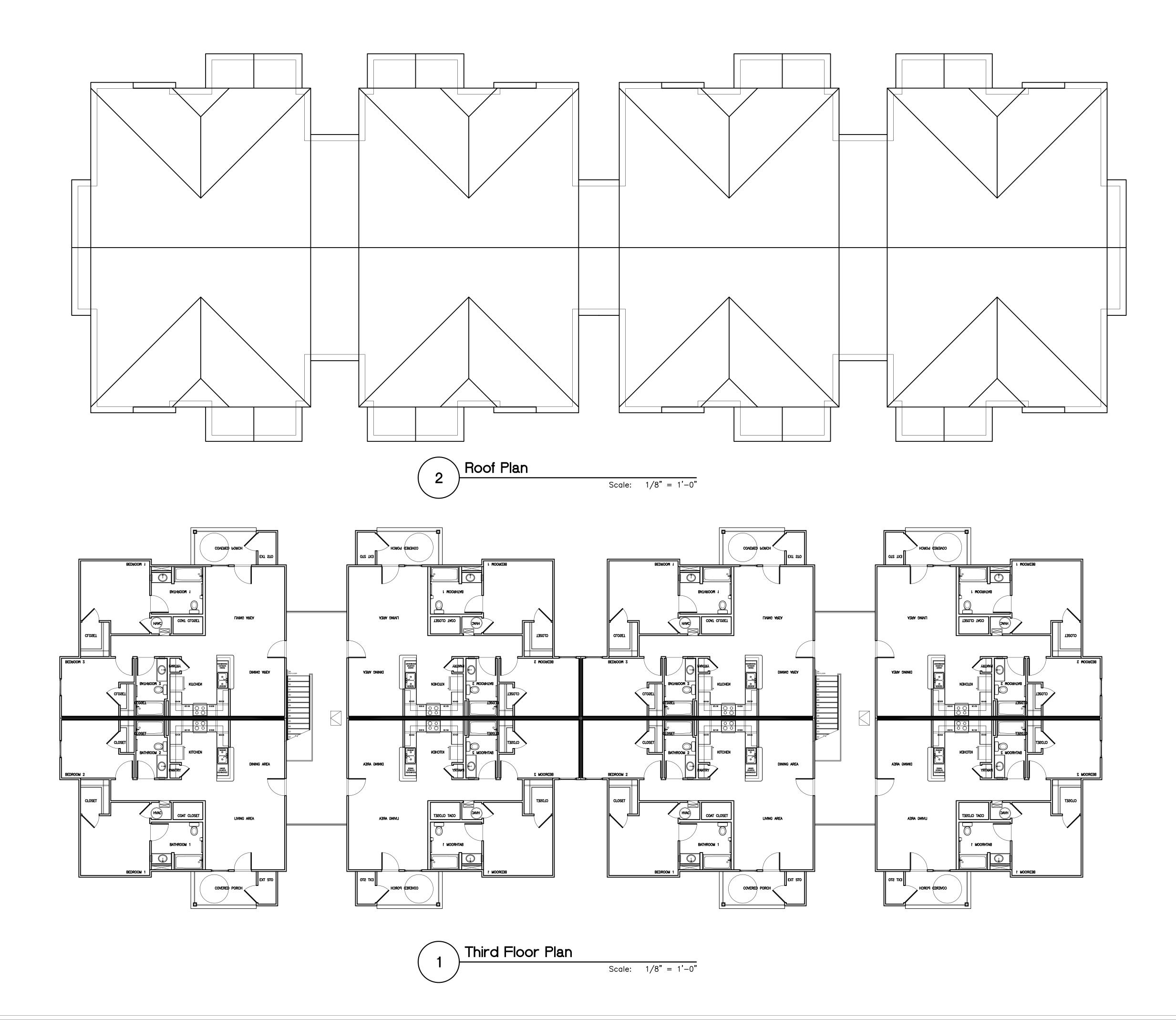
2 BR Building

A 1.2.1

SHEET OF DRAWN BY: TIB
TOTAL SHEETS IN SET: CHECKED BY: JMR

Fax: 919.875.9200





Merritt Mill

Chapel Hill/Carrboro, North Carolina

18-502.00

DATE: August 30, 2017 ISSUED FOR: Review

2BR Building

A 1.2.2

Fax: 919.875.9200

Exterior Elevations - 1 Bedroom Bldg - Office

A 3.1





Chapel Hill/Carrboro, North Carolina

***** 18-502.00

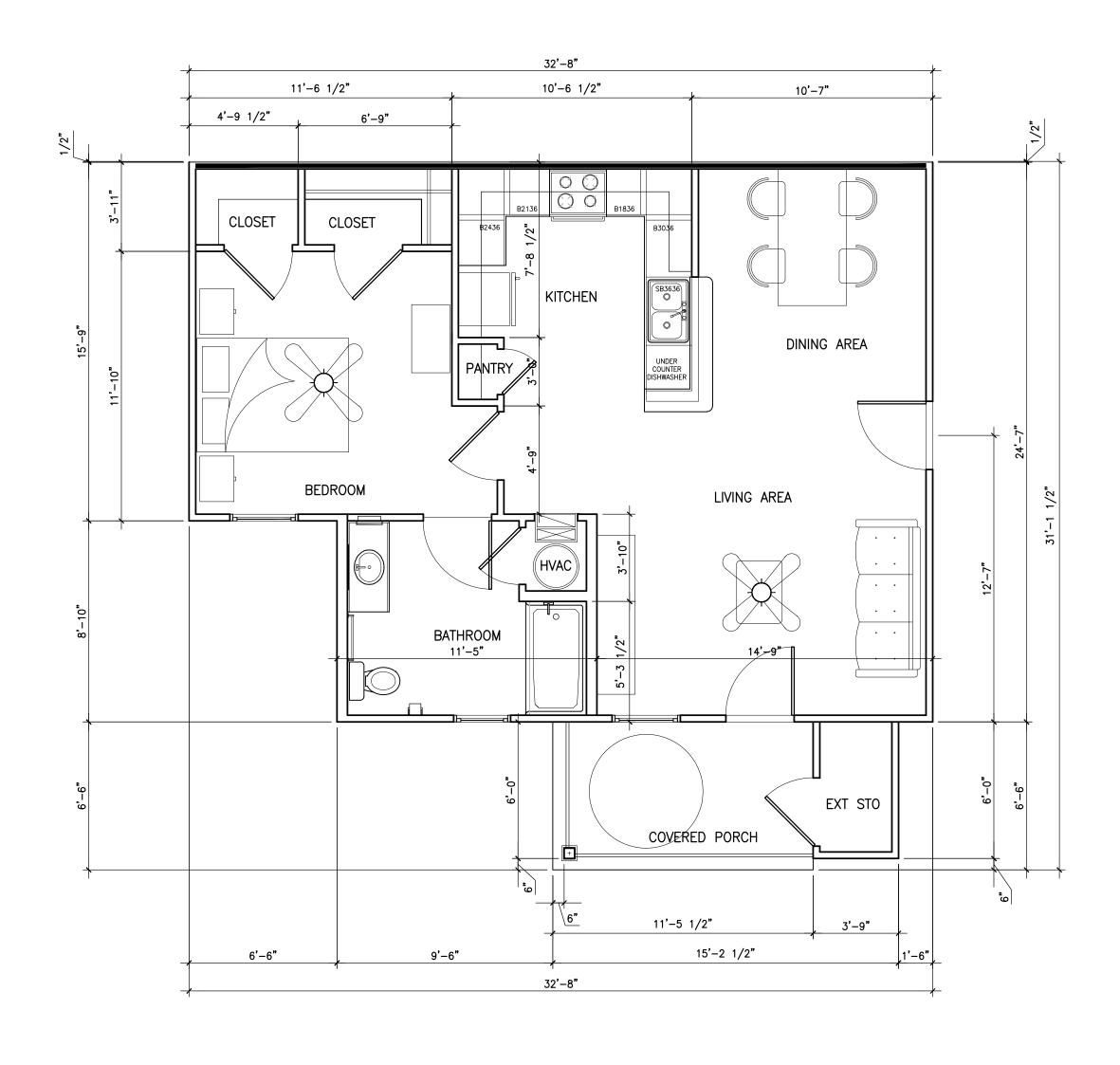
DATE: JANUARY 19, 2018
ISSUE FOR: NCHFA Application

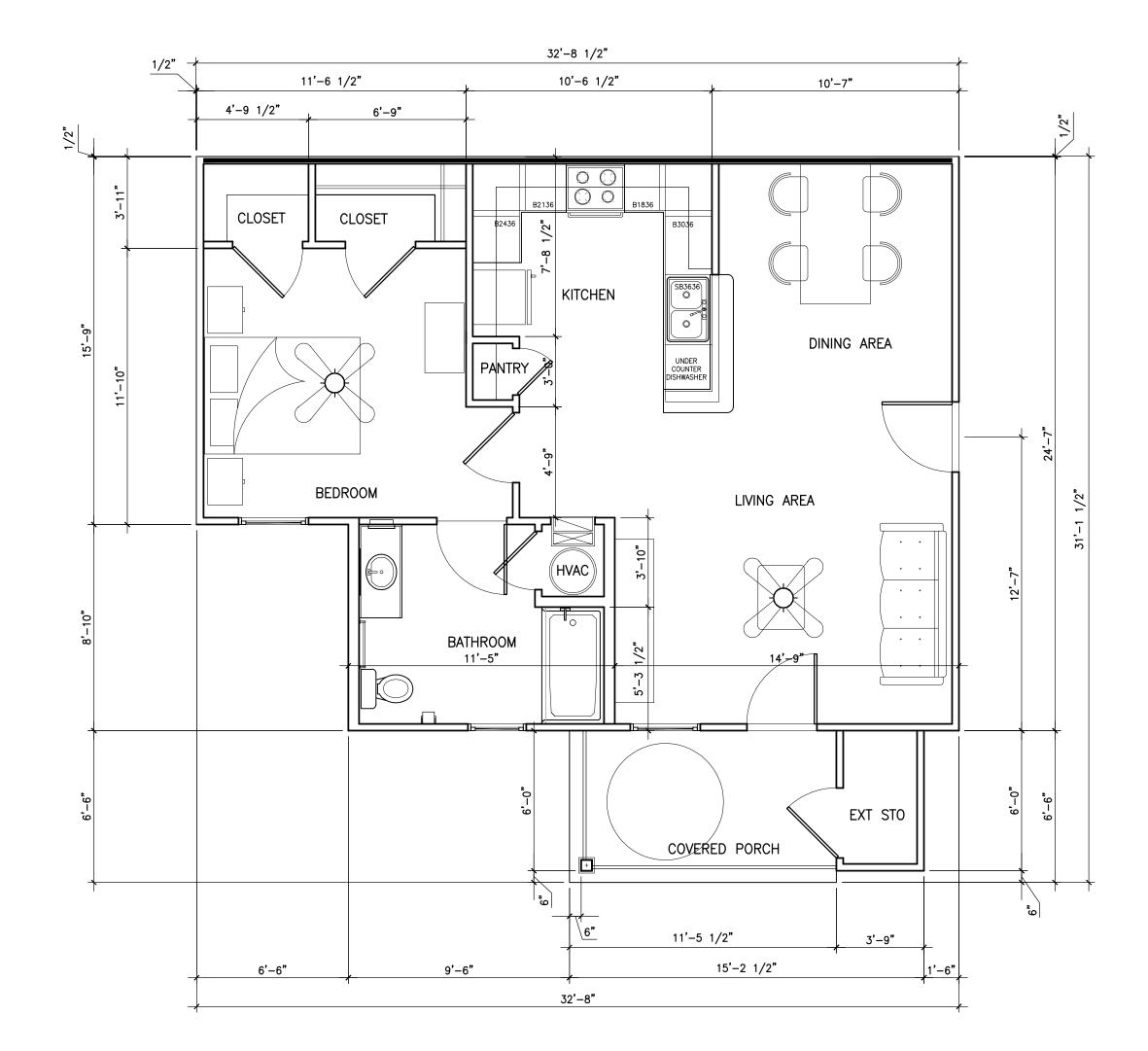
Exterior Elevations
- 2 Bedroom Bldg

A 3.2









1 Bedroom Unit- End unit

Scale: 1/4" = 1'-0"

1 Bedroom Unit- Mid unit

Scale: 1/4" = 1'-0"

Fax: 919.875.9200

Merritt Mill

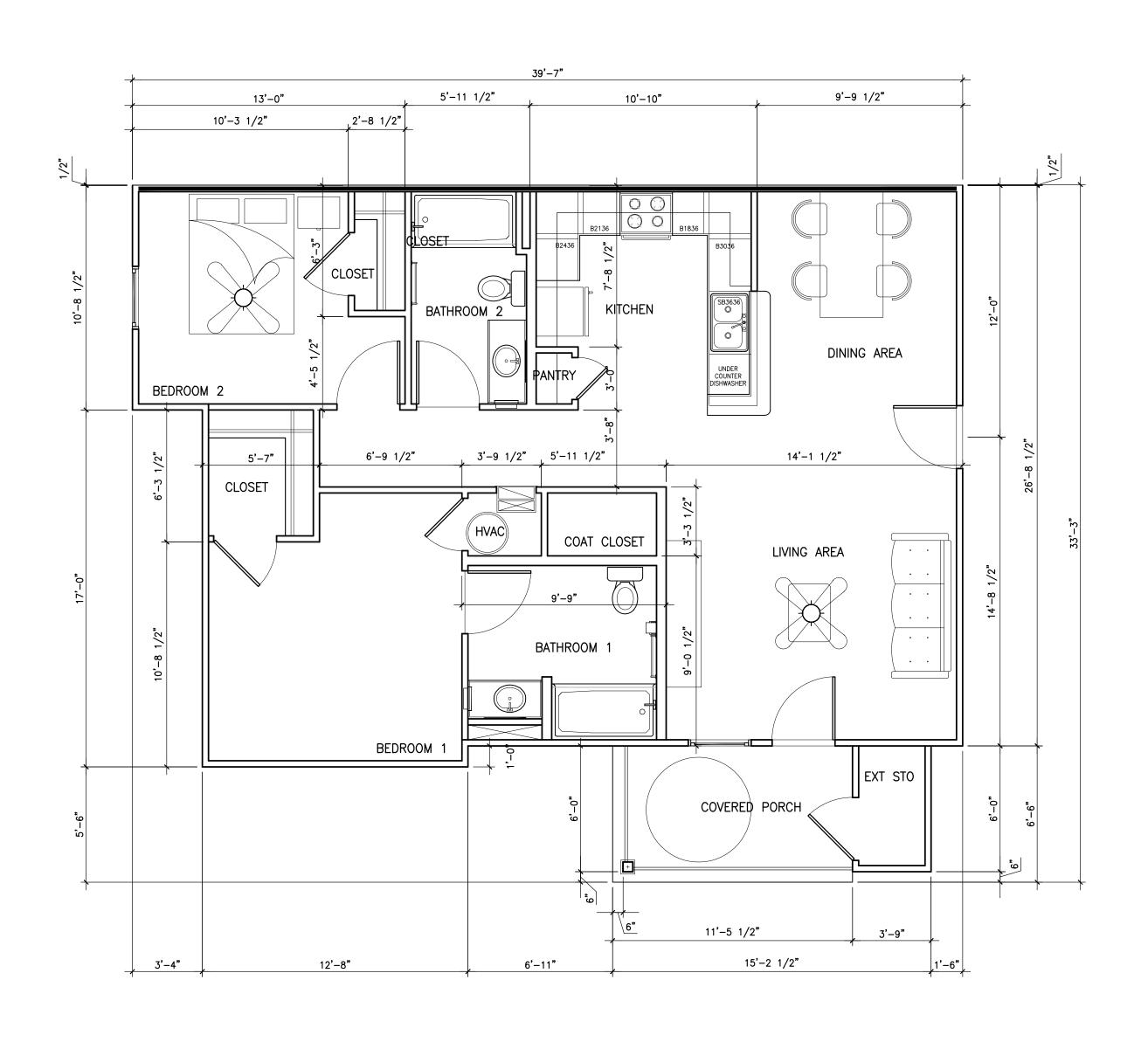
Chapel Hill/Carrboro, North Carolina

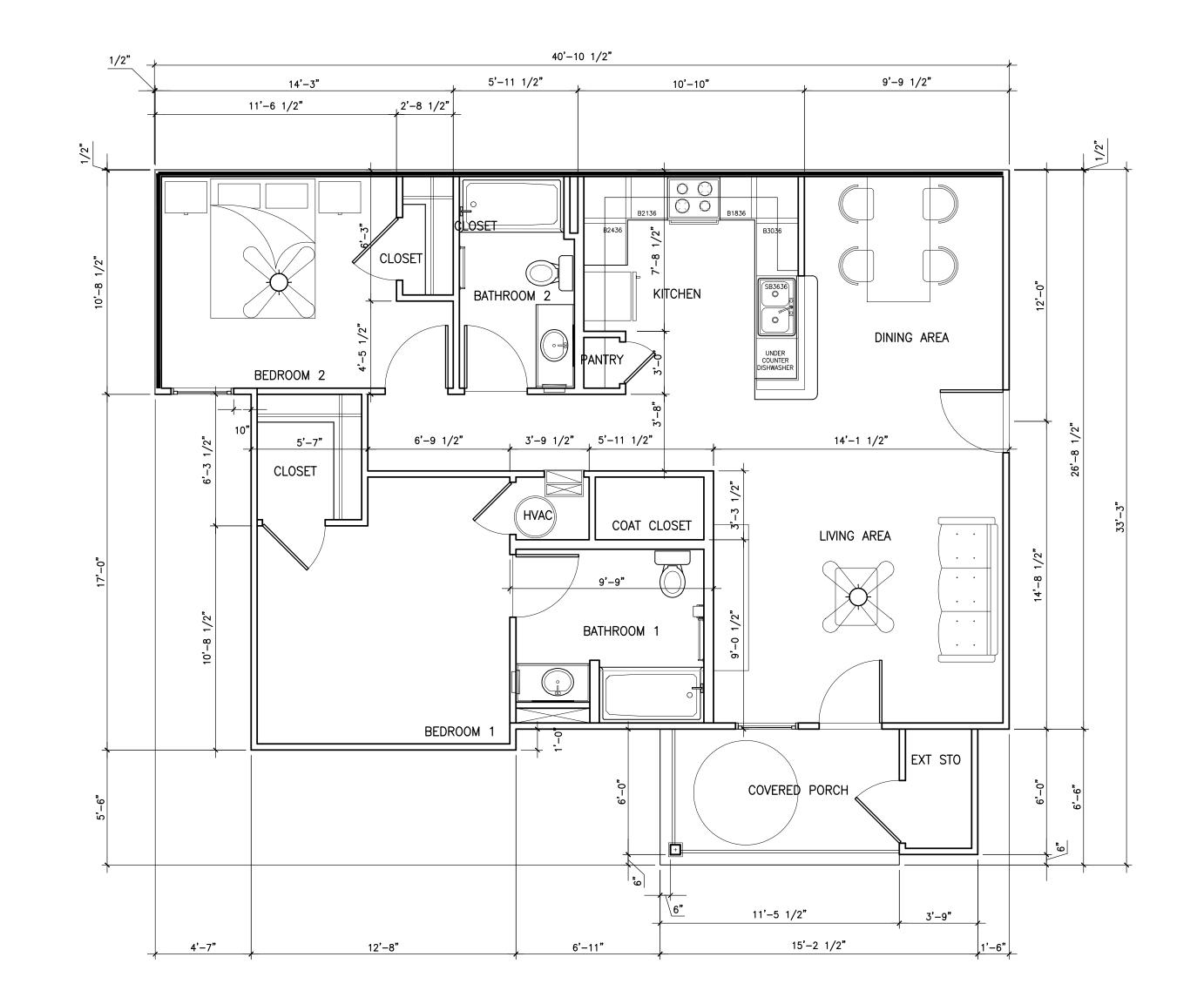
18-502.00

DATE: August 30, 2017 ISSUED FOR: Review

One Bedroom Unit







2 Bedroom Unit- End unit

Scale: 1/4" = 1'-0"

2 Bedroom Unit- Mid unit

Scale: 1/4" = 1'-0"

DATE: August 30, 2017
ISSUED FOR: Review

Merritt Mill

Chapel Hill/Carrboro, North Carolina

18-502.00

Two Bedroom Unit

A 4.2

SHEET OF DRAWN BY: TIB TOTAL SHEETS IN SET: CHECKED BY: JMR

TOWN OF CARRBORO

NEIGHBORHOOD MEETING FORM



TO THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO:

Due to proposed land disturbing activity to take place on property
LOCATED AT:
802 + 806 S. Menitt Mill Road
TO BE CALLED Merrith Mill Apartments
AND TAX MAP REFERENCED AS PINS 9778931183 + 9778930153
I, JESS Brandes, REPRESENTING CASA,
SUBMIT THIS NEIGHBORHOOD MEETING FORM TO ACKNOWLEDGE THAT: [PLEASE CHECK THE APPROPRIATE BOX BELOW.]
A MEETING WAS HELD WITH THE MEMBERS OF THE NEIGHBORHOOD ON THE GARAGE
Residents (including Property Owners and Renters), up to 1000 feet of the property, were notified of the neighborhood meeting.
A meeting was not held with the members of the neighborhood.
THIS NEIGHBORHOOD MEETING FORM IS RESPECTFULLY SUBMITTED TO THE TOWN STAFF ON THIS
By affixing my signature, I attest to the accuracy of the submitted information.
gessica Brandes Signature

			Your There	Jan Kaola	Lay Four let	M6655-11-4	Cettis (01/1) Jans	Jacke He	Name	
				ween store st	CH Pleasseine	WEGEST ! KINTE " POR JAMES ST CALLODE)))) Jan 5	Jackie Helivey III Roberts St.	Address	Car
					-	ST PAIGH		-	Email	Carrboro Neighborhood Meeting Sign-In
			Luckianatorp@yahoo.com	100,527@jvvo.com	sandstein Strangeloud			jackino@carrboro.com	aii	Meeting Sign-In
			CM	en	portstemotoppolopplillar, 919 969-5063	- (919)619-0621		com 919-933-931	Phone	

Page **1** of **2**

SUMMARY SHEET OF STAFF AND ADVISORY BOARD RECOMMENDATIONS CONDITIONAL USE PERMIT FOR

Multi-family Apartment Complex at 802 & 806 Merritt Mill Road

STAFF	RECOMMENDATIONS
Staff Recommendations (w/ Advisory Board support where applicable):	Explanation: Staff recommendations, primarily related to LUO compliance, are represented by #s 1 thru 5 below. If an advisory board voted to 'support' the staff recommendation, then such board is listed after staff in the left-hand column.
Recommended by	Recommendations
Staff, PB, TAB, EAB, AHAC (*AC did not have a quorum for their review meeting.)	1. That the applicant shall provide to the Zoning Division, prior to the recordation of the final plat for the project or before the release of a bond if some features are not yet in place at the time of the recording of the final plat, Mylar and digital as-builts for the stormwater features of the project. Digital as-builts shall be in DXF format and shall include a base map of the whole project and all separate plan sheets. As-built DXF files shall include all layers or tables containing storm drainage features. Storm drainage features will be clearly delineated in a data table. The data will be tied to horizontal controls.
Staff, PB, TAB, EAB, AHAC	2. That the developer shall include a detailed stormwater system maintenance plan, specifying responsible entity and schedule. The plan shall include scheduled maintenance activities for each stormwater BMP in the development, performance evaluation protocol, and frequency of self-reporting requirements (including a proposed self-reporting form) on maintenance and performance. The plan and supporting documentation shall be submitted to Town Engineer and Environmental Planner for approval prior to construction plan approval.

Staff, PB, TAB, EAB, AHAC	3.	That prior to construction plan approval, the applicant receive a driveway permit from NCDOT in accordance with any conditions imposed by such agency including but not limited to encroachment/maintenance agreement for installation of necessary infrastructures.
Staff, PB, TAB, EAB, AHAC	4.	That prior to the public hearing for the project, the applicant shall seek final approval of the stormwater related provisions of the project. If this is not completed, then a modified version of this condition may be attached to the CUP requiring an additional public hearing for consideration of any substantive changes to the site design, if any are necessary to meet all applicable stormwater related provisions of the LUO.
Staff, PB, TAB, EAB, AHAC	5.	That deed restrictions must be placed on the property restricting use of the land to only affordable housing, in accordance with LUO Section 15-182.4, for a period of 99 years.

ADVISORY BOARD COMMENTS / RECOMMENDATIONS				
Additional Advisory Board Comments & Recommendations:	Explanation: Comments and recommendations solely from advisory boards follow. If a comment involves LUO interpretation, then the applicable LUO section(s) are noted parenthetically. Otherwise, the Board may wish to consider comments in the context of public health, safety, or welfare findings. Staff generally does not endorse nor refute comments from advisory boards.			
Recommended by	Recommendations			
Environmental Advisory Board	 Running conduit that can serve any spot in the parking lot for future installation of Level 2 electric vehicle charging stations. Investigating the possibility of laying conduit for connection to the public fiber-optic backbone. Using the species of specimen and rare trees that are removed when creating the landscape plan to maintain diversity and use well adapted species on the site. The EAB finds that the design of the bio-retention area and the ephemeral stream and buffer shown is acceptable. 			
Transportation Advisory Board	 Recommend the developer to coordinate with the bike share program which serves UNC to determine if locating a station nearby would be beneficial. Concerns as to the effects of this development on traffic accessing S. Greensboro Street from NC 54 via Merritt Mill Road. 			
Planning Board	 In order to make useable play space for older children, the fairly level area to the west of the buildings be extended to the north and west towards the playground and that the retaining wall be moved further west. To improve safety and security, and allow for better observation of children in the playground, the clubhouse and gazebo be relocated to the north end of the buildings (and the dumpster moved to the south end). 			
Appearance Commission	No quorum.			
Affordable Housing Advisory Commission	No comments			



Merritt Mill Apartments Traffic Impact Information

Chapel Hill, NC 27514 919/929-0481 Chapel Hill

Eastowne Office Park

919/929-0481 Chapel Hill 919/489-4789 Durham 919/489-2803 Fax

Merritt Mill Apartments is an affordable housing project to be constructed at 800, 802 & 806 South Merritt Mill Road. The site is located on the northern side of Merritt Mill Road, approximately 900 feet west of the existing Lincoln Center. The project will include construction of two 3-story apartment buildings with a total of 48 dwelling units. One building will house 24 one-bedroom units, while the other will have 24 two-bedroom units.

Daily trip generation as result of the project is anticipated as follows based on data found in the Institute of Transportation Engineers (ITE) manual under Land Use 220 – Apartment, and on information provided by CASA with respect to similar affordable housing development projects.

<u>Table 1.1 Average Daily Trip Generation Per Vehicle – Apartment (220)</u>

Avg. trip rate per vehicle	Units	Vehicles	Peak avg. daily trips
5.10	48	*38	194

^{*}A parking demand analysis for a CASA affordable housing project in Durham concluded daily demand to be 0.8 vehicles per 1.5 bedroom unit, which is the same bedroom/unit ratio as Merritt Mill Apartments.

It should also be noted that with affordable housing, less vehicular ownership and travel are anticipated when compared to typical apartment developments. Furthermore, this project is close to downtown Chapel Hill, Carrboro and UNC hospitals ... and there are public transit facilities nearby, meaning that many trips to and from the site will likely be by foot, bicycle, and/or public transit, there the above data is conservative.

Merritt Mill Affordable Housing Carrboro CU Change of Zoning / CUP Submittal 13 Sep 2017 (Revised 22 Feb 2018)

Tree Removal Justification Statement

CASA is developing an affordable multi-family project of 48 apartments on a wooded site that is bisected by the Carrboro and Chapel Hill town line. The existing site is located on the north side of Merritt Mill Road and includes 4 vacant parcels totaling approximately 3.06 acres. The development will consist of 2 buildings, each containing 24 units. On the Carrboro parcel, the site will include 1 of the buildings of approximately 25,000 square feet, and consisting of 24 two-bedroom units.

The site will also include a playground, picnic area and a club house with a community room and courtyard. Vehicular access is provided to the entire site through one driveway accessed off of Merritt Mill Road.

To meet Town stormwater requirements, an underground detention and stormfilter system, and a surface bioretention will be constructed on the Carrboro parcel. An ADA accessible dumpster enclosure for trash and recycling will be located at the rear of the parking area.

Design efforts have been made to create a compact site and limit development impacts, while the construction of the affordable units and associated amenities will create the need to remove existing trees. There are currently 60 rare trees and 51 specimen trees located on the Carrboro side of the site. The preliminary design calls for 18 of the rare trees and 5 specimens to be preserved along the western and northern project boundaries.

Our justification for removing existing trees are as follows:

- The development provides much needed affordable housing for the community.
- Provides compact density close to Town with ample bicycle and pedestrian connectivity.
- Provides stormwater treatment to meet the Town's requirements.
- New trees will be planted.

Attachment H, Page 1

TOWN OF CARRBORO



CONDITIONAL OR SPECIAL USE PERMIT WORKSHEET

COMPLETENESS OF APPLICATION The application is complete The application is incomplete
COMPLIANCE WITH THE ORDINANCE REQUIREMENTS
☐ The application complies with all applicable requirements of the Land Use Ordinance
The application is not in compliance with all applicable requirements of the Land Use Ordinance for the following reasons:
CONSIDERATION OF PROPOSED CONDITIONS
(*Note: Please clarify for staff, where applicable, whether any discussion points are to be included as Permit Conditions. Informal agreements or understandings are not necessarily binding.*)
If the application is granted, the permit shall be issued subject to the following conditions:

specific written approval obtained as provided in Section 15-64 of the Land Use Ordinance.

1. The applicant shall complete the development strictly in accordance with the plans submitted to and approved by this Board, a copy of which is filed in the Carrboro Town Hall. Any deviations from or changes in these plans must be submitted to the Development Review Administrator in writing and

2. If any of the conditions affixed hereto or any part thereof shall be held invalid or void, then this permit shall be void and of no effect.

V.	GRANTING THE APPLICATION ☐ The application is granted, subject to the conditions agreed upon under Section III of this worksheet.
•	 DENYING THE APPLICATION The application is denied because it is incomplete for the reasons set forth above in Section 1. The application is denied because it fails to comply with the Ordinance requirements set forth above in Section II. The application is denied because, if completed as proposed, the development more probably than not: Will materially endanger the public health or safety for the following
	2. Will substantially injure the value of adjoining or abutting property for the following reasons:
	3. Will not be in harmony with the area in which it is to be located for the following reasons:
	4. Will not be in general conformity with the Land Use Plan, Thoroughfare Plan, or other plans officially adopted by the Board of Aldermen for the following reasons:

AN ORDINANCE AMENDING THE CARRBORO ZONING MAP TO REZONE APPROXIMATELY 1.99 ACRES OF PROPERTY KNOWN AS 802 AND 806 SOUTH MERRITT MILL ROAD FROM R-7.5 (RESIDENTIAL, 7,500 SQUARE FEET PER DWELLING UNIT) TO R-2-CU (RESIDENTIAL, 2,000 SQUARE FEET PER DWELLING UNIT, CONDITIONAL USE)

Draft March 21, 2018

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

SECTION 1. The Official Zoning Map of the Town of Carrboro is hereby amended as follows:

That property being described on Orange County Tax Maps as:

Chapel Hill Township, 802 and 806 South Merritt Mill Road (PIN 9778-93-1183 and 9778-93-0153), encompassing approximately 1.99 acres as shown on the accompanying map titled, "Proposed R-2CU Rezoning CASA" is hereby rezoned from R-7.5 (Residential, 7,500 Square Feet per Dwelling Unit) to R-2-CU (Residential, 2,000 Square Feet per Dwelling Unit, Conditional Use).

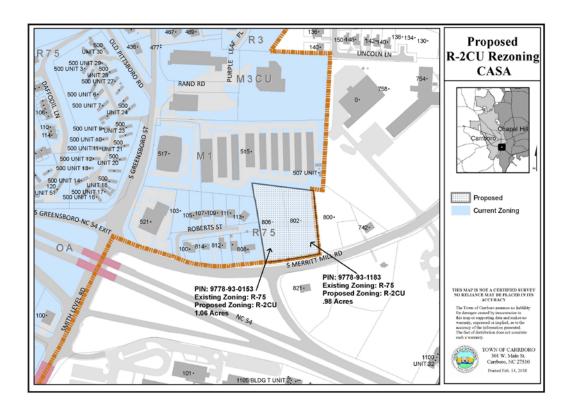
SECTION 2. All provisions of any Town ordinance in conflict with this ordinance are repealed.

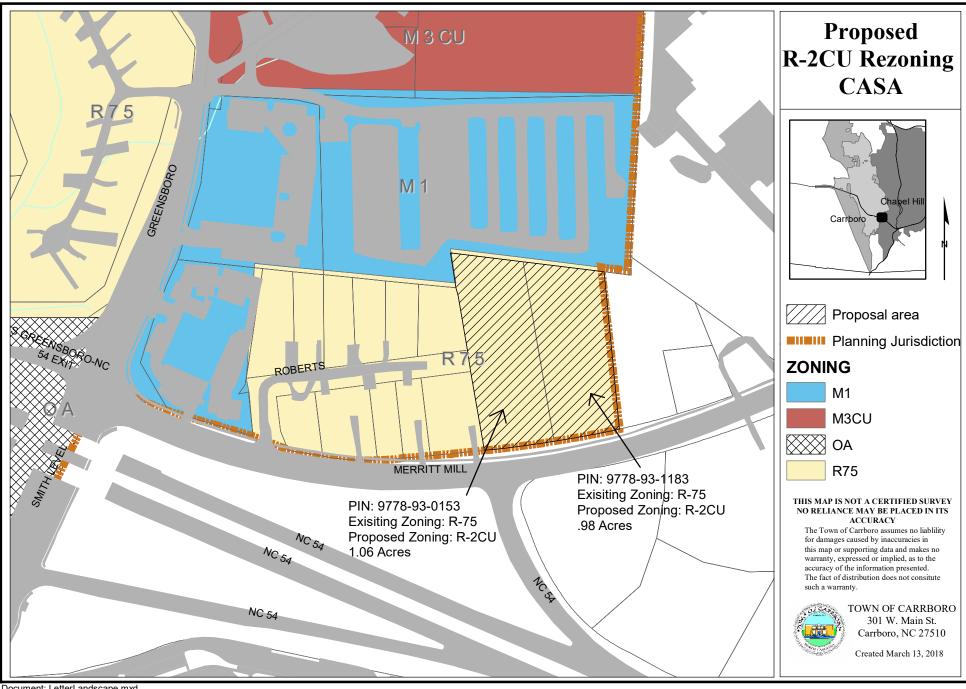
SECTION 3. This ordinance shall become effective upon adoption.

The foregoing ordinance having been submitted to a vote received the following vote and was duly adopted this _____ day of _____ 2018:

AYES: NOTES:

ABSENT OR EXCUSED:





Document: LetterLandscape.mxd

CARRBORO DEVELOPMENT GUIDE APPENDIX A

TOWN OF CARRBORO

PETITION FOR CHANGE OF ZONING

The Petitioner named above respectfully requests the Board of Aldermen of the

Town of Carrboro to rezone the below-described property from R-7.5

800 and 802 Merritt Mill Road

PETITIONER: CASA NC



DATE: 14 Feb 2018

inf	₹-2- orn	CU_zoning classification. The Petitione nation in support of this petition.	r furthermore submit	s the following
1.		PETITIONER'S NAME_ Jess-Brandes, CASA	HIC CASA	
		ADDRESS: 624 West Jones Street, Rale		
		TELEPHONE #:(919)754-9960 ext, 420		
2.		INTEREST IN PROPERTY(IES): Owner's repres	sentative Buyer	
3.		DAD DESCRIPTION OFPROPERTY AREAS SOUGHT TO EETS: The project site consists of 4 existing lots the Town of Carrboro zoning jurisdiction, while Carrboro lots are currently zoned R-7.5.	s on Merritt Mill Road, 2 on the other 2 are in Chape	of the lots are inside
4.		owner: Greenstreet Builders, Inc.	ZONED:	
		TAX MAP: BLOCK: LOT:	acreage 0.95 ac.	parcel: <u>97789</u> 31183
		SUBDIVISION NAME:	frontage <u>123.19</u> '	DEPTH: +/- 308'
		EXISTING STRUCTURES AND USES: There are no existing structures on s	ite.	
	b.	OWNER: Greenstreet Builders, Inc.		
		TAX MAP: BLOCK: LOT:	ACREAGE 1.04 ac.	PARCEL: 9778930153
		SUBDIVISION NAME:	FRONTAGE <u>132.37</u> '	DEPTH: <u>+/- 347'</u>

CARRBORO DEVELOPMENT GUIDE APPENDIX A

•	OWNER:		
	TAX MAP: BLOCK: LOT:	ACREAGE	PARCEL:
	SUBDIVISION NAME:	FRONTAGE	DEPTH:
	EXISTING STRUCTURES AND USES:		
d.	OWNER:		
	TAX MAP: BLOCK: LOT:	ACREAGE:	PARCEL:
	SUBDIVISION NAME:	FRONTAGE:	DEPTH:
	EXISTING STRUCTURES AND USES:		
	MES AND ADDRESSES OF ALL PERSONS WHOSEP ET IN ANY DIRECTION OF THE PROPERTY SOUGH NAME	IT TO BE REZONED. A	HEREOF IS WITHIN 1000
	MES AND ADDRESSES OF ALL PERSONS WHOSEP ET IN ANY DIRECTION OF THE PROPERTY SOUGH	PROPERTY OR ANY PART T IT TO BE REZONED.	HEREOF IS WITHIN 1000
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HA HA IF	MES AND ADDRESSES OF ALL PERSONS WHOSEP ET IN ANY DIRECTION OF THE PROPERTY SOUGH NAME See attached list S THIS PROPERTY BEEN THE SUBJECT OF A ZON	PROPERTY OR ANY PART TO THE STRATE THAT THE PROPO	HEREOF IS WITHIN 1000 ADDRESS YES NO PROPERTY AND THE SED ZONING DISTRICT

CARRBORO DEVELOPMENT GUIDE

		APPENDIX A
(b) In what way is the potential uses of the	e new district?	ng peculiarly/particularly suited for the
	Please se	e attached narrative.
(c) How will the propo	sed rezoning affect the value	of nearby buildings? e attached narrative.
	i lease se	e attached flatfative.
(d) In what way does to planning jurisdiction	on?	ost appropriate use of the land in the
	Please se	e attached narrative.
		CIAL ZONING MAP BE AMENDED AS SET OUT
ETITIONER'S SIGNATURE	Mary Jean Lys	la Acting CEO for CAS
EXS SIGNATURE -	PLEASE N	
_	age. Oversight of this	ease attach addressed envelopes requirement could delay

7. PLEASE SET OUT AND EXPLAIN THOSE CIRCUMSTANCES PERTINENT TO THE PROPERTY AND THE MANNER IT RELATES TO THE TOWN THAT DEMONSTRATE THAT THE PROPOSED ZONING DISTRICT CLASSIFICATION IS CONSISTENT WITH THE TOWN'S COMPREHENSIVE PLAN. MORE SPECIFICALLY:

(a) How do the potential uses in the new district classification relate to the existing character of the area?

Response:

The potential uses in the new district classification R-2 are residential, which is the same as the old district classification R-75. Use of the parcel is therefore not changed by this rezoning request. To the immediate east of the site, the land use is also residential and contains a single family home. Adequate screening and buffers to accommodate privacy will be incorporated into the development site plan. To the northeast, the land use is the Lincoln Center, including administrative offices and a school. Our proposed development and the families who live here will benefit from its proximity to the Lincoln Center. To the north, the land use is a self-storage facility. Adequate screening and buffers will be incorporated into the site plan to reduce any noise or aesthetic challenges caused by this adjoining use. To the west of the site is also residential and contains a small street of single family homes. Adequate screening and buffers to accommodate privacy will be incorporated into the development site plan. To the south, across from Merritt Mill Road is vacant land that is part of the public right-of-way for Highway 54.

While the use of the parcel is not changing, the proposed rezoning will change the intensity of that residential use and allow for the development of more units of housing. The incorporation of more dense housing supports the character of the existing area, which is walkable to both Towns, and, with the current South Green development underway, is becoming a walkable mixed-use node at the southern gateway into the downtowns of both Chapel Hill and Carrboro. Furthermore, the development of more dense residential use will increase transit use at the bus stops located within 1,000 feet of our proposed development.

Section 2.11 of Vision 2020 states "Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impact of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility. The town should develop a process to mediate disagreements between developers and residents of existing neighborhoods." The Merritt Mill Apartments will support this goal. The Conditional Use Permit process through which this project will be vetted provides multiple opportunities for neighbors, Town advisory board members, and Alderpersons to give input.

(b) In what way is the property proposed for rezoning peculiarly/particularly suited for the potential uses of the new district?

Response:

This site is particularly suited for denser, multifamily affordable development because of its location and its availability for development. The location of this site is walkable to both downtown Carrboro and downtown Chapel Hill. It is within 1 mile of a grocery store and within walking distance of shopping, services, schools and recreational areas. Immediately west of the new development are shopping and employment opportunities at the new South Green commercial development, and immediately east is the soon-to-be redeveloped Lincoln Center with a new pre-K program and possible community health clinic. Additionally the site is along a bus line with the bus stop less than 1,000 feet from the entrance of the development. For tenants with cars, this site is also very accessible to Highway 54 and to South Greensboro Street.

This site is also available for new development: it is vacant land, of a size large enough to support an apartment community, within the Town core, without major site constraints, and it is for sale. That is unusual in a small community like Carrboro.

(c) How will the proposed rezoning affect the value of nearby buildings?

Response:

The rezoning allows construction of a new high-quality development that is expected to cost approximately \$8 million. The Merritt Mill Apartments will be built to a market-rate standard, and will be professionally managed on-site like any other apartment complex would be. While neighbors often fear that having affordable housing nearby will harm their property values, many studies have shown the exact opposite to be the case, and that neighboring properties actually increase in value. Neighborhoods that have a mix of housing types that lead to a mix of income levels tend to be more walkable and mixed-use, and therefore more desirable neighborhoods to live in.

(d) In what way does the rezoning encourage the most appropriate use of the land in the planning jurisdiction?

Response:

The rezoning will allow for the development of 48 total new apartments affordable to households under 60% of the area median income. It will allow for this in a way that doesn't contribute to sprawl and that adds to the continuity of the Merritt Mill corridor by developing a vacant lot.

The Vision 2020 goal 2.22 states: "Where development is deemed acceptable, there should be well defined dense development with areas of well preserved open space." This development supports this goal not only by providing dense residential development, but by including significant open space. The R-2 zoning requires only 10% open space for affordable development, and we are meeting that requirement through preservation of existing hardwoods. However once the development is complete and the stormwater control measures, retaining walls and swale are in place, approximately half of the site will be replanted or preserved open space as shown in our Preliminary Recreation Area & Open Space Plan.

The Vision 2020 goal 6.1 is Housing for Diverse Population. The Merritt Mill Apartments supports this goal as well as the following goals from the Affordable Housing Strategy:

- 2.1 Increase number of rental units that are permanently affordable to individuals and families earning less than 60% of AMI.
- 2.3 Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.



NORTH CAROLINA

TRANSMITTAL

PLANNING DEPARTMENT

DELIVERED VIA: \square *HAND* \boxtimes *MAIL* \square *FAX* \square *EMAIL*

To: David Andrews, Town Manager

Mayor & Board of Aldermen

From: Tina Moon, Planning Administrator

Date: March 21, 2018

Subject: Request for Conditional Use Rezoning for Proposed Development at 802 & 806

Merritt Mill Road

REQUEST

CASA NC, in combination with property owner Greenstreet Builders, Inc., has submitted a petition to have the zoning of approximately two acres of land changed from R-7.5 to R-2-conditional use (R-2-CU). The subject properties are located at 802 and 806 South Merritt Mill Road, in the vicinity of the Chapel Hill-Carrboro School Central Office, formerly known as the Lincoln High School.

A conditional use rezoning request involves the simultaneous review of a conditional use permit application for the site specific development of these properties. A vicinity map and site plan are included in the attached Zoning Division staff report, along with a detailed description of the proposed development and associated analysis. The rezoning request and permit application were submitted for advisory board recommendations in advance of the public hearing scheduled for March 27, 2018.

PETITIONERS

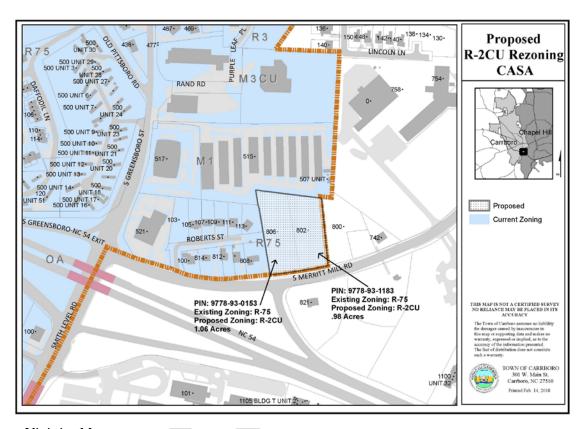
CASA NC.

OWNERS

Greenstreet Builders, Inc. owns both properties.

DESCRIPTION OF THE AREA

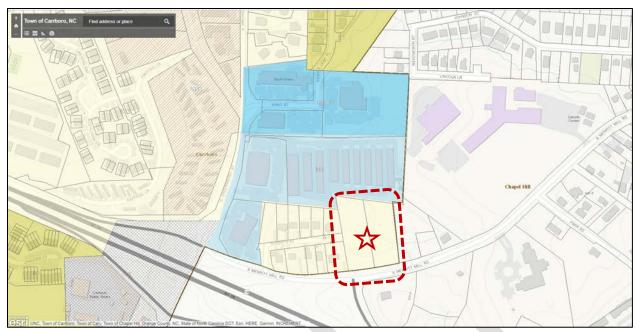
The site is situated on northwest side of South Merritt Mill Road, almost directly across from the location where the NC 54 exit ramp for Merritt Mill Rd/South Greensboro St intersects with Merritt Mill Road. The total development project encompasses four properties, two in the Town of Carrboro and two in the Town of Chapel Hill. The Carrboro parcels contain approximately two acres and may be more specifically described by their Orange County PIN numbers 9778-93-1183 and 9778-93-0153, as shown in dark outline on the map below. The parcels are currently undeveloped, with no standing structures at either location.



Vicinity Map

ADJACENT LAND USES AND ZONING

The existing land uses and zoning adjacent to the subject property are shown in detail in the conditional use permit staff report and permit plans. An excerpt from the Zoning Map showing the subject properties along with adjacent parcels is provided below. Surrounding land uses in Carrboro include single-family residential (R-7.5 Zoning District shown in light tan) to the west, the Public Storage facility to the north, (Light Manufacturing or M-1 Zoning District shown in light blue), and the future South Green commercial project (M-3-CU Light Manufacturing-conditional use shown in the medium blue). To the east of the subject properties, across the jurisdictional boundary into Chapel Hill, include undeveloped lots, single family residential and the Chapel Hill-Carrboro School Central Office property. The Chapel Hill properties are shown in light gray.



Surrounding Land Uses & Zoning (the site is outlined in dashed line)

COMPARISON OF ZONES

Sections 15-135 and 15-136 of the Land Use Ordinance (LUO) provide the following descriptions of the existing zoning classification.

Both zoning classifications, the existing district R-7-5 and the proposed district R-2-CU are residential in nature and described by ordinance as follows: The purpose of each of the foregoing residential districts is to secure for the persons who reside there a comfortable, healthy, safe, and pleasant environment in which to live, sheltered from incompatible and disruptive activities that properly belong in non-residential districts. The primary difference between the districts is relating to density—the number of dwelling units per acre, which is based in part on the minimum number of square feet per lot: 7500 square feet per dwelling unit for R-7.5 and 2000 or 4000 square feet per dwelling unit for R-2; the density for R-2 for multi-family residential uses is 2000 square feet per dwelling unit. The density and dimensional requirements for R-2 and R-2-conditional use are the same.

CONDITIONAL USE ZONING DISTRICTS

In 2004, the Town amended the LUO to provide nineteen conditional use districts in a new section, Section 15-141.3. The establishment of conditional use zoning was designed to provide more opportunities for rezoning requests throughout the town's jurisdiction in association with site-specific development proposals. Development standards and permitted uses are based on the standard zones on which these districts are mirrored. The bulk of the review of such a request involves the particulars of the site plan/conditional use permit application. Section 15-136(1) provides the description for the general zoning district upon which this conditional use district is based. An additional conditional use district M-3-CU was added to the LUO in 2015. Unlike general zoning districts, conditional use zoning districts may be established only in response to a petition signed by all property owners; the development standards and permitted uses, however, are based on the standard zones on which these districts are mirrored.

As described in Section 15-141.3(c), the newly created conditional use districts were designed as a mirror of existing general use districts.

(c) The uses permissible within a conditional use zoning district established herein, and the regulations applicable to property within such a district, shall be those uses that are permissible within and those regulations that are applicable to the general use zoning district to which the conditional use district corresponds, expect as otherwise provided in this section. For example, property that is rezoned to a B-2-CU district may be developed in the same manner as property that is zoned B-2, except as provided in this section.

When a petition for rezoning to a conditional use district is submitted, the applicant must submit an application for conditional use permit (CUP) at the same time. The CUP plans must show how the applicant purposes to develop the entirety of the property covered in the rezoning petition. The rezoning and CUP applications are reviewed simultaneously; the conditional use permit application staff report and permit plans provide details of the compliance of the particular project with the requirements of the proposed R-2-CU zoning district.

SPECIFIC LAND USE ORDINANCE CRITERIA

The bulk of the review for a conditional use rezoning request involves the specifics of the site plan/conditional use permit application (CUP). The CUP application staff report and permit plans provide details of the compliance of the particular project with the requirements of the R-2 zoning district.

The applicant has included information on the circumstances related to the property and the community that demonstrates the appropriateness of the zoning change in the Petition for Change of Zoning (*Attachment D*). Conditional use rezonings must also be evaluated for compliance with the particulars of Section 15-141.3 as presented below:

Provision	Status
1. The conditional use zoning districts established in this section may be	
applied to property only in response to a petition signed by all the owners	$\underline{}$
of the property to be included within such district.	
2. The uses permissible within a conditional use zoning district established	
herein, and the regulations applicable to property within such a district,	$\underline{}$
shall be those uses that are permissible within and those regulations that	
are applicable to the general use zoning district to which the conditional	
use district corresponds, except as otherwise provided in this section.	
3. Subject to subsection (f), all uses that are permissible in the conditional	$\underline{}$
use zoning district shall require the issuance of a conditional use permit.	
4. The applicant shall simultaneously submit a conditional use permit	$\underline{}$
application showing how the applicant proposes to develop the entirety of	
the property covered in the rezoning petition.	
5. The rezoning and conditional use permit applications shall be processed	
and reviewed concurrently.	
6. The Board of Aldermen shall simultaneously conduct a public hearing	Scheduled for
on the rezoning and conditional use permit applications, in accordance	March 27 th
with the procedures applicable to other conditional use permit	
applications.	
7. If the Board concludes in the exercise of its legislative discretion that	To be determined
the proposed rezoning would not be consistent with the public health,	following public
safety, or welfare, it may deny the application in accordance with the same	hearing on March
procedures applicable to any ordinance amendment request.	27 th .
8. If the Board approves the rezoning request, it shall then vote on whether	To be determined
to issue the conditional use permit. Such permit may be issued subject to	following the public
reasonable conditions and requirements as set forth in Section 15-59.	hearing.

ANALYSIS

Carrboro Vision2020 presents the policies that are expected to guide the Town's growth and development through the year 2020. In the Petition for Change of Zoning the petitioners have provided responses in support of their assertion that the proposed zoning district classification is consistent with the Town's adopted plans and policies. Staff has identified the following sections of Carrboro Vision2020 that pertain to the request for rezoning:

1.3 Human Services

1.35 The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.

2.0 DEVELOPMENT

Carrboro's development should take place in a manner consistent with a set of adopted values. The interests of all members of the community, including property owners, neighbors, and other interested citizens should be considered when making development decisions.

2.11 Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.

2.22 Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.

6.0 HOUSING

The town should develop a comprehensive housing policy that seeks to provide housing for all of Carrboro's citizens.

6.1 Housing for a Diverse Population

- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.

In the justification for the rezoning, question 7 of the petition for change of zoning form, the applicant has identified Vision2020 provisions 2.11, 2.22, 6.1. The applicant has also cited two goals from the town's Affordable Housing Strategy:

- **2.1** Increase the number of rental units that are permanently affordable to individuals and families earning less than 60% of Area Median Income (AMI).
- **2.3** Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

The town's affordable Housing Strategy document may be found at the following link: http://www.townofcarrboro.org/documentcenter/view/1974.

RELEVENT ORDINANCE PROVISIONS

Section 15-324 of the LUO describes the procedure for the Board's action on amendments:

- (a) At the conclusion of the public hearing on a proposed amendment, the Board may proceed to vote on the proposed ordinance, refer it to a committee for further study, or take any other action consistent with its usual rules of procedure.
- (b) The Board is not required to take final action on a proposed amendment within any specific period of time, but it should proceed as expeditiously as practicable on petitions for amendments since inordinate delays can result in the petitioner incurring unnecessary costs.
- (c) Voting on amendments to this chapter shall proceed in the same manner as on other ordinances, subject to Section 15-326 of the Land Use Ordinance and Section 2-15 of the Town Code.
- (d) Prior to adopting or rejecting any zoning amendment, the Board shall adopt a statement describing whether its action is consistent with the Land Use Plan, Thoroughfare Plan, or other applicable plan officially adopted by the Board and explaining why the Board

- considers the action taken to be reasonable and in the public interest. This statement is not subject to judicial review.
- (e) A Board member shall not vote on any zoning map or text amendment where the outcome of the matter being considered is reasonably likely to have a direct, substantial, and readily identifiable financial impact on the member. (See also Carrboro Town Code Section 2-35).

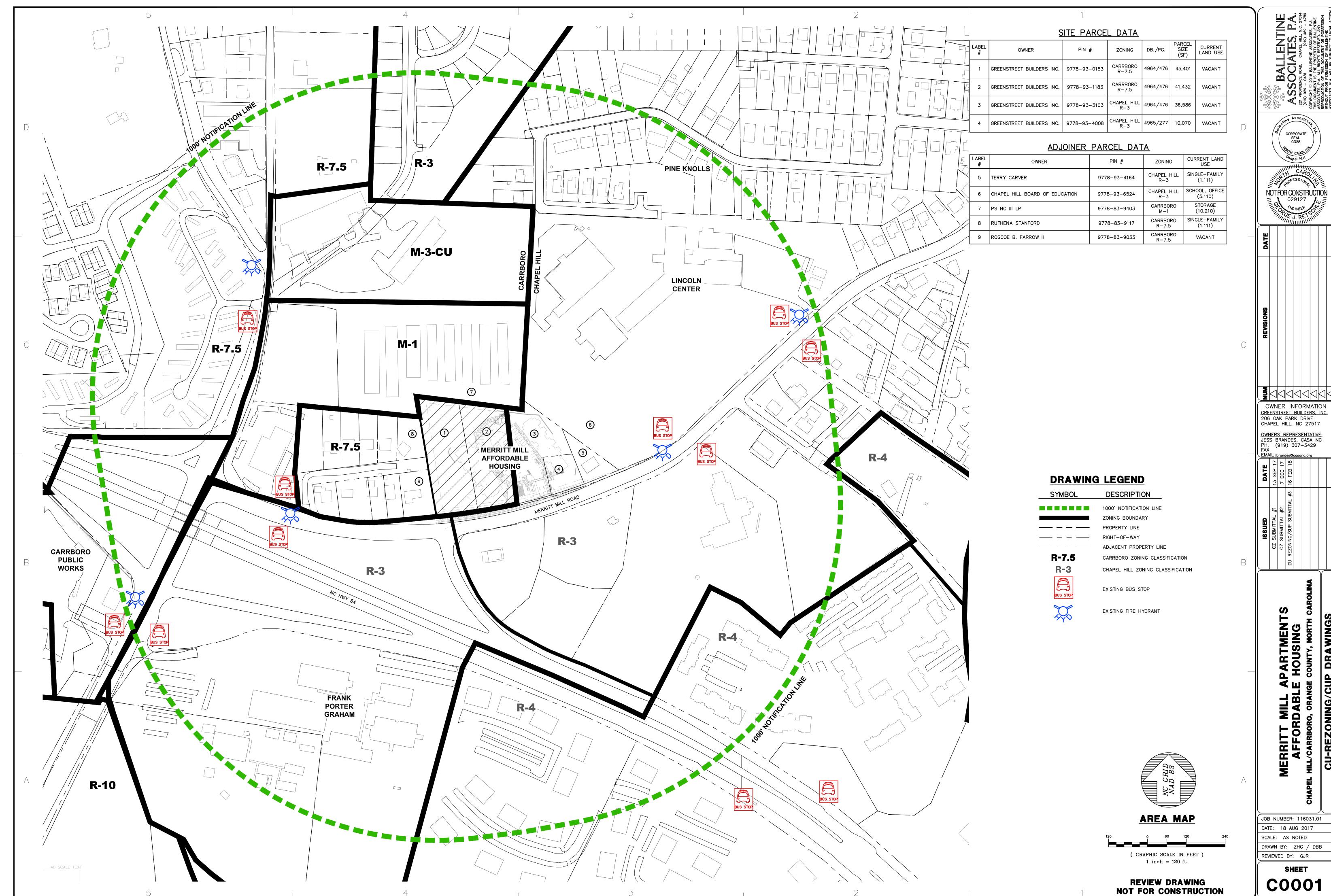
Section 15-325 of the LUO specifies that when considering a rezoning, the central issue before the Board of Aldermen is "whether the proposed amendment advances the public health, safety or welfare." The Board of Aldermen is obligated to disregard advantages or disadvantages to the individual requesting the change and must consider the impact of the proposed change on the public at large. Summary comments are offered below.

SUMMARY COMMENTS

- Adopted policies support the establishment of conditional use districts.
- The conditional use district process (combined legislative and quasi-judicial review and action) is expected to mitigate the associated impacts of the additional density requested as part of this development.
- Town policies acknowledge an interest and need for a diverse mix of housing options, particularly for low-, middle- and fixed-incomes.
- The site's location in proximity to existing transit stops, and destinations within reasonable distances for biking and walking, support the target community who may have limited access to transportation, as well as furthering the Town's overall interest in encouraging multi-modal travel options.
- The applicant identified policy provisions appear to be consistent with the request.

ACTION REQUESTED

Staff requests that the Board of Aldermen consider the attached materials and advisory board recommendations, and deliberate, on the request to change the zoning of the property (two parcels) located at 802 and 806 South Merritt Mill Road.



OWNERS 1000-FEET

OWNERS 1000-FEET					
9778736829 STRAYHORN WHISPERING HILLS HON	/I null	PO BOX 3099	CHAPEL HILL	NC	27514
9778739244 ACG DURHAM LLC	null	2054 KILDAIRE FARM RD #413	CARY		27518
9778739440 TIMMONS SANDRA A	null	120 SOUTH PEAK DR	CARRBORO	NC	27510
9778739461 CARPENTER DAVID	null 	122 S PEAK DR	Carrboro		27510
9778739498 MCMANNIS MERIT M	null	114 DAFFODIL LN	CARRBORO CARRBORO		27510 27510
9778739569 MILLER LORI A 9778739577 PETERSON KATIA M	null null	106 DAFFODIL LN 108 DAFFODIL LANE	CARRBORO		27510
9778739591 DEVLIN MAUREEN	null	112 DAFFODIL LN	CARRBORO		27510
9778739593 SPURLOCK DANIELLE LAURA	null	110 DAFFODIL LN	CARRBORO		27510
9778739651 DOWLING HOLLY P	null	104 DAFFODIL LN	Carrboro	NC	27510
9778739767 STRAYHORN WHISPERING HILLS HON		PO BOX 3099	CHAPEL HILL		
9778820701 COLE JAY SCOTT ETAL	WILLIAM BURTON COLE	1418 CRAWFORD DAIRY RD	CHAPEL HILL		
9778823048 NORTH CAROLINA STATE OF UNIVERS 9778826281 CHAPEL HILL BOARD OF EDUCATION		UNIVERSITY OF N C LINCOLN CENTER	RALEIGH CHAPEL HILL		27602
9778830114 DEPARTMENT OF TRANSPORTATION		PO BOX 25201	RALEIGH		27611
9778830451 NINIGRET NC LLC	null	1276 BAYVIEW CIRCLE	WESTON		33326
9778832578 ACG DURHAM LLC	null	2054 KILDAIRE FARM RD #413	CARY	NC	27518
9778833259 DEPARTMENT OF TRANSPORTATION	null	PO BOX 25201	RALEIGH		27611
9778834808 GARAVAGLIA PATRICIA E	SHARON H COLLINS	7 ELLEN PL	CHAPEL HILL		
9778835103 KERALA CAPITAL PARTNERS LLC	null	507 N LINDSAY ST	HIGH POINT		
9778835197 CALDWELL JOE L 9778836060 JACOBS TEDDY L	JULIA CALDWELL null	1834 BRAMBLEWOOD DR 100 ROBERTS ST	ORLANDA CARRBORO		32818 27510
9778836166 WILSON JOYCE L	ALTON L (H)	105 ROBERTS ST	CARRBORO		27510
9778837041 SELLARS JENNIE MINOR HRS	null	814 MERRITT MILL ROAD C/O DAVID MINOR	CARRBORO		27510
9778837126 JOHNSON BRIAN	null	P O BOX 4302	CHAPEL HILL	NC	27515
9778837187 TAYLOR EDNA M	JOYCE L MINOR	109 ROBERTS ST	CARRBORO		27510
9778837669 WOODHILL NC LLC	null	PO BOX 4022	CHAPEL HILL		
9778837930 WOODHILL NC LLC 9778838011 TATE JEFFREY D	null	PO BOX 4022	CHAPEL HILL		
97/8838011 TATE JEFFREY D 9778838062 GAUL TODD ERIC	null null	1011 HIGHLAND WOODS ROAD 810 S MERRITT MILL RD	CHAPEL HILL CARRBORO		27514
9778838137 HAYES RUBEN H	JACQUELINE H HAYES	111 ROBERTS ST	CARRBORO		27510
9778838768 WOODHILL NC LLC	null	PO BOX 4022	CHAPEL HILL		
9778839033 FARROW ROSCOE B II	null	120 RESTON CT	FAYETTEVILLE		
9778839117 SANFORD RUTHENA	null	113 ROBERTS ST	CARRBORO	NC	27510
9778839403 PS NC III LP	null	701 WESTERN AVE C/O PUBLIC STORAGE 25905	GLENDALE		91201
9778843062 MCLEAN RYAN ASSOCIATES LLC	null	PO BOX 3371	CHAPEL HILL		
9778843136 MANHERTZ EARLE 9778846063 null	MAXINE MURRAY null	3513 SHADY CREEK DR null	DURHAM null	null	27713
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9778939941 BIEK BRIAN	AMANDA BIEK	2001 FIRESIDE DR	Chapel Hill NC 2751	14
9778939990 HARRIS MELVINA W	null	PO BOX 725	CARRBORO NC 2751	10
9778940069 ROBERSON PLACE HOMEOWNERS AS	SS null	PO BOX 79032 C/O COMMUNITY ASSOCIATION MANAGEMENT	CHARLOTTE NC 2827	71
9778940125 BAKER WILLIAM T	JILL H BAKER	207 PURPLE LEAF PLACE	CARRBORO NC 2751	10
9778940332 HADLER WAYNE R	KATE L COLBURN	201 PURPLE LEAF PL	CARRBORO NC 2751	10
9778941081 ORANGE COUNTY HOUSING AUTHOR	RI' null	PO BOX 8181	HILLSBOROUGNC 2727	78
9778941099 ORANGE COUNTY	null	PO BOX 8181	HILLSBOROUGNC 2727	78
9778941321 SUTHERLAND JOEL T	KATHERINE E SUTHERLAND	111 RED SUNSET PL	CARRBORO NC 2751	10
9778942169 BARNDOOR PROPERTIES INC	null	PO BOX 4034	CHAPEL HILL NC 2751	15
9778943072 ESTIRI MOHAMMAD	null	11262 DARLENE DR	SANTA ANA CA 9270)5
9778943222 PERKINS & SONS LLC	null	609 LAKESHORE LN	Chapel Hill NC 2751	14
9778943262 FITZGERALD WILLIAM J	SUSAN Z FITZGERALD	5 COPPER HILL CT	DURHAM NC 2771	13
9778944064 ESTIRI MOHAMMAD	null	11262 DARLENE DR	SANTA ANA CA 2761	15
9778944224 ATWATER EUGENE HRS	null	169 NEW STREET C/O DOROTHY ATWATER	WEST PATERS(NJ 742	24
9778945014 ESTIRI MOHAMMAD	null	11262 DARLENE DR STE 100	SANTA ANA CA 9270)5
9778945235 ATWATER EUGENE HRS	null	169 NEW STREET C/O DOROTHY ATWATER	WEST PATERS(NJ 742	24
9778946174 ESTIRI MOHAMMAD	null	11262 DARLENE DR	SANTA ANA CA 9270)5
9778946237 EMPOWERMENT INC	null	SUITE 200 109 N GRAHAM ST	CHAPEL HILL NC 2751	16
9778947022 BALDWIN SCOTT GROUP LLC	null	415 KNOLLS ST	CHAPEL HILL NC 2751	16
9778947144 ESTIRI MOHAMMAD	null	11262 DARLENE DR	SANTA ANA CA 9270)5
9788022954 HILL CHARLES C	null	60 DAVIE CIR	CHAPEL HILL NC 2751	14
9788023556 TGM LAUREL RIDGE LLC	null	11100 W BROAD ST	GLEN ALLEN VA 2306	50
9788030360 PARRISH THEODORE	JACQUELINE PARRISH	741 S MERRITT MILL RD	CHAPEL HILL NC 2751	16
9788030940 PINES COMMUNITY CENTER	null	741 S MERRITT MILL RD	CHAPEL HILL NC 2751	16
9788031118 HORTON CINDY	null	105A PARK RD	CHAPEL HILL NC 2751	16
9788032125 null	null	null	null null	
9788032200 PARRISH DAVID A	KATHY PARRISH	3705 SANDY RIDGE LN	DURHAM NC 2770)5
9788032338 GEER EVA J	null	516 TUGGLE ST	DURHAM NC 2771	13
9778846063 HANDA SUDHANSHU	LISA RUBENSTEIN	469 S GREENSBORO ST	CARRBORO NC 2751	10
9778846063 MARTIN STEPHANIE	JONATHAN KAPLAN	467 S GREENSBORO ST	CARRBORO NC 2751	10
9778846141 GOLDSMITH JASON	REBECCA GOLDSMITH	471 S GREENSBORO ST	CARRBORO NC 2751	10
9778846141 PATEL JAY P	NIMISHA B PATEL	465 S GREENSBORO ST	CARRBORO NC 2751	10
9778846149 BAPAT NAVIN A	CARMET H BAPAT	463 S GREENSBORO ST	CARRBORO NC 2751	10
9778846149 JOHNSON SUZANNE	null	461 S GREENSBORO ST	CARRBORO NC 2751	10
9778846275 ANDECK GREGORY	ELIZA PARK	459 S GREENSBORO ST	CARRBORO NC 2751	10
9778846275 TUMLINSON KATHERINE	MEHUL PATEL	457 S GREENSBORO ST	CARRBORO NC 2751	LO
9788032125 ONNIPAUPER LLC	null	7424 CHAPEL HILL RD	RALEIGH NC 2760)7
9788032125 HARLAN CHRISTINA ANN	null	109B PARK ROAD	CHAPEL HILL NC 2751	16

OCCUPANTS - 1000 feet

9778739244 Occupant	120 DAFFODIL LN UNIT 46	CARRBORO	27510
9778823048 Occupant	105 SMITH LEVEL RD	CHAPEL HILL	27516
9778826281 Occupant	101 SMITH LEVEL RD	CHAPEL HILL	27516
9778830451 Occupant	517 S GREENSBORO ST	CARRBORO	27510
9778832578 Occupant	500 S GREENSBORO ST UNIT 7	CARRBORO	27510
9778834808 Occupant	436 S GREENSBORO ST	CARRBORO	27510
9778835103 Occupant	521 S GREENSBORO ST	CARRBORO	27510
9778835197 Occupant	103 ROBERTS ST	CARRBORO	27510
9778836060 Occupant	100 ROBERTS ST	CARRBORO	27510
9778836166 Occupant	105 ROBERTS ST	CARRBORO	27510
9778837041 Occupant	814 S MERRITT MILL RD	CARRBORO	27510
9778837126 Occupant	107 ROBERTS ST	CARRBORO	27510
9778837187 Occupant	109 ROBERTS ST	CARRBORO	27510
9778838011 Occupant	812 S MERRITT MILL RD	CARRBORO	27510
9778838062 Occupant	810 S MERRITT MILL RD	CARRBORO	27510
9778838137 Occupant	111 ROBERTS ST	CARRBORO	27510
9778839033 Occupant	808 S MERRITT MILL RD	CARRBORO	27510
9778839117 Occupant	113 ROBERTS ST	CARRBORO	27510
9778839403 Occupant	507 S GREENSBORO ST	CARRBORO	27510
9778843062 Occupant	432 S GREENSBORO ST UNIT F	CARRBORO	27510
9778848092 Occupant	212 PURPLE LEAF PL	CARRBORO	27510
9778848123 Occupant	206 PURPLE LEAF PL	CARRBORO	27510
9778848129 Occupant	204 PURPLE LEAF PL	CARRBORO	27510
9778848224 Occupant	202 PURPLE LEAF PL	CARRBORO	27510
9778849009 Occupant	210 PURPLE LEAF PL	CARRBORO	27510
9778849105 Occupant	208 PURPLE LEAF PL	CARRBORO	27510
9778849155 Occupant	205 PURPLE LEAF PL	CARRBORO	27510
9778849261 Occupant	203 PURPLE LEAF PL	CARRBORO	27510
9778913957 Occupant	1105 NC 54 BLDG Y UNIT 6	CHAPEL HILL	27516
9778919619 Occupant	1105 NC 54 BLDG D UNIT 8	CHAPEL HILL	27516
9778922850 Occupant	821 S MERRITT MILL RD	CHAPEL HILL	27516
9778927883 Occupant	805 S MERRITT MILL RD UNIT 103	CHAPEL HILL	27516
9778930153 Occupant	806 S MERRITT MILL RD	CARRBORO	27510
9778931183 Occupant	802 S MERRITT MILL RD	CARRBORO	27510
9778931887 Occupant	140 WENTWORTH ST	CHAPEL HILL	27516
9778931994 Occupant	136 WENTWORTH ST	CHAPEL HILL	27516
9778933103 Occupant	800 S MERRITT MILL RD	CHAPEL HILL	27516
9778933912 Occupant	150 LINCOLN LN	CHAPEL HILL	27516
9778933962 Occupant	148 LINCOLN LN	CHAPEL HILL	27516
9778934164 Occupant	742 S MERRITT MILL RD	CHAPEL HILL	27516
9778934912 Occupant	144 LINCOLN LN	CHAPEL HILL	27516
9778934952 Occupant	142 LINCOLN LN	CHAPEL HILL	27516
9778935901 Occupant	140 LINCOLN LN	CHAPEL HILL	27516
9778936524 Occupant	0 S MERRITT MILL RD	CHAPEL HILL	27516
9778936950 Occupant	150 LINCOLN LN	CHAPEL HILL	27516
9778937995 Occupant	121 JOHNSON ST	CHAPEL HILL	27516
9778938953 Occupant	119 JOHNSON ST	CHAPEL HILL	27516
9778939068 Occupant	104 PARK RD	CHAPEL HILL	27516
-	743 S MERRITT MILL RD	CHAPEL HILL CHAPEL HILL	27516
9778939394 Occupant 9778939941 Occupant	117 JOHNSON ST	CHAPEL HILL CHAPEL HILL	27516
9778940125 Occupant	207 PURPLE LEAF PL	CARREORO	27510
9778941321 Occupant	111 RED SUNSET PL	CHAREL HILL	27510
9778942169 Occupant	138 JOHNSON ST UNIT B	CHAPEL HILL	27516

9778943072 Occupant	139 JOHNSON ST UNIT D	CHAPEL HILL	27516
9778943222 Occupant	136 JOHNSON ST	CHAPEL HILL	27516
9778943262 Occupant	134 JOHNSON ST	CHAPEL HILL	27516
9778944064 Occupant	135 JOHNSON ST UNIT A	CHAPEL HILL	27516
9778944224 Occupant	132 JOHNSON ST	CHAPEL HILL	27516
9778945014 Occupant	133 JOHNSON ST UNIT B	CHAPEL HILL	27516
9778945235 Occupant	130 JOHNSON ST	CHAPEL HILL	27516
9778946174 Occupant	131 JOHNSON ST UNIT B	CHAPEL HILL	27516
9778946237 Occupant	128 JOHNSON ST UNIT 5	CHAPEL HILL	27516
9778947022 Occupant	123 JOHNSON ST UNIT A	CHAPEL HILL	27516
9778947144 Occupant	125 JOHNSON ST UNIT B	CHAPEL HILL	27516
9788022954 Occupant	106 PARK RD	CHAPEL HILL	27516
9788023556 Occupant	1100 NC 54 BLDG 26 UNIT A	CHAPEL HILL	27516
9788030360 Occupant	741 S MERRITT MILL RD	CHAPEL HILL	27516
9788031118 Occupant	105 PARK RD UNIT A	CHAPEL HILL	27516
9788032200 Occupant	107 PARK RD	CHAPEL HILL	27516
9788032338 Occupant	735 S MERRITT MILL RD	CHAPEL HILL	27516
9778846063 Occupant	469 S GREENSBORO ST	CARRBORO	27510
9778846063 Occupant	467 S GREENSBORO ST	CARRBORO	27510
9778846141 Occupant	471 S GREENSBORO ST	CARRBORO	27510
9778846141 Occupant	465 S GREENSBORO ST	CARRBORO	27510
9778846149 Occupant	461 S GREENSBORO ST	CARRBORO	27510
9778846275 Occupant	459 S GREENSBORO ST	CARRBORO	27510
9778846275 Occupant	457 S GREENSBORO ST	CARRBORO	27510
9788032125 Occupant	109 PARK RD UNIT A	CHAPEL HILL	27516
9788032125 Occupant	109 PARK RD UNIT B	CHAPEL HILL	27516



NORTH CAROLINA

PLANNING DEPARTMENT

TO: Property Owners and Residents

FROM: Christina R. Moon, Planning Administrator

DATE: March 12, 2018

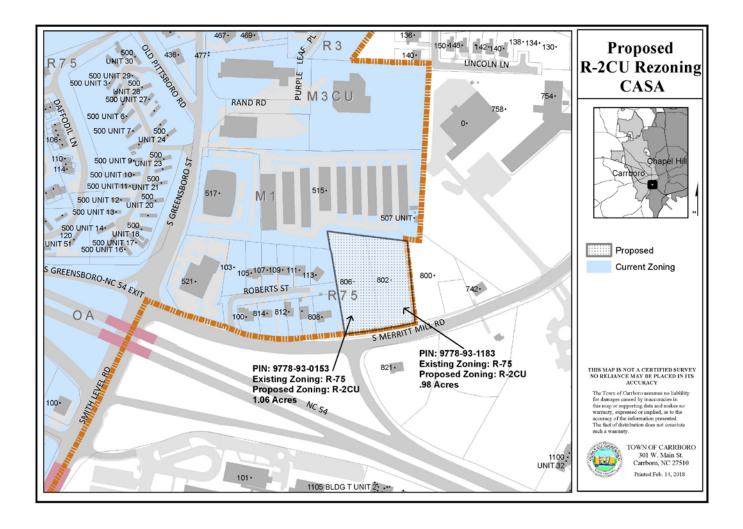
PUBLIC NOTICE: Proposed conditional use rezoning of properties at 802 and 806 Merritt Mill Rd

You are receiving this letter because your property or residence is within 1,000 feet of property under consideration for rezoning.

The Town has received an application from the CASA NC for a conditional use rezoning/conditional use permit for property at 802 and 806 South Merritt Mill Road to allow for the construction of four connected three-story buildings consisting of two-bedroom multi-family residential units. The total project encompasses four properties, two in the Town of Carrboro and two in the Town of Chapel Hill. The Carrboro parcels are currently zoned R-7.5. The proposal is to rezone both parcels to R-2-Conditional Use (R-2-CU). The parcels may be more specifically described by their Orange County PIN numbers 9778-93-1183 and 9778-93-0153, as shown in dark outline on a map on the reserve side of this letter.

The Board of Aldermen will hold a public hearing to consider the conditional use rezoning/conditional use permit per this request on Tuesday, March 27, 2018 at 7:30 p.m. in the Town Hall Board Room (Room 110) located at 301 West Main Street. You are invited to attend this hearing and to make your opinions on the requested rezoning known.

Additional information regarding the rezoning under consideration is available from the Planning Department located on the second floor of Town Hall and will also be available on the Town's website a few days before the meetings. The Board of Aldermen's agenda materials for the public hearing may be found at https://carrboro.legistar.com/Calendar.aspx. Substantial changes to the proposed amendment to the Town's zoning map may be made following the public hearing. If you have questions, or would like additional information, please feel free to contact Tina Moon at (919) 918-7325 or moon@townofcarrboro.org or James Thomas at (919) 918-7335 or jthomas@townofcarrboro.org.





NORTH CAROLINA

March 12, 2018

RE: Rezoning of two parcels tract containing approximately 2 acres located at 802 and 806 Merritt Mill Road, and more specifically described as Orange County PIN numbers 9778-93-1183 and

9778-93-0153

I, Christina R. Moon, do certify that I did cause to have mailed on February 22, 2018, by first class mail, letters informing the owners and non-owner occupants of properties within 1,000 feet of the proposed rezoning of 802 and 806 Merritt Mill Road, of the schedule and proposal to rezone the property from R-7.5 (Residential, 7500 square feet per dwelling unit) to R-2-CZ (Residential, 2000 square feet per dwelling unit, Conditional).

A copy of the mailing labels or mailing list used for this purpose including the person, where applicable, or addresses to whom the notices were sent are attached.

Christina R. Moon

Planning Administrator

3/12/2018



Planning Board

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

MARCH 1, 2018

802 & 806 South Merritt Mill Road - Conditional Use Rezoning to R-2-CU

Motion was made by <u>Rosser</u> and seconded by <u>Gaylord-Miles</u> that the <u>Planning Board</u> recommends that the Board of Aldermen <u>approve</u> the draft ordinance.

VOTE:

AYES: (7) Adamson, Clinton, Foushee, Gaylor-Miles, Rosser, Whittemore

ABSENT/EXCUSED: (1) Poulton

NOES: (0)

ABSTENTIONS: (0)

Associated Findings

By a unanimous show of hands, the <u>Planning Board</u> membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by <u>Adamson</u> and seconded by <u>Foushee</u> that the <u>Planning Board</u> of the Town of Carrboro finds the proposed map amendment <u>is</u> consistent with <u>Carrboro Vision 2020</u> and the Town's Affordable Housing Strategy, particularly the following provisions relating to Carrboro's support of human services, compatible infill development, and diverse and affordable housing as described below:

- 1.35 The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.
- **2.11** Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.
- **2.22** Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.

- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.
- 2.1 Increase the number of rental units that are permanently affordable to individuals and families earning less than 60% of Area Median Income (AMI).
- 2.3 Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

The <u>Planning Board</u> furthermore finds that the above described amendment is reasonable and in the public interest because it uses a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

VOTE:

AYES: (7) Adamson, Clinton, Foushee, Gaylor-Miles, Rosser, Whittemore

Rus Charlem

ABSENT/EXCUSED: (1) Poulton

NOES: (0)

ABSTENTIONS: (0)

March 1, 2018

(Date)



Transportation Advisory Board

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

MARCH 1, 2018

802 & 806 South Merritt Mill Road - Conditional Use Rezoning to R-2-CU

Motion was made by *Diana* and seconded by *John* that the *Transportation Advisory Board* recommends that the Board of Aldermen *approve* the draft ordinance.

VOTE:

AYES: (5) Colleen, Diana, John, Linda, Rob

ABSENT/EXCUSED: (1) Kurt

NOES: (0)

ABSTENTIONS: (0)

Associated Findings

By a unanimous show of hands, the *Transportation Advisory Board* membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by *Colleen* and seconded by *Linda* that the *Transportation Advisory Board* of the Town of Carrboro finds the proposed map amendment *is* consistent with *Carrboro Vision 2020* and the Town's Affordable Housing Strategy, particularly the following provisions relating to Carrboro's support of human services, compatible infill development, and diverse and affordable housing as described below:

- 1.35 The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.
- **2.11** Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.
- **2.22** Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.

- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.
- 2.1 Increase the number of rental units that are permanently affordable to individuals and families earning less than 60% of Area Median Income (AMI).
- 2.3 Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

The *Transportation Advisory Board* furthermore finds that the above described amendment is reasonable and in the public interest because it uses a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

VOTE:

AYES: Colleen, Diana, John, Linda, Rob

ABSENT/EXCUSED: Kurt

NOES: none

ABSTENTIONS: none



Environmental Advisory Board

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

MARCH 1, 2018

802 & 806 South Merritt Mill Road – Conditional Use Rezoning to R-2-CU

Motion was made by O'Connor and seconded by Sinclair that the EAB recommends that the Board of Aldermen approve the rezoning.

VOTE:

AYES: O'Connor, Sinclair, Turner

ABSENT/EXCUSED: Perera, Skelton

NOES: ()

ABSTENTIONS: ()

Associated Findings

By a unanimous show of hands, the EAB membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by Sinclair and seconded by O'Connor that the EAB of the Town of Carrboro finds the proposed map amendment is consistent with *Carrboro Vision 2020* and the Town's Affordable Housing Strategy, particularly the following provisions relating to Carrboro's support of human services, compatible infill development, and diverse and affordable housing as described below:

- **1.35** The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.
- **2.11** Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.
- **2.22** Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.
- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.
- 2.1 Increase the number of rental units that are permanently affordable to individuals and

families earning less than 60% of Area Median Income (AMI).

2.3 Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

The EAB furthermore finds that the above described amendment is reasonable and in the public interest because it uses a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

VOTE:

AYES: O'Connor, Sinclair, Turner

ABSENT/EXCUSED: Perera, Skelton

NOES: ()

ABSTENTIONS ():

802 & 806 South Merritt Mill Road - CUP

Motion was made by O'Connor and seconded by Sinclair that the EAB recommends that the applicant and Board of Aldermen consider the following recommendations as part of the CUP review:

- 1. Running conduit that can serve any spot in the parking lot for future installation of Level 2 electric vehicle charging stations.
- 2. Investigating the possibility of laying conduit for connection to the public fiber-optic backbone.
- 3. Using the species of specimen and rare trees that are removed when creating the landscape plan to maintain diversity and use well adapted species on the site.
- 4. The EAB finds that the design of the bioretention area and the ephemeral stream and buffer as shown is acceptable.

for

VOTE:

AYES: O'Connor, Sinclair, Turner

ABSENT/EXCUSED: Perera, Skelton

NOES: ()

ABSTENTIONS: ()

Roll (Doll 3/2/2018

(Chair) (Date)



Affordable Housing Advisory Commission

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATIONS

MARCH 1, 2018

802 & 806 South Merritt Mill Road Conditional Use Rezoning to R-2-CU

Motion was made by Tyran Hill and seconded by Gabe Vinas that the AHAC recommends that the Board of Aldermen approve the draft ordinance for the CU Rezoning to R-2-CU

VOTE:

<u>AYES:</u> (7)

ABSENT/EXCUSED: (0)

NOES: (0)

ABSTENTIONS: (0)

Associated Findings

By a unanimous show of hands, the AHAC membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by Amy Singleton and seconded by Terri Buckner that the AHAC of the Town of Carrboro finds the proposed map amendment is consistent with *Carrboro Vision 2020* and the Town's Affordable Housing Strategy, particularly the following provisions relating to Carrboro's support of human services, compatible infill development, and diverse and affordable housing as described below:

- 1.35 The town should consider the impact of its ordinances and policies on the wellbeing of its most vulnerable citizens, including the elderly, children, those with disabilities and those living on low-, middle-, or fixed income.
- **2.11** Infill development should take place in a manner that fulfills the town's goals and enhances neighboring areas. The town should develop policies that mitigate the adverse impacts of infill development, with particular consideration given to roads, sidewalks, and aesthetic compatibility.

- **2.22** Where development is acceptable, there should be well defined dense development with areas of well-preserved open space.
- **6.11** Town policy should accommodate a variety of housing styles, sizes and pricing. It should also address issues of density funding and rezoning to allow for more non-detached housing, mixed-use development, and communal living options.
- **6.17** The town should interact with non-profit groups that work to provide affordable housing, including but not limited to the Land Trust, Orange Community Housing Corporation, Empowerment Inc., and Habitat for Humanity.
- 2.1 Increase the number of rental units that are permanently affordable to individuals and families earning less than 60% of Area Median Income (AMI).
- 2.3 Slow the pressure on rental prices by increasing rental housing stock, particularly in high-transit areas.

There was a motion by Terri Buckner and seconded by Vijay Sivaraman that the AHAC furthermore finds that the above described amendment is reasonable and in the public interest because it uses a mechanism that allows rezonings to occur under very specific conditions so as to ensure compatibility with surrounding and proposed uses.

VOTE:

AYES: (7)

ABSENT/EXCUSED: (0)

NOES: (0)

ABSTENTIONS: (0)

STAFF REPORT

TO: Board of Aldermen

DATE: March 27th, 2018

PROJECT: Conditional Use Permit for Merritt Mill Affordable Housing

at 802 & 806 Merritt Mill Road

APPLICANT: CASA NC

Attention: Jess Brandes 624 West Jones Street Raleigh, NC 27603

OWNER: Glenn Greenstreet

206 Oak Park Drive Chapel Hill, NC 27517

PURPOSE: A request for Conditional Use Permit for twenty-four (24)

unit affordable apartment complex at 802 & 806 Merritt

Mill Road

EXISTING ZONING: R-7.5 Residential District

PIN: 9778-93-0135 & 9778-93-1183

LOCATION: 802 & 806 Merritt Mill Road

TRACT SIZE: 86,833sf (1.99 ac)

EXISTING LAND USE: Vacant

PROPOSED LAND USE: Three (3) story multi-family apartment (use #1.330)

complex. Total of twenty-four (24) units with two (2)

bedrooms within each unit

SURROUNDING

LAND USES: North: M1, Village Self Storage

South: Chapel Hill Planning Jurisdiction West: R-7.5, single-family residences East: Chapel Hill Planning Jurisdiction

ZONING HISTORY: R-7.5 since 1980

ANALYSIS

Background, Concept Plan Development

Background

CASA NC has submitted an application for a Conditional Use Permit (CUP) for a multifamily apartment complex. This will be a three (3) story building that will contain twenty-four (24) units with two (2) bedrooms within each unit. It should be noted that this project is a joint planning effort with Chapel Hill as an additional twenty-four (24) apartments will be constructed on the property to the east (or within Chapel Hill Planning District). Of note, some portions of the project located on the Chapel Hill side of the site are being utilized to demonstrate compliance with Town of Carrboro Land Use Ordinance provisions. This is permissible under the Town's definition of lot.

All the units will all be affordable as CASA is a non-profit housing developer and the units will be available to households below 60 percent of the AMI, with a priority for people who are homeless and/or who have disabilities.

The subject property is currently zoned R-7.5, but the applicant is requesting a Conditional Use Rezoning of the property to R-2. The two (2) properties within the Carrboro Zoning District contain 1.99 acres (86,833sf) and is listed on the Orange County Parcel Identification Numbers 9778-93-0135 & 9778-93-1183.

Density, Affordable Units

Density

The present zoning for this property is R-7.5, but the applicant is requesting a Conditional Use Rezoning of the property to R-2. If the rezoning of property to R-2 is approved, then Section 15-182(a) of the LUO states that multi-family units within the R-2 zoning district requires 2,000 sf of land area per dwelling unit- in essence, a total of forty-three (43) units could be requested. The applicant is requesting a total of twenty-four (24) units with each unit containing two (2) bedrooms.

Affordable Units

All twenty-four (24) units will be affordable (as well as those units within Chapel Hill) as CASA is a non-profit housing developer and the units will be available to households below 60 percent of the AMI, with a priority for people who are homeless and/or who

have disabilities. These units will remain as affordable for a time span of 99 years per Section 15-182.4(f) of the LUO. The following condition related to affordability is recommended:

 That deed restrictions must be placed on the property restricting use of the land to only affordable housing, in accordance with LUO Section 15-182.4, for a period of 99 years.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to density, affordable units and open space.

Traffic Analysis, Sidewalks, Bike Lane, Transit, Parking, Bicycle Parking

Traffic Analysis

See the applicants attached statement (attachment F). The project has been reviewed and approved by NCDOT.

Because NCDOT has reviewed but not formally approved the project for construction, the following condition is recommended:

 That prior to construction plan approval, the applicant receive a driveway permit from NCDOT in accordance with any conditions imposed by such agency including but not limited to encroachment/maintenance agreement for installation of necessary infrastructures.

Sidewalks

Installation of a five (5) foot wide sidewalk will be installed along the front portion of this project. This new sidewalk will connect to the existing sidewalk in front of the Lincoln Center to this east of this project.

Bike Lane

A bike lane will be installed along the front portion (north side of Merritt Mill Road) of this project. This bike lane will end or merge back into Merritt Mill Road at the western edge of this project.

Transit

The project does not propose the installation of a bus stop, but there are two existing bus stops to the east and two bus stops to the west. This project was forwarded to Chapel Hill Transit for review, but no review comments to date have been received.

Parking

Section 15-291(g) of the LUO requires one (1) parking space per unit due to these units being low income. This would require a twenty-four (24) parking spaces, but the

applicant will be providing thirty-one (31) parking spaces within the Carrboro portion of this project.

Bicycle Parking

Section 15-291(h) of the LUO requires 1.5 bicycle parking spaces per unit- this would require thirty-six (36) bicycle parking spaces with 50 percent of those being covered spaces.

A total of thirty-six (36) bicycle parking spaces with 50 percent or eighteen (18) bicycle spaces will be covered- this meets Section 15-291(h) of the LUO.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to Traffic Analysis, Sidewalks, Bike Lane, Transit, Parking and Bicycle Parking.

Tree Protection, Screening, Parking Lot Shading and Tree Canopy

Tree Protection

Section 15-316 of the LUO states that large trees have a diameter of eighteen (18) inches or greater and are to be retained whenever possible. There are currently sixty (60) rare trees and fifty-one (51) specimen trees located on the Carrboro portion of this project. The project will require the removal of forty-two (42) of the rare trees and forty-six (46) of the specimen trees.

The remaining existing trees will be preserved and protected by tree protection fencing during construction. As required, the applicant has provided a tree removal justification letter (attachment G).

Screening

Section 15-307 requires a Type C screen along the southern and western side property lines- this screening requirement will be met by the installation of varying hardwood trees and the retention of existing trees. The plans as presented satisfy the screening requirements of the LUO.

Parking Lot Shading

Section 15-318(b) states that 35 percent of parking lot must be shaded- the proposed parking lot shading provided by this project is 36 percent. The base requirements is calculated per the provisions of Appendix E-3 of the LUO.

Tree Canopy

Section 15-319 requires a minimum tree canopy of forty (40) percent for this project-this project will be providing the forty (40) percent tree canopy by the retention of existing trees along the western property line and the installation of nine (9) hardwood trees.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to tree protection, screening, parking lot shading and tree canopy requirements.

Drainage and Water Quality, Grading, Stream Buffers, Erosion Control and Phasing

Drainage and Water Quality

Section 15-263 of the LUO establishes stormwater management criteria that must be met for any project requiring a CUP. In particular, the applicant must meet stormwater runoff standards with respect to water quality, quantity and volume.

The present plans show the installation of an underground stormwater detention device located in the northwestern portion of the property and an additional bio-retention device in the southwestern portion of the property.

The town engineer notes that some minor issues will need to be resolved during construction plan review, but no substantive site design changes are anticipated. The following condition is recommended in case something about the site design does change:

-That if any substantive changes to the site design are necessary to meet all applicable stormwater related provisions of the LUO, then the applicant will bring such changes back to the Board of Aldermen for review, including an additional public hearing if deemed necessary.

Grading

Substantial grading will take place on this site due to the approximate twenty (20) foot change in elevation from the front portion of this property to the rear. This grading will be necessary for the installation of the buildings, parking lot, recreations facility etc.

Stream Buffers

There is an existing stream buffer along the western side property line. This stream buffer has been reviewed by the Environmental Planner and the Town Engineer. This portion of the site is designed to reflect agreement between the applicant and staff about where the buffer originates and improves upon the overall quality of the area by treating the stormwater and reshaping the area through grading.

Erosion Control

The Erosion Control Plan has been reviewed and approved by Orange County Erosion Control.

Phasing

The project is not phased.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to Grading, Erosion Control and Phasing. It is staff's recommendation that the

Advisory Board review the proposed Water Quality and Drainage condition and offer any recommendations.

Utilities, Lighting and Refuse Collection

Utilities

The water and sewer plans have been reviewed by OWASA and meet with their general satisfaction.

Regarding electric, gas, telephone and cable television utilities, the applicant has submitted letters by the respective providers indicating that they can serve the development.

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

Lighting

Section 15-242.5 states that under no circumstance may light pollution exceed .2 foot candles at the property line. A total of two (2) pole type lights will be installed within the parking lot and the proposed lighting does not exceed the .2 foot candle requirement.

Refuse Collection

Trash collection and recycling services will utilize a dumpster location in the northern portion of the property that is within Carrboro's jurisdiction.

The applicant has stated that a private hauler will be used and had provided a letter from Waste Industries that they can serve this project.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to Utilities, Lighting and Refuse Collection.

Open Space and Recreation

Open Space

Section 15-184.2(k) of the LUO states that if a project provides affordable housing then the necessary open space within the R-2 zoning district is ten (10) percent. This project is providing fourteen (14) percent open space within the Carrboro portion of the project.

Recreation

The two (2) bedroom, twenty-four (24) units require 227 recreation points per Section 15-196(c) of the LUO. A total of 843 recreational points is being provided within the overall project since a portion of the project is within Carrboro and Chapel Hill.

The proposed recreation amenities include a clubhouse, gazebo, playground and a picnic shelter.

CONCLUSION – The project meets all the requirements of the Land Use Ordinance pertaining to Open Space and Recreation.

Miscellaneous

Neighborhood Meeting

The applicant conducted a Neighborhood Information Meeting on December 6th, 2017 and has provided a Neighborhood Meeting Form and a sign-in sheet of those that attended the meeting (attachment D).

STAFF RECOMMENDATION:

Town staff recommends that the Board of Aldermen review the Conditional Use Permit proposal with the following conditions and prepare recommendations. The CUP worksheet is attached (see attachment H):

- 1. That the applicant shall provide to the Zoning Division, prior to the recordation of the final plat for the project or before the release of a bond if some features are not yet in place at the time of the recording of the final plat, Mylar and digital asbuilts for the stormwater features of the project. Digital asbuilts shall be in DXF format and shall include a base map of the whole project and all separate plan sheets. Asbuilt DXF files shall include all layers or tables containing storm drainage features. Storm drainage features will be clearly delineated in a data table. The data will be tied to horizontal controls.
- 2. That the developer shall include a detailed stormwater system maintenance plan, specifying responsible entity and schedule. The plan shall include scheduled maintenance activities for each stormwater BMP in the development, performance evaluation protocol, and frequency of self-reporting requirements (including a proposed self-reporting form) on maintenance and performance. The plan and supporting documentation shall be submitted to Town Engineer and Environmental Planner for approval prior to construction plan approval.
- 3. That prior to construction plan approval, the applicant receive a driveway permit from NCDOT in accordance with any conditions imposed by such agency including but not limited to encroachment/maintenance agreement for installation of necessary infrastructures.
- 4. That if any substantive changes to the site design are necessary to meet all applicable stormwater related provisions of the LUO, then the applicant will bring

- such changes back to the Board of Aldermen for review, including an additional public hearing if deemed necessary.
- 5. That deed restrictions must be placed on the property restricting use of the land to only affordable housing, in accordance with LUO Section 15-182.4, for a period of 99 years.

Attachment B





Town of Carrboro

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

Agenda Item Abstract

File Number: 17-454

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

TITLE:

Public Hearing on Land Use Ordinance Amendments Relating to Tree Protection, Shade Trees, Canopy Coverage and Replacement Standards

PURPOSE: The purpose of this item is for the Board of Aldermen to receive public comment on text amendments to the Land Use Ordinance relating to the provisions in Article XIX, Screening and Trees, and the associated appendices A and E. A draft ordinance has been prepared.

DEPARTMENT: Planning

CONTACT INFORMATION: Christina Moon - 919-918-7325, Patricia McGuire - 919-918-7327, Randy Dodd - 919-918-7341, Bob Hornik - 919-929-3905

INFORMATION: On January 23, 2018, the Board of Aldermen opened a public hearing to receive comments on a draft ordinance relating to tree protection and tree replacement that included new requirements for tree canopy coverage. (Agenda materials may be found at:

="">.) The Board voted to continue the public hearing to February to provide an opportunity for the Environmental Advisory Board to finish its comments (delayed by inclement weather), and to refer the draft ordinance to the Greenways Commission for comment. The Board subsequently voted to continue the hearing until March 27th.

A revised draft ordinance, dated March 21, 2018, has been prepared for the Board's consideration (Attachment B). If adopted, provisions in Article XIX and the associated appendices A and E would be amended to strengthen the Town's overarching policy toward preserving trees in general, protecting trees during construction, and planting new trees for improved shading and canopy cover. The revised draft includes some minor modifications of the ordinance presented in January to make the language clearer, and more consistent with similar provisions in other sections of the Land Use Ordinance (LUO). The other items included in the draft presented in January remain in place such as the new calculation worksheet in the appendices and the updated plant lists reorganized into a table format.

Attachments A through G, provided with the January public hearing materials have been updated. These items include:

A new version of the consistency resolution that incorporates the plan amendment provision

Agenda Date: 3/27/2018 File Type: Agendas

In Control: Board of Aldermen

Version: 1

(Attachment A)

- Draft ordinance (Attachment B)
- A chart which provides an overview of changes to the draft ordinance with explanatory comments (Attachment C)
- Current LUO Article XIX showing tracked changes (Attachment D)
- Current LUO Appendix A showing tracked changes (Attachment E)
- Current LUO Appendix E showing tracked changes (Attachment F)
- Comments from Orange County and the Advisory Boards (Attachment G).

The Board must receive public input before taking action on amendments to the LUO. The draft ordinance was referred to Orange County, and was presented at the joint advisory board review meeting on November 2, 2017. The Environmental Advisory Board completed its review in March, 2018. The Greenways Commission discussed the draft amendments at two meetings but ultimately decided not to submit formal comments. Editing recommendations from members of the Greenways Commission, were discussed at the Greenways Commission meeting and subsequently integrated into the revised draft ordinance (March 21, 2018). The collective set of comments is provided as Attachment G. Alderman Slade's comments from the January public hearing are also provided since they were referred to the EAB to help guide its discussion (Attachment H).

FISCAL & STAFF IMPACT: Public hearings involve staff and public notice costs associated with advisory board and Board of Aldermen review.

RECOMMENDATION: Staff recommends that the Board of Aldermen consider the attached resolution on consistency and the draft ordinance (Attachments A and B).

A RESOLUTION ADOPTING A STATEMENT EXPLAINING THE BOARD OF ALDERMEN'S REASONS FOR ADOPTING AN AMENDMENT TO THE TEXT OF THE CARRBORO LAND USE ORDINANCE (N.C. Gen. Stat. 160A-383)

WHEREAS, an amendment to the text of the Carrboro Land Use Ordinance has been proposed, which amendment is described or identified as follows: AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE PROVISIONS RELATING TO TREE PROTECTION, SHADING AND CANOPY REQUIREMENTS.

NOW, THEREFORE, the Board of Aldermen of the Town of Carrboro Resolves:

Section 1. The Board has reviewed the draft amendment to the text of the Land Use Ordinance and concludes that the proposed amendment is:
Consistent with current adopted plans, Carrboro Vision2020 (provisions 2.23 & 2.43) and the Downtown Carrboro New Vision, for the following reason(s):
2.23 The town encourages the planting of native plant species, as well as non-native species that are not invasive. Removal of invasive species is encouraged. Carrboro Vision2020
2.43 Carrboro should plan and encourage the growth of tree canopies over roads to mitigate the heat and smog effect caused by superheated pavement. Carrboro should strongly encourage the electric utilities to put their lines underground to allow for full canopy coverage.
Downtown Identity – The Town should develop and adhere consistently to a streetscape and landscape master plan that establishes a planting scheme, etc.
Inconsistent with current adopted plans. The proposed action is inconsistent with the comprehensive plan for the following reason(s):
Inconsistent with the current adopted plans; however, because of the following changed circumstance(s), the Board of Aldermen's approval shall also be deemed an amendment to the existing adopted plan,, as described below.
Changed circumstance(s):
Amendment to current adopted plan:

Section 2. The Board of Aldermen's action is reasonable and in the public interest for the following reason(s):

The benefits that trees, shrubs and other plants provide to the community such as, providing oxygen and improving air quality, reducing heat island effect, maintaining the hydrologic cycle, providing pollen and nectar for pollinators and contributing to the vitality and character of the Town making it a more aesthetic and emotionally satisfying place in which to live, work and spend leisure time.

Section 3. Therefore, the Carrboro Board of Aldermen has: <u>approved / denied</u> the proposed amendment to the text of the Carrboro Land Use Ordinance.

Section 4. This resolution becomes effective upon adoption.

Adopted by the Carrboro Board of Aldermen this the 27th day of March 2018.

AN ORDINANCE AMENDING TOWN OF CARRBORO LAND USE ORDINANCE PROVISIONS RELATING TO TREE PROTECTION, SHADING AND CANOPY REQUIREMENTS

Draft 3-23-2018

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

- Section 1. Section 15-314 (Board Findings and Declaration of Policy on Protecting Trees and Other Plants), subsection (a)(2) is amended and two new provisions (a)(12) and (a)(13) are added to read as follows:
- (2) Trees, shrubs, and other plants appreciably reduce carbon emissions by shading buildings thereby lowering energy use to cool buildings, and also store carbon as biomass; and
- (12) Certain flowering trees, shrubs, and other plants are important sources of pollen and nectar for pollinators.
- (13) Native trees and shrubs are important, and essential, host plants for native butterfly and moth caterpillars.
- Section 2: Section 15-314 (Board Findings and Declaration of Policy on Protecting Trees and Other Plants), subsection (b) is amended to read as follows:
- (b) Based upon the findings set forth in subsection (a), the Board declares that it is not only desirable but essential to the health, safety, and welfare of all persons living or working within the town's planning jurisdiction, present and future, to protect certain existing trees and tree stands and, under the circumstances set forth in this article, to require the planting of new trees, especially larger trees, in certain types of developments, and to ensure the protection of those trees whether on individual lots or on common space.

Section 3. Section 15-315 of Article XIX, (Definitions) is rewritten as follows:

Section 15-315 Definitions

Unless otherwise specifically provided, or unless the context clearly indicates otherwise, the words and phrases defined below shall have the meaning indicated when used in this Part.

- (1) CANOPY TREE. A healthy evergreen or deciduous tree species that matures at a height of at least thirty (30) feet.
- (2) CLEARCUTTING. The large-scale, indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for nonagricultural purposes.
- (3) CRITICAL ROOT ZONE. The area of soil around a tree where the minimum amount of roots considered critical to the structural stability or health of the tree are located. Critical root zone determination is sometimes based on the drip line, or a

- measurement of the diameter of the tree trunk in inches at breast height (DBH), multiplied by 12.
- (4) DRIPLINE. Perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground.
- (5) HABITAT. The natural environment for animals and plants that is made up of physical factors such as soil, moisture, range of temperature, and availability of light as well as biotic factors such as the availability of food, nesting sites, and shelter.
- (6) INFILL DEVELOPMENT. The development of vacant lots within existing areas that are already developed.
- (7) REDEVELOPMENT. Any development on previously developed land.
- (8) SPECIMEN OR RARE TREE. Any healthy tree that:
 - a. Has a trunk diameter at breast height (dbh) of twenty-four (24) inches or more for pine tree species; or
 - b. Has a trunk dbh of eighteen (18) inches or more for any species besides pine tree species; or
 - c. Has a trunk dbh of twelve (12) inches or more in the case of any of the species from the following list of North Carolina native canopy tree genera; or

Chamaecyparis (Atlantic White Cedar)

Carya (Hickory)

Diospyros (Persimmon)

Fagus (Beech)

Juniperus (Eastern Red Cedar)

Magnolia (Magnolia

Pinus (Longleaf pine)

Taxodium (Bald cypress)

Tsuga (Hemlock)

Ulmus (American Elm)

d. has a trunk dbh of six (6) inches or more in the case of the species from the following list of North Carolina native understory tree genera: or

Amelanchier (Serviceberry)Halesia (Silverbell)Asimina (Pawpaw)Hamamelis (Witch-hazel)Carpinus (Hornbeam)Ilex (Holly)Cercis (Redbud)Ostrya (Hophornbeam)Chionanthus (Fringetree)Oxydendrum (Sourwood)Cornus (Dogwood)Sassafras (Sassafras)Crataegus (Hawthorn)

- e. is listed as a State or National Champion by the North Carolina Forest Service or the American Forestry Association; or
- f. provides unique habitat for any endangered or threatened wildlife species protected by Federal law; or
- g. has been cited by the Board of Aldermen as being historically significant; or
- h. any other tree species listed in the North Carolina Natural Heritage Program as being significantly rare, of special concern, threatened, or endangered.
- (9) TREE. A perennial woody plant, single or multiple trunks, with few if any branches on its lower part, which at maturity will obtain a minimum six (6) inch caliper.
- (10) TREE CANOPY. The combined area encompassing the drip zones of all canopy trees.

- (11) TREE PROTECTION PERIMETER. That area within a circle drawn with the tree's trunk as the center. Radius is dependent upon site conditions and the relative tolerance of tree species to construction damage. Standard accepted radius is 1-1.5 feet per diameter inch of tree to be retained.
- (12) TREE STAND. An aggregation of trees occupying a specific area and generally uniform in species composition, size, age, arrangement, and condition that distinguishes it from vegetation in adjoining areas.

Section 4. Section 15-317 (Retention and Protection of Specimen and Rare Trees), subsections (a) through (c) are rewritten to read as follows:

Section 15-317 Retention and Protection of Specimen and Rare Trees

- (a) Every development shall retain all existing specimen and rare trees unless the applicant demonstrates that a site would be unreasonably burdened. The applicant, in consultation with the land use administrator and a landscape or forestry professional, such as a certified arborist, shall use the following criteria to evaluate the trees for the purpose of proposing which to retain:
 - (1) The rareness of the species, relative to the species representation on the site and to the species representation within the region and the state. This shall be the most important criterion in the evaluation;
 - (2) Size and age, large old trees being considered more valuable than smaller, younger trees of the same species;
 - (3) The expected longevity of the tree, including such factors as the tree's relative health at the time of the evaluation;
 - (4) The hardiness of the tree species, including wind firmness, climatic requirements, susceptibility to insects and diseases;
 - (5) Aesthetic values, including flowers, fruit, form characteristics, potential for autumn coloration;
 - (6) Size at maturity; and
 - (7) Potential to provide shading.
- (b) Flexible approaches such as adjustments to lot layout, placement of buildings and paved surfaces and location of utilities should be pursued in order to save rare and specimen trees.
- (c) Subsurface disturbance within the Tree Protection Perimeter and the Critical Root Zone around any tree to be retained in accordance with (a) above, shall be limited to the minimum extent practicable as determined during construction or after completion of the development. Encroachment into a tree perimeter protection area and critical root zone as defined in 15-315(11) and 15-315(3) shall not, alone, provide sufficient grounds for tree removal.

- Section 5. Section 15-318 (Shade Trees in Parking Lots), subsections (a) is amended with an additional sentence added to the end of the subsection, and subsection (c) is amended with updated Land Use Ordinance section references and an additional sentence added to the end of the subsection, to read as follows:
- (a) Vehicle accommodation areas containing more than four parking spaces that are required by Section 15-296 must be shaded by deciduous trees (either retained or planted by developer) that have or will have when fully mature a trunk at least twelve inches in diameter. When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. As part of redevelopment or development of an infill lot in the B-1(C), B-1(G) or B-2 districts, up to 25% of the shading requirement may be from existing or proposed building(s) providing shadow as identified in the provisions of Appendix A, A-6 (26).
- (c) No paving may be placed within 15 feet (measured from the trunk) of any tree retained to comply with subsection (a), unless such tree is eighteen inches or greater in diameter or a very rare species as described in Section 15-315, in which case no paving may be placed within the Tree Protection Perimeter for such trees as described in 15-315(11). Notwithstanding the foregoing, the permit issuing authority may allow an encroachment of up to 25% of the tree protection area if i) the developer provides documentation by a professional engineer, landscape architect or certified arborist, that will ensure the survival of the tree for its typical life expectancy and ii) a description of the extent of the hardship that would occur if such encroachment were not permitted to occur, or pursuant to 15-317(e) the developer may propose a reduction of the number of parking spaces.

New trees planted to comply with subsection (a) shall be located so that they are surrounded by at least 200 square feet of unpaved area. The permit issuing authority may allow new trees to be surrounded by less than 200 square feet of unpaved area if installed with an urban tree planting system, specified by a professional engineer, landscape architect or certified arborist, that will ensure the survival of the tree for its typical life expectancy.

Section 6. Section 15-319 (Tree Canopy coverage Standards) is rewritten to read as follows:

Section 15-319 Tree Canopy Coverage Standards

(a) Minimum Canopy Coverage Standards. Subject to the remaining provisions of this section, the following minimum tree canopy coverage percentages are required within the boundaries of every lot or tract for which a zoning, special use, or conditional use permit is issued, exclusive of required cleared active recreation areas, water bodies, access easements, public and private right-of-way, stormwater and utility easements.

<u>Table 1: Minimum Tree Canopy Coverage Standards</u>

Land Use	Minimum Canopy Coverage
Residential	40%
Other than residential excluding districts (B-1(C), (B-1(G), (B-2)	30%
Other than residential in districts (B-1(C), (B-1(G), (B-2)	15%

When a tract is subdivided and pursuant to the provisions of Article XIII the developer sets aside open space areas or recreation areas that contain canopy trees (with a minimum caliper of six inches) or when a developer of a subdivision plants canopy trees to comply with the shading requirements of Article XIII, the total tree canopy area so preserved or established shall be credited against the minimum canopy coverage percentages set forth above. The remaining required tree canopy coverage area shall be allocated by the subdivider among the subdivided lots, and this allocation shall be shown on the recorded plat of such subdivision with a disclosure note that such trees, to fulfill the requirements of this section, shall be subject to maintenance and replacement.

- (b) Implementation of Standards. Compliance with the tree canopy standards shall be achieved as follows:
 - (1) Protection of existing tree canopy. The extent of existing tree canopy coverage retained at the time of permit application may be documented by survey or by using current aerial photographs available on the Town's web page or similar resource. Protection of the existing tree canopy will be demonstrated by the tree protection plan required by Section 15-320.
 - (2) Replacement of canopy. If the existing protected tree canopy is less than the minimum standard as shown in Table 1, the deficit shall be made up by the planting of additional trees as provided herein:
 - a. One (1) or more replacement tree(s) shall be planted in accordance with an approved planting plan. When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. Each tree shall be presumed to create a canopy circular area with the trunk of the tree as the center, and there must be sufficient trees so that, using this standard, the canopy requirements in 15-319(a) are met.
 - b. Canopy trees planted to meet the Town's screening and parking lot shading standards can be counted toward the replacement canopy tree calculation.
 - c. Supplemental canopy trees planted to complete the canopy coverage requirements shall be planted no less than twenty (20) feet from any other proposed or existing canopy tree.
 - d. Replacement trees that are planted in an adjacent right-of-way may count toward total tree canopy.
 - e. Replacement tree caliper shall be at least two and one-half (2.5) inches at installation.
- (c) Modifications to Canopy Coverage Standards. The permit issuing authority may approve a development application that does not fully comply with the canopy coverage standards

when it finds that the application substantially (50 % or more) complies with these standards and that such a deviation:

- (1) Enables the development to better achieve other Town objectives such as: i) the promotion of solar access to encourage active and passive solar technology for water and space heating and renewable energy generation, ii) improved stormwater management, and iii) the preservation of established landscapes professionally designed and installed by an architect or landscape architect, or landscape designer; or
- (2) Is for property enrolled in the present use value taxation program or subject to a forest management plan; or
- (3) Is part of a redevelopment proposal or development of an infill lot in the B-1(C), B-1(G) or B-2 districts.

Large expanses of open space, meadowland (excepting a meadow consisting of species native to the Piedment), or manicured lawn shall not satisfy the canopy coverage standards of this section.

- (d) Exemption from Canopy Coverage Standards. Zoning permit applications for structures that are exempt from building permit requirements, or are either i) additions to existing permitted structures that do not exceed 25% of an existing building footprint or ii) do not increase the footprint of the existing building by more than 250 square feet, shall be exempt from the tree canopy standards. Successive additions, occurring within a period of five years, may not exceed these standards and maintain this exemption.
- Section 7. Section 15-321.1 is amended by creating a new Section 15-321.1 (Joint Use of Trees), as follows, and renumbering the existing Section 15-321.2 (Regulation of Forestry Activities) to 15-321.2.
- (a) One tree may be located such that it meets the requirements of Sections 15-308, 15-316, 15-318 and 15-319, but except as otherwise provided in this article, the required tree assigned to one standard may not be credited to any other.
- (b) In downtown districts, B-1(C), B-1(G) and B-2, trees planted in rights of way directly adjacent to a development may be credited toward shading and canopy coverage.
- Section 8. Section 15-321.2 is amended by creating a new Section 15-321.2 (Payment in Lieu of Providing Shade or Canopy Cover Trees), as follows, and renumbering the existing Section 15-321.2 (Regulation of Forestry Activities) to 15-321.3.
- (a) With respect to the development or redevelopment of an existing lot in the B-1(C), B-1(G) or B-2 districts, the permit issuing authority may authorize the developer to forego the requirements of Section 15-318 (shading trees), and/or the requirements of Section 15-319 (canopy coverage) of this Article, if (i) the permit issuing authority finds that it is physically impossible or impracticable for the developer plant trees that will survive satisfy the requirements and ii) the developer pays to the town for each tree not planted a fee in lieu of providing such tree(s), in an

amount determined as provided in subsection (b) of this section. The fee shall be paid before construction plan approval, unless the permit issuing authority by condition establishes another time.

- (b) The amount of the fee authorized by this section shall be determined by estimating the cost of providing the required trees (including the cost of the plant and labor for installation) that meets the requirements of this Article. This determination shall be made annually and the fee shall be included in the Miscellaneous Fees and Charges Schedule adopted by the Board of Aldermen.
- (c) Any fees collected in accordance with this section shall be reserved and used exclusively to meet the purposes for which they have been obtained as specified above in subsection (a). The required fee shall be submitted to the Town prior to construction plan approval.
- Section 9. Appendix A, Section A-5. (Existing, Natural, Man-Made and Legal Features) (b)(2), is rewritten to read as follows:
 - (b) Existing natural features:
 - (1) Tree line of wooded areas.
 - (2) The location and sizes of all trees which are to be retained in accordance with Section 15-317, and which are to be removed; a written justification for the need to remove any specimen or rare species trees protected by the provisions of Article XIX, along with a description of the extent of the hardship that would occur if such removal were not permitted to occur.

Section 10. Appendix A, Section A-6. (Proposed Changes in Existing Features or New Features), provisions (b)(23) and (b)(24) are rewritten to read as follows:

- (23) Proposed plantings or construction of other devices to comply with the screening requirements of Article XIX, Part I, as well as proposed plantings of trees to comply with the shading, street tree, and canopy requirements of Article XIX, Part II. Plans shall label shrubbery by common and scientific name, show the distance between plants and indicate the height at the time of planting and expected mature height and width. Plans shall label trees by common and scientific name, show the circles of the mature crowns (major trees shall be drawn at diameter = 30 feet; dwarf or decorative trees shall be drawn at their actual mature crown), and indicate the height at the time of planting.
- (24) A Tree Protection Plan, will be completed and stamped by a certified arborist or landscape architect, illustrating the methods proposed to be used to protect, during construction, the trees that are required to be protected under the provisions of Article XIX including specifications as to how the grade, drainage, and aeration will be maintained around the trees. The location of all rare and specimen trees to be retained on the site that will not be within the area to be disturbed by construction activities near a building site, or near roads

within the development shall also be shown on the plan, along with a note stating that these trees will not be within the area to be disturbed by construction activities. The Administrator may recommend that applicants consult with experts in arboriculture, landscape architecture or forestry about appropriate tree protection methods for the particular conditions and species in question.

Section 11. Appendix E (Screening and Trees – Guide for Landscaping), provision title for E-3) shall be amended to read as follows:

E-3 Formulas for Calculating Thirty-five Percent Shading of Paved Vehicle Accommodation Areas and Tree Canopy Deficit Replacement.

Section 12. Appendix E-1 (Guide for Protecting Existing Trees), shall be amended to change the Section number from 15-316 to 15-317 in the first sentence and in subsection (b) to read as follows:

E-1 Guide for Protecting Existing Trees

Section 15-317 provides for the retention and protection of large trees when land is developed. In order to better ensure the survival of existing trees, the developer should heed the following guidelines:

(b) Avoid excavations beneath the crown of the tree as required by Section 15-317(c).

Section 13. Appendix E-2 (Standards for Street and Parking Lot Trees), shall be amended to correct the references to other Sections, as follows:

Trees planted in compliance with the requirements of Sections 15-316, 15-318 and 15-319 should have most or all of the following qualities. The trees recommended in Section E-10 represent the best combinations of these characteristics.

Section 14. Appendix E-3 (Formulas for Calculating 35% Shading of Vehicle Accommodation Areas and Tree Canopy Deficit Replacement) shall be amended to include a new formula for determining the number of replacement trees required to presumptively satisfy the tree canopy requirements of Section 15-319, as follows:

Formulas for Calculating the Number of Replacement Trees Required to Satisfy the Tree Canopy Deficit

Following is an elementary formula for determining the number of replacement trees required to presumptively satisfy the tree canopy requirements of Section 15-319.

<i>1</i> .	Enter square footage of the site to which canopy standards apply (15-319(a)):		sq. ft.
<i>2</i> .	Multiply (by 40%, 30%, or 15% depending on the Land Use)	x .4, .3	or .15
<i>3</i> .	Canopy Required		sq. ft.
	*******		-
	Add:		
<i>4</i> .	Canopy from existing trees to be retained:*		sq. ft.
<i>5</i> .	Canopy area of required screening trees, if any:		sq. ft.
6.	Canopy area of required shade trees, if any:		_sq. ft.
<i>7</i> .	Subtotal (add lines 4-6)		sq. ft.
	(if line #7 is greater than line #3, then the canopy requirement has been met. If not, go on to line #8)		- 1
<i>8</i> .	Enter the difference between line #7 and line #3		sq. ft.
	Divide line #8:	÷ 707	•
<i>9</i> .	Total number of replacement trees required**:		trees

^{*}Existing trees retained will be credited according to their actual crown radius on the site as determined by survey or aerial photography.

Trees planted that are generally recognized as canopy or overstory trees are credited with shading 707 sq. ft. (based on a crown radius of 15'). New trees planted within 5' of the lot line are credited for having only half a crown (e.g., new perimeter trees will be credited for 354 sq. ft.). When smaller trees generally recognized as understory trees such as Dogwoods are planted, the credited area will be adjusted downward to 314 sq. ft. for interior trees and 157 sq. ft. for perimeter trees (based on a crown radius of 10').

^{**}The actual number of replacement trees to be planted will be determined as described below.

Section 15. Appendix E-9 (Guide for Planning Shrubs) is amended to read as follows:

E-5 Guide for Planting Trees

After the pit is dug, observe sub surface drainage conditions. Most soils in the Carrboro area are poorly drained. Planting depth where poor drainage exists should be dependent upon the water needs of the tree species. If the species is more sensitive to poor drainage, the tree should be planted higher than existing grade, not to exceed ¼ root of the ball above grade. If a wire cage surrounds the root ball, it should be removed prior to planting. Back fill should then be sloped gradually from top of root ball to existing grade. Gravel placed at the bottom of the hole will not improve drainage.

Section 16. Appendix E-9 (Guide for Planning Shrubs) is amended to read as follows:

E-9 Guide for Planting Shrubs

Shrubs planted for screening purpose should be given a proper culture and be spaced based on expected size at maturity. Most soils in the Carrboro area are poorly drained. Planting depth where poor drainage exists should be dependent upon the water needs of the tree species. If the species is more sensitive to poor drainage, the shrub should be planted higher than existing grade, not to exceed one quarter of the root ball above grade. If a wire cage surrounds the root ball, it should be removed prior to planting. Back fill should then be sloped gradually from the top of the root ball to the existing grade. Gravel placed at the bottom of the hole, underneath the shrub, will not improve drainage. Many of the guidelines for tree planting listed in Section E-5 also apply to shrubs. However, because specific requirements vary considerably between shrub types, this Appendix does not attempt to generalize the needs of all shrubs.

Section 17. Appendix E-10 (Lists of Recommended Trees and Shrubs) is completely rewritten with the lists of trees and shrubs listed as under subsection E-10(A) through E-10(F) are reorganized into a table, as follows:

E-10 Table of Recommended Trees and Shrubs

The following table, indicates plants which will meet the screening, shading, and tree canopy replacement requirements of Article XIX of the Land Use Ordinance. Additional desirable aspects of plants are also provided. The lists are not intended to be comprehensive or absolute, but rather are intended as guidance for species that are appropriate.

Plants were selected for inclusion on these lists according to two principal criteria in addition to providing the indicated service: i.) general suitability for the Piedmont of North Carolina and support of Piedmont ecosystems and food webs; and ii.) for a particular site, species native to the Piedmont of North Carolina which are thriving on or near the site should be favored. When trees are planted to replace native tree specimens removed, native tree species should always

be selected. Plantings of multiple species are also recommended to increase biodiversity and provide resilience. Further information on recommended native plants is available from the North Carolina Native Plant Society. The Land Use Administrator has the discretion to not approve of planting plans to comply with Article XIX that substantially deviate from the list provided

Sections E-11 through E-16 contain descriptions of the trees and shrubs listed here.



E-10 TABLE OF RECOMMENDED TREES AND SHRUBS

	Human Services					Ecological				
	Shading	g (1)	Scr	eening	g (2)	Other		Se	rvic	es
Common Name (Latin name)	Parking / VAA	Street	Partial	Evergreen	Broken	Planting Strip	Edible/Medicinal	Rare/specimen (3)	Native (a)	Pollinator (b)
Large Trees (4)										
American Beech (Fagus grandifolia)								*	*	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \										
American Persimmon (Diospyrus virginianae)			*		*		*	*	*	*
Atlantic White Cedar (Chamaecyparis thyoides)				*				*	*	
Bald Cypress (Taxodium distichum)				*				*	*	
Basswood (Tilia americana)	*								*	
Black Gum (Nyssa sylvatica)			*						*	
Black Oak (Quercus velutina)	*	*							*	
Blackjack Oak (Quercus marilanica)									*	
Chestnut Oak (Quercus montana; Q. prinus)	*								*	
Cucumber Tree (Magnolia acuminata)	*								*	
Eastern Red Cedar (Juniperus virginiana)				*			*	*	*	
Laurel Oak (Quercus laurifolia)				*					*	
Shortleaf Pine (Pinus echinata)								*	*	
Mockernut hickory (Carya tomentosa)									*	*
Ohio Buckeye (Aesculus glabra)								*	*	
Post Oak (Quercus stellata)									*	
Red Maple (Acer Rubrum)	*								*	
Red Oak (Eastern) (Quercus rubra)	*	*							*	
River Birch (Betula nigra)	*	*				*			*	
Scarlet Oak (Quercus coccinea)	*	*							*	
Shortleaf Pine (Pinus echinata)				*					*	
Southern Catalpa (Catalpa bignonoides)	*								*	
Southern Magnolia (Magnolia grandiflora)				*				*	*	
Shagbark Hickory (Carya carolinae-septentrionalis)								*	*	
Swamp Chestnut Oak (Quercus michauxii)	*							*	*	

				-						
Swamp White Oak (Quercus bicolor)	*				*				*	
Sycamore (Platanus occidentalis)	*								*	
Tulip Poplar (Liriodendron tulipifera)	*	*							*	*
Virginia Pine (Pinus virginiana)			<u> </u>	*	<u> </u>			<u> </u>	*	
White Oak (Quercus alba)	*	ļ	ļ						*	
Willow Oak (Quercus phellos)	*	*							*	
Small Trees (5)										
American Holly (Ilex opaca)			*	*	*				*	*
American Hop Hornbeam (Ostrya virginiana)			*						*	
American Hornbeam/Ironwood (Carpinus carolinia)			*			*			*	
American Smoketree (Cotinus obovatus)			*		*					
Carolina Cherry Laurel (Prunus caroliniana)			*	*		*			*	
Crabapple (southern) (Malus spp.)			*				*		*	
Eastern Redbud (Cercis canadensis)			*						*	*
Flowering dogwood (Cornus florida)			*						*	
Fringetree (Chionanthus virginiana)			*		*				*	*
Loblolly Bay (Gordonia lasianthus)			*						*	
Mock Orange Philadelphius inodorus										
(other native cultivars)			*						*	*
Paw Paw (Asimina triloba)			*				*		*	*
Red Bay (Persea borbonia)			*						*	
Sassafras (Sassafras albidum)			*		*		*		*	
Serviceberry (Amelanchier canadensis/arborea)			*			*	*		*	
Silverbell (Halesia carolina)									*	
Sourwood (Oxyndrum arboreum)			*			*			*	
Southern Wax Myrtle (Myrica cerifera)			*	*					*	
Sumac (Rhus aromatica (fragrant); copallina										
(Shining); R. glabra (Smooth); R. typhina (Staghorn))					*		*		*	*
Umbrella Magnolia (Magnolia tripetala)									*	*
Washington Hawthorn (Crataegus phaenophyrum)			*							
Witch Hazel (Common) (Hamamelis virginiana)					*		*		*	
Witch Hazel (Vernal) (Hamamelis vernalis)					*	*	*			
Yaupon Holly (Ilex vomitoria)			*	*		*	*		*	
Shrubs (6)					<u> </u>					
Anise Bush (Illicium anisatum)			*	*		*				
Azaleas (Rhodendron calendulaceum, canescens,									-1-	
periclymenoides, prunifoloium) Roputyborry (Callingarya americana)		-		<u> </u>	*	*			*	*
Beautyberry (Callicarpa americana)				L			<u> </u>		<u> </u>	لـــــــا

D1 1 (V)	I		1	ī			*	1	*	
Blueberry (Vaccinium spp.)					*		*			
Buttonbush (Cephalanthus occidentalis)					*				*	
Carolina Allspice (Sweetshrub) (Calycanthus floridus)					*				*	
Carolina Rose (Rosa carolina)					*				*	
Clethra (Clethra alnifolia)					*				*	
Devil's Walking Stick (Aralia spinosa)					*				*	*
Flowering dogwood (Cornus florida)										
Drooping Leucothoe (Leucothoe fontanesiana)					*				*	
Fortune Tea Olive (Osmanthus fortunei)			*	*						
Glossy Abelia (Abelia grandiflora)			*	*						
Hearts-a-burstin (Eunonymus americanus)					*				*	
Highbush Blueberry (Vaccinium corymbosum)					*				*	
Inkberry (Ilex glabra)			*	*					*	
Japanese Yew (Taxus cuspidata)			*	*						
Magnolia "Little Gem" (Magnolia grandiflora)		*		*					*	
Mountain Laurel (Kalmia latifolia)				*					*	
Oakleaf Hydrangea (Hydrangea quercifolia)					*					*
Poet's Laurel (Danae racemosa)			*	*						
Possumhaw (Ilex decidua)									*	
Savannah Holly (<i>Ilex x attenuata</i>)	*	*		*		*			*	
Silky dogwood (Cornus amomus)									*	
Spicebush (Lindera benzoin)					*	*			*	
Viburnum (acerifolium, dentatum, nudum,										
rafinesquianum, prunifolium, rufidulum)			*		*				*	
Virginia sweetspire (Itea virginica)									*	
Winterberry Holly (<i>Ilex verticillata</i>)			*	*					*	
Vines										
Carolina Jessamine (Gelsemium sempervirens)			*	*					*	
Confederate Jasmine (Trachelospermum jasminoides)			*	*						
Trumpet Honeysuckle (Lonicera sempervirens)			*	*					*	
Virginia Creeper (Parthenocissus quinquefolia)			*	*						
virginia Cicepei (i armenocissus quinquejona)										1

Footnotes: (1) See 15-316 & 15-318. (2) See 15-307. (3) See 15-317. (4,5) Trees that are credited with 707 sf (4) and 314 sf (5) towards canopy requirements per Appendix E (E-3). (6) Shrubs (a) as defined by NC Cooperative Extension Service and Natural Resources Conservation Service; native plants are preferred for all plantings. (b): as identified by Pollinator Partnership, for southeastern region.

Section 18. Appendix E-11 (Small Trees for Partial Screening) is amended to read as follows:

E-11 Small Trees for Partial Screening

The following trees are recommended for use in all types of screens. Though smaller than the trees listed in planting lists E-12 and E-13, each of these trees will reach a height of at least 20 feet. Selections marked with an (*) are also recommended as shade trees and may be credited for meeting the 35% shading requirement for paved parking lots.

Section 19. Appendix E-13 (Large Trees for Shading) is rewritten to read as follows:

E-13 Large Trees for Shading (Amended 6/22/04)

The following trees may be used for screening, but they are recommended especially for shading streets and parking lots. Unless otherwise noted, they will grow rapidly. Each species will attain a mature spread of at least thirty feet. The trees on the following list marked with an "*" are appropriate selections to satisfy Section 15-315, Required Trees Along Dedicated Streets. Trees with a mature height of at least 30 feet may be used for canopy coverage.

*BLACK OAK (Quercus velutina) Height: 50 to 60 feet; Spread: 40 to 50 feet

A large, deciduous oak of the red oak group with a globular, spreading crown. This tree is primarily native to upland hills, slopes and ridges It is similar in appearance to red oak with which it may on occasion hybridize. Bark is almost black on mature trunks with deep furrows. Inner bark is yellow to orange. Trunk matures to 3' in diameter. Leathery, shiny, dark green leaves (to 10" long) have 7-9 deeply incised lobes (each with 1-3 bristle tipped teeth). Leaves turn yellow to yellow-brown to dull red in fall. Easily grown in average, acidic, dry to medium moisture, well-drained soils in full sun.

CHESTNUT OAK (Quercus montana; Q. prinus) Height: 60 to 70 feet; Spread: 50 to 70 feet

Chestnut oak is a medium-sized, native, deciduous, tree that is suited to dry, infertile, rocky upland sites, yet grows best on rich well-drained soils along streams. At maturity, it is a medium-sized long-lived tree with an irregular dense crown. The sweet acorns are an important food for many wildlife species including deer, turkeys, squirrels, chipmunks, and mice, while small birds, mammals, and bees use chestnut oak cavities for nesting

<u>CUCUMBER TREE (Magnolia acuminata; M. Fraserii) Height: 50 to 80 feet; Spread: 50 to 80 feet</u>

Cucumber tree is the most widespread and hardiest of the eight native magnolia species. It grows fairly rapidly and well in rich, moist soils of slopes and valleys and matures in 80 to 120 years. This park-like tree is planted as an ornamental for its attractive leaves, flowers, and cucumbershaped fruit, producing seeds that are eaten by birds and small mammals. Its shape is pyramidal when young, developing a straight trunk and a rounded crown.

*EASTERN RED OAK (Quercus rubra) Height: 50-70'; Spread: 40'+.

This tree grows faster than any other Oak, two feet or more per year. It is prized as a street tree because its high branching habit gives it an ideal shape. The Red Oak grows in almost any average soil and presents no special maintenance problems.

*LAUREL OAK (Quercus laurifolia) Height: 40-60'; Spread: 30'+.

The Laurel Oak grows more slowly than the other Oaks listed above, but it has the advantage of being nearly evergreen in Piedmont sections of North Carolina. It has proven to be a good street tree and does quite well under city conditions. It presents no special maintenance problems.

POST OAK (Quercus stellata) Height: 40 to 50 feet; Spread: 35 to 50 feet

Post oak is a small to medium-sized tree with a crown that has snarled and twisted branches and found on upland sites with full sun. This slow-growing drought resistant oak typically occupies rocky or sandy ridges and dry woodlands with a variety of soils. Acorns provide high-energy wildlife food during fall and winter for wild turkey, white-tailed deer, and squirrels, and provide habitat for birds and mammals. Post oak can be a beautiful shade tree for parks and to stabilize soil on dry, sloping, stony sites where few other trees will grow. It develops an attractive crown with strong horizontal branches.

RED MAPLE (Acer Rubrum) Height 40-50'; Spread: 23 to 35 feet

The Red Maple is an attractive tree with brilliant red or yellow fall foliage. A good shade tree, it is fast growing with a spreading and symmetrical shape with ascending branches. Red Maples work well in sun or shade, with medium soil fertility, drainage and moisture content, but can be susceptible to pests such as maple insects and diseases.

*SCARLET OAK (Quercu Coccinea) Height: 60-80'; Spread: 40'+.

This is a third Oak which grows rapidly and is easy to maintain. The Scarlet Oak is more difficult to transplant than the Red or the Willow, but it may be a worthwhile selection for its excellent foliage

SOUTHERN CATALPA (Catalpa bignonoides) Height: 25 to 40 feet; Spread: 20 to 30 feet

Catalpa is a medium-sized tree with spreading branches, an irregular crown, and generally crooked bole that is suited to moist, well-drained soils with full sun. The flowers and leaves make this an interesting landscape tree but the fruit can be messy.

SWAMP CHESTNUT OAK (Quercus michauxii) Height: 60 to 70 feet; Spread: 50 to 70 feet

Swamp chestnut oak grows in full sun on moist and wet loamy soils of bottomlands, along streams and borders of swamps, tolerates saturated or flooded soils for a few days to a few weeks. The acorns are sweet and serve as food to wildlife. The crown is round, compacted, and narrow.

SWAMP WHITE OAK (Quercus bicolor) Height: 50 to 60 feet; Spread: 50 to 60 feet

Swamp white oak is a medium sized tree with an irregular crown suitable to river bottomlands, depressions, swamp borders, and along edges of streams. It is rapid growing and long lived, attaining 300 to 350 years. Many kinds of wildlife eat the acorns, particularly ducks. Swamp white oak is intermediate in shade tolerance but not very drought tolerant.

SYCAMORE (Platanus occidentalis) Height: 70-100'; Spread: 60'+.

The Sycamore is probably the fastest growing shade tree on this list. Within ten years, it can grow to a height of between thirty and forty feet. It is easily transplanted, but it needs plenty of space. As one of nature's most massive trees, Sycamores have been known to grow to a height of 170 feet with a trunk 10 feet across. The Sycamore is a native tree which typically grows in flood plains, but it thrives in a variety of situations. Its tolerance of severe conditions has long made it a favorite choice as a street tree. Sycamores are susceptible to fungi and leaf blight and their large leaves and seed balls may present a litter problem.

*TULIP POPLAR (Liriodendron tulipifera) - Height 60'-150'; Spread 30-40'.

Very common in eastern woodlands, this is a rapidly growing tree with colorful yellow leaves in Fall. Spring flowers, however, are not very noticeable. Difficult to transplant except when young. Excellent street tree.

WHITE OAK (Quercus alba) Height: 60 to 100 feet; Spread:50 to 90 feet

White oak is found on fertile, moist, well-drained soils under partial sun. Acorns are eaten by game birds, deer, bear, and many small mammals. Pyramidal in youth, this species matures into a rugged, irregular crown that is wide spreading, with a stocky bole. While this species is potentially valuable for use in reforestation projects, it is not recommended near paved areas.

*WILLOW OAK (Quercus phellos) Height: 60-80'; Spread: 30'+.

This is another rapidly growing Oak. It has proven to be quite successful as a street and parking lot tree in the Carrboro area. Its slender leaves give it a finer texture than that of other Oaks, but it still casts excellent shade. The Willow Oak is native to bottomland soils, and thus it needs plenty of moisture. It often spreads majestically as it matures so it should be given ample room to grow. No significant pests or diseases afflict the Willow Oak.

Section 20. Appendix E-14 (Small Shrubs for Evergreen Screening) is rewritten to read as follows:

E-14 Small Shrubs and Vines for Evergreen Screening (Amended 6/22/04)

The following shrubs and vines are recommended for informal (unclipped) hedges or screens. These are generally small species and appropriate for Semi-Opaque Screens.

<u>CAROLINA JESSAMINE* (Gelsemium sempervirens)</u> - Height up to 20'; Spread varies. A moderate growing, mostly evergreen vine that grows very well on fences. Fragrant yellow

flowers in springtime. Prefers sun or partial shade. All parts of this plant are poisonous.

<u>CONFEDERATE JASMINE* (Trachelospermum jasminoides)</u> - Height up to 20'; Spread varies.

Commonly called star jasmine, this is a twining, evergreen, woody vine. Axillary and terminal clusters of salverform, sweetly fragrant, starry, creamy white flowers appear in late spring with sporadic additional bloom in summer. Flowers are attractive to bees.

GLOSSY ABELIA (Abelia grandiflora) Height: 4-6'; Spread: 3-5'.

Abelia is quite common in local nurseries and tends to be less expensive than other shrubs on this list. It bears pale pink flowers throughout the summer. Although it has proven quite popular for informal hedges, it has several drawbacks. Abelia should be pruned and thinned to maintain its best form. It may drop its leaves due to low temperatures, lack of pruning, or starvation.

INKBERRY (Ilex Glabra) Height: 5-10'; Spread: 4-8'

Inkberry is an evergreen shrub with alternate leaves with a smooth or toothed margin. The bark is greenish brown and smooth. In early summer, small greenish white flowers mature. The shrub produces a black drupe that matures in the fall. It is a host plant for the Henry's Elfin butterfly. Fruits are eaten by birds and small mammals.

JAPANESE YEW (Taxus cuspidata) Height: 4-6'; Spread: 5-7'.

The versatile Yew is commonly available from local nurseries in a wide variety of sizes and shapes. The Japanese Yew serves as excellent screening material in either a clipped or unclipped form. It tolerates poor growing conditions and flourishes in almost any kind of soil. (Soggy soil may hamper its growth, however.) It is comparatively pest free and is hardy under trying winter conditions. The Yew's best feature is its rich shiny green needles which grow densely on all varieties.

MOUNTAIN LAUREL (Kalmia Latifolia) Height: 6-10'; Spread: 5-8'

A shrub that is abundant in the mountains with leaves that are alternate with a smooth margin, raised mid-vein, and yellow underside. The bark is thin, smooth, and dark brown-red in color in young trees. The bark shreds and splits as the plant ages. In late spring to early summer, very showy clusters of white to rose flowers mature.

POET'S LAUREL (Danae racemosa) Height: 2 to 3 feet; Spread: 2 to 3 feet

Poet's Laurel prefers partial to full shade, moist, well-drained soil enriched with organic matter; but does tolerate clay soils. It has an open growth habit with slender branches that arch up and away from center of crown. It can spread by rhizomes. While foliage discolors in sun; it can be long-lasting for flower arrangements.

TRUMPET HONEYSUCKLE* (Lonicera sempervirens) - Height up to 50'; Spread varies.

A rapid growing, mostly evergreen vine with beautiful orange to red to yellow flowers occurring in late spring and throughout the summer. Best in full sun.

WINTERBERRY HOLLY (Ilex verticillata) Height: 6 to 15 feet; Spread:6 to 10 feet

With a slow to moderate growth rate, this species is suited to partial to full sun on moist soils, but can tolerate drought. Early summer brings small white flowers that mature into dense clusters of bright red berries.

Note: * Vines - which if grown on a trellis would make a nice evergreen screen.

Section 21. Appendix E-15 (Small Trees and Large Shrubs for Evergreen Screening is rewritten to read as follows:

E-15 Small Trees and Large Shrubs and Trees for Evergreen Screening

The following shrubs are recommended for high hedges or screens. Each species grows to a height of more than 6 feet and are generally appropriate for Opaque Screens.

ANISE BUSH (Illicium anisatum) - Height 8-12'; Spread 8-10'.

moderate growing, evergreen shrub with an open habit. Small flowers appear in mid-Summer. Prefers a fair amount of moisture, with partial to full sun. Subject to damage during very cold winters.

CAROLINA CHERRY-LAUREL (Prunus caroliniana) Height: 20-30'; Spread: 15-20'.

This tree is prized for its dense evergreen foliage. It may be trimmed as a hedge, but also serves as an excellent screen in its natural form. The Cherry-Laurel grows rapidly and has no pests. However, it may not be as cold hardy as other trees on this list.

FORTUNE TEA OLIVE (Osmanthus fortunei) Height: 9-12'; Spread: 5-7'.

This Osmanthus hybrid is a popular, though non-descript, shrub. With its vigorous growth, it will form an excellent screen or border. It is soil tolerant. The Fortune Tea Olive is most notable for its inconspicuous yet highly fragrant flowers.

LOBLOLLY BAY (Gordonia lasianthus) Height 30 to 60 feet; Spread 10 to 15 feet

Loblolly-bay is a small to medium-sized native, evergreen tree that grows on acid soils in flat woodlands or shallow depressions with little or no slope, slow runoff, and poor to very poor drainage. It has a narrow crown and straight trunk.

MAGNOLIA "LITTLE GEM" Height 15 to 30 feet; Spread 15 to 20 feet

'Little Gem' is a much smaller and slower growing Magnolia cultivar that typically grows as a compact upright multi-stemmed shrub or small tree. It features glossy green leaves (to 5" long) that are bronze-brown underneath. Fragrant white flowers (to 4" diameter) bloom in summer. It is effective as a screen, a small street tree or in containers.

RED BAY (Persea borbonia) Height: 15 to 40 feet; Spread 10 to 20 feet

Redbay is an attractive aromatic evergreen tree suitable for sites with partial to full sun and prefers drier soils. Birds and small mammals eat the fruit.

SAVANNAH HOLLY (Ilex X Attenuata 'Savannah') Height: 25 to 40'; Spread 8 to 12 feet

This holly grows quickly in full sun or partial shade on moist, acid soils. Plants in full sun can grow a dense canopy, those in partial shade are more open. Trees attract cedar waxwings, mockingbirds, robins and many other birds. This holly makes a fairly durable street tree. It is quite drought-tolerant once it becomes well-established. The crown grown with one central trunk is preferred, making it well-suited for urban areas having restricted vertical space. Savannah Holly has also performed well in sidewalk cutouts/small tree pits, in parking lots and median strip plantings and for screens.

SOUTHERN WAX MYRTLE (Myrica cerifera) Height 40 feet; Spread 20 to 25 feet

Southern wax myrtle is an erect, shade tolerant, ornamental, evergreen, small tree or shrub. Its flat leaves are aromatic when crushed and may repel. Underground runners extend the growth laterally and root nodules are capable of atmospheric nitrogen fixation.

YAUPON HOLLY (Ilex vomitoria) Height: 5-15'; Spread: 6-12'.

This is another versatile Holly, slower growing than the Burford, but equally as adaptable to adverse conditions. It is a native shrub which has proven to be one of the most drought resistant of all Hollies. It may be clipped to maintain any desired height. The Yaupon Holly is very heavily fruited and will attract birds.

Section 22. Appendix E-16 (Assorted Plantings for Broken Screens) is rewritten to read as follows:

E-16 Assorted Plantings for Broken Screens (Amended 6/22/04)

The following is a sampling of shrubbery which would be appropriate in a Broken Screen. Because many of these plants are deciduous, they are not suitable for Opaque and Semi-Opaque Screens. (Note: Many of the evergreen shrubs described in planting lists E-14 and E-15 are also suitable for Broken Screens.)

<u>AZALEAS</u> (Rhododendron calendulaceum (Flame); R. nudiflora & R. periclymenoides (Pinxterbloom); R. prunifoloium (Plumleaf)) Height 3 to 10 feet; Spread 4 to 8 feet.

These three azaleas are excellent naturalizing plants that do not require a lot of space. With great orange, pink, and red colors, these species attract hummingbirds and butterflies. Good for sites with full sun to part shade with medium moisture on well-drained soils with a southwest aspect.

BEAUTYBERRY (Callicarpa americana) - Height 6'.

Very colorful deciduous shrub with springtime flowers, followed by purple fruit which lasts into winter. Prefers full sun.

*BLUEBERRY (Vaccinium ashei) - Height 4-6'; Spread 3-5'.

Also known as Rabbiteye blueberry, this is a heat tolerant, native shrub. White flowers in springtime followed by blue fruits that birds enjoy. Has a moderate growth rate. This shrub prefers well drained, acid soil.

BUTTON BUSH (Cephalanthus occidentalis) Height: 6 to 10 feet Spread: 6 to 10 feet

Buttonbush is a deciduous, warm-season, tall shrub or small tree that grows along swamps, marshes, bogs, ditches, and other riparian areas that are seasonally inundated for at least part of the year. Its base is often swollen, with green branches when young but turns brown at maturity. Tiny, white flowers occur in dense, spherical clusters at branch ends attract bees and butterflies with fruits arranged in a round cluster of brown, cone-shaped nutlets.

CAROLINA ALLSPICE OR SWEETSHRUB (Calycanthus floridus) - Height 6-9'; Spread 5-8'.

This is a deciduous shrub native to the Southeast. Fragrant, maroon flowers appear in late Spring. Takes sun or shade.

CAROLINA ROSE (Rosa carolina) Height 3 to 6 feet Spread: 5 to 10 feet

Best grown in average, medium-wet to wet, well-drained soil in full sun. Fragrant, showy flowers attract birds and butterflies, but this plant does have thorns.

CLETHRA (Clethra alnifolia) - Height 10'.

Another native of the Eastern United States, Clethra has fragrant white flowers in late Summer. Grows well in acid soils. Full sun, however in the Piedmont it would do best with some shade. Varieties are available with pink flowers.

COMMON WITCH HAZEL (Hamamelis virginiana) Height: 8-15'; Spread 7-14'.

This shrub is a larger version of Vernal Witch Hazel with many of the same qualities. It is another native woodland plant which has adapted well to landscaping uses. The Common Witch Hazel is recommended for shady areas, but when planted in the sun it grows to be a splendid well rounded specimen. It is especially useful in large areas.

DROOPING LEUCOTHOE (Leucothoe fontanesiana) Height: 3-4'; Spread: 4-6'.

Drooping Leucothoe is a moundlike shrub which is good for planting in front of and between other flora and beneath trees. It is hardy in city conditions and gives a natural effect when planted along borders. This native evergreen is graceful and attractive in all seasons. It is easy to transplant but requires a heavy mulch and should be provided with at least partial shade. Old branches should be pruned occasionally to stimulate new growth.

EUONYMUS AMERICANA (Hearts-a-Burstin; Strawberry Bush) Height: 3-5'; Spread: 4-6'

Strawberry Bush is a native deciduous shrub with leaves that are opposite with finely toothed margins. The bark is green, but does split and become darker as the tree ages. In early summer, small, 5-petaled, greenish purple flowers mature. The shrub produces 4-lobed capsules which when opened reveal an orange-red, warty seed.

FRINGETREE (Chioanthus virginicus) Height: 10-30'; Spread: 8-10'.

The Fringetree is known for its profusion of beautiful flowers. It is considered to be one of the most striking native American shrubs. It is relatively difficult to transplant, but once established it does well in cities as it endures heavy smoke and dust. The mature Fringetree's only drawback is that its leaves appear rather late in the Spring.

HIGHBUSH BLUEBERRY (Vaccinium Corymbosum) Height: 8-15'; Spread: 8-12'

Highbush Blueberry is a deciduous shrub with alternate leaves with a smooth or toothed margin and fuzzy underside. The bark is gray-brown to reddish brown and very shreddy. In early spring, small, white, bell-shaped flowers mature in clusters. The shrub produces a dark blue berry that matures in mid to late summer. It is a host plant for the Brown Elfin butterfly. Fruits are eaten by a variety of birds and mammals, including humans.

INKBERRY (Ilex Glabra) Height: 5-10'; Spread: 4-8'

Inkberry is an evergreen shrub with alternate leaves with a smooth or toothed margin. The bark is greenish brown and smooth. In early summer, small greenish white flowers mature. The shrub produces a black drupe that matures in the fall. It is a host plant for the Henry's Elfin butterfly. Fruits are eaten by birds and small mammals.

OAKLEAF HYDRANGEA (Hydrangea quercifolia) - Height 4-6'; Spread 3-5'.

Deciduous shrub with large, white flower clusters during the Summer. Colorful crimson foliage in Fall. Makes an excellent specimen plant.

SMOKETREE (Cotinus coggygria) - Height 10-15'; Spread 8-14'.

Large shrub or small deciduous tree with attractive round leaves. Colorful lavender panicles appear in Summer. Prefers well drained soil, but otherwise does well in poor soils. Full sun is best for this shrub.

SPICEBUSH (Lindera benzoin) - Height 6-10'; Spread 4-8'

Spicebush is a deciduous shrub alternate leaves with a smooth margin that produce a spicy odor when crushed. The bark is brown to gray-brown and speckled with light colored lenticels. In early spring, small, yellow flowers mature in axillary clusters. The shrub produces a bright red drupe with a peppery taste and scent. The fruit matures in the fall. It is a host plant for the Spicebush Swallowtail butterfly. Fruits are eaten by songbirds, especially during fall migration.

STAR MAGNOLIA (Magnolia stellata) Height: 10-12'; Spread: 8-10'.

This handsome specimen shrub is considered to be the hardiest of all the Magnolias. It forms a broad, rounded mass. It becomes tree-like with age but continues to branch to the ground. Early in the spring, it produces numerous fragrant white flowers. The Star Magnolia should not be planted adjacent to shallow rooting trees. It should be allowed plenty of sun.

SUMAC (Rhus copallina (Shining); R. glabra (Smooth) R. typhina (Staghorn)) Height 7 to 40 feet; Spread 9 to 20 feet

These species are perennial, deciduous, sun-loving, thicket-forming shrubs or small trees with branches that tend to be fairly sparse and stout. Sumac does well on dry to medium moisture sites. The tart fruits are eaten by birds and are very tart in taste. These species provide good fall color.

**** SWAMP WHITE OAK (Quercus bicolor) Height: 50 to 60 feet; Spread: 50 to 60 feet

Swamp white oak is a medium sized tree with an irregular crown suitable to river bottomlands, depressions, swamp borders, and along edges of streams. It is rapid growing and long lived, reaching 300 to 350 years. Many kinds of wildlife eat the acorns, particularly ducks. Swamp white oak is intermediate in shade tolerance but not very drought tolerant.

VERNAL WITCH HAZEL (Hamamelis vernalis) Height: 4-6'; Spread: 2-3'.

This rapidly growing native shrub is excellent for bordering and naturalizing. It assumes a dense, upright form, thriving in even the most polluted air. Other than plenty of watering, the Vernal Witch Hazel requires no special maintenance.

****Viburnum (Viburnum prunifolium; V. dentatum) Height: 12 to 15 feet; Spread: 8 to 12 feet

Black Haw is a small tree with twisted trunk and arching branches with an overall round crown appearance. Does best on partially sunny sites on moist, well-drained soils.

Section 23. Appendix E-17 (List of Invasive Plant Species) is rewritten to read as follows:

E-17 Invasive Plant Species

Invasive plant species identified by the North Carolina Native Plant Society are prohibited from planting for all plantings to comply with Article XIX.

Section 24. All provisions of any Town Ordinance in conflict with this Ordinance are repealed.

Section 25. This Ordinance shall become effective upon adoption.



Draft Ordinance - Summary Sheet

The following chart shows changes that have been considered to the draft ordinance (dated October 12, 2017) and presented to the Board with a request to set a public hearing for January 23, 2018, during the advisory board review process to the draft ordinance. The revised draft ordinance, included in the agenda packet is dated March 23, 2018.

Section	Description of Change(s)	Suggested Language (date added/removed)	Staff Comments
Section 15-314(a)	Add a new finding supporting	(13) Native trees and shrubs are important,	Discussed at the March Greenways
Board Findings and	the value of native trees and	and essential, host plants for native	Commission meeting, this addition seems in
Declaration of Policy on	shrubs for butterfly and moth	butterfly and moth caterpillars.	keeping with the spirit of the findings to
Protecting Trees and	caterpillars.		support native plants whenever possible.
Other Plants			
<u>Section 15-315</u>	Add a new definition for critical	CRITICAL ROOT ZONE. The area of soil	Discussed at the March Greenways
Definitions	root zone.	around a tree where the minimum amount	Commission, the new definition has been
		of roots considered critical to the structural	added, and the section re-alphabetized.
		stability or health of the tree are located.	
		<u>Critical root zone determination is</u>	
		sometimes based on the drip line, or a	
		measurement of the diameter of the tree	
		trunk in inches at breast height (DBH),	
		multiplied by 12.	
Section 15-315(7)	Recommendations to clarify	(7)(c) Carya (Southern Shagbark Hickory).	Discussed at the March Greenways
Definitions	the section on specimen or rare		Commission meeting. Staff concurs with the
	trees, for more accuracy and/or		recommendation to omit "Southern
	to identify native trees for the		Shagbark" and simply refer to Hickory.
	Piedmont, specifically		
	the removal of Southern		Given that the nature of this list to not list the
	Shagbark as part of Hickory,		species name and since it listed as "North
	■ the additional of <i>Magnolia</i>		Carolina native" rather than "Piedmont
	Tripetela for Magnolia		native," it seems OK to leave this as currently
	■ the inclusion of <i>Pinus</i>		written. No change made.
	echinata for the locally native		The same applies to the recommendations to
	short leaf pine		refer to the short leaf pine and to remove
	■ Hemocks and American Elms		hemlocks, and American Elms—no changes
	should not be planted since		have been made since the section is speaking
	they are very susceptible to		to protecting existing trees not planting new
	the hemlock wooly adelgid,		trees.

	and Dutch Elm Disease (respectively).		The proposed changes were included in Appendix E as that section relates to recommendations for new trees to be planted.
Section 15-317 (a) Retention and Protection of Specimen and Rare Trees	A landscape professional is not qualified to make a determination.	(a) Every development shall retain all existing specimen and rare trees unless the applicant demonstrates that a site would be unreasonably burdened. The applicant, in consultation with the land use administrator and a landscape or forestry professional, such as a certified arborist, shall use the following criteria to evaluate the trees for the purpose of proposing which to retain:	The EAB noted that a landscape professional is not qualified to determine if the site would be unreasonably burdened. The language is intended to describe a process whereby the landscape professional would evaluate the value of each existing tree based on the seven criteria. Using that information, the applicant, landscape professional and staff would analyze the proposed design taking into effect the value of the trees and the likelihood that they would survive/thrive—and modify the plan as necessary.
Section 15-317 (a)(4) Retention and Protection of Specimen and Rare Trees	Add the word species	(4) The hardiness of the tree <u>species</u> , including wind firmness, climatic requirements, susceptibility to insects and diseases;	The EAB recommended adding the word species, staff concurs.
Section 15-318 (c) Shade Trees in Parking Lots	This section was modified by staff in February, to address situations involving existing trees and new trees. The EAB offered alternative language to Subsection (c). The EAB noted in particular, a concern that mentioning encroachment could imply that encroachment is acceptable, with which the EAB disagrees. EAB proposed language: (c) No excavation or other subsurface disturbance may	(c) Subsurface disturbance within the Tree Protection Perimeter and the critical root zone around any tree to be retained in accordance with (a) above, shall be limited to the minimum extent practicable as determined during construction or after completion of the development. Encroachment into a tree perimeter protection area as defined in 15-315(10) shall not, alone, provide sufficient grounds for tree removal.	The additional language in this section was intended to provide developers with a reasonable way to meet LUO standards, particularly for parking, without competing with existing trees, effectively eliminating the option of automatically removing a tree in order to provide for paving. The last sentence requires the applicant to seek ways to save existing trees. The Greenways Commission discussed adding a reference to the Critical Root Zone as well as the Tree Protection Perimeter; this seems to be in keeping with the spirit of the section. Staff recommends keeping the existing paragraph as is with the addition of the critical root zone.

	-	•	
	be undertaken within the Tree		
	Protection Perimeter around		
	any tree that is to be retained.		
	In addition, no impervious		
	surface (including but not		
	limited to equipment, paving,		
	structures, traffic, or material		
	storage during construction)		
	may be located within the Tree		
	Protection Perimeter, either		
	during construction or after		
	completion of the		
	development.		
Section 15-319 (b)	The EAB recommended	f. Landscaped areas with shrubs of at least	This provision has been removed. It has also
Tree Canopy Coverage	removing Subsection 15-	100 square feet on a redeveloped or infill lot	been removed from the list of recommended
Standards	319(b)(2)(f), with the following	in the B-1(C), B-1(G) or B-2 districts. The	trees and shrubs in Table E-10.
	explanation. Developers have	developer shall choose shrubs that meet the	
	two options if they cannot	standards set forth in Appendix E.	
	meet the canopy requirement.		
	We feel that these other		
	options are sufficient and a		
	lesser option of planting shrubs		
	does not align with the intent		
	of the canopy requirement		
Section 15-321.2 (a) & (b)	The EAB also expressed interest	(a) With respect to the development or	Subsection (a) was revised from the October
Payment in Lieu	in a Master Tree Planting Plan	redevelopment of an existing lot in the B-	draft ordinance to better align with the
		1(C), B-1(G) or B-2 districts, the permit	payment in lieu option in Article XVIII for
	The EAB has requested that the	issuing authority may authorize the	Parking. The ordinance can be amended
	Town craft language in the	developer to forego the requirements of	again in the future to reference a Master
	ordinance that best addresses	Section 15-318 (shading trees), and/or the	Tree Plan once such a plan is adopted.
	the concern of how to place a	requirements of Section 15-319 (canopy	
	value on land that would be	coverage) of this Article, if (i) the permit	Staff has contemplated possible calculations
	necessary for a tree to be	issuing authority finds that it is physically	for measuring a tree for different values, and
	planted in the downtown area.	impossible or impracticable for the	could bring back options for incorporating
		developer plant trees that will survive	such a metric for determining a payment
		satisfy the requirements and ii) the	formula. An option for incorporating land
		developer pays to the town for each tree	value as part of the tree value calculation has
		not planted a fee in lieu of providing such	not yet been evaluated.
		tree(s), in an amount determined as	
		provided in subsection (b) of this section.	

		The fee shall be paid before construction plan approval, unless the permit issuing authority by condition establishes another time. (b) The amount of the fee authorized by this section shall be determined by estimating the cost of providing the required trees (including the cost of the plant and labor for installation) that meets the requirements of this Article. This determination shall be made annually and the fee shall be included in the Miscellaneous Fees and Charges Schedule adopted by the Board of Aldermen.	
Appendix E, E-10, Table of Recommended Trees and Shrubs	The EAB recommended adding a note to identify canopy trees in the lists of trees, and replacing Southern Sugar Maple with Red Maple (Acer Rubrum) in the Table. The Greenways Commission discussed identifying Carolina Jessamine and Trumpet Honeysuckle as native		All three recommended revisions have been made.

ARTICLE XIX

SCREENING AND TREES

PART I. SCREENING

Section 15-304 Board Findings Concerning the Need for Screening Requirements.

The Board finds that:

- (1) Screening between two lots lessens the transmission from one lot to another of noise, dust, and glare.
- (2) Screening can lessen the visual pollution that may otherwise occur within an urbanized area. Even minimal screening can provide an impression of separation of spaces, and more extensive screening can shield entirely one use from the visual assault of an adjacent use.
- (3) Screening can establish a greater sense of privacy from visual or physical intrusion, the degree of privacy varying with the intensity of the screening.
- (4) The provisions of this part are necessary to safeguard the public health, safety, and welfare.

Section 15-305 General Screening Standards

Every development shall provide sufficient screening so that:

- (1) Neighboring properties are shielded from any adverse external effects of that development;
- (2) The development is shielded from the negative impacts of adjacent uses such as streets or railroads.

Section 15-306 Compliance with Screening Standards

- (a) The table set forth in Section 15-308, in conjunction with the explanations in Section 15-307 concerning the types of screens, establishes screening requirements that, presumptively, satisfy the general standards established in Section 15-305. However, this table is only intended to establish a presumption and should be flexibly administered, as provided in Section 15-309.
- (b) The numerical designations contained in the Table of Screening Requirements (Section 15-308) are keyed to the Table of Permissible Uses (Section 15-146), and the letter designations refer to types of screening as described in Section 15-307. This table indicates the

type of screening that may be required between two uses. Where such screening is required, only one of the two adjoining uses is responsible for installing the screening; the use assigned this responsibility is referred to as the "servient" use in Section 15-308, and the other use is the "dominant" use. To determine which of the two adjoining uses is required to install the screening, find the use classification number of one of the adjoining uses in the servient column and follow that column across the page to its intersection with the use classification number in the dominant use column that corresponds to the other adjoining use. If the intersecting square contains a letter, then the use whose classification number is in the servient column is responsible for installing that level of screening. If the intersecting square does not contain a letter, then begin the process again, starting this time in the servient column with the other adjoining use.

- (c) If, when the analysis described in subsection (b) is performed, the servient use is an existing use, but the required screening is not in place, then this lack of screening shall constitute a nonconforming situation, subject to all the provisions of Article VIII of this ordinance.
- (d) Notwithstanding any other provision of this article, a multi-family development shall be required at the time of construction, to install any screening that is required between it and adjacent existing uses according to the table set forth in Section 15-308, regardless of whether, in relation to such other uses, the multi-family development is the dominant or servient use.

Section 15-307 Descriptions of Screens.

The following three basic types of screens are hereby established and are used as the basis for the Table of Screening Requirements set forth in Section 15-308.

- (1) OPAQUE SCREEN. TYPE "A". A screen that is opaque from the ground to a height of at least six feet, with intermittent visual obstructions from the opaque portion to a height of at least twenty feet. An opaque screen is intended to exclude completely all visual contact between uses and to create a strong impression of spatial separation. The opaque screen may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetation screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. The opaque portion of the screen must be opaque in all seasons of the year. At maturity, the portion of intermittent visual obstruction should not contain any completely unobstructed openings more than ten feet wide. The portion of intermittent visual obstructions may contain deciduous plants. Suggested planting patterns that will achieve this standard are included in Appendix E.
- (2) **SEMI-OPAQUE SCREEN. TYPE "B".** A screen that is opaque from the ground to a height of three feet, with intermittent visual obstruction from above the opaque

portion to a height of at least twenty feet. The semi-opaque screen is intended to partially block visual contact between uses and to create a strong impression of the separation of spaces. The semi-opaque screen may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetation screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. At maturity, the portion of intermittent visual obstructions should not contain any completely unobstructed openings more than ten feet wide. The zone for intermittent visual obstruction may contain deciduous plants. Suggested planting patterns which will achieve this standard are included in Appendix E.

Obstructions from the ground to a height of at least twenty feet. The broken screen is intended to create the impression of a separation of spaces without necessarily eliminating visual contact between the spaces. It may be composed of a wall, fence, landscaped earth berm, planted vegetation, or existing vegetation. Compliance of planted vegetative screens or natural vegetation will be judged on the basis of the average mature height and density of foliage of the subject species, or field observation of existing vegetation. The screen may contain deciduous plants. Suggested planting patterns which will achieve this standard are included in Appendix E.

Section 15-308 Table of Screening Requirements (AMENDED 06/26/07)

[PLEASE REFER TO THE NEXT TEN PAGES]

Section 15-309 Flexibility in Administration Required.

- (a) The Board recognizes that because of the wide variety of types of developments and the relationships between them, it is neither possible nor prudent to establish inflexible screening requirements. Therefore, as provided in Section 15-306, the permit-issuing authority may permit deviations from the presumptive requirements of Section 15-308 and may require either more intensive or less intensive screening whenever it finds such deviations are more likely to satisfy the standard set forth in Section 15-308 without imposing unnecessary costs on the developer.
- (b) Without limiting the generality of subsection (a), the permit-issuing authority may modify the presumptive requirements for:
 - (1) Commercial developments located adjacent to residential uses in business zoning districts.
 - (2) Commercial uses located adjacent to other commercial uses within the same zoning district.
 - (3) Uses located within planned unit developments.
- (c) Whenever the permit-issuing authority allows or requires a deviation from the presumptive requirements set forth in Section 15-308, it shall enter on the face of the permit the screening requirement that it imposes to meet the standard set forth in Section 15-308 and the reasons for allowing or requiring the deviation.
- (d) If the permit-issuing authority concludes, based upon information it (or the appearance commission) receives in the consideration of a specific development proposal, that a presumption established by Section 15-308 is erroneous, it shall initiate a request for an amendment to the Table of Screening Requirements in accordance with the procedures set forth in Article XX.

Section 15-310 Combination Uses.

- (a) In determining the screening requirements that apply between a combination use and another use, the permit-issuing authority shall proceed as if the principal uses that comprise the combination use were not combined and reach its determination accordingly, relying on the table set forth in Section 15-308, interpreted in the light of Section 15-309.
- (b) When two or more principal uses are combined to create a combination-use, screening shall not be required between the composite principal uses unless they are clearly separated physically and screening is determined to be necessary to satisfy the standard set forth in Section 15-305. (For example, screening may be required in a residential combination use consisting of single-family and multi-family components.)

Section 15-311 Landscaping Plan.

Any person who has been issued a permit under this chapter for any development in a non-residential district involving the construction of new buildings or parking areas or additions to or exterior modifications of existing buildings or parking areas, as well as (i) any similar development in a residential district, if such development requires a special or conditional use permit, shall prepare and file a landscaping plan prior to the issuance of a building permit for such development. No building permit shall be issued for such development until the Appearance Commission has had the opportunity, pursuant to regular agenda procedures, to review and comment upon such landscaping plan. (AMENDED 2/4/86)

Section 15-311.1 Screening of Flag Lots in the Historic District (HD) (AMENDED 11/21/95).

Notwithstanding the provisions of Section 15-308, every flag lot in the Historic District (HD) shall provide a Type B screen [as described in Section 15-307 (1)] between the flag lot and adjacent property [see Section 15-175.10(c)].

Section 15-312 Protective Buffer Along Major Roads (AMENDED 05/25/99; 10/23/07)

Notwithstanding the provisions of Section 15-308, but subject to the remaining provisions of this section, an undisturbed protective buffer shall be maintained along Old N.C. 86, Dairyland Road, Union Grove Church Road, Homestead Road, Eubanks Road and Smith Level Road south of Ray Road that will help preserve the scenic views and elements of this area. With respect to each property that fronts one of the named streets, any development other than use classification 13.200, Fire Station, that occurs after the effective date of this section shall provide an undisturbed buffer (except for necessary crossings) that is a minimum of 50 feet in width and on average is 100 feet in width along such frontage. If the buffer area does not provide the equivalent of a Type 'A' screen, the developer shall provide a Type 'A' screen on the development's side of the buffer (one hundred (100) feet from the right-of-way)

Section 15-313 Reserved.

PART II. SHADING AND TREE PROTECTION

<u>Section 15-314 Board Findings and Declaration of Policy on Protecting Trees and Other Plants (REWRITTEN 06/24/14)</u>

- (a) The Board finds that:
 - (1) Trees, shrubs, and other plants are proven producers of oxygen, a necessary element for human survival; and
 - (2) Trees, shrubs, and other plants appreciably reduce carbon emissions by shading buildings and thereby lowering energy use to cool buildings, and also store carbon as biomass; and
 - (3) Trees, shrubs, and other plants improve air quality by lowering air temperatures and removing air pollutants; and
 - (4) Trees, shrubs, and other plants transpire considerable amounts of water each day and thereby maintain the natural hydrologic cycle; and
 - (5) Trees, shrubs, and other plants through their canopies and root systems intercept precipitation and encourage rain to infiltrate into the soil and maintain soil water for plants and recharge ground water and play an important and effective part in soil conservation, erosion control, creek protection and flood control; and
 - (6) Trees, especially large, old trees, provide invaluable beneficial physical, aesthetic, historic, and psychological counterpoint to the urban setting, making urban life more comfortable by providing shade and cooling the air and land, and built environment, reducing noise levels and glare, shielding people from high winds, and breaking the monotony of human developments on the land, particularly for parking areas and streets; and
 - (7) Trees, shrubs and other plants help improve soil quality by breaking up heavy soils, mining nutrients and remediating soils at contaminated sites by absorbing, transforming and containing a number of contaminants; and
 - (8) Tree stands create habitats that support a diversity of plants and animals; and
 - (9) Trees, shrubs and other plants make important contributions to the vitality and character of the Town and its neighborhoods and create a more aesthetic, pleasant and emotionally satisfying place in which to live, work and spend leisure time; and

- (10) Trees, shrubs and other plants provide numerous human health benefits such as shading ultraviolet radiation, reducing rates of respiratory disease and illness and stress management; and
- (11) Trees, shrubs and other plants have an important impact on the desirability of land and, consequently, on property values, as well as benefitting commercial activity by creating a more enjoyable environment. (AMENDED 03/21/89)
- (12) Certain flowering trees, shrubs, and other plans are important sources of pollen and nectar for pollinators.
- (13) Native trees and shrubs are important, and essential, host plants for native butterfly and moth caterpillars.
- (b) Based upon the findings set forth in subsection (a), the Board declares that it is not only desirable but essential to the health, safety, and welfare of all persons living or working within the town's planning jurisdiction, present and future, to protect certain existing trees and tree stands and, under the circumstances set forth in this article, to require the planting of new trees, especially larger trees, in certain types of developments, and to ensure the protection of those trees whether on individual lots or on common space.

Section 15-315 Definitions (REWRITTEN 06/24/14)

Unless otherwise specifically provided, or unless the context clearly indicates otherwise, the words and phrases defined below shall have the meaning indicated when used in this Part.

- (1) Canopy tree: A healthy evergreen or deciduous tree species that matures at a height of at least thirty (30) feet.
- (2) Dripline: Perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground).
- (23) Clearcutting: The large-scale, indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for nonagricultural purposes. (AMENDED 05/25/99)
- (3) Critical Root Zone: The area of soil around a tree where the minimum amount of roots considered critical to the structural stability or health of a tree are located. Critical root zone determination is sometimes based on the drip line, or a measurement of the diameter of the tree trunk in inches at breast height (DBH), multiplied by 12.
- (4) Dripline: Perimeter formed by the points farthest away from the trunk of a tree where precipitation falling from the branches of that tree lands on the ground.
- (5) Habitat. The natural environment for animals and, plants a that is made up of physical factors such as soil, moisture, range of temperature, and availability of light as well as biotic factors such as the availability of food, nesting sites, and shelter.
- (6) Infill Development. The development of vacant lots within existing areas that are already developed.
- (7) Redevelopment. Any development on previously developed land.

- (84)—A specimen or rare tree is defined as any healthy tree that:
 - i. has a trunk diameter at breast height (dbh) of thirty-six (36) inches or more for pine tree species; or
 - ii. has a trunk dbh of 18" inches or more for any species; or

iii. has a trunk dbh of 12 inches or more in the case of the species from the following list of North Carolina native canopy tree genera; or

Aesculus (Ohio Buckeye)
Chamaecyparis (Atlantic White Cedar)
Carya (Southern Shagbark Hickory)
Diospyros (Persimmon)
Fagus (Beech)
Juniperus (Eastern Red Cedar)
Magnolia (Magnolia)
Pinus (Longleaf pine)
Quercus (Swamp Chestnut Oak)
Taxodium (Bald cypress)

Tsuga (Hemlock)

Ulmus (American Elm)

iv. has a trunk dbh of six inches or more in the case of the species from the following list of North Carolina native understory tree genera: or

Amelanchier (Serviceberry)

Asimina (Pawpaw)

Carpinus (Hornbeam)

Cercis (Redbud)

Chionanthus (Fringetree)

Cornus (Dogwood)

Crataegus (Hawthorn)

Halesia (Silverbell)

Hamamelis (Witch-hazel)

Ilex (Holly)

Ostrya (Hophornbeam)

Oxydendrum (Sourwood)

Sassafras (Sassafras)

v. is listed as a State or National Champion by the North Carolina Forest Service or the American Forestry Association; or

vi. provides unique habitat for any endangered or threatened wildlife species protected by Federal law; or

- vii. has been cited by the Board of Aldermen as being historically significant; or
- viii. any other tree species listed in the North Carolina Natural Heritage Program as being significantly rare, of special concern, threatened, or endangered.
- (59) Tree. A perennial woody plant, single or multiple trunks, with few if any branches on its lower part, which at maturity will obtain a minimum six (6) inch caliper.
- (610) Tree canopy. The combined area encompassing the drip zones of all canopy trees.
- (711) Tree Protection Perimeter: That area within a circle drawn with the tree's trunk as the center. Radius is dependent upon site conditions and the relative tolerance of tree species to construction damage. Standard accepted radius is 1-1.5 feet per diameter inch of tree to be retained.
- (12) Tree Stand: An aggregation of trees occupying a specific area and generally uniform in species composition, size, age, arrangement, and condition that distinguishes it from vegetation in adjoining areas.

Section 15-316 Required Trees Along Dedicated Streets.

Along both sides of all newly created streets with respect to which an offer of dedication is required to be made by this chapter, the developer shall either plant or retain sufficient trees so that, between the paved portion of the street and a line running parallel to and fifty feet from the center line of the street, there is for every thirty feet of street frontage at least an average of one deciduous tree that has or will have when fully mature a trunk at least twelve inches in diameter. Trees planted to satisfy this section shall not be placed uniformly but in an irregular pattern with a minimum of one twelve inch (12") diameter tree (when fully mature) every one hundred feet (100'). When trees are planted by the developer pursuant to this section, the developer shall choose trees that meet the standards set forth in Appendix E. (AMENDED 11/19/96)

Section 15-317 Retention and Protection of Specimen and Rare Trees

- (a) Every development shall retain all existing specimen and rare trees unless the applicant demonstrates that the retention of such trees would unreasonably burden the development. When a site would be so unreasonably burdened, by the retention of all such trees that a choice must be made as to which trees will be retained, the following criteria shall be used by Tthe applicant, in consultation with the land use administrator and a landscape or forestry professional, such as a certified alsoarborist, shall use the following criteria to evaluate the trees for the purpose of proposing deciding which to retain: (AMENDED 06/24/14)
 - (1) The rareness of the tree species, both relative to the species representation on the site and relative to the species representation within the region and the state. This shall be the most important criterion in the evaluation;
 - (2) <u>SThe tree's relative size</u> and age, large old trees being considered more valuable than smaller, younger trees of the same species;

- (3) The <u>expected longevity of the tree</u>, <u>trees' relative expected longevities</u>, including such factors as the trees' relative health at the time of the evaluation;
- (4) The <u>relative</u> hardiness of the tree<u>s species in question</u>, including wind firmness, climatic requirements, susceptibility to insects and diseases;
- (5) <u>AThe trees' relative aesthetic</u> values, including flowers, fruit, form characteristics, potential for autumn coloration;
- (6) <u>SThe trees' relative sizes</u> at maturity; and
- (7) <u>PThe trees' relative contribution to summertime comfort through their</u> potential to provide shading. (AMENDED 03/21/89)
- (b) Flexible approaches such as adjustments to lot layout, placement of buildings and paved surfaces and location of utilities should be pursued in order to save rare and specimen trees. (AMENDED 03/21/89; 06/24/14)
- (c) <u>SNo excavation or other subsurface</u> disturbance <u>may be undertaken</u> within the Tree Protection Perimeter <u>and the Critical Root Zone</u> around any tree to be retained in accordance with (a) above, <u>shall be limited to the minimum extent practicable as determined</u>. <u>In addition, no impervious surface (including but not limited to equipment, paving, and structures) may be located within the Tree Protection Perimeter, either during construction or after completion of the development. <u>Encroachment into a tree perimeter as defined in 15-315(10) shall not, alone, provide sufficient grounds for tree removal.</u> (AMENDED 03/21/89; 06/24/14)</u>
- (d) There shall be no clearcutting in any development within the Transition Area portion of the Carrboro Joint Development Area as identified in the Joint Planning Agreement. The term "clearcutting" shall refer to the large-scale, indiscriminate removal of trees, shrubs, and undergrowth with the intention of preparing real property for nonagricultural purposes. (AMENDED 05/25/99; 06/24/14)
- (e) If space that would otherwise be devoted to parking cannot be so used because of the requirements of subsections (a) or (b), and, as a result, the parking requirements set forth in Article XVIII cannot be satisfied, the number of required spaces may be reduced by the number of spaces "lost" because of the provisions of subsections (a) and (b), up to a maximum of fifteen percent of the required spaces. (AMENDED 06/24/14)

Section 15-318 Shade Trees In Parking Areas.

(a) Vehicle accommodation areas containing more than four parking spaces that are required by Section 15-296 must be shaded by deciduous trees (either retained or planted by developer) that have or will have when fully mature a truck at least twelve inches in diameter.

When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. As part of redevelopment or development of an infill lot in the B-1(C), B-1(G), or B-2 districts, up to 25% of the shading requirement may be from existing or proposed buildings providing shadow as identified in the provisions of Appendix A, A-6 (26). (AMENDED 11/10/81; 06/24/14)

- (b) Each tree of the type described in subsection (a) shall be presumed to shade a circular area having a radius of fifteen feet with the trunk of the tree as the center, and there must be sufficient trees so that, using this standard, thirty-five percent of the vehicle accommodation area will be shaded. (AMENDED 06/24/14)
- (c) No paving may be placed within 15 feet (measured from the trunk) of any tree retained to comply with subsection (a), unless such tree is eighteen inches or greater in diameter or a very rare species as described in Section 15-3156, in which case no paving may be placed within the Tree Protection Perimeter for such trees as described in 15-315(10)6(b). Notwithstanding the foregoing, the permit issuing authority may allow an encroachment of up to 25% of the tree protection area if i) the developer provides documentation by a professional engineer, landscape architect or certified arborist, that will ensure the survival of the tree for its typical life expectancy and ii) a description of the extent of the hardship that would occur if such encroachment were not permitted to occur, or pursuant to 15-317(e) the developer may propose a reduction of the number of parking spaces.

New trees planted to comply with subsection (a) shall be located so that they are surrounded by at least 200 square feet of unpaved area. The permit issuing authority may allow new trees to be surrounded by less than 200 square feet of unpaved area if installed with an urban tree planting system, specified by a professional engineer, landscape architect or certified arborist, that will ensure the survival of the tree for its typical life expectancy. (AMENDED 5/10/83; 03/21/89)

- (d) Vehicle accommodation areas shall be laid out and detailed to prevent vehicles from striking trees. Vehicles will be presumed to have a body overhang of three feet six inches.
- (e) The foregoing requirements shall not apply to 19.100 classification uses where such uses do not involve the construction of a permanent structure and are conducted not more than two days per week on the site of a vehicle accommodation area that is used primarily in connection with another use. Furthermore, when a 19.100 classification use meeting the foregoing requirements is installed on a lot that is nonconforming with respect to the shading requirements of this section, the lot shall not be required to comply with these shading requirements solely because of installation of such use, even thought a new permit applicable to the entire lot may be required. (AMENDED 9/2/86)

Section 15-319 Tree Canopy Coverage Standards (REWRITTEN 06/24/14)

(a) Minimum Canopy Coverage Standards. Subject to the remaining provisions of this section, the following minimum tree canopy coverage percentages are required within the boundaries of every lot or tract for which a zoning, special use, or conditional use permit is issued after June

24th, 2014, exclusive of required cleared active recreation areas, water bodies, access easements, public and private right-of-way, stormwater and utility easements.

Table 1: Minimum Tree Canopy Coverage Standards

Land Use Minimum Canopy Coverage

Residential 40% Other than residential excluding districts (B- 30%

1(c), (B-1(g), (B-2))

Other than residential in districts (B-1(c), (B-15%)

1(g), (B-2)

(1) When a tract is subdivided and pursuant to the provisions of Article XIII the developer sets aside open space areas or recreation areas that contain canopy trees (with a minimum caliper of six inches) or when a developer of a subdivision plants canopy trees to comply with the shading requirements of Article XIII, the total tree canopy area so preserved or established shall be credited against the minimum canopy coverage percentages set forth above. The remaining required tree canopy coverage area shall be allocated by the subdivider among the subdivided lots, and this allocation shall be shown on the recorded plat of such subdivision with a disclosure note that such trees, to fulfill the requirements of this section, shall be subject to maintenance and replacement.

(b) Modifications to Canopy Coverage Standards

The permit issuing authority may approve a development application that does not fully comply with the canopy coverage standards when it finds that the application substantially complies with these standards and that such a deviation enables the development to better achieve other Town objectives, such as the promotion of solar access to encourage active and passive solar technology for water and space heating and renewable energy generation, improved stormwater management, and the preservation of established managed landscapes, or established streetscapes.

- (**be**) *Implementation of Standards*. Compliance with the tree canopy standards shall be achieved as follows:
- 1) Protection of existing tree canopy. The extent of existing tree canopy coverage retained at the time of permit application may be documented by survey or by using current aerial photographs available on the Town's web page or similar resource. Protection of the existing tree canopy will be demonstrated by the tree protection plan required by Section 15-320;
- 2) Replacement of canopy. If the existing protected tree canopy is less than the minimum standard as shown in Table 1, the deficit shall be made up by the planting of additional trees as provided herein:

- a. One (1) or more replacement tree(s) shall be planted in accordance with an approved planting plan. When trees are planted by the developer to satisfy the requirements of this subsection, the developer shall choose trees that meet the standards set forth in Appendix E. Each tree shall be presumed to create a canopy circular area with the trunk of the tree as the center, and there must be sufficient trees so that, using this standard, the canopy requirements in 15-319(a) are met—per 500 square feet of tree canopy coverage deficit shall be planted in accordance with an approved planting plan.
- b. All canopy trees planted to meet the Town's screening and parking lot shading standards can be counted when calculating replacement canopy trees provided.
- c. Supplemental canopy trees planted to complete the canopy coverage requirements shall be planted no less than twenty (20) feet from any other proposed or existing canopy tree.
- d. Replacement trees that are planted in an adjacent right-of-way may count toward total tree canopy.
- e. Replacement tree caliper shall be <u>at least</u> two and one-half (2.5) inches at installation. A replacement tree with a caliper of four (4) inches or greater may count for two replacement trees.
- (c) Modifications to Canopy Coverage Standards. The permit issuing authority may approve a development application that does not fully comply with the canopy coverage standards when it finds that the application substantially (50% or more) complies with these standards and that such a deviation:
 - (1) E—enables the development to better achieve other Town objectives, such as: i) the promotion of solar access to encourage active and passive solar technology for water and space heating and renewable energy generation, ii) improved stormwater management, and iii) the preservation of established managed landscapes professionally designed and installed by an architect or landscape architect, or landscape designer; or, or established streetscapes.
 - (2) Is for property enrolled in the present use value taxation program or subject to a forest management plan; or
 - (3) Is part of a redevelopment proposal or development of an infill lot in the B-1(C), B-1(G) or B-2 districts.

Large expanses of open space, meadowland, (excepting a meadow consisting of species native to the Piedmont), or manicured lawn shall not satisfy the canopy coverage standards of this section.

(d) Exemption from Canopy Coverage Standards. Zoning permit applications for structures that are exempt from building permit requirements, or are the lesser of either i) additions to existing permitted structures that do not exceed 25% of an existing building footprint or ii) do not increase the footprint of the existing building by more than 250 square feet, shall be exempt from

the tree canopy standards. Successive additions, occurring within a period of five years, may not exceed these standards and maintain this exemption.

Section 15-320 Protection of Trees During Construction.

- (a) The permit recipient shall be responsible for ensuring that all existing trees specifically shown on approved plans as being retained to comply with this article are protected, during the construction process, from removal, destruction, or injury. As described in Appendix A, a tree protection plan detailing the methods for such protection shall be submitted as part of the land use permit application and construction plan package. Tree protection methods shall meet accepted industry standards in accordance with ANSI A300 and associated Best Practices. (AMENDED 3/12/85; 2/24/87; 03/21/89; 06/24/14)
 - (1) The permit recipient shall ensure that, before any excavation takes place on the site, a barrier is erected around the Tree Protection Perimeter of all trees to be retained on the site that are within the area to be disturbed by construction activities, and other provisions made such as are necessary and sufficient to put on notice all construction personnel that the area within the Tree Protection Perimeter of all such trees is to be retained is not be disturbed. During the construction process, the permit recipient shall ensure that all activities are kept outside the Tree Protection Perimeter of all such trees. The barrier required by this subsection shall be installed before the issuance of any grading or construction permits for such site. (AMENDED 06/24/14)
 - (2) The permit recipient shall ensure that all such trees to be retained on the site that are within the area to be disturbed by construction activities, or near roads within the development, shall be further protected from accidental equipment damage by wrapping their trunks with sections of snow fence or boards wired together from the ground to a height six (6) feet above the ground. (AMENDED 06/24/14)
 - (3) The permit recipient shall ensure that land disturbing activity shall not occur, and that building materials, construction trailers, vehicles, equipment or machinery, dirt, fill, and/or other debris shall not be stored within the Tree Protection Perimeter of such trees as are to be retained.
 - (4) The permit recipient shall ensure that all such trees as are to be preserved shall not be used as supports for roping, cable, signs, or fencing, and that nails shall not be driven into the trunks of trees.
 - (5) The permit recipient shall ensure that any damage done during construction to the limbs or trunks of such trees as are to be retained shall be properly treated so as to assure the continued health of the trees. The land use administrator shall be consulted, and may suggest that the

- applicant seek advice from landscape or forestry professionals as to the appropriate method for such treatment. (AMENDED 06/24/14)
- (6) Prior to the commencement of any land alteration on a site for which a Tree Protection Plan has been approved, including all clearing or grading activities, the land use administrator shall certify in writing based on an inspection of the site that all tree protection measures required by the approved Tree Protection Plan have been put in place properly and accurately. The land use administrator shall provide this certification in a timely fashion on being notified by the permit recipient that the site is ready for such inspection and certification. (AMENDED 03/21/89)
- If a violation of subsection (a) occurs, and as a result (b) rare or specimen tree(s) specifically shown on approved plans as being retained die or otherwise must be removed within four years after a certificate of occupancy is granted for that portion of a development on which the trees are or were located, then the permit recipient shall be required to replace such trees with trees of the same species, if available, or of a similar species. The choice of the replacement species, where necessary, shall be made subject to approval by the Town. Each replacement tree shall be at least of tree diameter equivalent in size to one (1) inch per every four (4) inches of tree diameter of the tree it replaces, up to a maximum replacement tree diameter of five inches. In cases where the tree to be replaced had a diameter greater than twenty inches, it shall be replaced by more than one tree, such that the ratio of one inch of replacement tree diameter to four inches of original tree diameter is satisfied, and at least one of the replacement trees is of the maximum replacement tree diameter of five inches. In addition, no replacement tree may be smaller than one inch in diameter. For example, a twenty-eight inch diameter tree would be replaced by one five inch diameter tree and one two-inch diameter tree of the same species. Tree replacement shall be performed by either a landscape contractor or forester licensed to practice in the State of North Carolina, or by an arborist certified by the International Society of Arboriculture or National Arborists Association. Such replacement must take place within one year after the death or removal of the trees occur, and this obligation shall be a continuing condition of the validity of the permit. Violators of the tree protection requirements described in subsection (a) shall be subject to the penalties and remedies for all land use ordinance and land use permit condition violations described in Section 15-114. (AMENDED 03/21/89; 06/24/14)

Section 15-321 Performance Security May Be Required (AMENDED 03/21/89; 10/24/06; 06/24/14)

(a) In cases when the land use administrator has reasonable cause to believe that a Tree Protection Plan has been violated, he or she may require that the developer post a security, for the five year period (four years plus one year in which replacement may occur) described in subsections (b) and (c) of section 15-318, to cover the potential replacement of all such large and rare species trees as are called out in the Tree Protection Plan as being protected. The purpose of this security is to ensure that the financial capability will exist, during the full five year period described in subsections (b) and (c) of section 15-318, to replace any large or rare species trees as

are called out on a Tree Protection Plan as being protected during construction, and which have died due to construction damage caused by a violation of the Tree Protection Plan.

- (b) It is the intent of this section that the removal and replacement of such trees that die due to construction damage shall be arranged by the Town only when the developer cannot be located at the time when the removal and replacement becomes necessary.
- (c) The required security shall be in the form of an interest-bearing account or certificate of deposit payable to the Town, in the amount necessary for the removal of all of the large and rare species trees as are called out in the Tree Protection Plan as being preserved, their replacement as described in subsections (b) and (c) of section 15-318, and the one-time violation penalty described in section 15-114 at the time the security is required. At such time as the four year period described in subsections (b) and (c) of section 15-318 is complete, and no deaths of trees called out in the Tree Protection Plan as being preserved have occurred, the security and all interest accrued on it shall revert to the developer. In the event that some but not all of the security amount is used or needed for tree removal and replacement at the end of the four year period described in subsections (b) and (c) of section 15-318, the remaining security amount and the interest it has accrued shall revert to the developer at the end of that four year period.

Section 15-321.1 Joint Use of Trees

- (a) One tree may be located such that it meets the requirements of Sections 15-308, 15-316, 15-318 and 15-319, but except as otherwise provided in this article, the required tree assigned to one standard may not be credited to any other.
- (b) In downtown districts, B-1(C), B-1(G) and B-2, trees planted in rights of way directly adjacent to a development may be credited toward shading and canopy coverage.

Section 15-321.2 Payment in Lieu of Providing Shade or Canopy Cover Trees

- (a) With respect to the development or redevelopment of an existing lot in the B-1(C), B-1(G) or B-2 districts, the permit issuing authority may authorize the developer to forego the requirements of Section 15-318 (shading trees), and/or the requirements of Section 15-319 (canopy coverage) of this Article, if (i) the permit issuing authority finds that it is physically impossible or impracticable for the developer plant trees that will survive satisify the requirements and ii) the developer pays to the town for each tree not planted a fee in lieu of providing such tree(s), in an amount determined as provided in subsection (b) of this section. The fee shall be paid before construction plan approval, unless the permit issuing authority by condition establishes another time.
- (b) The amount of the fee authorized by this section shall be determined by estimating the cost of providing the required trees (including the cost of the plant and labor for installation) that meets the requirements of this Article. This determination shall be made annually and the fee shall be included in the Miscellaneous Fees and Charges Schedule adopted by the Board of Aldermen.

(c) Any fees collected in accordance with this section shall be reserved and used exclusively to meet the purposes for which they have been obtained as specified above in subsection (a). The required fee shall be submitted to the Town prior to construction plan approval.

Section 15-321.3 Regulation of Forestry Activities. (AMENDED 06/24/14)

- (a) The terms "forestry," "forestry activity," "forestland," "forest management plan" and "timber harvest" shall be defined by and used in the same manner as in G.S. 160A-458.5.
- (b) Notwithstanding any other provisions of this chapter, this chapter does not regulate either:
 - (1) Forestry activity on forestland that is taxed on the basis of its present-use value as forestland under G.S. Chpt. 105, Art. 12; or
 - (2) Forestry activity that is conducted in accordance with a forest management plan that is prepared or approved by a forester registered in accordance with G.S. Chpt. 89B.
- (c) Notwithstanding subsection (b) above, the Town may deny a zoning, special use, conditional use, or building permit for a tract of land for a period of up to three years after the completion of a timber harvest if the harvest results in the removal from that tract of all or substantially all of the trees protected by this chapter. If the removal of such trees was in willful violation of the requirements of this chapter, then such permits may be refused for a period of five years.

Appendix A

INFORMATION REQUIRED WITH APPLICATIONS

A-1. In General.

- (a) As provided in Section 15-49, it is presumed that all of the information listed in this appendix must be submitted with an application for a zoning, sign, special use, or conditional use permit to enable the permit-issuing authority to determine whether the development, if completed as proposed, will comply with all the requirements of Chapter 15. As set forth in Section 15-92, applications for variances are subject to the same provisions. However, the permit-issuing authority may require more information or accept as sufficient less information according to the circumstances of the particular case. A developer who believes information presumptively required by this appendix is unnecessary shall contact the planning staff for an interpretation.
- (b) As also provided in Section 15-49, the administrator shall develop application processes, including standard forms, to simplify and expedite applications for simple development that do not require the full range of information called for in this appendix. In particular, developers seeking only permission to construct single-family houses or duplexes or to construct new or modify existing signs should contact the administrator for standard forms.

A-2. Written Applications.

Every applicant for a variance or a zoning, sign, special use or conditional use permit shall complete a written application containing at least the following information:

- (1) The name, address, and phone number of the applicant.
- (2) If the applicant is not the owner of the property in question, (i) the name, address, and phone number of the owner, and (ii) the legal relationship of the applicant to the owner that entitles the applicant to make application.
- (3) The date of the application.
- (4) Identification of the particular permit sought.
- (5) A succinct statement of the nature of the development proposed under the permit or the nature of the variance.
- (6) Identification of the property in question by street address and tax map reference.
- (7) The zoning district within which the property lies.

- (8) The number of square feet in the lot where the development is to take place.
- (9) The gross floor area of all existing or proposed buildings located on the lot where the development is to take place.
- (10) If the proposed development is a multi-family residential development, the number of one, two, three, or four bedroom dwelling units proposed for consideration.

A-3. Development Site Plans.

Subject to Section A-1 of this appendix, every application for a variance or a zoning, sign, special use, or conditional use permit shall contain plans that locate the development site and graphically demonstrate existing and proposed natural, man-made, and legal features on and near the site in question, all in conformity with Section A-4 through A-6 of this appendix.

A-4 Graphic Materials Required for Plans

- (a) The plans shall include a location map that shows the location of the project in the broad context of the town or planning jurisdiction. This location map may be drawn on the development site plans or it may be furnished separately using reduced copies of maps of the Carrboro planning jurisdiction available at the planning department.
- (b) Development site plans shall be drawn to scale, using such a scale that all features required to be shown on the plans are readily discernible. Very large developments may require that plans show the development in sections to accomplish this objective without resort to plans that are so large as to be cumbersome, or the objective may be accomplished by using different plans or plans drawn to different scales to illustrate different features. In all cases, the permit-issuing authority shall make the final determination whether the plans submitted are drawn to the appropriate scale, but the applicant for a conditional or special use permit rely in the first instance on the recommendations of the administration.
- (c) Development site plans should show on the first page the following information:
 - (1) Name of applicant
 - (2) Name of development (if any)
 - (3) North arrow
 - (4) Legend
 - (5) Scale
- (d) All of the features required to be shown on plans by Sections A-5 and A-6 may be included on one set of plans, so long as the features are distinctly discernible.

A-5. Existing Natural, Man-Made and Legal Features.

- (a) Development site plans shall show all existing natural, man-made, and legal features on the lot where the development is to take place, including but not limited to those listed below. In addition, the plans shall also show those features indicated below by an asterisk (*) that are located within fifty feet in any direction of the lot where the development is to take place, and shall specify (by reference to the Table of Permissible Uses or otherwise) the use made of adjoining properties.
 - (b) Existing natural features:
 - (1) Tree line of wooded areas.
 - (2) The location and sizes of all trees which are to be retained in accordance with Section 15-316317, and which are to be removed; along with a written justification for the need to remove any large or rare specimen or rare species trees protected by the provisions of Article XIX, along with and description of the extent of the hardship that would occur if such removal were not permitted to occur. (AMENDED 03/21/89)
 - (3) Orchards or other agricultural groves by common or scientific name.
 - *(4) Streams, ponds, drainage ditches, swamps, boundaries of floodways and floodplains.
 - (5) (If the proposed development is a subdivision or mobile home park of more than fifty lots or if more than five acres of land are to be developed), base flood elevation data (See Article XVI, Part I). (AMENDED 4/21/87; REPEALED 1/16/07).
 - *(6) Contour lines (shown as dotted lines) with no larger than two foot contour intervals. (As indicated in Subsection A-6(b)(17), proposed contour lines shall be shown as solid lines.)
 - (c) Existing man-made features.
 - *(1) Vehicle accommodation areas (including parking areas, loading areas and circulation areas, see Section 15- 290), all designated by surface material and showing the layout of existing parking spaces and direction of travel lanes, aisles, or driveways.
 - (2) Streets, private roads, sidewalks, and other walkways, all designated by surface material.

- (3) Curbs and gutters, curb inlets and curb cuts, and drainage grates.
- (4) Other storm water or drainage facilities, including manholes, pipes, and drainage ditches.
- (5) Underground utility lines, including water, sewer, electric power, telephone, gas, cable television.
- (6) Above ground utility lines and other utility facilities.
- *(7) Fire hydrants.
- *(8) Buildings, structures and signs (including dimensions of each).
- (9) Location of exterior light fixtures.
- *(10) Location of dumpsters.
- (d) Existing legal features.
 - (1) The zoning of the property, including zoning district lines where applicable.
 - (2) Property lines (with dimensions identified).
 - (3) Street right-of-way lines.
 - (4) Utility or other easement lines.

A-6. Proposed Changes in Existing Features or New Features (AMENDED 6/20/06).

- (a) Development site plans shall show proposed changes in (i) existing natural features [see A-5(b)], (ii) existing man-made features [see A-5(c)], and (iii) existing legal features [see A-5(d)].
- (b) Development site plans shall also show proposed new legal features (especially new property lines, street right-of-way lines, and utility and other easements), as well as proposed man-made features, including, but not limited to, the following:
 - (1) The number of square feet in every lot created by a new subdivision.
 - (2) Lot dimensions, including lot widths measured in accordance with Section 15-183.

- (3) The location and dimensions of all buildings and freestanding signs on the lot, as well as the distances all buildings and freestanding signs are set back from property lines, streets or street right-of-way lines (see Section 15-184).
- (4) Principal side(s) building elevations for typical units of new buildings or exterior remodelings of existing buildings, showing building heights (see Section 15-185) and proposed wall sign or window sign area.
- (5) Elevation in relation to mean sea level of the proposed lowest floor (including basement) of all structures. (AMENDED 4/21/87; (REPEALED 1/16/07)
- (6) Elevation in relation to mean sea level to which any non-residential structure will be floodproofed. (AMENDED 4/21/87; REPEALED 1/16/07)
- (7) Description of the extent to which any watercourse will be altered or relocated as a result of the proposed development. (AMENDED 4/21/87; REPEALED 1/16/07)
- (8) The location and dimensions of all recreational areas provided in accordance with Article XIII, with each area designated as to type of use. (AMENDED 4/21/87)
- (9) Areas intended to remain as usable open space (Section 15-198) or designated buffer areas (Section 15-265). The plans shall clearly indicate whether such areas are intended to be offered for dedication to public use or shall remain privately owned. (AMENDED 4/21/87)
- (10) Streets, labeled by classification (see Section 15-210) and street name showing whether curb and gutter or shoulders and swales are to be provided and indicating street paving widths. Private roads in subdivisions shall also be shown and clearly labeled as such. (AMENDED 4/21/87)
- (11) Curb and gutters, curb inlets and curb cuts, drainage grates.
- (12) Other storm water or drainage facilities, including manholes, pipes, drainage ditches, retention ponds, etc.
- (13) Sidewalks and walkways, showing widths and surface material.

- (14) Bridges.
- (15) Outdoor illumination, including the following information: (REWRITTEN 4/20/10)
- a. Plans showing the location, type, and height of luminaires including both building and ground fixtures. The plan shall include a point-by-point footcandle array in a printout format indicating the location and aiming of illuminating devices, and indicate compliance with the maximum maintained footcandles required by Section 15-242.4 of this chapter.
- b. A description of the luminaires, including lamps, supports, reflectors, raised foundations, poles or other supports and shielding devices, which may be provided as electric utility catalogue illustrations, sheets and/or drawings, and product specifications from the manufacturer.
- c. Photometric data, such as that furnished by the manufacturer, showing the angle of light emission; and
- d. A demonstration or showing that the applicant has attempted to reduce energy consumption through the selection of energy efficient luminaires, timers, or other methods (such as fixtures that automatically change wattage output). (AMENDED 05/25/09; REWRITTEN 4/20/10)
- (16) Underground utility lines, including water, sewer, electric power, telephone, gas, cable television. Water and sewer pipe line signs shall be labeled.
- (17) Above ground utility lines and other facilities.
- (18) Fire hydrants.
- (19) Dumpsters.
- (20) New contour lines resulting from earth movement (shown as solid lines) with no larger than two foot contour intervals (existing lines should be shown as dotted lines).
- (21) Scale drawings of all signs requiring permits pursuant to Article XVII, together with an indication of the location and dimensions of all such signs.

- (22) Vehicle accommodation areas (including parking areas, loading areas, and circulation areas, see Section 15-290), all designated by surface material and showing the dimensions and layout of proposed parking spaces and the dimensions and direction of travel lanes, aisles, and driveways.
- Proposed plantings or construction of other devices to comply with the screening requirements of Article XIX, Part I, as well as proposed plantings of trees to comply with the shading, street tree, and canopy requirements of Article XIX, Part II. Plans shall label shrubbery by common or scientific name, show the distance between plants and indicate the height at the time of planting and expected mature height and width. Plans shall label trees by common or scientific name, show the circles of the mature crowns (major trees shall be drawn at diameter = 30'; dwarf or decorative trees shall be drawn at their actual mature crown), and indicate the height at the time of planting.
- (24)A Tree Protection Plan, will be completed and stamped by a Certified Arborist of Landscape Architect, illustrating the methods proposed to be used to protect, during construction, the trees that are required to be protected under the provisions of Chapter XIX including specifications as to how the grade, drainage, and aeration will be maintained around the trees. The location of all rare and specimen trees to be retained on the site that will not be within the area to be disturbed by construction activities near a building site, or near roads within the development shall also be shown on the plan, along with a note stating that these trees will not be within the area to be disturbed by construction activities. The Administrator may recommend that applicants consult with professionals with expertise in arboriculture, landscape architecture/design or forestry about appropriate tree protection methods for the particular conditions and species in question., and request that their contractors review two videotapes on tree protection during construction developed by the International Society of Arboriculture, entitled "Effect of Building Construction on Trees in Wooded Lots" and "Avoidance of Construction Damage to Tees on Wooded Lots" that are on file in the Public Works Department. (AMENDED 03/21/89; 06/24/14)
- (25) Plan for Downtown Architectural Standards to comply with Section 15-178 and including, but not limited to, elevation drawings/illustrations of existing and neighboring property building facades.

(26) Plans showing the maximum extent to which all buildings taller than 40 feet will cast a shadow on June 21st and December 21st. (AMENDED 03/25/14)

A-7. Documents and Written Information in Addition to Plans.

In additional to the written application and the plans, whenever the nature of the proposed development makes information or documents such as the following relevant, such documents or information shall be provided. The following is a representation list of the types of information or documents that may be requested: (AMENDED 11/23/10).

- (1) Documentation confirming that the applicant has a legally sufficient interest in the property proposed for development to use it in the manner requested, or is the duly appointed agent of such a person.
- (2) Certifications from the appropriate agencies that proposed utility systems are or will be adequate to handle the proposed development, as set forth in Article XV, and that all necessary easements have been provided.
- (3) Certifications required under Part I of Article XVI.

 (AMENDED 4/21/87; REPEALED 1/16/07; AMENDED 11/23/10)
- (4) RESERVED. (AMENDED 4/21/87; REPEALED 1/16/07; REPEALED 11/23/10)
- (5) Detailed description of play apparatus to be provided in miniparks.
- (6) Legal documentation establishing homeowners' associations or other legal entities responsible for control over required common areas and facilities.
- (7) Bonds, letters of credit, or other surety devices.
- (8) Stamped envelopes containing the names and addresses of all those to whom notice of a public hearing must be sent to comply with Section 15-102 or Section 15-52.
- (9) Complete documentation justifying any requested deviation from specific requirements established by this chapter as presumptively satisfying design standards.
- (10) Written evidence of permission to use satellite parking spaces under the control of a person other than the developer when such spaces are allowed pursuant to Section 15-298.

- (11) Written evidence of good faith efforts to acquire satellite parking under the circumstances set forth in Section 15-299.
- (12) Verification that 4.000 classification uses will meet the performance standards set forth in Article XI. Such verification shall be made by a licensed engineer or other qualified expert unless it is utterly apparent from the nature of the proposed development that such expert verification is unnecessary.
- (13) Time schedules for the completion of phases in staged development, as required by Section 15-61.
- (14) The environment impact of a development, including its effect on historically significant or ecologically fragile or important areas and its impact on pedestrian or traffic safety or congestion.

A-8. Number of Copies of Plans and Documents.

With respect to all plans and other documents required by this appendix, the developer shall submit the number of copies (not to exceed ten) that the administrator deems necessary to expedite the review process and to provide necessary permanent records.

Appendix E

SCREENING AND TREES - GUIDE FOR LANDSCAPING (AMENDED 6/22/04)

Guide for Protecting Existing Trees
Standards for Street and Parking Lot Trees
Formula for Calculating Thirty-five Twenty Per Cent Shading of Paved Vehicle
Accommodation Areas
Typical Parking Lot Planting Islands
Guide for Planting Trees
Typical Opaque Screens
Typical Semi-Opaque Screens
Typical Broken Screens
Guide for Planting Shrubs
Lists of Recommended Trees and Shrubs
Small Trees for Partial Screening
Large Trees for Evergreen Screening
Large Trees for Shading
Small Shrubs for Evergreen Screening
Large Shrubs for Evergreen Screening
Assorted Shrubs for Broken Screens
List of Invasive Plant Species

E-1 Guide for Protecting Existing Trees

Section 15-316317 provides for the retention and protection of large trees when land is developed. In order to better ensure the survival of existing trees, the developer should heed the following guidelines:

- (a) Protect trees with fencing and armoring (if needed) during the entire construction period. The fence should enclose an area 1-1.5 feet x the diameter inches of the tree to be retained. The area inside the fence should be off limits and no work should take place inside the tree preservation zone. (**REWRITTEN 06/24/14**)
- (b) Avoid excavations beneath the crown of the tree as required by Section 15-316(b)317(c).
- (c) Avoid compaction of the soil around existing trees due to heavy equipment. In areas where storage or vehicular access must take place within the tree preservation area outlined above, a drivable mulch pad with ½" plywood on top may be used to protect the tree's root system, maintaining a minimum distance of 8'from the trunk.. Mulch should be maintained at 12" depth. Preservation fencing should still be placed between the work zone and the tree's trunk. Trunk armoring may be needed when equipment will be used in close proximity to the tree. (REWRITTEN 06/24/14)
 - (d) Keep fires or other sources of extreme heat well clear of existing trees.
- (e) Damaged roots should be cleanly cut and covered with topsoil to prevent drying. If damage to limbs or branches is anticipated in certain locations, pruning prior to beginning work may be considered. Limbs and branches broken during the construction process but still attached should be pruned to prevent further damage. An assessment should be performed and corrective pruning may be necessary after construction has been completed around the tree. Pruning / restoration work should be performed under the supervision of a Certified Arborist. (REWRITTEN 06/24/14)
- (f) As is stipulated in Section 15-316(b), no paving or other impermeable ground cover should be placed within the dripline of trees to be retained. (**REWRITTEN 06/24/14**)

E-2 Standards for Street and Parking Lot Trees

Trees planted in compliance with the requirements of Sections <u>15-316</u><u>15-315</u>, <u>15-318</u>, and <u>15-319</u><u>15-317</u> should have most or all of the following qualities. The trees recommended in Section E-10 represent the best combinations of these characteristics.

(a) Hardiness

- (1) Resistance to extreme temperatures.
- (2) Drought resistance.
- (3) Resistance to storm damage.
- (4) Resistance to air pollution.
- (5) Ability to survive physical damage from human activity.

(b) Life Cycle

- (1) Moderate to rapid rate of growth.
- (2) Long life.

(c) Foliage and Branching

- (1) Tendency to branch high above the ground.
- (2) Wide spreading habit.
- (3) Relatively dense foliage for maximum shading.

(d) Maintenance

- (1) Resistance to pests.
- (2) Resistance to plant diseases.
- (3) Little or no pruning requirements.
- (4) No significant litter problems.

(e) Flora Within Planting Strips (AMENDED 11/19/96)

(1) Match foliage size described in Section E-11 through E-16 with planting strip size.

E-3 Formula for Calculating 35% Shading of Vehicle Accommodation Areas (REWRITTEN 06/24/14)

Following is an elementary formula for determining the number of shade trees required in and around parking lots in order to presumptively satisfy the shading requirements of Section 15-317.

1.	spaces, driveways, loading areas, sidewalks, and other circulation areas. Do not		
	include building area and any area which will remain completely undeveloped:		_ sq. ft.
<i>2</i> .	Multiply	x .35	-
<i>3</i> .	Areas to be shaded:		_ sq. ft.

	Add:		
<i>4</i> .	Area shaded by existing trees to be retained in and around the vehicle accommoda-		
	tion area:*		_ sq. ft.
<i>5</i> .	Area shaded by required screening trees, if any:*		_sq. ft.
<i>6</i> .	Area shaded by required street trees, if any:*		_ sq. ft.
<i>7</i> .	Subtotal:		_ sq. ft.
	(if line #7 is greater than line #3, then the shading requirement has been met. If not, go on to line #8)		-
<i>8</i> .	Enter the difference between line #7 and line #3:		_sq ft.
<i>9</i> .	Divide line #8:	÷ 707	•
<i>10</i> .	Total number of shade trees required within the vehicle accommodation area:		_ trees

 $3.14 \text{ x (crown radius)}^2 = \text{shaded area}$

Trees planted within the vehicle accommodation area are credited with shading 707 sq. ft. (Based on a crown radius of 15) New or existing trees on the perimeter of the parking lot are credited for having only half a crown over the vehicle accommodation area (e.g., new perimeter trees will be credited for shading 354 sq. ft.). Generally, all trees planted in compliance with the screening requirements of Article XIX, Part I and the street tree requirements of Section 15-315 will be considered perimeter trees. When smaller trees such as Dogwoods are planted, the credited shading area will be adjusted downward to 314 sq. ft. for interior trees and 157 sq. ft. for perimeter trees. (Based on a crown radius of 10 ft.) (REWRITTEN 06/24/14)

^{*}Existing trees retained in compliance with Section 15-316 will be credited according to their actual crown radius. Shaded area may be calculated as follows:

Formulas for Calculating the Number of Replacement Trees Required to Satisfy the Tree Canopy Deficit

Following is an elementary formula for determining the number of replacement trees required to presumptively satisfy the tree canopy requirements of Section 15-319.

1. 2. 3.	Enter square footage of the site to which canopy standards apply (15-319(a)): Multiply (by 40%, 30%, or 15% depending on the Land Use) Canopy Required ***********************************	x .4, .3	sq. ft. , or .15 sq. ft.
<u>4.</u> <u>5.</u>	Add: Canopy from existing trees to be retained:* Canopy area of required screening trees, if any:		sq. ft. sq. ft.
<u>6.</u> <u>7.</u>	Canopy area of required shade trees, if any: Subtotal (add lines 4-6) (if line #7 is greater than line #3, then the canopy requirement has been met. If not, go on to line #8)		sq. ft. sq. ft.
<u>8.</u>	Enter the difference between line #7 and line #3 Divide line #8:	÷ 707	sq. ft.
<u>9.</u>	Total number of replacement trees required**:		<u>trees</u>

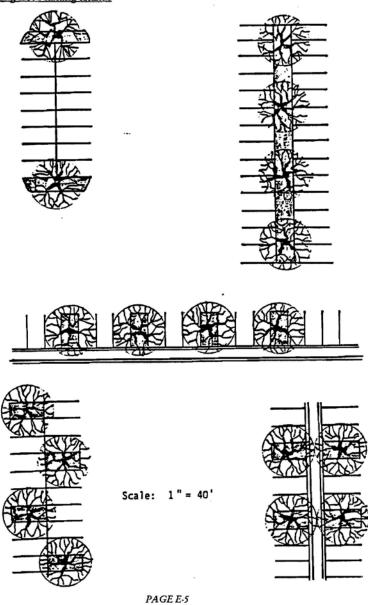
^{*}Existing trees retained will be credited according to their actual crown radius on the site as determined by survey or aerial photography.

Trees planted that are generally recognized as canopy or overstory trees are credited with shading 707 sq. ft. (based on a crown radius of 15'). New trees planted within 5' of the lot line are credited for having only half a crown (e.g., new perimeter trees will be credited for 354 sq. ft.). When smaller trees generally recognized as understory trees such as Dogwoods are planted, the credited area will be adjusted downward to 314 sq. ft. for interior trees and 157 sq. ft. for perimeter trees (based on a crown radius of 10').

^{**}The actual number of replacement trees to be planted will be determined as described below.

GUIDE FOR LANDSCAPING

E-4 Typical Parking Lot Planting Islands



When smaller trees such as Dogwoods are planted, the credited shading area will be adjusted downward to <u>314 square feet</u> for interior trees and <u>157 square feet</u> for perimeter trees. (Based on a crown radius of 10 feet.)

E-5 Guide for Planting Trees (REWRITTEN 06/24/14)

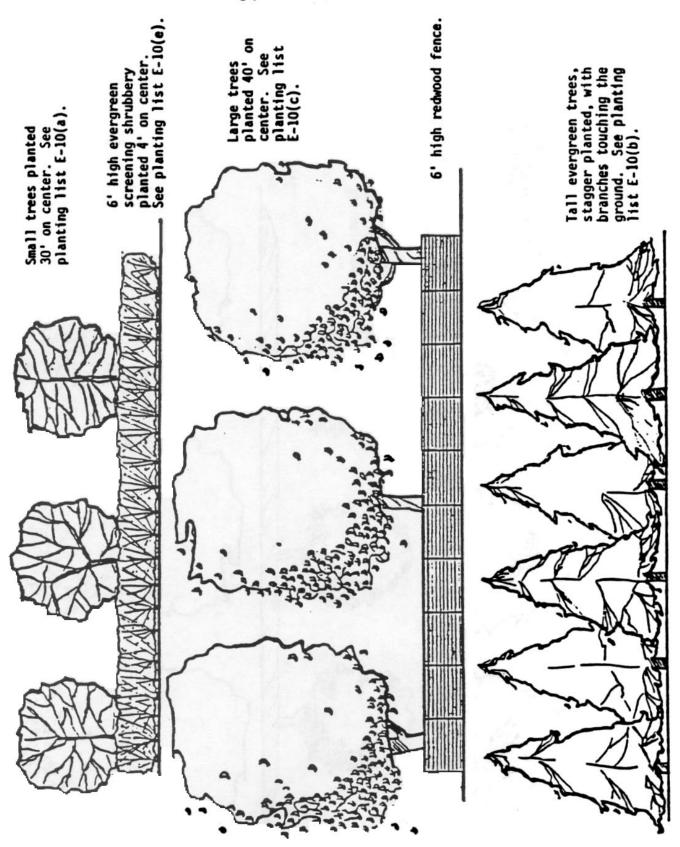
The trees recommended in Section E-10 have minimal maintenance requirements. However, all trees must receive a certain degree of care, especially during and immediately after planting. In order to protect an investment in new trees, the developer and his or her agents should follow these guidelines in accordance with International Society of Arboriculture (ISA) Best Practices, when planting:

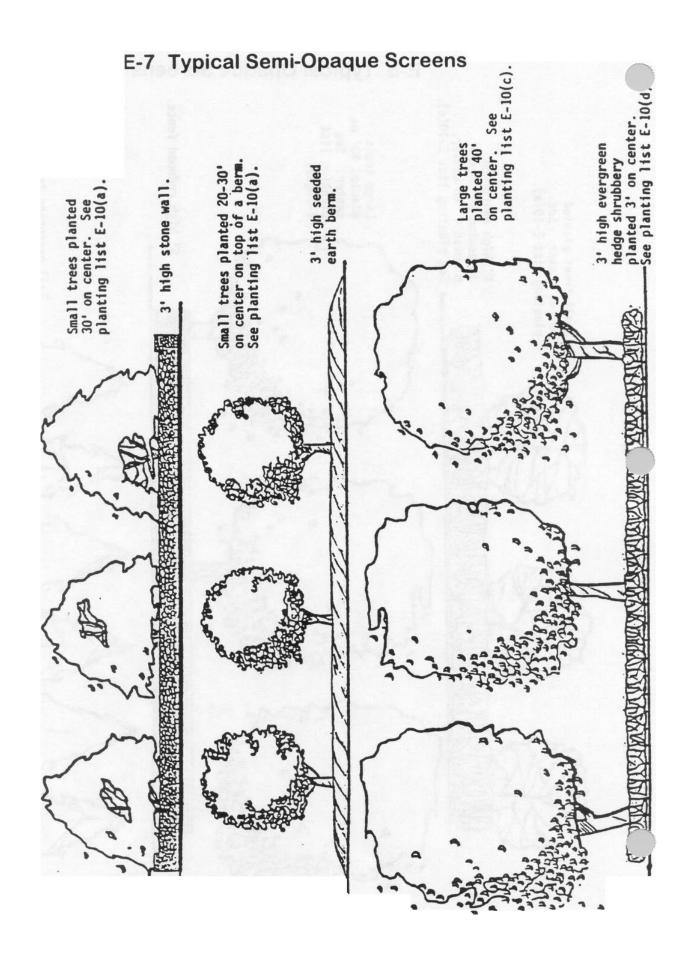
- (a) All plant material shall conform to the current American Standards for Nursery Stock and must be free from injury, insect infestations and disease. Tree caliper at time of planting should be 2-3".
- (b) The best times for planting are early spring and early fall, but may vary depending upon tree species and site conditions. These factors must be considered when selecting species and planting schedule. Trees planted in the summer run the risk of dehydration and precautions must be taken to ensure establishment.
- (c) Plant all trees at least three-and-a-half feet from the end of head-in parking spaces in order to prevent damage from car overhang.
 - (d) Planting hole should be at least 2x the diameter of the root ball and not deeper than the distance from the bottom of the root ball to the root flair, which may be hidden beneath root ball soil. Excess soil above the root flair should be removed once the tree is in place. The tree should be planted so that its root flair is just above existing grade.
 - (e) Especially in areas where construction activity has compacted the soil, the sides of the planting hole should be scarified or loosened with a pick ax or shovel.
 - (f) After the pit is dug, observe sub-surface drainage conditions. Most soils in the Carrboro area are poorly drained. Planting depth where poor drainage exists should be dependent upon the water needs of the tree species. If the species is more sensitive to poor drainage, the tree should be planted higher than existing grade, not to exceed ¼ root of the ball above grade. If a wire cage surrounds the root ball, it should be removed prior to planting. Back fill should then be sloped gradually from top of root ball to existing grade. Gravel placed at the bottom of the hole will not improve drainage.
 - (g) Backfill should include a proper mix of soil, peat moss and nutrients. All roots must be completely covered. Backfill should be thoroughly watered as it is placed around the roots.
- (h) Staking the tree is not recommended unless necessary to stabilize the tree e.g., a lose root ball, unstable bare root transplant, or large evergreen w/higher wind resistance. Staking a tree unnecessarily can reduce the development of structural roots and proper trunk taper. If tree is to be

staked, it should be done so loosely and staking should be removed after the first year. Guying materials should not girdle or cut into the bark.

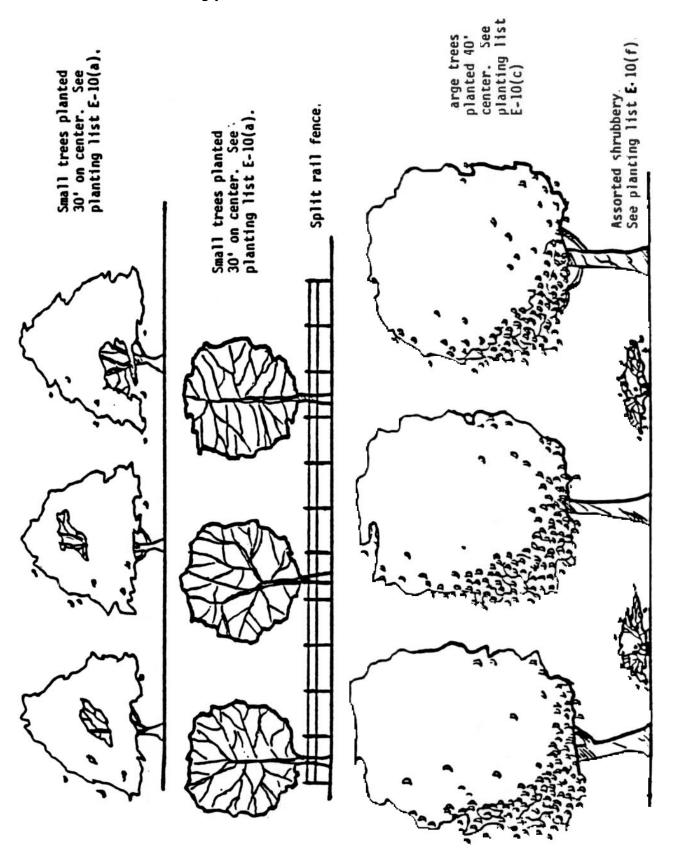
- (i) Mulch should be spread at a depth of 2-3 inches maximum, ideally extending to the drip line. At a minimum, it should cover the entire excavation area in order to retain moisture and help to prevent weeds. Mulch should not be allowed to touch the trunk as this will cause moisture build up, increasing the chance of trunk decay. If necessary, on sloped locations, create a raised ring on the downhill side of the slope to catch rain runoff.
- (j) Trunk wrapping is not required but may be considered for certain species with thin bark in certain locations. If wrap is to be used it should be light colored, biodegradable (paper) and be wrapped from the bottom up. This will help to prevent moisture build up along the trunk.
- (k) Conscientious post-planting care, especially watering, pruning and fertilizing, is a must for street and parking lot trees. Minimal pruning should be performed during the first year, if at all. Watering and fertilization rates are dependent upon site conditions.

E-6 Typical Opaque Screens





E-8 Typical Broken Screens



E-9 Guide for Planting Shrubs

Shrubs planted for screening purpose should be given a proper culture and be spaced based on expected size at maturity sufficient room in which to grow. Most soils in the Carrboro area are poorly drained. Planting depth where poor drainage exists show be dependent upon the water needs of the tree species. If the species is more sensitive to poor drainage, the tree should be planted higher than existing grade, not to exceed one quarter of the root ball above grade. If a wire cage surrounds the root ball, it should be removed prior to planting. Back fill should then be sloped gradually from the top of the root ball to the existing grade. Gravel placed at the bottom of the hole, underneath the shrub, will not improve drainage. Many of the guidelines for tree planting listed in Section E-5 also apply to shrubs. However, because specific requirements vary considerably between shrub types, this Appendix does not attempt to generalize the needs of all shrubs. For detailed planting information on individual species, refer to: Landscape Plants of the Southeast by R. Gordon Halfaere and Anne R. Shaweroft. A copy of this book is available in the Carrboro Planning Department or by contacting Sparks Press, P.O. Box 26747, Raleigh, N.C. 27611.

E-10 Lists of Recommended Trees and Shrubs

The following table, indicates plants which will meet the screening, shading, and tree canopy replacement requirements of Article XIX of the Land Use Ordinance. Additional desirable aspects of plants are also provided. The lists are not intended to be comprehensive or absolute, but rather are intended as guidance for species that are appropriate.

Plants were selected for inclusion on these lists according to two principal criteria in addition to providing the indicated service: i.) general suitability for the Piedmont of North Carolina and support of Piedmont ecosystems and food webs; and ii.) for a particular site, species native to the Piedmont of North Carolina which are thriving on or near the site should be favored. When trees are planted to replace native tree specimens removed, native tree species should always be selected. Plantings of multiple species are also recommended to increase biodiversity and provide resilience. Further information on recommended native plants is available from the North Carolina Native Plant Society. The Land Use Administrator has the discretion to not approve of planting plans to comply with Article XIX that substantially deviate from the list provided

The following lists indicate plantings which will meet the screening and shading requirements of Article XIX of the Land Use Ordinance. The lists are by no means comprehensive and are intended merely to suggest the types of flora which would be appropriate for screening and shading purposes. Plants were selected for inclusion on these lists according to four principal criteria: *i.*) general suitability for the Piedmont section of North Carolina; *ii.*) hardiness/tolerance of city conditions; *iii.*) ease of maintenance; and *iv.*) availability from area nurseries. When selecting new plantings for a particular site, a developer should first consider the type of plants which are thriving on or near the site. Accordingly, species native to North Carolina should often be favored. However, if an introduced species has proven highly effective for screening or shading in Piedmont Towns, it too may be a proper selection.

The plantings marked with an (*) on the following lists are appropriate for planting within plantings strips—as defined under Section 15–216, Subsection (j).

Sections E-11 through E-16 contain descriptions of the trees and shrubs listed here.

E-10 RECOMMENDED TREES AND SHRUBS

		Hu	ıman	Serv	vices			Eco	logi	cal	
	Shading (1)		Screening (2)			Other		Servic		<u>ees</u>	
Common Name (Latin name)	Parking / VAA	Street	<u>Partial</u>	Evergreen	Broken	Planting Strip	Edible/Medicinal	Rare/specimen (3)	Native (a)	Pollinator (b)	
Large Trees (4)	_	_	_	•	_	_		_	_	_	
American Beech (Fagus grandifolia)								*	*	_	
American Persimmon (Diospyrus virginianae)			*		*		*	*	*	*	
Atlantic White Cedar (Chamaecyparis thyoides)				*				*	*	_	
Bald Cypress (Taxodium distichum)				*				*	*	_	
Basswood (Tilia americana)	*								*	_	
Black Gum (Nyssa sylvatica)			*						*	_	
Black Oak (Quercus velutina)	*	*							*	_	
Blackjack Oak (Quercus marilanica)									*	_	
Chestnut Oak (Quercus montana; Q. prinus)	*								*	_	
Cucumber Tree (Magnolia acuminata)	*								*		
Eastern Red Cedar (Juniperus virginiana)				*			*	*	*	_	
<u>Laurel Oak (Quercus laurifolia)</u>				*					*	_	
<u>Loblolly Pine (Pinus taeda)</u>				*					*	_	
Longleaf Pine (Pinus palustris)								*	*	_	
Mockernut hickory (Carya tomentosa)									*	*	
Ohio Buckeye (Aesculus glabra)								*	*	_	
Post Oak (Quercus stellata)									*	_	
Red Maple (Acer Rubrum)	*								*		
Red Oak (Eastern) (Quercus rubra)	*	*							*	_	
River Birch (Betula nigra)	*	*				*			*		
Scarlet Oak (Quercus coccinea)	*	*							*		
Shortleaf Pine (Pinus echinata)				*					*		
Southern Catalpa (Catalpa bignonoides)	*								*		
Southern Magnolia (Magnolia grandiflora)				*				*	*		
Shagbark Hickory (Carya carolinae-septentrionalis)								*	*		
Swamp Chestnut Oak (Quercus michauxii)	*							*	*		
Swamp White Oak (Quercus bicolor)	*				*				*		
Sycamore (Platanus occidentalis)	*								*	<u> </u>	
Tulip Poplar (Liriodendron tulipifera)	*	*							*	*	

				,i.		l			,1.	
<u>Virginia Pine (Pinus virginiana)</u>				*					*	 _ _
White Oak (Quercus alba)	<u>*</u>								*	<u> </u>
<u>Willow Oak (Quercus phellos)</u>	<u>*</u>	*							*	<u> </u>
Small Trees (5)	_	_	_	_	_	_	_	_	_	
American Holly (Ilex opaca)			*	*	*				*	*
American Hop Hornbeam (Ostrya virginiana)			*						*	
American Hornbeam/Ironwood (Carpinus carolinia)			*			*			*	
American Smoketree (Cotinus obovatus)			*		*					
Carolina Cherry Laurel (Prunus caroliniana)			*	*		*			*	
<u>Crabapple (southern) (Malus spp.)</u>			*				*		*	
Eastern Redbud (Cercis canadensis)			*						*	*
Flowering dogwood (Cornus florida)			*						*	
Fringetree (Chionanthus virginiana)			*		*				*	*
Loblolly Bay (Gordonia lasianthus)			*						*	
Mock Orange Philadelphius inodorus										
(other native cultivars)			*						*	*
<u>Paw Paw (Asimina triloba)</u>			*				*		*	*
Red Bay (Persea borbonia)			*						*	
Sassafras (Sassafras albidum)			*		*		*		*	
Serviceberry (Amelanchier canadensis/arborea)			*			*	*		*	_
<u>Silverbell (Halesia carolina)</u>									*	
Sourwood (Oxyndrum arboreum)			*			*			*	_
Southern Wax Myrtle (Myrica cerifera)			*	*					*	_
Sumac (Rhus aromatica (fragrant); copallina										
(Shining); R. glabra (Smooth); R. typhina (Staghorn))					*		*		*	*
Umbrella Magnolia (Magnolia tripetala)									*	*
Washington Hawthorn (Crataegus phaenophyrum)			*							<u> </u>
Witch Hazel (Common) (Hamamelis virginiana)					*		*		*	<u> </u>
Witch Hazel (Vernal) (Hamamelis vernalis)					*	*	*			
Yaupon Holly (Ilex vomitoria)	_	_	*	*	_	*	*	_	*	
Shrubs (6)			_	_	_	_			_	<u> </u>
Anise Bush (Illicium anisatum)			*	*		*				
Azaleas (Rhodendron calendulaceum, canescens,										
<u>periclymenoides, prunifoloium)</u>		-			* * *	*			* * *	*
Beautyberry (Callicarpa americana)		+			*	_	*		*	
Blueberry (Vaccinium spp.) Buttonbush (Cephalanthus occidentalis)		+			*		<u> </u>		*	 -
Carolina Allspice (Sweetshrub) (Calycanthus floridus)		+			*				*	 -
		+		!	*	-		-	*	

Clethra (Clethra alnifolia)					*				*	
Devil's Walking Stick (Aralia spinosa)					*				*	*
Flowering dogwood (Cornus florida)										_
Drooping Leucothoe (Leucothoe fontanesiana)					*				*	_
Fortune Tea Olive (Osmanthus fortunei)			*	*						_
Glossy Abelia (Abelia grandiflora)			*	*						1_
Hearts-a-burstin (Eunonymus americanus)					*				*	_
Highbush Blueberry (Vaccinium corymbosum)					*				*	_
Inkberry (<i>Ilex glabra</i>)			*	*					*	_
Japanese Yew (Taxus cuspidata)			*	*						_
Magnolia "Little Gem" (Magnolia grandiflora)		*		*					*	_
Mountain Laurel (Kalmia latifolia)				*					*	_
Oakleaf Hydrangea (Hydrangea quercifolia)					*					*
Poet's Laurel (Danae racemosa)			*	*						_
Possumhaw (Ilex decidua)									*	_
Savannah Holly (<i>Ilex x attenuata</i>)	*	*		*		*			*	
Silky dogwood (Cornus amomus)									*	_
Spicebush (Lindera benzoin)					*	*			*	_
Viburnum (acerifolium, dentatum, nudum,										
rafinesquianum, prunifolium, rufidulum)			*		*				*	_
Virginia sweetspire (Itea virginica)									*	Í _
Winterberry Holly (<i>Ilex verticillata</i>)			*	*					*	
Vines			_	_					_	_
Carolina Jessamine (Gelsemium sempervirens)	_	_	*	*	_		_	_		_
Confederate Jasmine (Trachelospermum jasminoides)			*	*						
			*	*						
<u>Trumpet Honeysuckle (Lonicera sempervirens)</u>	_	l _	<u> </u>	<u> </u>	l _	l _			_	l _

Footnotes: (1) See 15-316 & 15-318. (2) See 15-307. (3) See 15-317. (4,5) Trees that are credited with 707 sf (4) and 314 sf (5) towards canopy requirements per Appendix E (E-3). (6) Shurbs (a) as defined by NC Cooperative Extension Service and Natural Resources Conservation Service; native plants are preferred for all plantings. (b): as identified by Pollinator Partnership, for southeastern region.

(A) E-11 SMALL TREES FOR PARTIAL SCREENING (AMENDED 6/22/04)

- (1) American Holly
- (2) American Hop Hornbeam
- (3) American Hornbeam [±]
- (4) American Smoketree
- (5) Carolina Cherry Laurel
- (6) Crabapple (southern)
- (7) Eastern Redbud
- (8) Flowering dogwood
- (9) Fringetree

- (10) Mock Orange
- (11) Paw Paw
- (12) Serviceberry [±]
- (13) Sourwood [±]
- (14) Viburnum (except V. opulus)
- (15) Washington Hawthorn
- (16) Yaupon

(B)	E-12 Large Trees for Evergreen Sc	REENING (AMENDED 6/22/04)
	(1) Atlantic White Cedar	(5) Shortleaf Pine
	(2) Eastern Red Cedar	(6) Southern Magnolia
	(3) Laurel Oak (listed on E-13)	(7) Virginia Pine
	(4) Loblolly Pine	(8) Longleaf Pine
appı		he trees on the following list marked with an (*) are Required Trees Along Dedicated Streets (AMENDED
	(1) Basswood	(9) Southern Catalpa
	(2) Chestnut Oak	(10) Southern Sugar Maple
	(3) Cucumber Tree	(11) Swamp Chestnut Oak
	(4) Gingko (male only) *	(12) Swamp White Oak
	(5) Laurel Oak *	(13) Sycamore
	(6) Post Oak	(14) Tulip Poplar *
	(7) Red Oak (Eastern) *	(15) White Oak
	(8) Scarlet Oak *	(16) Willow Oak *
(D)	(1) Convexa Japanese Holly	CREENING (AMENDED 05/25/99, 6/22/04) (7) Otto Lukeyn Laurel [±]
	(2) Olegay Abelia	(8) Poet's Laurel
	(4) How your is illusted (Winter hours, Helly)	(9) Warty Blueberry
	(4) Ilex verticillata (Winterberry Holly)	(10) **Carolina Jessamine
	(5) Indian Hawthorn-*	(11) **Trumpet Honeysuckle
	(6) Japanese Yew **Vines - which if grown on a tre	(12)- Illis would make a nice evergreen screen.
(E)	E-15 Large Shrubs for Evergreen S	CREENING (AMENDED 6/22/04)
	(1) Anise Bush [±]	(6) Loblolly Bay
	(2) Carolina Cherry-Laurel *	(7) Loropetalum [±]
	(3) Cleyera [±]	(8) Red Bay
	(4) English Laurel	(9) Schipka Laurel
	(5) Fortune Tea Olive	(10) Southern Wax Myrtle
	()	(11) Yaupon Holly (standard) [±]
		(11) Tampon Trong (Sumana)

(F) E-16 ASSORTED PLANTINGS FOR BROKEN SCREENS (AMENDED 5/25/99, 6/22/04)

(1) Beautyberry ± (11) Judd Viburnum (2) Blueberry (12) Oakleaf Hydrangea (3) Button Bush (13) Rhododendron

(4) Carolina Allspice (Sweetshrub) (14) Smoketree

(5) Carolina Rose (15) Star Magnolia (tree)

(6) Clethra (16) Sumae

(7) Devil's Walking Stick (17) Viburnum (except V. opulus)

(8) Drooping Leucothoe (18) Witch Hazel (Common)

(9) Fringetree (19) Witch Hazel (Vernal) [±]

(10) Japanese Flowering Apricot (tree)

The following plant species shall be prohibited when complying with the shading and landscaping provisions of this chapter. (AMENDED 6/22/04).

Species (Latin) Common Name

Akebia quinataChocolate vineAcer ginnalaAmur MapleAcer platanoidesNorway MapleAilanthus altissimaTree of Heaven

Albizia julibrissin
Ampelopsis brevipedunculata
Baccharia halimifolia
Baccharus spp

All Berberis species including

Berberis julianae Wintergreen Barberry
Berberis thunbergii Japanese Barberry
Broussonetia papyrifera Paper Mulberry
Celastrus orbiculatus Bittersweet

All Cotoneaster species including

Cotoneaster microphyllus
Cotoneaster horizontalis
Crataegus monogyna
Crataegus laevigata
All Cytisus scoparius
Eleagnus angustifolia
Eleagnus umbellata
Littleleaf Cotoneaster
Rockspray Cotoneaster
Singleseed Hawthorn
English Hawthorn
Scotch Broom
Russian Olive
Autumn Olive

Euonymus alatus Winged Euonoymus, Burning Bush

Euonymus japonicus
Firmiana simplex

Japanese Euonymus
Chinese Parasol Tree

Species (Latin)

Common Name

English Ivy

Hedera helix

All Ligustrum species including

Ligustrum japonicumJapanese PrivetLigustrum lucidumWaxleaf PrivetLigustrum obtusifoliumBorder PrivetLigustrum vulgareEuropean PrivetLigustrum sinenseChinese Privet

Ligustrim x vicariGolden Vicary PrivetLonicera japonicaJapanese HoneysuckleLonicera maackiiBush HoneysuckleLonicera nitidaBoxleaf HoneysuckleLonicera tataricaTatarian HoneysuckleMiscanthus sinensisEulalia, Maiden Grass

Mahonia repensOregon GrapeMorus albaWhite MulberryPaulownia tomentosaPrincess TreePhyllostachys aureaGolden BambooPopulus albaWhite Poplar

Spirea Japonica Japanese Meadowsweet

Taxus cuspidata Japanese Yew

Viburnum opulus European Cranberrybush Viburnum

Vinca majorLarge PeriwinkleVinca minorCommon PeriwinkleWisteria sinensisChinese WisteriaWisteria japonicaJapanese Wisteria

E-11 Small Trees for Partial Screening (Amended 6/22/04)

The following trees are recommended for use in all types of screens. Though smaller than the trees listed in planting lists E-12 and E-13, each of these trees will reach a height of at least 20 feet. Selections marked with an (*) are also recommended as shade trees and may be credited for meeting the 3520% shading requirement for paved parking lots.

AMERICAN HOLLY (Ilex opaca) Height: 15-30'; Spread: 10-20'.

This familiar native tree possesses a pyramidal evergreen crown with abundant red berries in the winter. It grows best in full sun and prefers moist yet well drained soils. If the lower limbs are allowed to grow naturally, they will branch to the ground. Hollies should be protected from high winds. The American Holly is a relatively slow grower.

AMERICAN HOP HORNBEAM (Ostryga virginiana) Height: 40 to 50 feet; Spread: 20 to 30 feet

Hophornbeam is a small short-lived understory tree in moist, well-drained forests. It has a slow to medium growth rate on a great variety of soils. It develops a finely branched round crown and is an attractive landscape tree that provides wildlife with a limited amount of seed. Fruit

*AMERICAN HORNBEAM (Carpinus carolinia) Height: 20-30'; Spread: 15-20'.

This native tree has a natural yet refined appearance. It is slow growing, but at maturity it serves as an excellent small shade tree. Its fluted, "muscular" trunk is an interesting feature. In the wild, the American Hornbeam is common in moist rich soil, yet, when used in landscape design, it is soil tolerant and does not require an unusual amount of water. It has no pests and no special maintenance problems.

AMERICAN SMOKETREE (Cotinus obovatus) Height: 15 feet; Spread: 15 feet

Smoketree is a small tree found on upland sites. This tree is planted as an ornamental for the attractive fruit that are presented on a feathery, hairy stalk, which gives a smoke-like appearance.

BLACK HAW (Viburnum prunifolium; V. dentatum) Height: 12 to 15 feet; Spread: 8 to 12 feet

Black Haw is a small tree with twisted trunk and arching branches with an overall round crown appearance. Does best on partially sunny sites on moist, well-drained soils.

CAROLINA CHERRY-LAUREL (Prunus caroliniana) Height: 20-30'; Spread: 15-20'.

This tree is prized for its dense evergreen foliage. It may be trimmed as a hedge, but also serves as an excellent screen in its natural form. The Cherry-Laurel grows rapidly and has no pests. However, it may not be as cold hardy as other trees on this list.

CRABAPPLE, SOUTHERN (Malus) Height: 15'-30'; Spread 10-20'

Slow to moderate growers, with springtime flowers in colors ranging from pink to red to white. Birds are fond of fruit. Care should be taken when choosing a specific variety to make certain that it is disease resistant. Some disease resistant varieties include 'Adams', 'Callaway', and 'Sentinel'.

EASTERN REDBUD (Cercis canadensis) Height: 20-30'; Spread: 12-25'.

This native tree is covered by beautiful pink flowers in the Spring and develops a dense round crown when allowed to grow in direct sunlight. The Redbud has some pests, and its fruit pods may present a litter problems, but it recommends itself by being drought resistant and tolerant of polluted city air.

*FLOWERING DOGWOOD (Cornus florida) height: 15-30'; Spread: 15-20'.

The Dogwood is a native woodland tree which is very popular for landscape planting. It is considered to be a fairly hardy tree, but, when planted in direct sun, it must be frequently watered. A healthy Dogwood will develop attractive horizontal branches and bushy crown. Dogwoods look best when planted in groups or when used as an accent in borders. These trees should be guarded against borers and other pests.

FRINGE TREE (Chionanthus virginiana) Height: 12 to 20 feet; Spread:12 to 20 feet

Fringe-tree is a short trunk tree with a narrow, oblong crown found on moist soils. It is a popular ornamental because of the white fringe-like drooping white flower clusters in May and June that mature into inch-long blue-black fruit in September and October.

MOCK ORANGE (Philadelphius inodorus or other native cultivars) Height:3 to 6 feet; Spread: 3 to 9 feet

Mock Orange is a deciduous short shrub, suitable on a range of soil conditions along streams and bluffs, cliffs, and rocky banks, with full sun to partial shade. Best used as part of a shrub border or an edge to natural areas. Fragrant white flowers in spring on spreading branches that twist around each other and arch to the ground.

PAW PAW (Asimina triloba) Height: 15 to 40 feet; Spread: 15 to 30 feet

Pawpaw is an understory species found on moist, well-drained sites that has a tropical appearance in the landscape. Purplish-brown, broad bell shape flowers appear with or slightly before the leaves. Fall ripening fruit resemble a short, fat banana, that is very fleshy, tastes like a banana, and eaten by squirrel, fox, raccoon and small animals.

SERVICEBERRY (Amelanchier canadenis) Height: 10'-20'; Spread 8-15'

An upright shaped tree with a moderate growth rate. Serviceberry will thrive in sun or partial shade. White springtime flowers. Tolerant of most soil types, Serviceberry looks good planted along the edge of woods.

SOURWOOD (Oxyndrum arboreum) Height: 20-30'; Spread: 10-15'.

Sourwoods are handsome native trees which are most effective in landscape design when planted in groups. They are easy to transplant and as each tree matures it assumes a slender form with upright branches. Sourwood prefers relatively dry acid soils. Its only special maintenance problems may be infestations of webworms.

WASHINGTON HAWTHORN (Crataegus phaenophyrum) Height: 25-30'; Spread: 25-30'.

Hawthorns generally require spraying to prevent disease and insect infestation. However, they are an excellent choice for screening because of their extremely dense and thorny branches. They have proven to

be excellent as a headlight screen on highway medians and, when planted close together, they form an impenetrable living fence. They prefer sun and are tolerant to most types of soil. The Washington Hawthorn is generally considered to be the best of the Hawthorns.

YAUPON (Ilex vomitoria) Height: 15 to 20 feet; Spread: 10 to 20 feet

Yaupon is an upright evergreen shrub that forms thickets with numerous stems and branches. It grows well in full to partial shade and adapted to wet and dry sites. Small white flowers in spring yield to small shiny red berry clusters on the stems in the fall. Deer browse the foliage and fruit are eaten by birds and small mammals.

E-12 Large Trees for Evergreen Screening (Amended 6/22/04)

The following trees are ideal for screening large scale areas such as shopping centers and industrial sites. They are also effective in combination with other, smaller screening plants. All three are moderate to fast growers. They are not considered to be shade trees.

ATLANTIC WHITE CEDAR (Chamaecyparis thyoides) Height: 40 to 50; Spread 10 to 20 feet

Atlantic White Cedar is a tall, slender columnar tree; that looses lower branches with age. It grows best in wet sites with full sun. Bluish green needles appear flattened and arranged in irregular sprays with pointed tips. Bluish purple cones are quarter-inch long.

EASTERN RED CEDAR (Juniperus virginiana) - Height 60'; Spread 15-20'.

This is a native evergreen tree that is very hardy in the area. Mature specimens have interesting bark. Has waxy fruit that birds enjoy. Slow growth.

LAUREL OAK (Quercus laurifolia) Height: 40-60'; Spread: 30'+.

The Laurel Oak grows more slowly than the other Oaks listed above, but it has the advantage of being nearly evergreen in Piedmont sections of North Carolina. It has proven to be a good street tree and does quite well under city conditions. It presents no special maintenance problems.

LOBLOLLY PINE (Pinus taeda) - Height 50 to 90; Spread 30 to 40 feet

Loblolly pine grows well on moderately acid soils with poor surface drainage and full sun. It is initially pyramidal until the crown becomes rounded with horizontal branches following the loss of lower branches. Excellent fast growing species for rapid vegetative screening.

LONGLEAF PINE (Pinus palustris) - Height 80 to 100; Spread 30 to 40 feet

Longleaf pine is found on well-drained sandy soils and on swamp edges and requires full sun. In the Piedmont, it rarely attains mature height due to susceptibility to ice storm damage, wind, lightning, high winds, and drought. It is also a nesting tree for red cockaded woodpecker. It is slow to establish and grows in "grass like" stage for first 5 years.

SHORTLEAF PINE (Pinus echinata) Height 80 to 100; Spread 30 feet

Shortleaf pine is a medium-sized, native, evergreen conifer with relatively short needles and thin, flaky, black bark that becomes reddish brown with age. Shortleaf pine is suitable to sunny sites and a variety of soils. It is a medium to large tree with an initial small, open, pyramidal crown that becomes a small narrow crown with age.

SOUTHERN MAGNOLIA (Magnolia grandiflora) Height: 40-60'; Spread: 25'+.

Magnolias are striking trees which serve well as screens when their branches are allowed to grow to the ground. Generally, the tree does well in city conditions, but it should be planted in quite rich acidic soils

and it requires a lot of moisture. Furthermore, Magnolias require ample space for growth. If planted in full sunlight, they will grow rapidly. Because it drops large waxy leaves, seed pods, and flowers, the Magnolia may present a litter problem.

VIRGINIA PINE (Pinus virginiana) - Height 60'; Spread 25-35'.

A native of the area, Virginia Pine is a short needled tree that is very tolerant of clay soils. More resistant to winter weather conditions than Loblolly Pine.

E-13 Large Trees for Shading (Amended 6/22/04)

The following trees may be used for screening, but they are recommended especially for shading streets and parking lots. Unless otherwise noted, they will grow rapidly. Each species will attain a mature spread of at least thirty feet. The trees on the following list marked with an "*" are appropriate selections to satisfy Section 15-315, Required Trees Along Dedicated Streets. Trees with a mature height of at least 30 feet may be used for canopy coverage.

*BLACK OAK (Quercus velutina) Height: 50 to 60 feet; Spread: 40 to 50 feet

A large, deciduous oak of the red oak group with a globular, spreading crown. This tree is primarily native to upland hills, slopes and ridges It is similar in appearance to red oak with which it may on occasion hybridize. Bark is almost black on mature trunks with deep furrows. Inner bark is yellow to orange. Trunk matures to 3' in diameter. Leathery, shiny, dark green leaves (to 10" long) have 7-9 deeply incised lobes (each with 1-3 bristle tipped teeth). Leaves turn yellow to yellow-brown to dull red in fall. Easily grown in average, acidic, dry to medium moisture, well-drained soils in full sun.

CHESTNUT OAK (Quercus montana; Q. prinus) Height: 60 to 70 feet; Spread: 50 to 70 feet

Chestnut oak is a medium-sized, native, deciduous, tree that is suited to dry, infertile, rocky upland sites, yet grows best on rich well-drained soils along streams. At maturity, it is a medium-sized long-lived tree with an irregular dense crown. The sweet acorns are an important food for many wildlife species including deer, turkeys, squirrels, chipmunks, and mice, while small birds, mammals, and bees use chestnut oak cavities for nesting

CUCUMBER TREE (Magnolia acuminata; M. Fraserii) Height: 50 to 80 feet; Spread: 50 to 80 feet

Cucumber tree is the most widespread and hardiest of the eight native magnolia species. It grows fairly rapidly and well in rich, moist soils of slopes and valleys and matures in 80 to 120 years. This park-like tree is planted as an ornamental for its attractive leaves, flowers, and cucumber-shaped fruit, producing seeds that are eaten by birds and small mammals. Its shape is pyramidal when young, developing a straight trunk and a rounded crown.

*EASTERN RED OAK (Quercus rubra) Height: 50-70'; Spread: 40'+.

This tree grows faster than any other Oak, two feet or more per year. It is prized as a street tree because its high branching habit gives it an ideal shape. The Red Oak grows in almost any average soil and presents no special maintenance problems.

*GINKGO OR MAIDENHAIR TREE (Ginkgo biloba) Height: 40-80'; Spread: 30'+.

The Ginkgo is a tree which is recommended for several outstanding reasons. It is one of the oldest surviving species of trees. It is adaptable to any soil, climate, or degree of exposure to the sun. It does quite well in the city. It has no pests, no diseases, and no pruning requirements. In sum, it is a tree of exceptional vitality. The N.C. Department of Forest Resources calls the Ginkgo, probably the best all around street tree. Two reservations are worth stating, however. First, only male trees should be planted because female Ginkgos bear a messy, malodorous fruit. Second, the Ginkgo is a slow grower. When

young, it has a rather gangly appearance. It takes 20 to 30 years to assume its mature, symmetrically spreading form.

*LAUREL OAK (Quercus laurifolia) Height: 40-60'; Spread: 30'+.

The Laurel Oak grows more slowly than the other Oaks listed above, but it has the advantage of being nearly evergreen in Piedmont sections of North Carolina. It has proven to be a good street tree and does quite well under city conditions. It presents no special maintenance problems.

POST OAK (Quercus stellata) Height: 40 to 50 feet; Spread: 35 to 50 feet

The Post oak is a small to medium-sized tree with a crown that has snarled and twisted branches and found on upland sites with full sun. This slow-growing drought resistant oak typically occupies rocky or sandy ridges and dry woodlands with a variety of soils. Acorns provide high-energy wildlife food during fall and winter for wild turkey, white-tailed deer, and squirrels, and provide habitat for birds and mammals. Post oak can be a beautiful shade tree for parks and to stabilize soil on dry, sloping, stony sites where few other trees will grow. It develops an attractive crown with strong horizontal branches.

RED MAPLE (Acer Rubrum) Height 40-50'; Spread: 23 to 35 feet

The Red Maple is an attractive tree with brilliant red or yellow fall foliage. A good shade tree, it is fast growing with a spreading and symmetrical shape with ascending branches. Red Maples work well in sun or shade, with medium soil fertility, drainage and moisture content, but can be susceptible to pests such as maple insects and diseases.

*SCARLET OAK (Quercu Coccinea) Height: 60-80'; Spread: 40'+.

This is a third Oak which grows rapidly and is easy to maintain. The Scarlet Oak is more difficult to transplant than the Red or the Willow, but it may be a worthwhile selection for its excellent foliage

SOUTHERN CATALPA (Catalpa bignonoides) Height:25 to 40 feet; Spread: 20 to 30 feet

Catalpa is a medium-sized tree with spreading branches, an irregular crown, and generally crooked bole that is suited to moist, well-drained soils with full sun. The flowers and leaves make this an interesting landscape tree but the fruit can be messy.

SOUTHERN SUGAR MAPLE (Acer saccharum; A. barbatum) Height: 20 to 25 feet; Spread: 20 to 40 feet

Sugar maple grows on moist, well-drained soils and is very tolerant of shade. Seeds are eaten by birds and small animals. A popular ornamental for the fall color, Sugar Maple at maturity is a medium to tall-tree with very dense elliptical crown.

SWAMP CHESTNUT OAK (Quercus michauxii) Height: 60 to 70 feet; Spread: 50 to 70 feet

Swamp chestnut oak grows in full sun on moist and wet loamy soils of bottomlands, along streams and borders of swamps, tolerates saturated or flooded soils for a few days to a few weeks. The acorns are sweet and serve as food to wildlife. The crown is round, compacted, and narrow.

SWAMP WHITE OAK (Quercus bicolor) Height: 50 to 60 feet; Spread: 50 to 60 feet

Swamp white oak is a medium sized tree with an irregular crown suitable to river bottomlands, depressions, swamp borders, and along edges of streams. It is rapid growing and long lived, attaining 300 to 350 years. Many kinds of wildlife eat the acorns, particularly ducks. Swamp white oak is intermediate in shade tolerance but not very drought tolerant.

SYCAMORE (Platanus occidentalis) Height: 70-100'; Spread: 60'+.

The Sycamore is probably the fastest growing shade tree on this list. Within ten years, it can grow to a height of between thirty and forty feet. It is easily transplanted, but it needs plenty of space. As one of nature's most massive trees, Sycamores have been known to grow to a height of 170 feet with a trunk 10 feet across. The Sycamore is a native tree which typically grows in flood plains, but it thrives in a variety of situations. Its tolerance of severe conditions has long made it a favorite choice as a street tree. Sycamores are susceptible to fungi and leaf blight and their large leaves and seed balls may present a litter problem.

*TULIP POPLAR (Liriodendron tulipifera) - Height 60'-150'; Spread 30-40'.

Very common in eastern woodlands, this is a rapidly growing tree with colorful yellow leaves in Fall. Spring flowers, however, are not very noticeable. Difficult to transplant except when young. Excellent street tree.

WHITE OAK (Quercus alba) Height: 60 to 100 feet; Spread:50 to 90 feet

White oak is found on fertile, moist, well-drained soils under partial sun. Acorns are eaten by game birds, deer, bear, and many small mammals. Pyramidal in youth, this species matures into a rugged, irregular crown that is wide spreading, with a stocky bole. While this species is potentially valuable for use in reforestation projects, it is not recommended near paved areas.

*WILLOW OAK (Quercus phellos) Height: 60-80'; Spread: 30'+.

This is another rapidly growing Oak. It has proven to be quite successful as a street and parking lot tree in the Carrboro area. Its slender leaves give it a finer texture than that of other Oaks, but it still casts excellent shade. The Willow Oak is native to bottomland soils, and thus it needs plenty of moisture. It often spreads majestically as it matures so it should be given ample room to grow. No significant pests or diseases afflict the Willow Oak.

E-14 Small Shrubs for Evergreen Screening (Amended 6/22/04)

The following shrubs are recommended for informal (unclipped) hedges or screens. Each species grows to a height of less than six feet; therefore, these shrubs are appropriate for Semi-Opaque Screens.

CAROLINA JESSAMINE* (Gelsemium sempervirens) - Height up to 20'; Spread varies.

A moderate growing, mostly evergreen vine that grows very well on fences. Fragrant yellow flowers in springtime. Prefers sun or partial shade. All parts of this plant are poisonous.

<u>CONFEDERATE JASMINE* (Trachelospermum jasminoides) - Height up to 20'; Spread varies.</u> Commonly called star jasmine, this is a twining, evergreen, woody vine. Axillary and terminal clusters

of salverform, sweetly fragrant, starry, creamy white flowers appear in late spring with sporadic additional bloom in summer. Flowers are attractive to bees.

CONVEXA JAPANESE HOLLY (Ilex crenata 'convexa') Height: 4-6'; Spread: 3-5'.

The Convexa Japanese Holly is another good Boxwood substitute. This shrub is considered to be one of the most attractive, hardy and serviceable Hollies for landscape use. It is attractive in either a clipped or unclipped form. It grows faster than the Littleleaf Japanese Holly.

DWARF HORNED HOLLY (Ilex cornuta 'rotunda') Height: 3'; Spread: 3-4'.

This shrub is an excellent selection for a low hedge. It is soil tolerant and requires no pruning or other special care once established. With its spiny leaves, this plant appears to be and is in fact rugged. Like all Hollies, it grows best in full sun, but unlike others of its species, it produces bright red berries without both sexes being present.

GLOSSY ABELIA (Abelia grandiflora) Height: 4-6'; Spread: 3-5'.

Abelia is quite common in local nurseries and tends to be less expensive than other shrubs on this list. It bears pale pink flowers throughout the summer. Although it has proven quite popular for informal hedges, it has several drawbacks. Abelia should be pruned and thinned to maintain its best form. It may drop its leaves due to low temperatures, lack of pruning, or starvation.

INDIAN HAWTHORN (Raphiolepis indica) Height: 3-4'; Spread: 4-5'.

With its spreading, irregular branching, the India Hawthorn makes an excellent informal hedge. It is tolerant of a variety of soils and is fairly drought resistant. However, it may not be as cold tolerant and pest resistant as other shrubs on this list.

INKBERRY (Ilex Glabra) Height: 5-10'; Spread: 4-8'

Inkberry is an evergreen shrub with alternate leaves with a smooth or toothed margin. The bark is greenish brown and smooth. In early summer, small greenish white flowers mature. The shrub produces a black drupe that matures in the fall. It is a host plant for the Henry's Elfin butterfly. Fruits are eaten by birds and small mammals.

JAPANESE YEW (Taxus cuspidata) Height: 4-6'; Spread: 5-7'.

The versatile Yew is commonly available from local nurseries in a wide variety of sizes and shapes. The Japanese Yew serves as excellent screening material in either a clipped or unclipped form. It tolerates poor growing conditions and flourishes in almost any kind of soil. (Soggy soil may hamper its growth, however.) It is comparatively pest free and is hardy under trying winter conditions. The Yew's best feature is its rich shiny green needles which grow densely on all varieties.

OTTO LUKEYN LAUREL (Prunus laurocerasus var. 'Otto Lukeyn') - Height 4'; Spread 4-7'.

A cold hardy, broad leaved evergreen shrub. Prefers sun, but will grow in fairly shady conditions. Good green color even in winter. This is a shorter growing variety of the Schipka Laurel.

MOUNTAIN LAUREL (Kalmia Latifolia) Height: 6-10'; Spread: 5-8'

A shrub that is abundant in the mountains with leaves that are alternate with a smooth margin, raised mid-vein, and yellow underside. The bark is thin, smooth, and dark brown-red in color in young trees. The bark shreds and splits as the plant ages. In late spring to early summer, very showy clusters of white to rose flowers mature.

POET'S LAUREL (Danae racemosa) Height: 2 to 3 feet; Spread: 2 to 3 feet

Poet's Laurel prefers partial to full shade, moist, well-drained soil enriched with organic matter; but does tolerate clay soils. It has an open growth habit with slender branches that arch up and away from center of crown. It can spread by rhizomes. While foliage discolors in sun; it can be long-lasting for flower arrangements.

TRUMPET HONEYSUCKLE* (Lonicera sempervirens) - Height up to 50'; Spread varies.

A rapid growing, mostly evergreen vine with beautiful orange to red to yellow flowers occurring in late spring and throughout the summer. Best in full sun.

WARTY BARBERRY (Berberis verruculosa) Height: 3-4'; Spread: 3-4'.

Barberrys as a group have proven to be excellent as hedge plants. With their dense, spiny limbs, they are effective barriers in public places. The Warty Barberry is a shrub with a neat, compact habit. It is soil tolerant and has no special maintenance requirements. It grows slowly, but it will reach a height of 3 to 4 feet within five years.

WINTERBERRY HOLLY (Ilex verticillata) Height: 6 to 15 feet; Spread:6 to 10 feet

With a slow to moderate growth rate, this species is suited to partial to full sun on moist soils, but can tolerate drought. Early summer brings small white flowers that mature into dense clusters of bright red berries.

WINTERGREEN BARBERRY (Berberis julianae) Height: 4-6'; Spread: 2-5'.

This is another Barberry which forms an impenetrable thorny hedge. In fact, it grows even more densely than the Warty Barberry. It is pest resistant and is very hardy. No pruning is required. Because it is fairly slow growing, it will take eight to ten years to reach a height of 5 to 6 feet.

Note: * Vines - which if grown on a trellis would make a nice evergreen screen.

E-15 Large Shrubs for Evergreen Screening (Amended 6/22/04)

The following shrubs are recommended for high hedges or screens. Each species grows to a height of more than 6 feet and are generally; therefore, these shrubs are appropriate for Opaque Screens.

ANISE BUSH (Illicium anisatum) - Height 8-12'; Spread 8-10'.

moderate growing, evergreen shrub with an open habit. Small flowers appear in mid-Summer. Prefers a fair amount of moisture, with partial to full sun. Subject to damage during very cold winters.

CAROLINA CHERRY-LAUREL (Prunus caroliniana) Height: 20-30'; Spread: 15-20'.

This tree is prized for its dense evergreen foliage. It may be trimmed as a hedge, but also serves as an excellent screen in its natural form. The Cherry-Laurel grows rapidly and has no pests. However, it may not be as cold hardy as other trees on this list.

<u>CLEYERA (Cleyera japonica) - Height 8-10'; Spread 5-6'.</u>

A slow moderate growing evergreen shrub. Its new foliage is reddish in color, like the Photinia. However, unlike the Photinia, Cleyera is much more disease resistant and thus a better option. Prefers shade or partial shade, with moist, but well drained soil.

ENGLISH LAUREL (Prunus laurocerasus) - Height 10-12'; Spread 8-11'.

A large leaved, evergreen shrub with moderate growth. Prefers well drained soils. Grows best in sun or partial shade, but will survive in shade. Cold hardy. Makes an excellent evergreen screen.

FORTUNE TEA OLIVE (Osmanthus fortunei) Height: 9-12'; Spread: 5-7'.

This Osmanthus hybrid is a popular, though non-descript, shrub. With its vigorous growth, it will form an excellent screen or border. It is soil tolerant. The Fortune Tea Olive is most notable for its inconspicuous yet highly fragrant flowers.

LOBLOLLY BAY (Gordonia lasianthus) Height 30 to 60 feet; Spread 10 to 15 feet

Loblolly-bay is a small to medium-sized native, evergreen tree that grows on acid soils in flat woodlands or shallow depressions with little or no slope, slow runoff, and poor to very poor drainage. It has a narrow crown and straight trunk.

MAGNOLIA "LITTLE GEM" Height 15 to 30 feet; Spread 15 to 20 feet

'Little Gem' is a much smaller and slower growing Magnolia cultivar that typically grows as a compact upright multi-stemmed shrub or small tree. It features glossy green leaves (to 5" long) that are bronze-brown underneath. Fragrant white flowers (to 4" diameter) bloom in summer. It is effective as a screen, a small street tree or in containers.

RED BAY (Persea borbonia) Height: 15 to 40 feet; Spread 10 to 20 feet

Redbay is an attractive aromatic evergreen tree suitable for sites with partial to full sun and prefers drier soils. Birds and small mammals eat the fruit.

SAVANNAH HOLLY (Ilex X Attenuata 'Savannah') Height: 25 to 40'; Spread 8 to 12 feet

This holly grows quickly in full sun or partial shade on moist, acid soils. Plants in full sun can grow a dense canopy, those in partial shade are more open. Trees attract cedar waxwings, mockingbirds, robins and many other birds. This holly makes a fairly durable street tree. It is quite drought-tolerant once it becomes well-established. The crown grown with one central trunk is preferred, making it well-suited for urban areas having restricted vertical space. Savannah Holly has also performed well in sidewalk cutouts/small tree pits, in parking lots and median strip plantings and for screens.

SCHIPKA LAUREL (Prunus laurocerasus 'schipkaensis') - height 6-8'; spread 3-5'.

A cold hardy, broad leaved evergreen shrub. Prefers sun, but will grow in fairly shady conditions. Good winter color.

SOUTHERN WAX MYRTLE (Myrica cerifera) Height 40 feet; Spread 20 to 25 feet

Southern wax myrtle is an erect, shade tolerant, ornamental, evergreen, small tree or shrub. Its flat leaves are aromatic when crushed and may repel. Underground runners extend the growth laterally and root nodules are capable of atmospheric nitrogen fixation.

YAUPON HOLLY (Ilex vomitoria) Height: 5-15'; Spread: 6-12'.

This is another versatile Holly, slower growing than the Burford, but equally as adaptable to adverse conditions. It is a native shrub which has proven to be one of the most drought resistant of all Hollies. It may be clipped to maintain any desired height. The Yaupon Holly is very heavily fruited and will attract birds.

E-16 Assorted Plantings for Broken Screens (Amended 6/22/04)

The following is a sampling of shrubbery which would be appropriate in a Broken Screen. Because many of these plants are deciduous, they are not suitable for Opaque and Semi-Opaque Screens. (Note: Many of the evergreen shrubs described in planting lists E-14 and E-15 are also suitable for Broken Screens.)

AZALEAS (Rhododendron calendulaceum (Flame); R. nudiflora & R. periclymenoides (Pinxterbloom); R. prunifoloium (Plumleaf)) Height 3 to 10 feet; Spread 4 to 8 feet.

These three azaleas are excellent naturalizing plants that do not require a lot of space. With great orange, pink, and red colors, these species attract hummingbirds and butterflies. Good for sites with full sun to part shade with medium moisture on well-drained soils with a southwest aspect.

BEAUTYBERRY (Callicarpa americana) - Height 6'.

Very colorful deciduous shrub with springtime flowers, followed by purple fruit which lasts into winter. Prefers full sun.

*BLUEBERRY (Vaccinium ashei) - Height 4-6'; Spread 3-5'.

Also known as Rabbiteye blueberry, this is a heat tolerant, native shrub. White flowers in springtime followed by blue fruits that birds enjoy. Has a moderate growth rate. This shrub prefers well drained, acid soil.

*BORDER FORSYTHIA (Forsythia intermedia) Height: 8-10'; Spread: 7-10'.

Forsythias are well known shrubs which bloom bright yellow quite early in the Spring. There are two commonly available forms of this shrubs: the weeping Forsythia suspensa and the more upright Forsythia intermedia. The latter is preferred for screening purposes. With its graceful branches, the Border Forsythia presents a good deciduous foliage mass and should be given plenty of room to grow. It transplants easily and withstands poor growing conditions. It should be thinned occasionally to ensure vigorous growth.

BUTTON BUSH (Cephalanthus occidentalis) Height: 6 to 10 feet Spread: 6 to 10 feet

Buttonbush is a deciduous, warm-season, tall shrub or small tree that grows along swamps, marshes, bogs, ditches, and other riparian areas that are seasonally inundated for at least part of the year. Its base is often swollen, with green branches when young but turns brown at maturity. Tiny, white flowers occur in dense, spherical clusters at branch ends attract bees and butterflies with fruits arranged in a round cluster of brown, cone-shaped nutlets.

CAROLINA ALLSPICE OR SWEETSHRUB (Calycanthus floridus) - Height 6-9'; Spread 5-8'.

This is a deciduous shrub native to the Southeast. Fragrant, maroon flowers appear in late Spring. Takes sun or shade.

CAROLINA ROSE (Rosa carolina) Height 3 to 6 feet Spread: 5 to 10 feet

Best grown in average, medium-wet to wet, well-drained soil in full sun. Fragrant, showy flowers attract birds and butterflies, but this plant does have thorns.

CLETHRA (Clethra alnifolia) - Height 10'.

Another native of the Eastern United States, Clethra has fragrant white flowers in late Summer. Grows well in acid soils. Full sun, however in the Piedmont it would do best with some shade. Varieties are available with pink flowers.

COMMON WITCH HAZEL (Hamamelis virginiana) Height: 8-15'; Spread 7-14'.

This shrub is a larger version of Vernal Witch Hazel with many of the same qualities. It is another native woodland plant which has adapted well to landscaping uses. The Common Witch Hazel is recommended for shady areas, but when planted in the sun it grows to be a splendid well rounded specimen. It is especially useful in large areas.

DROOPING LEUCOTHOE (Leucothoe fontanesiana) Height: 3-4'; Spread: 4-6'.

Drooping Leucothoe is a moundlike shrub which is good for planting in front of and between other flora and beneath trees. It is hardy in city conditions and gives a natural effect when planted along borders. This native evergreen is graceful and attractive in all seasons. It is easy to transplant but requires a heavy mulch and should be provided with at least partial shade. Old branches should be pruned occasionally to stimulate new growth.

EUONYMUS AMERICANA (Hearts-a-Burstin; Strawberry Bush) Height: 3-5'; Spread: 4-6'

Strawberry Bush is a native deciduous shrub with leaves that are opposite with finely toothed margins. The bark is green, but does split and become darker as the tree ages. In early summer, small, 5-petaled, greenish purple flowers mature. The shrub produces 4-lobed capsules which when opened reveal an orange-red, warty seed.

FRINGETREE (Chioanthus virginicus) Height: 10-30'; Spread: 8-10'.

The Fringetree is known for its profusion of beautiful flowers. It is considered to be one of the most striking native American shrubs. It is relatively difficult to transplant, but once established it does well in cities as it endures heavy smoke and dust. The mature Fringetree's only drawback is that its leaves appear rather late in the Spring.

HIGHBUSH BLUEBERRY (Vaccinium Corymbosum) Height: 8-15'; Spread: 8-12'

Highbush Blueberry is a deciduous shrub with alternate leaves with a smooth or toothed margin and fuzzy underside. The bark is gray-brown to reddish brown and very shreddy. In early spring, small, white, bell-shaped flowers mature in clusters. The shrub produces a dark blue berry that matures in mid to late summer. It is a host plant for the Brown Elfin butterfly. Fruits are eaten by a variety of birds and mammals, including humans.

INKBERRY (Ilex Glabra) Height: 5-10'; Spread: 4-8'

Inkberry is an evergreen shrub with alternate leaves with a smooth or toothed margin. The bark is greenish brown and smooth. In early summer, small greenish white flowers mature. The shrub produces a black drupe that matures in the fall. It is a host plant for the Henry's Elfin butterfly. Fruits are eaten by birds and small mammals.

JAPANESE BARBERRY (Berberis thunbergii) Height: 3-5'; Spread: 3-5'.

This extremely common deciduous shrub is considered to be one of the toughest members of the Barberry family. It survives drought, poor soils, exposures, and the worst city conditions. With its many thorns, the Japanese Barberry is often used as an impenetrable barrier, but it is attractive enough to stand alone as a specimen plant. It requires no special maintenance and, when planted singularly, needs no pruning.

JAPANESE FLOWERING APRICOT (Prunus mume) - Height 15' (tree).

Deciduous tree with small, but profuse flowers that have a spicy fragrance. Blooms in February or March. Varieties are available with pink, red, or white flowers. Prefers full sun or partial shade.

OAKLEAF HYDRANGEA (Hydrangea quercifolia) - Height 4-6'; Spread 3-5'.

Deciduous shrub with large, white flower clusters during the Summer. Colorful crimson foliage in Fall. Makes an excellent specimen plant.

SMOKETREE (Cotinus coggygria) - Height 10-15'; Spread 8-14'.

Large shrub or small deciduous tree with attractive round leaves. Colorful lavender panicles appear in Summer. Prefers well drained soil, but otherwise does well in poor soils. Full sun is best for this shrub.

SPICEBUSH (Lindera benzoin) - Height 6-10'; Spread 4 -8'

Spicebush is a deciduous shrub with alternate leaves with a smooth margin that produce a spicy odor when crushed. The bark is brown to gray-brown and speckled with light colored lenticels. In early spring, small, yellow flowers mature in axillary clusters. The shrub produces a bright red drupe with a peppery taste and scent. The fruit matures in the fall. It is a host plant for the Spicebush Swallowtail butterfly. Fruits are eaten by songbirds, especially during fall migration.

STAR MAGNOLIA (Magnolia stellata) Height: 10-12'; Spread: 8-10'.

This handsome specimen shrub is considered to be the hardiest of all the Magnolias. It forms a broad, rounded mass. It becomes tree-like with age but continues to branch to the ground. Early in the spring, it produces numerous fragrant white flowers. The Star Magnolia should not be planted adjacent to shallow rooting trees. It should be allowed plenty of sun.

SUMAC (Rhus copallina (Shining); R. glabra (Smooth) R. typhina (Staghorn)) Height 7 to 40 feet; Spread 9 to 20 feet

These species are perennial, deciduous, sun-loving, thicket-forming shrubs or small trees with branches that tend to be fairly sparse and stout. Sumac does well on dry to medium moisture sites. The tart fruits are eaten by birds and are very tart in taste. These species provide good fall color.

**** SWAMP WHITE OAK (Quercus bicolor) Height: 50 to 60 feet; Spread: 50 to 60 feet

Swamp white oak is a medium sized tree with an irregular crown suitable to river bottomlands, depressions, swamp borders, and along edges of streams. It is rapid growing and long lived, reaching 300 to 350 years. Many kinds of wildlife eat the acorns, particularly ducks. Swamp white oak is intermediate in shade tolerance but not very drought tolerant.

VERNAL WITCH HAZEL (Hamamelis vernalis) Height: 4-6'; Spread: 2-3'.

This rapidly growing native shrub is excellent for bordering and naturalizing. It assumes a dense, upright form, thriving in even the most polluted air. Other than plenty of watering, the Vernal Witch Hazel requires no special maintenance.

****Viburnum (Viburnum prunifolium; V. dentatum) Height: 12 to 15 feet; Spread: 8 to 12 feet Black Haw is a small tree with twisted trunk and arching branches with an overall round crown appearance. Does best on partially sunny sites on moist, well-drained soils.

E-17 List of Invasive Plant Species (AMENDED 6/22/04; 6/22/10)

Invasive plant species identified by the North Carolina Native Plant Society are prohibited from planting for all plantings to comply with Article XIX.

The following plant species shall be prohibited when complying with the shading and screening provisions of this chapter and shall not be shown on any plans submitted in support of a Land Use Permit application. Further information on invasive pest plants that applicants may wish to avoid may be found on the website for the North Carolina Native Plant Society.

Plant Type: A=Aquatic, H=Herbaceous, W=Woody Plant

Species (Latin)	Common Name	Type
Ailanthus altissima	Tree of Heaven	₩
Albizia julibrissin	Mimosa	₩
Alliaria petiolata	Garlic-Mustard	₩
Celastris orbiculatus	Asian Bittersweet	₩
Eleagnus angustifolia	Russian Olive	₩
Eleagnus umbellata	Autumn Olive	₩
Hedera helix	English Ivy	₩
Hydrilla verticillata	Hydrilla	A
Lespedeza bicolor	Bicolor Lespedeza	₩
Lespedeza cuneata	Sericea Lespedeza	Ħ
Ligustrum sinense	Chinese privet	₩
Lonicera fragrantissima	Bush Honeysuckle	₩
Lonicera japonica	Japanese Honeysuckle	₩
Microstegium vimineum	Japanese Stilt-grass	Ħ
Murdannia keisak	Asian Spiderwort	Ħ
Myriophyllum aquaticum	Parrotfeather	A
Paulownia tomentosa	Princesstree	₩
Phragmatis australis	Common Reed	Ħ
Polygonum cuspidatum	Japanese Knotweed	Ħ
Pueraria montana	Kudzu	Ħ
Rosa multiflora	Multiflora Rose	₩
Salvinia molesta	Aquarium water-moss	A
Wisteria sinensis	Chinese wisteria	₩

ORANGE COUNTY PLANNING & INSPECTIONS DEPARTMENT Craig N. Benedict, AICP, Director

Administration (919) 245-2575 (919) 644-3002 (FAX) www.orangecountync.gov



131 W. Margaret Lane P O Box 8181 Hillsborough, North Carolina, 27278



TRANSMITTAL DELIVERED VIA EMAIL

January 3, 2018

Christina Moon, AICP Planning Administrator Town of Carrboro 301 W. Main St. Carrboro, NC 27510

SUBJECT: Joint Planning Review of Proposed Ordinance Amendments

Dear Tina:

Thank you for the opportunity to review the following Land Use Ordinance amendments received by us December 19, 2017 and proposed for town public hearing on January 23. 2018:

- An Ordinance Amending Town of Carrboro Land Use Ordinance Provisions Relating to Tree Protection, Shading and Canopy Requirements.
- An Ordinance to Amend the Town of Carrboro's Land Use Ordinance to Comply with New Statutory Requirements for Zoning Consistency Statements.

We have reviewed the amendments and find no inconsistency with the adopted *Joint Planning Area Land Use Plan*.

If you have any questions or need additional information, please let me know.

Sincerely,

Perdita Holtz, AICP

Perdita Holtz

Planning Systems Coordinator



TOWN OF CARRBORO

Planning Board

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

THURSDAY, DECEMBER 7, 2017

LAND USE ORDINANCE TEXT AMENDMENT RELATING TO TREE PROTECTION, SHADING AND CANOPY REQUIREMENTS

Motion was made by <u>Whittemore</u> and seconded by <u>Rosser</u> that the <u>Planning Board</u> recommends that the Board of Aldermen <u>approve</u> the draft ordinance.

The Planning Board would welcome an expansion of the options for infill lots to include other methods of greening, such as: vines and other trailing plants, green roofs, or vertical plantings. We also recommend that a clear definition of "infill lot" be included or referenced.

VOTE:

AYES: (8) Adamson, Clinton, Foushee, Gaylord-Miles, Poulton, Rosser, Tiemann, Whittemore

NOES: (0)

ABSTENTIONS: (0)

ABSENT/EXCUSED: (1) Rivera

Associated Findings

By a unanimous show of hands, the <u>Planning Board</u> membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by <u>Tiemann</u> and seconded by <u>Poulton</u> that the <u>Planning Board</u> of the Town of Carrboro finds the proposed text amendment, <u>is</u> consistent with adopted plans and policies, such as the following provisions in *Carrboro Vision 2020* and reference to downtown identity in *Downtown Carrboro New Vision*:

- 2.23 The town encourages the planting of native plant species, as well as non-native species that are not invasive. Removal of invasive species is encouraged.
- 2.43 Carrboro should plan and encourage the growth of tree canopies over roads to mitigate the heat and smog effect caused by superheated pavement. Carrboro should strongly encourage the electric utilities to put their lines underground to allow for full canopy coverage.
- 3.21 The town should develop a plan to govern the continuing development of downtown. Toward this end, the town should adopt the following goals:

- To double commercial square footage in the downtown from that existing in the year 2000.
- To accommodate additional square footage by building up, not out.
- To increase the density of commercial property in the downtown area.
- To improve the downtown infrastructure (e.g. parking facilities, sidewalks, lighting, tree shading) to meet the needs of the community.
- To develop transit and traffic initiatives which enhance the viability of downtown.

Downtown Identity – The Town should develop and adhere consistently to a streetscape and landscape master plan that establishes a planting scheme, etc.

Furthermore, the Planning Board of the Town of Carrboro finds that the proposed text amendment <u>is</u> reasonable and in the public interest because of the benefits that trees, shrubs and other plants provide to the community such as, providing oxygen and improving air quality, reducing heat island effect, maintaining the hydrologic cycle, providing pollen and nectar for pollinators and contributing to the vitality and character of the Town making it a more aesthetic and emotionally satisfying place in which to live, work and spend leisure time.

VOTE:

AYES: (8) Adamson, Clinton, Foushee, Gaylord-Miles, Poulton, Rosser, Tiemann, Whittemore

NOES: (0)

ABSTENTIONS: (0)

ABSENT/EXCUSED: (1) Rivera

(Chair) fathledam 1/19/18
(Chair) (Date)



TOWN OF CARRBORO

Environmental Advisory Board

301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

THURSDAY, MARCH 8TH, 2018

Land Use Ordinance Text Amendment Relating to Tree Provisions

Motion was made by Skelton and seconded by Sinclair that the EAB recommends that the Board of Aldermen approve the draft ordinance, with the following changes:

Section 15-317 Retention and Protection of Specimen and Rare Trees

Every development shall retain all existing specimen and rare trees unless the applicant demonstrates that a site would be unreasonably burdened. The applicant, in consultation with the land use administrator and a certified arborist, shall use the following criteria to evaluate the trees for the purpose of proposing which to retain;

(4) The hardiness of the tree species in question, including wind firmness, climatic requirements, susceptibility to insects and diseases;

The proposed wording:

"(c)SNo exeavation or other subsurface disturbance may be undertaken-within the Tree Protection Perimeter around any tree to be retained in accordance with (a) above, shall be limited to the minimum extent practicable as determined by a certified arborist. In addition, no impervious surface (including but not limited to equipment, paving, and structures) may be located within the Tree Protection Perimeter, either—during construction or after completion of the development". Encroachment into a tree perimeter as defined in 15-315(10) shall not, alone, provide sufficient grounds for tree removal.

Should be replaced with:

(c) No excavation or other subsurface disturbance may be undertaken within the Tree Protection Perimeter around any tree that is to be retained. In addition, no impervious surface (including but not limited to equipment, paving, structures, traffic, or material storage during construction) may be located within the Tree Protection Perimeter, either during construction or after completion of the development.

Commented [WU1]: We don't feel that a landscape professional is qualified to make such a determination.

Commented [WU2]: We prefer the wording in the first sentence to ensure that the soil under the dripline remains undisturbed. Mentioning encroachment could imply that encroachment is acceptable, with which we disagree.

Section 15-319 Tree Canopy Coverage Standards

(2) Replacement of canopy. If the existing protected tree canopy is less than the minimum standard as shown in Table 1, the deficit shall be made up by the planting of additional trees as provided herein:

(f) Landscaped areas with shrubs of at least 100 square feet on an infill lot in the B 1(C), B 1(G) or B 2 districts.)

"Section 15-321.2 Payment in Lieu of Providing Shade or Canopy Cover Trees

(b) The amount of the fee authorized by this section shall be determined by estimating the cost of providing the required trees (including the cost of the plant, labor for installation, and use of a land space in downtown Carrboro equivalent in value to that where the tree had been located) that meets the requirements of this Article. This determination shall be made annually and the fee shall be included in the Miscellaneous Fees and Charges Schedule adopted by the Board of Aldermen.

(c) Any fees collected in accordance with this section shall be reserved and used exclusively to meet the purposes for which they have been obtained as specified above in subsection (a). The required fee shall be submitted to the Town prior to construction plan approval."

Take out Sugar Maple from the recommended tree list and replace with Red Maple.

VOTE:

AYES: (O'Connor, Sinclair, Skelton, Turner)

ABSENT/EXCUSED: (Perera)

NOES: ()

ABSTENTIONS: ()

Associated Findings

By a unanimous show of hands, the Environmental Advisory Board membership also indicated that no members have any financial interests that would pose a conflict of interest to the adoption of this amendment.

Motion was made by Skelton and seconded by O'Connor that the EAB finds the proposed text amendment is consistent with adopted plans and policies, such as the following provisions in Carrboro Vision 2020 and the reference to downtown identity in Downtown Carrboro New Vision:

- 2.23 The town encourages the planting of native plant species, as well as non-native species that are not invasive. Removal of invasive species is encouraged.
- 2.43 Carrboro should plan and encourage the growth of tree canopies over roads to mitigate the heat and smog effect caused by superheated pavement. Carrboro should strongly encourage the electric utilities to put their lines underground to allow for full canopy coverage.
- 3.21 The town should develop a plan to govern the continuing development of downtown. Toward this end, the town should adopt the following goals:
- To double commercial square footage in the downtown from that existing in the year 2000.

Commented [WU3]: Developers have two options if they cannot meet the canopy requirement. We feel that these other options are sufficient and a lesser option of planting shrubs does not align with the intent of the canopy requirement.

Commented [WU4]: We request that the Town craft language in the ordinance that best addresses the concern of how to place a value on land that would be necessary for a tree to be planted in the downtown area. This is what we're trying to get at with this wording.

- To accommodate additional square footage by building up, not out.
- To increase the density of commercial property in the downtown area.
- To improve the downtown infrastructure (e.g. parking facilities, sidewalks, lighting, shading) to meet the needs of the community.
- To develop transit and traffic initiatives which enhance the viability of downtown.

Downtown Identity – The Town should develop and adhere consistently to a streetscape and landscape master plan that establishes a planting scheme, etc.

Furthermore, the EAB finds that the proposed text amendment is reasonable and in the public interest because of the benefits that trees, shrubs and other plants provide to the community such as, providing oxygen and improving air quality, reducing heat island effect, maintaining the hydrologic cycle, providing pollen and nectar for pollinators and contributing to the vitality and character of the Town making it a more aesthetic and emotionally satisfying place in which to live, work and spend leisure time.

VOTE:

AYES: (O'Connor, Sinclair, Skelton, Turner)

ABSENT/EXCUSED: (Perera)

NOES: ()

ABSTENTIONS: ()

3/8/2018

For (Chair)

Roll (Doll

(Data)



Town of Carrboro

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

Meeting Minutes Board of Aldermen

Tuesday, January 23, 2018

7:30 PM

Board Chambers - Room 110

Present: Mayor Lydia Lavelle, Alderman Damon Seils, Alderman Sammy Slade, Alderman Barbara

Foushee, Alderman Bethany Chaney, Alderman Randee Haven-O'Donnell

Absent: Alderman Jacquelyn Gist

Also Present: David Andrews, Town Manager, Rebecca Buzzard, Deputy Town Clerk, Nick Herman,

Town Attorney

POETRY READING, RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

Jay Bryan, member of the Poets Council, read his poem entitled "Song to Carrboro."

Mayor Lavelle acknowledged the passing of Carrboro resident, Catherine "Cat" DeVine, and stated that Jay's poem was very timely as it coincided with her passing. The Mayor went on to say, among other noteworthy accomplishments, that Cat was the 2007 – 2008 Volunteer of the Year and was instrumental in the 2011 100th year celebration.

Alderman Haven-O'Donnell spoke of Catherine DeVine's creativity and love of Carrboro. She expressed a desire for the Town to officially honor Ms. DeVine at some point in the future.

Alderman Seils also spoke of his interactions with Catherine DeVine and expressed his sense of loss.

Alderman Slade acknowledged that he also felt the poem was perfectly timed, and noted that the poem captures the essence of Carrboro. He expressed his opinion that there was a need to have the Arts Committee involved in capturing local art projects on the website and received permission from Jay for this to be the first piece included. Staff was asked to look into a process for capturing town history and art on our website.

RESOLUTION SUPPORTING SNAP AND OTHER FEDERAL NUTRITION PROGRAMS

Alderman Slade presented two versions of the SNAP resolution. He noted that both versions are in support of the Federal Food program. He mentioned that NC is the 8th hungriest State in the nation and read some data points contained in the resolution which detailed the benefits of SNAP and other federal nutrition programs to individuals and the U.S. economy. Alderman Seils requested that the resolution be posted on the Town's website.

A motion was made by Alderman Slade, seconded by Alderman Chaney, that this resolution be approved.

A RESOLUTION SUPPORTING SNAP AND OTHER FEDERAL NUTRITION PROGRAMS

WHEREAS, North Carolina is the 8th hungriest state in the nation. While average monthly SNAP benefits are nominal, about \$119 per household in North Carolina, the program is vital to helping people access nutritious food. Even with more than 1.5 million North Carolinians (15% of the state's population) relying on SNAP to pay for their groceries, food insecurity still persists across the state. With 1 in 6 people facing the double burden of poverty and food insecurity, SNAP provides a critical safety net for those in need; and,

WHEREAS, SNAP helps the most vulnerable in our state. In North Carolina, SNAP benefits predominantly go to households with children, seniors, or people with disabilities. About half of SNAP recipients are employed yet still struggle to make ends meet. SNAP needs to remain means-tested, and must continue to allow all those who need food benefits to access them; and,

WHEREAS, SNAP participation contributes to improved nutrition and positive long-term health outcomes. SNAP participation for six months can increase food security in a household by up to 10%. In addition, individuals who had access to food stamps in early childhood have a lower risk of obesity, high blood pressure, heart disease, and diabetes as adults. In addition, access to SNAP is associated with increased utilization of preventative care, which can contribute to lower healthcare costs overall. Specifically, a study at the national level found that SNAP participation was associated with a \$1400 reduction per household in yearly healthcare expenditures; and,

WHEREAS, SNAP improves the state's economy. SNAP benefits pumped \$2.2 billion into North Carolina's economy in 2016, and the economic benefits were especially impactful in the agriculture and retail sectors. Research from Moody's Analytics shows that for every dollar spent on SNAP, \$1.70 is put back into the U.S. economy. Furthermore, SNAP kept 338,000 North Carolinians out of poverty, including 150,000 children, each year between 2009 and 2012. SNAP dollars go to supporting grocers, paying workers, and buying goods, all of which leads to economic growth. SNAP allows all families to participate in their local economies and makes our communities stronger; and,

WHEREAS, SNAP is effective and efficient. SNAP's entitlement structure allows the program to expand in times of greater need, such as the 2008 recession, and contract in times of economic prosperity. Furthermore, every penny of monthly SNAP benefits for North Carolinians comes from the federal government, and the state of North Carolina is only responsible for half of the administrative costs of the program. The SNAP program therefore brings in billion dollars of economic activity for North Carolina, with little input at the state level. SNAP also has one of the most rigorous quality control systems of any public benefit program, which results in low frequency of fraud or abuse, and an error rate of just 2%.

THEREFORE BE IT RESOLVED BY THE MAYOR AND BOARD OF ALDERMEN OF THE TOWN OF CARRBORO THAT the Town of Carrboro asks Senator Burr, Senator Tillis and Congressman Price to reject any proposals in the 2018 Farm Bill that cut funding to SNAP or other federal nutrition programs; shift costs to the states; or otherwise reduce benefits affecting low-income families, workers, children, the unemployed, or the elderly; and,

BE IT FURTHER RESOLVED the Town of Carrboro thanks Congressman Price for his past support for federal nutrition programs and encourages his continued efforts to protect those programs for the good of the people in his district and the state.

This resolution is effective immediately upon adoption.

The foregoing resolution having been submitted to a vote received the following vote and was duly adopted this 23rd day of January 2018:

The motion was carried forward by the following vote:

Ayes: Barbara Foushee, Damon Seils, Sammy Slade, Lydia Lavelle, Randee Haven-O'Donnell,

Bethany Chaney

Noes: None

Absent or Excused: Jacquelyn Gist

ANNOUNCEMENT OF UPCOMING MEETINGS

Rebecca Buzzard, Deputy Town Clerk, read the upcoming meetings.

APPROVAL OF PREVIOUS MEETING MINUTES OF JANUARY 9, 2018

MOTION WAS MADE BY ALDERMAN HAVEN-O'DONNELL, SECONDED BY ALDERMAN CHANEY TO APPROVE THE MEETING MINUTES OF JANUARY 9TH, 2018, AS AMENDED. VOTE: AFFIRMITIVE SIX, ABSENT ONE (GIST)

MINOR MODIFICATION REQUEST FOR ORANGE COUNTY ABC STORE CONDITIONAL USE PERMIT

The purpose of this item was for The Board of Aldermen to consider approving a Minor Modification to the Conditional Use Permit for Orange County ABC Store at Carrboro Plaza to allow changes to the facade of the building.

A motion was made by Alderman Haven-O'Donnell, seconded by Alderman Chaney, that this resolution be approved.

A RESOLUTION APPROVING A MINOR MODIFICATION TO THE ORANGE COUNTY ABC STORE AT CARRBORO PLAZA CONDITIONAL USE PERMIT AUTHORIZING UPDATES TO THE FACADE OF THE BUILDING

WHEREAS, the Carrboro Board of Aldermen previously approved a Conditional Use Permit for the Orange County ABC Store at Carrboro Plaza; and

WHEREAS, Town Staff has determined that this request constitutes a Minor Modification to the Conditional Use Permit; and

WHEREAS, the applicant has met the criteria in the Town's Land Use Ordinance related to Minor Modifications.

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Minor Modification request to the Orange County ABC Store at Carrboro Plaza CUP is approved, authorizing updates to the façade of the building.

This the 23rd day of January 2018.

The motion was carried forward by the following vote:

Ayes: Damon Seils, Sammy Slade, Barbara Foushee, Lydia Lavelle, Randee Haven-O'Donnell,

Bethany Chaney

Noes: None

Absent or Excused: Jacquelyn Gist

REQUEST TO MAKE APPOINTMENTS TO THE STORMWATER ADVISORY COMMISSION

The purpose of this agenda item was for the Board of Aldermen to make appointments to the Stormwater Advisory Commission.

Alderman Slade, mentioning prior communications with Alderman Foushee, expressed the need for the Board to be more representative of the community. He shared that he has a contact at UNC who has resources to help recruit people for Advisory Boards who may be able to assist Carrboro with diversifying Board composition. There was some discussion and agreement that diversification efforts need to be expanded upon and continued. The Board agreed to make this a topic for further future discussion. Alderman Foushee mentioned that approval of two of the applicants will create openings on the Environmental Advisory Board.

A motion was made by Alderman Haven-O'Donnell, seconded by Alderman Foushee, that the appointments to the Stormwater Advisory Commission be approved.

A RESOLUTION MAKING APPOINTMENTS TO THE STORMWATER ADVISORY COMMISSION

THE BOARD OF ALDERMEN HEREBY APPOINTS THE FOLLOWING APPLICANT(S) TO THE STORMWATER ADVISORY COMMISSION:

Seat Designation	Appointee	Term Expiration
In-Town	Kevin Brigham	2/2019
In-Town	Robert Dickson	2/2019
In-Town	Shauna Hay	2/2020
In-Town	Thomas Hoban	2/2020
In-Town	Jeanette O'Connor	2/2021
In-Town	Michael Paul	2/2021
Special Expertise Related to Stormwater	John Cox	2/2021

The first In-Town seat that is vacated will thereafter be listed as an In-Town/ETJ seat.

Section 2. This resolution shall become effective upon adoption.

This the 23rd day of January 2018.

The motion was carried forward by the following vote:

Ayes: Alderman Damon Seils, Alderman Sammy Slade, Alderman Barbara Foushee, Mayor Lydia

Lavelle, Alderman Randee Haven-O'Donnell, Alderman Bethany Chaney

Noes: None

Absent or Excused: Alderman Jacquelyn Gist

REQUEST TO AUTHORIZE THE TOWN MANAGER TO ENTER INTO A PERFORMANCE AGREEMENT WITH CASA

The purpose of this item was for the Board of Aldermen to consider authorizing the Town Manager, David Andrews, to enter into a performance agreement regarding the proposed development by CASA on Merritt Mill Rd.

The Town Manager, David Andrews, expressed the need for more time to work out the terms and conditions.

A MOTION WAS MADE BY ALDERMAN SEILS, SECONDED BY ALDERMAN HAVEN-O'DONNELL TO CONTINUE THIS REQUEST TO AUTHORIZE THE TOWN MANAGER TO ENTER INTO A PERFORMANCE AGREEMENT WITH CASA.

VOTE: AFFIRMITIVE SIX, ABSENT ONE (GIST).

PUBLIC HEARING FOR COMMUNITY INPUT ON TOWN BUDGET FOR UPCOMING FY 2018-19

The purpose of this item was to have a public hearing to receive comments from the public regarding the upcoming budget for the Town beginning July 1, 2018.

Arche McAdoo, Finance Director, gave the staff presentation detailing the three primary goals for developing the budget for 2018-19: Implementation of the Board's Strategic Priorities, Management of Costs While Improving Services, and Development of a Balanced Budget.

Mr. McAdoo noted that the focus was on cost management while improving services to the citizens and, as per State law, to the development of a balanced budget. The Finance Director gave an overview of the budget. He noted that revenue growth was at approximately 1.5%, the inflation rate is about 1.2%, and noted that salary and benefits costs equated to almost 60% of the budget, with an expected increase in insurance costs. The Capital Improvements Program is also listed as a focus of the budget. Key dates are as noted below:

Recommended Budget to Board	May 1
Board to Hold 1 st Work Session	May 8
Public Hearing on Recommended Budget	May 22
Board to Hold 2 nd Work Session – if needed	May 22
Board to Adopt FY 2018-19 Budget	June 19

Mayor Lavelle opened the public hearing.

The Mayor noted that there was one person signed up to speak, Mr. Robert Dowling, Executive Director of Community Home Trust (CHT). Mr. Dowling thanked the Board and requested their continued support. He asked the Board for funding in the amount of \$74,036.00. Such amount is slightly less than the amount requested in the previous year. Mr. Dowling provided data for consideration. He informed the Board that his organization closed on the purchase of The Landings at Windmore on Dec. 29th. He thanked the staff and manager, the planning department, and attorneys. He informed the Board of some unexpected challenges but assured the Board that he believed that in the next couple of years The Landings will be a spectacular and well maintained property.

Alderman Chaney stated that it is remarkable that CHT has not requested to include the additional units in the calculation for the funding formula agreed between the local governments. Alderman Chaney noted the CHT staff time working on that property was not recognized in the latest funding request, and suggested that some additional support may be an option. Alderman Chaney stated that she would like town staff to have a conversation with CHT about the funding formula. Alderman Chaney asked what the rationale was for not including the Landings. Dowling said that this first year is going to be a challenge, but their numbers did not show they would need additional funding this year. He explained that all the expenses incurred were covered. Further stating that CHT is in good financial shape. He noted that it is hard to project what will happen during this first year. Alderman Slade spoke of his support for the work of CHT and mentioned that during the campaign he heard from some other affordable housing providers. He stated that he would like for staff to keep in mind (when they are having the conversation that Alderman Chaney has requested for staff to have with CHT) that there should be a balance between funding for CHT and other affordable housing providers. Alderman Haven-O'Donnell complimented Dowling for not asking for a rescue when it is not needed. Dowling, appreciative of the Board's willingness to help, assured members that they could count on him to come forward if there was a need that was not being addressed. Mayor Lavelle thanked Robert Dowling for his approach to the request for funding and thanked Alderman Chaney for raising the topic.

Mayor Lavelle informed the Board of a letter from Nerys Levy that requested additional money for the Community Dinner to take place on Sunday April 29th. This fiscal year the Town allocated \$500 toward the dinner. However, Ms. Levy has requested an increase to \$1,000 for next year. The Board will deliberate this request during their budget discussions.

Alderman Slade informed the Board that he received a letter from Heidi Perov asking about electric bicycles for staff to use to get around town. This letter included information regarding a consultation from the Carrboro Bicycle Coalition. Alderman Slade asked that staff connect with Ms. Perov and the Carrboro bicycle coalition about this request.

Mayor Lavelle closed the public hearing and invited public input at any time, noting the various options for the public to provide input.

PUBLIC HEARING ON A LAND USE ORDINANCE AMENDMENT RELATING TO CONSISTENCY

The purpose of this agenda item was for the Board of Aldermen to receive public comment on an amendment to the text of the Land Use Ordinance relating to consistency for map and text amendments.

Town Manager, David Andrews, explained that this amendment is to bring the Town into compliance with the NC General Statues relating to consistency. David introduced Attorney Nick Herman for the staff report. Attorney Herman explained that this is a technical amendment to the Land Use Ordinance regarding the procedures by which the Town can adopt or reject a zoning amendment. The new language allows for the adoption of a zoning amendment even if it is inconsistent with the comprehensive plan. But if the Town does so, and declares that the amendment ought to be adopted, then the amendment itself is deemed to amend the comprehensive plan. The Board has no choice on this matter.

Mayor Lavelle opened the public hearing.

Alderman Seils acknowledged the lack of choice on the issue but noted it provided an opportunity for Advisory Board input. He is interested seeing the comments from the Planning Board and would like to know how other municipalities have approached this issue.

Mayor Lavelle asked that since this is supposed to amend a comprehensive plan, and the Town does not have a comprehensive plan, does this have any impact on the Town? Attorney Herman clarified that it applies to any plans in place.

Alderman Haven-O'Donnell asked what precipitated this change. Attorney Herman said his guess was that it was to streamline the local government Board's process for adopting an amendment. Further discussion ensued among the Board members and Attorney Herman regarding this new requirement and the possible motivation and implications of the change.

Mayor Lavelle closed the hearing.

A MOTION WAS MADE BY ALDERMAN SEILS, SECONDED BY ALDERMAN FOUSHEE, THAT THE PUBLIC HEARING ON THE LAND USE ORDINANCE RELATING TO CONSITENCY BE CONTINUED TO FEBRUARY 6, 2018. VOTE: AFFIRMATIVE SIX, ABSENT ONE (GIST)

PUBLIC HEARING ON LAND USE ORDINANCE AMENDMENTS RELATING TO TREE PROTECTION, SHADE TREES, CANOPY COVERAGE AND REPLACEMENT STANDARDS

The purpose of this item was for the Board to receive public comment on text amendments to the Land Use Ordinance (LUO) relating to the provisions in Article XIX, Screening and Trees, and the associated appendices A and E. A draft ordinance has been prepared.

Christina Moon, Planning Administrator, provided the staff report. She noted that the Advisory Boards have started the conversation but have not had a chance to finish talking through the issue. She noted that this is considered Part II related to shading and canopy coverage. Shade trees in parking lots are noted among the different options for providing relief. Applicants have to show what shade exists and from what source. They have looked at how they can be more innovative in regard to urban tree growth. In terms of canopy coverage they are trying to keep the standards they have, and clarify when modifications are permissible. Payment in Lieu, would require locations to be identified before being allowed and values were determined. She provided calculations for when plant updates need to occur and discussed Appendix A - noting that it was a technical guide for landscaping.

Mayor Lavelle opened the public hearing.

Alderman Chaney asked about the difference between arborists and landscape architects. She questioned the landscapers' qualifications as opposed to the qualifications of an arborist. It was noted that not having the designation of arborist does not preclude a landscape architect from doing these activities. Ms. Moon mentioned that there is a registry for arborists. Alderman Chaney wants the town to be careful about stacking on new expenses by requiring an arborist, when an arborist is not in fact required.

Alderman Haven-O'Donnell said it was unclear as to whether this was only about the downtown area and talked about residential areas. Ms. Moon stated that the focus of the canopy cover is the downtown area, but stated that there are a few subdivisions where particular lots also have requirements to protect certain trees. There will be a disclosure note making sure new property owners know if a particular tree needs to stay in place. Alderman Haven-O'Donnell asked if this would address the removal of trees – canopies being lost by the cutting of trees in tree stand areas. She stated that this practice is changing the landscape for the western edge of Carrboro. There was extended discussion regarding tree canopy and cover, the need to include a larger area, and single trees versus tree stand areas such as Plantation Acres. Alderman Haven-O'Donnell said that she appreciated the comments from the Environmental Advisory Board and Planning Board, but noted that the Greenways Commission needed to be a part of this conversation.

Alderman Haven-O'Donnell asked at what point the Tree Coalition could be a part of the community climate action task force. Ms. Moon said they are still working on this question and that it needed to be explored further. Mayor Lavelle said that with other commissions just getting off the ground that this may be delayed, but that she was not sure that the Board would want to delay this that long. Ms. Moon

stated that they look to the Appearance Commission and Environmental Advisory Board for tree advice. She suggested moving forward and then revisiting when a Tree Coalition is formed. Mayor Lavelle stated that if this is something that is going to get passed she would like more information about the Tree Coalition. Alderman Seils questioned what the role of the Coalition would be. He remembered it as a group of interested community members operating on their own. Discussion continued regarding shading requirements; redevelopment, pavement around dripline on trees; and new technologies. Alderman Chaney agreed with Alderman Seils that the Tree Coalition was not meant to be a Town Advisory Board or Commission. She would like the Town to be careful about the number of external bodies the Town relies on as true advisory boards.

Alderman Slade thanked Ms. Moon for her presentation and work on this issue. He appreciated the sentiment behind the shade trees, the parking lots, and the new provisions. He is concerned; however, with the provisions that are in the canopy standard because, as Ms. Moon said in her presentation, there have to be real reasons for when standards are not met. He acknowledged that the sentiment behind these changes is because of received feedback and the actual experience from new developments in the downtown. He identified the three items that the revised ordinance identifies as reasons for not meeting the canopy standard: solar, storm water, and shrubbery. The solar and the storm water seem to be in line with pretty significant positions the Town has taken as demonstrated by the Climate Change Action Plan and the creation of a stormwater utility. However, he was concerned with the shrubbery item because the Town was talking about displacing, or not meeting the canopy standards, in lieu of providing totally different functioning plants. He continued to explain that he is concerned about the diminishment of the intent of the canopy standard, but recognized that it is hard, at times, for developers to meet these.

Alderman Slade also asked, in reference to D16(a), if the masterplan would have to be in place before the Town implemented the payment in lieu policy. Ms. Moon replied that staff had discussed this question and that, if Carrboro could identify some Town owned property, the Town could set something up in the short term, but in the long term the Town probably would need to look at some type of master tree planning. Alderman Slade said he was hesitant for the payment in lieu, because the Town does not really have good sense of where it could allocate the resources that would be received from a payment in lieu. He also found it problematic because there is a very different cost represented by requiring a developer to have a tree taking up space on a property that could have an alternative use. There is an opportunity cost represented with that, and he does not think the cost of the tree itself, or the work entailed in planting it, captures what that opportunity cost is. He asked that staff develop a method for assessing tree values for payment in lieu that, along with the cost of the tree itself and the labor to plant it, also better reflects the actual cost of the space that a tree takes up, and he provided an example using the analogy of easements. He asked about the cost represented in allowing a developer to not have a tree on a property. Alderman Slade asked about what the Town is exchanging here, and stated that he wanted to make sure the Town is not undermining a good policy too much.

Another point, in attachment F5 in the table, speaks of granting understory trees at a percentage less than what a canopy tree is, but he said that this clause undermines the reason for having the canopy tree provision. Canopy trees are described in this ordinance as trees that are 30 feet or larger. And so along with that, to remain consistent, in Attachment F26 where it speaks to identify specific large trees, he said it would be valuable to mention that these large trees are also canopy trees. He stated that there is no connection between the recommended trees and the canopy tree provision, and there should be. Alderman Slade requested that his comments to be referred to the Environmental Advisory Board for them to think about as questions.

Alderman Seils asked Ms. Moon to what extent these policies apply to the Town. Ms. Moon said the Town would meet the same standards, and had not identified any opportunities for the Town to opt out at this point.

Mayor Lavelle looked to the audience for comment and identified and introduced Jack Haggarty.

Jack Haggarty spoke to proposed changes to the ordinance. He was supportive of what is being put forward. He mentioned that every lot is unique. He stated that there should be alternatives and flexibility. The tree coalition can always revisit this. Every lot is different and certain things can work on some lots and certain on others. Flexibility is important.

Mayor Lavelle closed the public hearing.

A MOTION WAS MADE BY ALDERMAN SLADE, SECONDED BY ALDERMAN FOUSHEE, THAT THE PUBLC HEARING ON THE LAND USE ORDINANCE AMENDMENT RELATING TO TREE PROTECTION, SHADE TREES, CANOPY COVERAGE, AND REPLACEMENT STANDARD BE CONTINUED UNTIL FEBRUARY 27, 2018 AND WILL INCLUDE ALDERMAN SLADE'S COMMENTS AND STAFF RESPONSE. VOTE: AFFIRMATIVE SIX, ABSENT ONE (GIST0

REQUEST TO AUTHORIZE MANAGER TO ENTER INTO A CONTRACT WITH AXIA CREATIVE FOR A WAYFINDING PROGRAM.

The purpose of this item was for the Board to consider entering into a contract for wayfinding graphic design and professional services.

Annette Lafferty, Community and Economic Development Director, gave the staff report on AXIA Creative for the wayfinding program. She mentioned that with the scope of work and public input process the Town is trying to move this project along to come up with a plan before the summer. This is all about economic development and making sure the Town is using their assets in the best way possible. The Town is at the step of selecting design consultants. The consultant would take the Town through to the bidding process. Carrboro has done the branding and is ahead of the process in that regard. Ms. Stone explained the consultant selection of AXIA Creative and the proposed upcoming process. She stated a goal of getting back to the Board by mid-June for approval. Funds have been committed and the budget has already been approved. She asked for the Town to enter into a contract for \$52,600.

Alderman Slade asked if this was all before the signs are designed. He further questioned the estimate of the signs specifically. Ms. Stone said the figure for the signs would be around \$200,000. She pointed out that the City of Durham is embarking on a similar process and that the cost for its signs is around \$650,000. She acknowledged that Durham does have grant money from the Department of Transportation and stated that she is gathering information to try to get some grants for the Town.

There was discussion among the Board of Aldermen as to whether the Town's fabrication shop has the skills and tools to produce and appropriate signs. Alderman Slade suggested modifying the designs to signage that the Town could produce, or maintain, using the patterns this firm supplies. Ms. Stone did not think the Town's sign shop could complete these types of signs but said she would check on all

possible options. Alderman Chaney expressed that the Town had already determined that wayfinding was needed. She supported spending the money on the design in order to help meet the goals set out in the parking plan. Alderman Seils commented that the Tourism Development Authority had already committed some funds to the project, and asked if there is an expectation for addition funding from them. Ms. Stone said that the Town would need to identity if this qualifies as an infrastructure issue in order to determine the answer to that question. Alderman Haven-O'Donnell stated that she would like this wayfinding work be coordinated with the new Communications Manager.

A MOTION WAS MADE BY ALDERMAN SLADE, SECONDED BY ALDERMAN HAVEN-O'DONNELL, TO ENTER INTO A CONTRACT WITH AXIA FOR WAYFINDING AND ALSO FOR THEM TO LOOK INTO DESIGNS THAT CAN POTENTIALLY BE USED BY OUR SIGN DEPARTMENT, BOTH FOR WAYFINDING AND FOR PARKING SIGNS, ALONGSIDE OTHER DESIGNS THEY CREATE

CAPITAL IMPROVEMENT PLAN UPDATE AND FINANCIAL PLANNING MODEL

The purpose of this item was to present to the Board of Aldermen the updated Capital Improvement Plan (CIP) for FY 2018-19 through FY 2022-23 and a Financial Planning Model.

Arche McAdoo, Finance Director, advised the Board that the Capital Improvement Plan (CIP) will include a financial planning model this year. The Director noted that capital planning is a process, not an appropriation. He stated that the Finance Department was in the process of identifying the Town's needs. He reviewed the six primary CIP goals: maintain existing infrastructure to protect the Town's investments; comply with State and Federal mandates; incorporate energy and climate protection strategies; provide Town services in an effective and safe manner; orderly implementation of Town adopted needs assessments, strategic and program master plans; and expand the Town's tax base in a way that will benefit both current and future citizens. He noted specific challenges of the major expenditures such as infrastructure, vehicle and equipment costing over \$30k, information technology of \$50k or more, and stormwater management.

Mr. McAdoo noted that there are 15 capital projects that are currently funded, which totals \$25.4 million dollars, and he spoke about how the funding for the current projects is allocated. He noted that the Rogers Road Sidewalk Project (no longer a capital project) has received bids, is on schedule, and advised that a notice to proceed should be issued fairly soon. Per Mr. McAdoo, some current projects are expected to be completed on budget: Homestead-Chapel Hill High School Multi-Use Path, Town Commons, Planning Software, Rogers Road Conduit, and Public Safety Radios. However, some are expected to need additional funding: 203 S. Greensboro Street, Jones Creek Greenway, Morgan Creek Multi-Use Path, and street re-surfacing. He expected the need of another \$1.5 million dollars for street re-surfacing over the next five years.

Alderman Seils asked about funding from the Orange County Transit Plan for some of the transportation projects. Mr. McAdoo stated that the amounts presented represent the total cost of the projects and that he would be providing additional grant information later in his presentation. Mr. McAdoo discussed the SPOT prioritization of some transportation projects that would require matching funding. He discussed the stormwater projects and noted that there is a \$4.3 million dollar funding deficit over the next five years, which could be addressed by the enterprise fund. He said that there was

a need for the Town to be better able to project and evaluate the impact of capital projects on the Town's General fund and overall financial position.

David Cheatwood, Managing Director at First Tyron from Charlotte, NC introduced himself and his colleague, Charlie Shoemaker. He provided some background on First Tryon and how it has extensive experience working with cities and towns. He discussed the elements of Capital Planning and gave a report on the financial planning model. He also provided advice and recommendations to make sure the Board has all the information they need to make sound financial decisions. He stated that the model is only as good as the assumptions. He emphasized that the goal is to be interactive and allow for many scenarios. The focus of the model, as presented, is on existing debt structure and the Town's credit profile. Mr. Cheatwood said that this first introduction of the model is meant to create discussion as to the possible benefits to the Town. He noted that typically his discussion is more focused one or two consumer driven scenarios. He went on to speak generally about what his company can offer. He provided a financial picture based on data he had accessed and discussed the projected growth rate, which was noted, historically, as about six percent.

Questions and comments from the Board members focused on ability to hold the percentage of the tax base allocated towards debt. The reply was that generally the policy is no more than fifteen percent. Mr. Cheatwood asked the Board to communicate with the Finance Department if there were other scenarios they would like to see, or if there were other funding ideas.

Mayor Lavelle thanked the presenters.

Alderman Chaney thanked them and asked if, or to what degree, the assumptions for revenue growth are inclusive of anticipated completion of development projects.

Mr. Cheatwood responded that for this report they did not incorporate specific development projects. For this presentation they used a flat line growth with property tax revenue of one and a half percent per year, but they can incorporate that information, as requested, for certain development projects.

Alderman Chaney would like to see models showing the impact of anticipated development proceeds, and the remaining gap that would needed to be covered by a tax rate increase, other increases in the tax base. She stated that there are big decisions moving forward about projects that are not yet in front of them, and she felt it was important to use a model like this in making development decisions. Mr. Cheatwood said that the Board would know better what is coming on line, and the firm can adjust for specific revenues or expenditures going up or down, and then they can layer those amounts into the model. Alderman Chaney stated that it would be interesting to know how much more new value would need to be created to equal the amount that taxes would have to be raised to meet future needs.

Alderman Slade thanked Mr. Cheatwood for a timely presentation when the Board is in the process of considering construction of offices above the library. He noted that it was important for the citizens to know this information, and also for the Board of Aldermen, as they are still weighing various alternatives, and cost is a major factor in their decision making. He asked that the Town use this tool to compare various library building options.

Alderman Slade also spoke about the opportunity costs potentially competing with the construction of offices above the library; specifically the implementation of the Town's climate change plans, and questioned if the model allowed for combining competing costs. He requested that climate change plans implementation costs be included in the model. He noted that both for the library building and

for the climate plans, the various figures have different assumptions tied to them. For example, in the municipal climate change plan, such as vehicle and equipment costs for fossil fuel vehicles vs. up-front costs for electric, in the electric car scenario future savings in fuel needs to register as does postponement of vehicle purchasing, as electric vehicles do not get replaced as often. Mr. Cheatwood affirmed that the model can incorporate the factors mentioned by Alderman Slade.

Alderman Haven-O'Donnell asked if there was a way to model what the tipping point would be regarding the amount of revenue that would need to be generated by projects to support the Town's finances. She sought a snapshot of how a three cent, or a five cent, tax increase would affect the overall affordability of living in Carrboro. Mr. Cheatwood stated that it would be a good idea to convert the possible cent increases into amounts on property tax bills for citizens, as a means of humanizing the three or five cent increase. Town Manager, David Andrews, weighed in, making a comparison of Carrboro's tax model as compared to those of surrounding cities and towns. He noted that overall, Carrboro is very efficient. The debt per capita is very low. He acknowledged that the tax rate may seem high, but pointed out that there are no storm water fees, that trash is collected within the property tax rate, and noted that the cost of water greatly contributes to the costs (which the Town does not control). He stated that it is possible to provide data for comparative analysis. Mayor Lavelle said that this conversation will continue, and if they do move forward with a rate increase, there will have to be a detailed understanding of what that means for the residents. Mr. Andrews explained that his goal was for the Board and the Town to start thinking about a property tax increase. He stated that there has not been a tax increase in seven years and, that even with the debt incurred for the Capital Improvement Plan, the Town would still be in great financial shape. Alderman Seils agreed with Mr. Andrews that there is need for future financial planning and he noted that a lot of costly items have been deferred as long as possible (like the repairs of Town property) and must be addressed.

Mayor Lavelle thanked everyone involved and said the presentation was very well done.

ADJOURNMENT

A MOTION WAS MADE BY ALDERMAN HAVEN-O'DONNELL, SECONDED BY ALDERMAN CHANEY TO ADJOURN THE MEETING. VOTE: AFFIRMATIVE SIX, ABSENT ONE (GIST).

Slade: Tina, thank you for the presentation and all your work. I know you have worked on this for a long time. I appreciate the sentiment behind the shade trees, the parking lots, and the new provisions. I think it very much illustrates you're trying to provide new measures that will still seek to address the original intent of what that provision was. I am a little concerned; however, with the provisions that are in the canopy standard. Because I do feel that, as you said, there have to be real reasons for how those standards aren't meet. The sentiment behind all these changes is because of the feedback gotten and the actual experience from new developments in the downtown. So I understand that being the drive. So there is this real weighing of the cost / benefits and in the case of the canopy. there are three that I identify: the solar, the storm water, and the shrubbery. The solar and the storm water seem to be in line with pretty significant positions the Town has taken with the Climate Change Action Plan and stormwater. Addressing stormwater has been a long standing one. However, I am really concerned with the shrubbery one because we are talking about displacing or allowing for not meeting the canopy standards in lieu of providing totally different functioning plants that don't even meet some of these bigger standards that we hold such as the solar or the stormwater use. Those help me with the weighing of how to go about this. I am really concerned about the diminishment of the intent of the canopy standard but I recognized that it's hard, at times, for developers to meet these. So both to assure that these other measures are pursued but also to safeguard, as much as we can, the canopy standards. I am really weary of the shrubbery one and I have expressed this in the past. I guess when we approved for this public hearing, I shared that sentiment too. So the other question I had is in V16-A. It alludes to a masterplan. This is the payment in lieu portion. My question has to do with, "Would the masterplan have to be in place before we implement the payment in lieu?" or I, guess that if we adopt this at the next meeting, we look at it – it would probably be functioning without a masterplan. How do you see that?

Tina: We have talked about that a little bit before the request is said and I think that if we could identify some Town owned property that we could set something up in the short term but in the long term we probably would need to look at some type of master tree planning.

Slade: So for the long term, so if someone did come with a payment in lieu – I guess my hesitation along with a payment in lieu too is that it is not fully hashed to the degree that we don't have this master plan. We don't really have good sense of where we could allocate the resources that we would get from a payment in lieu. And so I am also very hesitant to that portion of it but the other reason that I find it problematic is that there is a very different cost represented by requiring a developer to have a tree taking up space on a property that could have an alternative use. There is an opportunity cost represented with that and I don't think the cost of the tree itself or the work entailed in planting it captures what that opportunity cost is. And, if we further think about this payment in lieu option, I want us to also consider a way of, as an analogy – I talked to Nick briefly about it, how we think of easements if they represent bundles of sticks. Each stick representing a right. What would be the cost represented for allowing the developer to not have that tree on the property? So along with the cost of the tree itself and the cost for planting it, what would that cost be? - thinking in terms of that easement analogy. And I think that would get us closer to like a fair "What are we exchanging here? This really the

sentiment and the spirit of most of my comments tonight. I just want to make sure I am not undermining a good policy too much.

Along with that attachment F5 on the table, down below in the caption, it speaks of under _____ trees counted, granted at a percentage less than what a canopy tree is but by the same token I think it undermines reason for having the canopy tree provision in here. Is that we would be replacing canopy trees with, in that specific case with – in that specific case – it talked about a dogwood tree and that's hardly a canopy tree. Canopy trees are described in this ordinance as trees that are 30 feet or larger. And so along with that, to remain consistent, in Attachment F26 where it speaks to identify specific large trees, I think it would be valuable to mention that these large trees are also canopy trees. Cause there is no mention of that. So there is no connection between the recommended trees and the canopy tree provision. So if we could just mention canopy trees in that section, I think we would be closer and I would like for all of my comments to be referred to the Environment Planning Board for them to think about as questions.