

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

# Meeting Agenda Board of Aldermen



Tuesday, May 20, 2014	7:30 PM	Board Chambers - Room 110

#### <u>7:30-7:50</u>

#### A. SWEARING-IN OF ALDERMAN-ELECT BETHANY CHANEY

1. 14-0166 Welcoming Comments

#### B. REQUESTS FROM VISITORS AND SPEAKERS FROM THE FLOOR

C. RESOLUTIONS, PROCLAMATIONS, AND ACKNOWLEDGEMENTS

#### <u>7:50-7:55</u>

- D. CONSENT AGENDA
- 1. <u>14-0158</u> Approval of Previous Meeting Minutes of April 22 and May 13, 2014
- 2. <u>14-0161</u> Independent Audit Contract for FY 2013-14

 PURPOSE:
 To award contract for the Town's annual audit for the fiscal year ending June 30, 2014.

 Attachments:
 A RESOLUTION AWARDING 2014 AUDIT CONTRACT

 Town of Carrboro Audit Contract EL 6 30 2014

**3.** <u>14-0162</u> Update on Storm Water Flooding Issues

PURPOSE: The purpose of this item is to provide the Board of Aldermen an update on various storm water flooding issues since the last report on February 11, 2014.

4. <u>14-0163</u> Request to Make an Appointment to the Human Services Commission PURPOSE: The purpose of this item is for the Mayor and Board to consider making an appointment to the Human Services Commission. <u>Attachments:</u> <u>Resolution - Human Services Commission Appointment</u>

Human Services Advisory Board Chair Recommendation Form.doc

5. <u>14-0170</u> Request to Approve a Supplemental Agreement with NCDOT Relating to the Bike Loop Detectors Project

PURPOSE: The Board is asked to approve the Supplemental Agreement to extend the milestone dates for completion of preliminary engineering and construction of the project.
<u>Attachments:</u> Attachment A - Resolution - Bike Detector Supplemental

6. <u>14-0171</u> Application for Federal and State Financial Reimbursement for Ice Storm Response and Debris

PURPOSE: To designate agents to act on behalf of the Town to receive approximately \$22,000 from the Federal Emergency Management Agency (FEMA) and the North Carolina Department of Emergency Management for the ice storm that occurred on March 7, 2014.

 
 Attachments:
 A RESOLUTION TO DESIGNATE AGENT FOR STATE AND FEDERAL FINANCIAL ASSISTANCE UNDER FEMA.doc

7. <u>14-0169</u> Request to Approve a Resolution Authorizing the Town Manager to Enter into a Memorandum of Understanding (MOU) and to Create Amendments as Needed between the Town of Carrboro and the University of North Carolina at Chapel Hill for Fiber Optic Infrastructure Facilities Sharing and/or Exchange

> PURPOSE: The purpose of the MOU and Amendments is to allow the Town of Carrboro and the University of North Carolina at Chapel Hill to interconnect portions of their respective existing fiber optic cable plant to facilitate network path redundancy and diversity, access to high speed and low cost internet access through MCNC's NCREN network, facilitate interconnection of regional fiber networks for inter-municipality emergency services communications, fiber optic infrastructure planning, engineering and administration expertise sharing and many other benefits.

Attachments: Attachment A

Attachment B

#### E. PUBLIC HEARING

#### 7:55-8:05

 1.
 14-0168
 Public Hearing on Town Manager's Recommended Budget for FY 2014-15

PURPOSE: To hold a public hearing on the Town Manager's recommended budget for the upcoming fiscal year as required by G. S. 159-12 (b).

Attachments: Notice of Public Hearing

#### F. OTHER MATTERS

#### <u>8:05-8:25</u>

1.	<u>14-0078</u>	Energy and Climate Action Planning	
		Attachments:	Energy Plan ResolutionA
			TaskForceResolution
			Sustainability Plan Board Work Session memo
			DraftEnergyPlan

#### <u>8:25-8:35</u>

2. <u>14-0165</u> A Resolution Making an Appointment to the OWASA Board of Directors

PURPOSE: The Mayor and Board of Aldermen are requested to consider making an appointment to one of the Town's seats on the OWASA Board of Directors.

Attachments: A RESOLUTION MAKING AN APPOINTMENT TO THE ORANGE WATER AND SEWER AUTHORITY BOARD OF DIRECTORS.docx

#### <u>8:35-9:00</u>

3. <u>13-0332</u> CUP Minor Modification by the Legends AIS Homeowners Association to reclassify affordable units as market-rate

PURPOSE: The Legends AIS Homeowners Association has submitted an application requesting a modification to their Conditional Use Permit to allow the designated affordable units in the subdivision to be converted to market-rate units per specific arrangements described in this report. In order to fulfill their request, an associated text amendment to the LUO is required.

**DEPARTMENT: Planning** 

CONTACT INFORMATION: Jeff Kleaveland (918-7332)

INFORMATION: On behalf of the owners' of the designated affordable homes of the Legends AIS subdivision, their homeowners' association has submitted a request to modify the Legends conditional use permit to allow these affordable units to be converted to market rate units via a proposal detailed in this report. These units are not managed by the Community Home Trust (or any other such agency) and several of the owners are finding that the arrangement, because of expensive HOA dues and other factors, threatens their ability to remain in their homes. See the attached letter from one of the homeowners for reference (Attachment B).

Background:

The Legends AIS Conditional Use Permit was issued on August 22, 2006 (Attachment C). The affordable units in this development were constructed pursuant to the LUO provisions of Section 15-182.4 Residential Density Bonuses for Affordable Housing. This section allows the developer to build bonus market-rate units if a corresponding deed-restricted affordable unit is constructed.

At the time of Legends permitting, Section 15-182.4 did not include the current, more detailed ordinance provisions which in effect prescribe professional management of the affordable units such as is provided by the Community Home Trust (CHT). Therefore, the Legends developer was responsible only for deed restricting the units for a period of 99 years and selling the units at the price point required by the section's formula. The developer was not required to verify income eligibility of the buyers or to address the impacts of HOA dues on long term affordability. The correspondence from 2006 with the developer and CHT used to confirm the pricing for these units at Legends can be found in Attachment D.

For comparison: Community Home Trust management, impact of subsidy

For reference, the Community Home Trust increases the affordability of their units by pre-qualifying buyers such that their mortgage will be combined with a subsidy. The subsidy lowers the county-recorded tax rate valuation of the home via the provisions of GS-105-277.17 (Attachment E). This statute allows the county tax valuation to be based only upon the amount of money the purchaser brings to the transaction (the initial investment basis); it does not include any subsidy moneys also provided to purchase the home. In contrast, the Legends affordable units appraised just as would be any other residence in the county which results in a higher tax burden to the owner.

The Community Home Trust retains title to their homes while conveying ownership via a renewable 99-year ground lease. In addition, CHT charges monthly fees to its homeowners to pay for administration of the ground leases and for accruing funds to pay for major expected house costs beyond normal maintenance (i.e. HVAC, roofing, etc.); in total, these fees range from about \$70.00 to \$170.00 per month. These costs and the expected HOA dues are incorporated into the pre-qualification financing of their homeowners.

The combination of the subsidy and the property tax reduction, along with the considerations given for the actual ownership costs of the home, provides an affordability advantage to CHT homes.

Legends Affordable Units For several of the Legends Affordable Unit owners, the prospect of a poor resale price, the lack of subsidy (as used by CHT), and rises in homeowners associations dues, have made living in these units less affordable than originally expected.

#### **Resale Price**

The allowed selling price of the Legend's affordable units has declined since when the homes were first put on the market in 2009. This is because the home pricing calculation uses the Area Median Income (AMI) statistic, provided by HUD, to calculate the sales price has declined. Pricing is designed to be affordable for a two person family earning 80% of the AMI. All of the affordable units in Legends are townhomes.

As illustrated in the table below, the AMI dropped about 5% in 2010 when the boundaries of the Metropolitan Statistical Area (MSA) were redrawn to include Durham, Chapel Hill and Carrboro rather than Cary and Raleigh. This results in an attendant decrease in the allowable sales price.

Year	AMI	80% Median Income for a family of 2
2013	\$67,700	\$43,350
2012	\$68,700	\$44,000
2011	\$67,800	\$43,400
2010	\$66,500	\$43,400 (Notice reduction from previous year.)
2009	\$65,500	\$45,650 (The year the Legends affordable units
were m	narketed.)	
2008	\$62,100	\$45,650
2007	\$60,100	\$45,650
2006	\$61,700	\$45,650
2005**	\$69,80	0 \$45,650
2004**	\$69,80	0 \$45,650
2003**	\$69,80	0 \$45,200
** Rale	igh, Durhar	n, Chapel Hill MSA

Legends Affordable Units Market Rate Conversion Proposal: The HOA's proposal to remedy this situation involves a modification to the CUP. Staff has determine that, in addition, a text amendment to the LUO is also necessary. The modification to the CUP involves allowing the affordable units to be converted to market-rate units in such a fashion that secures some possible appreciation for the buyer while providing to the Town a possible share of the proceeds. The modification to the LUO involves a text amendment specific to Legends that will allow the market-rate conversion and will allow the additional unit density created by the market-rate conversion. The amendment will be limited to only those developments with affordable units permitted under the old ordinance that did not seek CHT management. The Legends AIS is the only such development in Town that meets these criteria.

The Legends HOA's proposal is attached (Attachment F). Specifically they propose the following:

1. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:

a. Real estate commissions are deducted from the proceeds ;

b. Owner to retains the first \$5000 of equity appreciation;

c. Owner to retain eligible capital improvement costs (such as unit upgrades);

d. Any remaining surplus proceeds are shared 50/50 with the Town and Owner

i. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;

2. The affordable unit converts to market-rate with no restrictions;

3. A sunset clause is provided whereupon the affordable unit converts to market rate automatically after a period of 20 years;

Please review the attached letter from the Legends HOA describing the problem and detailing their proposal for repair (Attachment F). Robert Dowling from CHT has reviewed this proposal and supports its arrangements. His written response is attached (Attachment G). Staff supports the proposal but suggests the Board consider whether the sunset clause should be included as discussed in Mr. Dowling's letter.

#### Payment in Lieu

The current payment in lieu for affordable housing Town's 2013-2014 Miscellaneous Fees and Charges Schedule is \$32,167. This number is based on a three year rolling average of the median value of all the homes in the CHCCS School District. In a new development undergoing permitting, the payment-in-lieu option allows developers to obtain bonus units without having to build a corresponding affordable unit so long as the Board accepts the payment. This option in the LUO does not include considerations for the market-rate conversion of affordable units that have already been built.

Comparative Analysis of Market Rate and Affordable Housing units For general reference, in the attached comparative analysis of Ballentine and Legends affordable housing units, the specific differences in stamp value (which is meant to reflect the sales price of the home) as recorded by Orange County can be reviewed. Also included in this spreadsheet is a comparative analysis of market-rate unit stamp values and the approximate per/square foot costs to provide some pricing context (Attachment H).

Necessary LUO Amendment

At this time only three (3) affordable units can be converted to market rate units without violating provisions of the LUO pertaining to density. For this reason, staff prepared a draft text amendment that would allow the remaining affordable units to be converted (Attachment I). In particular, this amendment would apply only to those subdivisions approved under the pre-June 2007 density bonus ordinance which allowed the HOA management scenario that Legends is now experiencing. Any permit modification allowing the units to be converted to market-rate can only be done if the associated text amendment is approved in advance.

Note that the HOA and affordable unit owners assume responsibility for having their covenants, declarations, deeds and plats revised as needed. A condition would be to include language that allows all of the market-rate units to be converted subject to the approval of the text amendment discussed above. The following condition is written accordingly:

1. That, pursuant to a text amendment allowing for the conversion of designated affordable units into market-rate units without violating the density provisions of the LUO (applicable only for developments approved prior to June 2007 that utilized the provisions of Section 15-182.4), the Legends AIS Conditional Use Permit be amended to allow the designated affordable units to be treated as follows:

a. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:

i. Real estate commissions are deducted from the proceeds ;

ii. Owner to retains the first \$5000 of equity appreciation;

iii. Owner to retain eligible capital improvement costs (such as unit upgrades);

iv. Any remaining surplus proceeds are shared 50/50 with the Town and Owner

v. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;

vi. The affordable unit converts to market-rate with no restrictions;

vii. A sunset clause is provided whereupon any of the affordable units automatically converts to market rate after a period of 20 years (from the date of this permit modification);

2. That the all applicable recorded documents containing references to the affordable units, including the deeds, the Homeowner Association Covenants and Declarations, and the Legends final plat, will be re-recorded accordingly to reflect the conditions of this permit modification.

A draft text amendment has been provided (Attachment I). The Board of Aldermen must receive public comment before adopting amendments to the LUO. Planning Board and Orange County review is also needed. FISCAL & STAFF IMPACT: Staff time, application fee collected, potential receipt of payment in lieu moneys.

RECOMMENDATION: Should the Board consider the applicant's request and justifications acceptable, staff recommends that the Board adopt the attached resolution approving the permit modification to the Legends AIS Conditional Use Permit subject to the following condition (below) and the resolution setting a public hearing for the necessary text amendment to the LUO relating to the affordable housing provisions (attachments A and A-1):

1. That, pursuant to a text amendment allowing for the conversion of designated affordable units into market-rate units without violating the density provisions of the LUO (applicable only for developments approved prior to June 2007 that utilized the provisions of Section 15-182.4), the Legends AIS Conditional Use Permit be amended to allow the designated affordable units to be treated as follows:

a. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:

i. Real estate commissions are deducted from the proceeds ;

ii. Owner to retains the first \$5000 of equity appreciation;

iii. Owner to retain eligible capital improvement costs (such as unit upgrades);

iv. Any remaining surplus proceeds are shared 50/50 with the Town and Owner

v. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;

vi. The affordable unit converts to market-rate with no restrictions; vii. A sunset clause is provided whereupon any of the affordable units automatically converts to market rate after a period of 20 years (from the date of this permit modification);

2. That the all applicable recorded documents containing references to the affordable units, including the deeds, the Homeowner Association Covenants and Declarations, and the Legends final plat, will be re-recorded accordingly to reflect the conditions of this permit modification.

Attachments:Attachment A-Resolution Legends Minor ModificationAttachment A-1-Resolution Legends Text Amendment ReferralAttachment B-Homeowner letterAttachment C-Legends (aka Jones Property) AIS recorded CUPAttachment D-original pricingAttachment E-GS 105-277.17Attachment F-Permit Modification Proposal from HOAAttachment G - CHT letter re Legends proposal May 2014Attachment H-Market AnalysisAttachment I-Draft Text Amendment relating to AffordableHousing\_5-14-2014

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

4. <u>14-0127</u> CUP Minor Modification - Carrboro Plaza, Addition of Freestanding Walk-up ATM

PURPOSE: Wells Fargo as represented by the Carrboro Shopping Center, LLC, has submitted an application to add a freestanding walk-up ATM machine to the Carrboro Plaza Shopping Center (see attached). The ATM is proposed to be located within the southeastern quadrant of the existing parking lot.

 Attachments:
 Resolution Carrboro Plaza ATM

 Land Use Permit Application

 Letter from Owners Representative regarding Parking

 Final, revised plan, Carrboro Plaza Wells Fargo ATM

 Carrboro Plaza CUP 1983

#### <u>9:30-9:40</u>

- G. MATTERS BY BOARD MEMBERS
- 1. 14-0167 Update from Board Members
- H. MATTERS BY TOWN CLERK
- I. MATTERS BY TOWN MANAGER
- J. MATTERS BY TOWN ATTORNEY



## File Number: 14-0166

## Agenda Date: Version: 1

**ol:** Board of Aldermen

Status: Draft In C Ie Type: Abstract



## File Number: 14-0158

Agenda Date: Version: 1 5/20/2014

In Control: Board of A Status: Consent Agend menFile Type:Abst



## File Number: 14-0161

Agenda Date: Version: 1 5/20/2014	
In Control:	

In Control: Board of A Status: Consent Agend menFile Type:Abst

## TITLE:

Independent Audit Contract for FY 2013-14

**PURPOSE:** To award contract for the Town's annual audit for the fiscal year ending June 30, 2014. **DEPARTMENT:** Management Services

## CONTACT INFORMATION: Arche L. McAdoo, 918-7439

**INFORMATION:** The Local Government Budget and Fiscal Control Act (LGBFCA) requires each local government to prepare an annual financial report on their financial position at the end of the fiscal year and financial results of operations. The LGBFCA also requires that this financial report be audited by an independent certified public accountant.

Dixon Hughes Goodman LLP, the Town's independent auditor, has submitted a contract to audit the Town's accounts and letter of engagement for the fiscal year ending June 30, 2014. The audit cost is estimated to be \$50.000. This cost is unchanged from last year. At the request of the Town, Dixon Hughes Goodman LLP has included preparation of the Town's annual financial statements at an additional cost of \$3,000.00.

**FISCAL & STAFF IMPACT:** Funds for the cost of the annual audit and financial statement preparation are included in the FY 2014-15 Management Services operating budget.

**RECOMMENDATION:** That the Board: 1) award a contract to Dixon Hughes Goodman LLP for a total cost of \$53,000.00 for audit of Town accounts and preparation of annual financial statements for fiscal year ending June 30, 2014; and, 2) authorize the Mayor to sign the Audit Contract required by the Local Government Commission and the Dixon Hughes Goodman LLP Letter of Engagement.

### A RESOLUTION AWARDING THE CONTRACT FOR THE FY 2013-14 AUDIT

BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO THAT:

Section 1. The audit contract for the fiscal year ending June 30, 2014 is awarded to Dixon Hughes Goodman LLP for a total cost of \$53,000.

Section 2. The Mayor is authorized to sign the Audit Contract required by the Local Government Commission and Dixon Hughes Goodman LLP Letter of Engagement.

Section 2. This resolution shall become effective upon adoption.

#### CONTRACT TO AUDIT ACCOUNTS

Of_	f the Town of Carrboro, North Carolina			
	Governmental Unit and I	Discretely Presente	d Component Unit (	DPCU) if applicable
	On this 9th	day of	May	,,,
Audi	itor: Dixon Hughes Goodman LLP		Auditor Maili	ng Address:
1829	Eastchester Drive, High Point, NC 27265			Hereinafter referred to as The Auditor
and	the Board of Aldermen	(Go	overning Board (s))	${\rm Df}_{-}^{ m the}$ Town of Carrboro, North Carolina
		: here	inafter referred to a	s the Governmental Unit (s), agree as follows:

Governmental Unit (s)

- 1. The Auditor shall audit all statements and disclosures required by generally accepted accounting principles (GAAP) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit (s) for the period beginning <u>July 1</u>, <u>2013</u>, and ending <u>June 30</u>, <u>2014</u>. The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion will be rendered in relation to (as applicable) the governmental activities, the business-type activities, the aggregate DPCU's, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types).
- 2. At a minimum, the Auditor shall conduct his/her audit and render his/her report in accordance with generally accepted auditing standards. The Auditor shall perform the audit in accordance with *Government Auditing Standards* if required by the State Single Audit Implementation Act, as codified in G.S. 159-34. If required by OMB Circular A-133 Audits of States, Local Governments, and Non-Profit Organizations and the State Single Audit Implementation Act, the Auditor shall perform a Single Audit. This audit and all associated workpapers may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit and/or workpapers are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC CPA Board).

County and Multi-County Health Departments: The Office of State Auditor will designate certain programs that have eligibility requirements to be considered major programs in accordance with OMB Circular A-133 for the State of North Carolina. The LGC will notify the auditor and the County and Multi-Health Department of these programs. A County or a Multi-County Health Department may be selected to audit any of these programs as major.

- 3. If an entity is determined to be a component of another government as defined by the group audit standards the entity's auditor will make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 §600.42.
- 4. This contract contemplates an unqualified opinion being rendered. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.
- 5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2011 revisions, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of their most recent peer review report regardless of the date of the prior peer review report to the Governmental Unit and the Secretary of the LGC prior to the execution of the audit contract (See Item 22). If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to Government Accounting Standards or if financial statements are not prepared in accordance with GAAP and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment.

Contract to Audit Accounts (cont.) \_

#### Name of Governmental Unit and Discretely Presented Component Unit's (DPCU) if applicable

- 7. It is agreed that generally accepted auditing standards include a review of the Governmental Unit's systems of internal control and accounting as same relates to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor will make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his findings, together with his recommendations for improvement. That written report must include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the AICPA Professional Standards (Clarified). The Auditor shall file a copy of that report with the Secretary of the LGC.
- 8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's records for audit, financial statement preparation, any finance-related investigations, or any other audit-related work in the State of North Carolina. <u>Invoices for services rendered under these contracts shall not be paid by the Governmental Unit until the invoice has been approved by the Secretary of the LGC.</u> (This also includes any progress billings.) [G.S. 159-34 and 115C-447] All invoices for Audit work must be submitted by email in PDF format to the Secretary of the LGC for approval. The invoices must be sent to: <u>lgc.invoice@nctreasurer.com</u>. Subject line should read "Invoice [Unit Name]. The PDF invoice marked 'approved' with approval date will be returned by email to the Auditor to present to the Governmental Unit for payment. Approval is not required on contracts and invoices for system improvements and similar services of a non-auditing nature.
- 9. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit shall pay to the Auditor, upon approval by the Secretary of the LGC, the following fee, which includes any cost the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (Federal and State grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts:

Year-end bookkeeping assistance - [For audits subject to Government Auditing Standards, this is limited to bookkeeping services

permitted by revised Independence Standards] N/A

#### Audit \$50,000 for the audit

## Preparation of the annual financial statements \$3,000

Prior to submission of the completed audited financial report, applicable compliance reports and amended contract (if required) the Auditor may submit invoices for approval for services rendered, not to exceed 75% of the total of the stated fees above. If the current contracted fee is not fixed in total, invoices for services rendered may be approved for up to 75% of the prior year audit fee. The 75% cap for interim invoice approval for this audit contract is \$ 39,750 \*\* NA if no interim billing

- 10. If the Governmental Unit has outstanding revenue bonds, the Auditor shall include documentation either in the notes to the audited financial statements or as a separate report submitted to the SLGFD along with the audit report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor should be aware that any other bond compliance statements or additional reports required in the authorizing bond documents need to be submitted to the SLGFD simultaneously with the Governmental Unit's audited financial statements unless otherwise specified in the bond documents.
- 11. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include but not be limited to the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the client or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board as soon as practical after the close of the accounting period.
- 12. If the audit firm is required by the NC CPA Board or the Secretary of the LGC to have a pre-issuance review of their audit work, there must be a statement added to the engagement letter specifying the pre-issuance review including a statement that the Governmental Unit will not be billed for the pre-issuance review. The pre-issuance review must be performed **prior** to the completed audit being submitted to the LGC. The pre-issuance report must accompany the audit report upon submission to the LGC.
- 13. The Auditor shall electronically submit the report of audit to the LGC when (or prior to) submitting the invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the SLGFD by any interested parties. Any subsequent revisions to these reports must be sent to the Secretary of the LGC. These audited financial statements are used in the preparation of official statements for debt offerings (the Auditors' opinion is not included) by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and other lawful purposes of the Governmental Unit without subsequent consent of the

#### Contract to Audit Accounts (cont.)

#### Name of Governmental Unit and Discretely Presented Component Unit's (DPCU) if applicable

Auditor. If it is determined by the LGC that corrections need to be made to the Governmental Unit's financial statements, they should be provided within three days of notification unless, another time frame is agreed to by the LGC.

If the OSA designates certain programs to be audited as major programs, as discussed in item #2, a turnaround document and a representation letter addressed to the OSA shall be submitted to the LGC.

The LGC's process for submitting contracts, audit reports and Invoices is subject to change. Auditors should use the submission process in effect at the time of submission. The most current instructions will be found on our website: <a href="https://www.nctreasurer.com/slg/Pages/Audit-Forms-and-Resources.aspx">https://www.nctreasurer.com/slg/Pages/Audit-Forms-and-Resources.aspx</a>

- 14. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the Secretary of the LGC, this contract may be varied or changed to include the increased time and/or compensation as may be agreed upon by the Governing Board and the Auditor
- 15. If an approved contract needs to be varied or changed for any reason, the change must be made in writing, signed and dated by all parties and pre-audited if the change includes a change in audit fee. This document and a written explanation of the change must be submitted by email in PDF format to the Secretary of the LGC for approval. The portal address to upload your amended contract and letter of explanation documents is <a href="http://nctreasurer.slgfd.leapfile.net">http://nctreasurer.slgfd.leapfile.net</a> No change shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.
- 16. Whenever the Auditor uses an engagement letter with the Governmental Unit, Item #17 is to be completed by referencing the engagement letter and attaching a copy of the engagement letter to the contract to incorporate the engagement letter into the contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract will control. Engagement letter terms are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item #23 of this contract. Engagement letters containing indemnification clauses will not be approved by the LGC.
- 17. Special provisions should be limited. Please list any special provisions in an attachment. See attached engagement letter.
- 18. A separate contract <u>should not</u> be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not issued and the DPCU is included in the primary government audit, the DPCU must be named along with the parent government on this audit contract. Signatures from the DPCU Board chairman and finance officer also must be included on this contract.
- 19. The contract must be executed, pre-audited, physically signed by all parties including Governmental Unit and Auditor signatures and submitted in PDF format to the Secretary of the LGC. The current portal address to upload your contractual documents is <a href="http://nctreasurer.slgfd.leapfile.net">http://nctreasurer.slgfd.leapfile.net</a> Electronic signatures are not accepted at this time. Included with this contract are instructions to submit contracts and invoices for approval as of April, 2014. These instructions are subject to change. Please check the NC Treasurer's web site at <a href="http://www.nctreasurer.com">www.nctreasurer.com</a> for the most recent instructions.
- 20. The contract is not valid until it is approved by the LGC Secretary. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.
- 21. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.
- 22. <u>Municipal & County Contracts</u>: The Auditor acknowledges that any private employer transacting business in this State who employs 25 or more employees in this State must, when hiring an employee to work in the United States, use E Verify to verify the work authorization of the employee in accordance with N.C.G.S. §64 26(a). The Auditor acknowledges further that any such private employer and its subcontractors must comply with all of the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes (North Carolina's E-verify law), and that such private employer has a duty under the law to ensure compliance by its subcontractors. The Auditor further acknowledges that this contract is of the type governed by S.L. 2013-418, which makes it unlawful for a local government to enter into certain types of contracts unless the contractor and its subcontractors comply with North Carolina's E-verify law, and that failure to comply with such law could render this contract woid. The Auditor hereby covenants, warrants and represents for itself and its subcontractors that with respect to this contract the Auditor and its subcontractors shall comply with the provisions of North Carolina's E-verify law and that failure to comply with such law shall be deemed a breach of this contract and may render this contract void.
- 23. All of the above paragraphs are understood and shall apply to this contract, except the following numbered paragraphs shall be deleted: (See Item 16 for clarification).

Contract to Audit Accounts (cont.) \_

Name of Governmental Unit and Discretely Presented Component Unit's (DPCU) if applicable

# Communication regarding audit contract requests for modification or official approvals will be sent to the email addresses provided in the spaces below.

Audit Firm Signature:

**Dixon Hughes Goodman LLP** 

Name of Audit Firm

By John A. Frank, CPA

Authorized Audit firm representative name: Type or print

John A. Frank

Signature of authorized audit firm representative

#### John.Frank@dhgllp.com

Email Address of Audit Firm:

<sub>Date</sub> May 9, 2014

**Governmental Unit Signatures:** 

## <sub>Bv</sub>Lydia Lavelle, Mayor

Mayor / Chairperson: Type or print name and title

#### Signature of <u>Mayor/Chairperson</u> of governing board

Date\_

By\_\_\_\_\_

DPCU Chairperson: Type or print name and title

#### Signature of <u>Chairperson</u> of DPCU if applicable

Date\_

Unit Signatures (continued):

By Chair of Audit <u>Committee</u> - Type or print name

Signature of Audit Committee Chairperson

Date\_\_\_\_

\*\* If Governmental Unit has no audit committee, this section should be marked "N/A."

#### PRE-AUDIT CERTIFICATE: Required by G.S. 159-28 (a)

This instrument has been preaudited in the manner required by The Local Government Budget and Fiscal Control Act or by the School Budget and Fiscal Control Act. Additionally, the following date is the date this audit contract was approved by the governing body.

## By Arche McAdoo

Governmental Unit Finance Officer: Type or print name

#### Finance Officer Signature

amcadoo@townofcarrboro.org

Email Address of Finance Officer

Date\_\_\_\_\_

(Pre-audit Certificate must be dated.)

Date Governing Body Approved Audit Contract - G.S. 159-34(a )

Board Approval Date – Primary Government

**Board Approval Date - DPCU** 



May 9, 2014

Board of Aldermen Town of Carrboro 301 West Main Street Carrboro, North Carolina 27510

We are pleased to confirm our understanding of the services we are to provide for the Town of Carrboro, (the "Town") for the year ending June 30, 2014. This attachment to item 17, "Contract to Audit Accounts" (LGC-205) is intended to further clarify certain provisions of the Contract.

#### AUDIT SERVICES

We will audit the financial statements of the governmental activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information, including the related notes to the financial statements, which collectively comprise the basic financial statements, of the Town as of and for the year ending June 30, 2014.

#### AUDIT OBJECTIVES

The objective of our audit is the expression of opinions as to whether the Town's financial statements are fairly presented, in all material respects, in conformity with accounting principles generally accepted in the United States of America. The objective also includes reporting on:

- Internal control related to the financial statements and compliance with laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*.
- Internal control related to major programs and an opinion (or disclaimer of opinion) on compliance with laws, regulations, and the provisions of contracts or grant agreements that could have a direct and material effect on each major program in accordance with Single Audit Act Amendments of 1996 and Office of Management and Budget Circular A-133, *Audits of States, Local Governments, and Non-Profit Organizations* ("OMB Circular A-133") and the *State Single Audit Implementation Act.*

The reports on internal control and compliance will each include a paragraph that states that the purpose of the report is solely to describe (1) the scope of testing of internal control over financial reporting and compliance and the result of that testing and not to provide an opinion on the effectiveness of internal control over financial reporting or on compliance; (2) the scope of testing internal control over compliance for major programs and major program compliance and the result of that testing and to provide an opinion on compliance but not to provide an opinion on the effectiveness of internal control over compliance; and (3) that the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering internal control over financial reporting and the *State Single Audit Implementation Act* in considering internal control over compliance. The paragraph will also state that the report is not suitable for any other purpose. If during our audit



Board of Aldermen Town of Carrboro May 9, 2014 Page 2 of 9

we become aware that the Town is subject to an audit requirement that is not encompassed in the terms of this engagement, we will communicate to management and those charged with governance that an audit in accordance with auditing standards generally accepted in the United States of America, and the standards for financial audits contained in *Government Auditing Standards* may not satisfy the relevant legal, regulatory, or contractual requirements.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; the provisions of OMB Circular A-133; and the *State Single Audit Implementation Act*, and will include tests of accounting records, a determination of major program(s) in accordance with Circular A-133 and the *State Single Audit Implementation Act*, and other procedures we consider necessary to enable us to express such an opinion. If our opinions on the financial statements or the Single Audit compliance opinions are other than unmodified, we will discuss the reasons with Management in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed opinions, we may decline to express opinions or to issue a report as a result of this engagement.

#### **AUDIT PROCEDURES - GENERAL**

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from errors, fraudulent financial reporting, misappropriation of assets, or violations of laws or governmental regulations that are attributable to the entity or to acts by management or employees acting on behalf of the entity. Because the determination of abuse is subjective, *Government Auditing Standards* do not expect auditors to provide reasonable assurance of detecting abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is an unavoidable risk that material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with auditing standards generally accepted in the United States of America and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform the appropriate level of management of any material errors, any fraudulent financial reporting, or misappropriation of assets that comes to our attention. We will also inform the appropriate level of management of any material abuse that comes to our attention, unless clearly inconsequential, and of any material abuse that comes to our attention. We will include such matters in the reports required for a Single Audit. Our responsibility as auditors is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditors.

Board of Aldermen Town of Carrboro May 9, 2014 Page 3 of 9

Our procedures may include tests of documentary evidence supporting the transactions recorded in the accounts, tests of the physical existence of inventories, and direct confirmation of certain assets and liabilities by correspondence with selected individuals, creditors, and financial institutions. We may request written representations from the Town's attorneys as part of the engagement, and they may bill the Town for responding to this inquiry. At the conclusion of our audit, we will require certain written representations from management about the financial statements and related matters. Because of the importance of management's written or verbal representations to an effective audit, Management agrees to release Dixon Hughes Goodman LLP and its personnel from any liability and costs relating to our services under this letter attributable to any misrepresentations by management.

#### AUDIT PROCEDURES - INTERNAL CONTROLS

Our audit includes obtaining an understanding of the entity and its environment, including internal control, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures, but not for the purpose of expressing an opinion on the effectiveness of the Town's internal control over financial reporting. Accordingly we will express no such opinion. An audit is not designed to provide assurance on internal control or to identify deficiencies in internal control. However, during the audit, we will communicate to Management and those charged with governance internal control related matters that are required to be communicated under auditing standards generally accepted in the United States of America, *Government Auditing Standards*, OMB Circular A-133 and the *State Single Audit Implementation Act*.

As required by OMB Circular A-133 and the *State Single Audit Implementation Act*, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal and state award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to OMB Circular A-133 and the *State Single Audit Implementation Act*.

#### **AUDIT PROCEDURES - COMPLIANCE**

As part of obtaining reasonable assurance about whether the financial statements are free of material misstatement, we will perform tests of the Town's compliance with provisions of applicable laws, regulations, contracts, and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

OMB Circular A-133 and the State Single Audit Implementation Act require that we also plan and perform the audit to obtain reasonable assurance about whether the Town has complied with applicable laws and regulations and the provisions of contracts and grant agreements applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the OMB Circular A-133 Compliance Supplement and the Audit Manual for Governmental Auditors in North Carolina for the types of compliance requirements that could have a direct and material effect on each of the Town's major programs. The purpose of these procedures will be to express an opinion on the Town's compliance with requirements applicable to each of its major programs in our reports on compliance issued pursuant to OMB Circular A-133 and the State Single Audit Implementation Act.

Board of Aldermen Town of Carrboro May 9, 2014 Page 4 of 9

#### MANAGEMENT'S RESPONSIBILITIES

Management is responsible for designing, implementing and maintaining internal controls relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error, including monitoring ongoing activities; for the selection and application of accounting principles; and for the preparation and for the fair presentation in the financial statements of the respective financial position of the governmental activities, the aggregate discretely presented component units, each major fund, and the aggregate remaining fund information of the Town and the respective changes in financial position in conformity with accounting principles generally accepted in the United States of America; and for compliance with applicable laws and regulations and the provisions of contracts and grant agreements. The responsibility for the financial statements and all representations contained therein remains with management and those charged with governance, which includes officers and directors of the Town. Management is also responsible for establishing and maintaining effective internal controls, including internal controls over compliance, and for evaluating and monitoring ongoing activities, to help ensure that appropriate goals and objectives are met and that there is reasonable assurance that government programs are administered in compliance with compliance requirements.

Management is responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. Management is also responsible for providing us with access to all information of which management is aware that is relevant to the preparation and fair presentation of the financial statements, such as records, documentation and other matters. Management also agrees to provide us with any additional information that we may request from management for the purpose of the audit as well as unrestricted access to any person within the Town from whom we determine it necessary to obtain audit evidence. Because this engagement qualifies as a group audit Management agree to facilitate unrestricted access to information related to components of the County as well as persons at components (including management and those charged with governance) and component auditors. Management's responsibilities include adjusting the financial statements to correct material misstatements and confirming to us in the management representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole. Management's responsibilities also include identifying significant vendor relationships in which the vendor has responsibility for program compliance and for the accuracy and completeness of that information.

Management is responsible for the design, implementation and maintenance of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud or illegal acts affecting the Town involving (1) management, (2) employees who have significant roles in internal control, and (3) others where the fraud or illegal acts could have a material effect on the financial statements. Management's responsibilities include informing us of Management's knowledge of any allegations of fraud or suspected fraud affecting the Town received in communications from employees, former employees, grantors, regulators, or others. In addition, Management is responsible for identifying and ensuring that the Town complies with applicable laws and regulations, contracts, agreements, and grants for taking timely and appropriate steps to remedy any fraud, illegal acts, violations of contracts or grant agreements, or abuse that we may report. As required by OMB Circular A-133 and the *State Single Audit Implementation Act*, it is management's responsibility to follow up and take corrective action on reported audit findings and to prepare a Summary Schedule of Prior Audit Findings and a Corrective Action Plan if necessary.

Board of Aldermen Town of Carrboro May 9, 2014 Page 5 of 9

Management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. Management is also responsible for identifying for us previous financial audits, attestation engagements, performance audits, or other studies related to the objectives discussed in the "Audit Objectives" section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or studies. Management is also responsible for providing management's views on our current findings, conclusions, and recommendations, as well as Management's planned corrective actions, for the report, and for the timing and format for providing that information.

We understand that the Town's employees will prepare all cash, accounts receivable, and other confirmations we request and will locate any documents selected by us for testing.

#### **REQUIRED SUPPLEMENTARY INFORMATION**

Our audit is for the purpose of forming an opinion on the financial statements taken as a whole. Accounting principles generally accepted in the United States ("GAAP") provide for certain required supplementary information ("RSI") to accompany the basic financial statements. We understand the following RSI will accompany the basic financial statements:

- 1. Management's Discussion and Analysis ("MD&A")
- 2. Law Enforcement Officers' Special Separation Allowance Schedule of Funding Progress
- 3. Law Enforcement Officers' Special Separation Allowance Schedule of Employer Contributions
- 4. Notes to the Required Schedules for the Law Enforcement Officers' Special Separation Allowance
- 5. Other Postemployment Benefits Schedule of Funding Progress
- 6. Other Postemployment Benefits Schedule of Employer Contributions
- 7. Notes to the Required Schedules for Other Postemployment Benefits

Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context.

The Town's management is responsible for the fair presentation of the RSI. As part of our engagement, we will apply certain limited procedures to the RSI in accordance with auditing standards generally accepted in the United States of America. These limited procedures will consist of inquiries of management regarding the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We will not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Board of Aldermen Town of Carrboro May 9, 2014 Page 6 of 9

#### SUPPLEMENTARY INFORMATION

We understand that the following supplementary information other than RSI will accompany the basic financial statements:

- 1. Combining non-major fund statements, if applicable;
- 2. Budgetary schedules for all funds required to adopt a budget other than the General Fund and annually adopted major special revenue funds;
- 3. Schedule of Ad Valorem Taxes Receivable;
- 4. Analysis of Current Tax Levy Town-Wide Levy; and
- 5. Schedule of Expenditures of Federal and State Awards.

Such information is presented for the purpose of additional analysis of the financial statements and is not a required part of the basic financial statements. The Town's management is responsible for the fair presentation of the supplementary information. We will subject the supplementary information to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the accounting and other records used to prepare the financial statements or to the financial statements themselves in accordance with auditing standards generally accepted in the United States of America.

Your responsibilities include acknowledging to us in the written representation letter that (a) Management is responsible for presentation of the supplementary information in accordance with GAAP; (b) that Management believes the supplementary information, including its form and content, is fairly presented in accordance with GAAP; (c) that the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes); and (d) Management has disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

Our responsibility is to report whether such information is fairly stated in all material aspects in relation to the basic financial statements taken as a whole. Management agrees to include our report on the supplementary information other than RSI in any document that contains, and indicates that we have reported on, the supplementary information other than RSI. Management also agrees to include the audited financial statements with any presentation of the supplementary information other than RSI that includes our report thereon OR make the audited financial statements readily available to users of the supplementary information other than RSI no later than the date the supplementary information other than RSI is issued with our report thereon.

#### **OTHER INFORMATION**

Our audit is for the purpose of forming an opinion on the basic financial statements taken as a whole. We understand the Town will prepare an introductory section and statistical section. Such information is presented for the purpose of additional analysis and is not a required part of the basic financial statements. The Town's management is responsible for such information. We will not subject such information to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we will not express an opinion or provide any assurance on it.

Board of Aldermen Town of Carrboro May 9, 2014 Page 7 of 9

#### MANAGEMENT'S RESPONSIBILITY FOR NONATTEST SERVICES

Management agrees to assume all management responsibilities and to oversee the nonattest services we will provide by designating an individual possessing suitable skill, knowledge and/or experience. Management is responsible for evaluating the adequacy and results of the services performed and accepting responsibility for the results of such services. Management is responsible for designing, implementing, and maintaining internal controls.

We will provide the following nonattest services:

- We will assist with preparation of the Town's financial statements, Schedule of Expenditures of Federal and State Awards, and related notes.
- We will advise management about appropriate accounting principles and their application and will assist in preparation of the Town's basic financial statements. The responsibility for the basic financial statements and all representations contained therein remains with management, which includes members of the governing board.
- At the conclusion of the engagement, we will complete the appropriate sections of and sign the Data Collection Form that summarizes our audit findings. We will provide to management the required electronic copy of the financial reporting package (including the basic financial statements, Schedule of Expenditures of Federal and State Awards, auditors' reports on internal controls and compliance, Schedule of Findings and Questioned Costs, Corrective Action Plan (if required) and a Summary Schedule of Prior Audit Findings (if required) along with the Data Collection Form) to be uploaded on the federal clearinghouse's website, if applicable.
- At the conclusion of the engagement, we will upload the audited financial statements and compliance reports on the North Carolina State Treasurer's website.
- We will compile financial statement data for inclusion in the Annual Financial Information Report (AFIR).

Management is responsible for evaluating the adequacy and results of the above nonattest services performed and accepting responsibility for the results of such services. This includes Management's review and approval of all adjustments we may propose to the accounting records of the Town or its financial statements as a result of these services.

#### **USE OF FINANCIAL STATEMENTS**

If the Town's financial statements are to be included in a client prepared document, other than the Town's *Comprehensive Annual Financial Report*, which includes other information, the Town should notify us of the nature of the document and allow us to read such document prior to submitting the document to others. An example of another document would be an official statement in connection with a public debt offering.

Board of Aldermen Town of Carrboro May 9, 2014 Page 8 of 9

#### AUDIT ADMINISTRATION, FEES AND OTHER

The audit documentation for this engagement is the property of Dixon Hughes Goodman LLP and constitutes confidential information. However, we may be requested to make certain audit documentation available to the U.S. Department of Health and Human Services or its designee, a federal agency providing direct or indirect funding, applicable federal and state agencies including the U.S. Government Accountability Office or North Carolina Office of the State Auditor pursuant to authority given to it by law or regulation. If requested, access to such audit documentation will be provided under the supervision of Dixon Hughes Goodman LLP personnel. Furthermore, upon request, we may provide copies of selected audit documentation to the aforementioned parties. These parties may intend, or decide, to distribute the copies or information contained therein to others, including other governmental agencies.

This engagement is limited to the services outlined above. We will perform all services in accordance with applicable professional standards.

John Frank is the engagement partner and is responsible for supervising the engagement and signing the report or authorizing another individual to sign. We plan to begin our audit work in August 2014.

Our fee for these services will be \$50,000 for the audit and \$3,000 for preparation of the financial statements. This fee is based on the assumption there will be no significant changes in the Town's operations including (but not limited to): issuance of new debt; new construction projects; creation of new funds; new or "State Mandated" major programs required to be tested for Single Audit; or additional procedures required in response to the discovery of fraud. We will issue contract addendums for additional fees related to changes mentioned above. The additional fees will be billed at our standard hourly rates depending on the experience level of the individuals performing the work.

Progress billings will be submitted to the North Carolina Office of the State Treasurer for approval and then mailed to the Town. All invoices are payable upon presentation.

Many of our clients choose to communicate with us by email, and we may use email in connection with this engagement unless Management directs us otherwise. We will use reasonable precautions to protect the Town's confidential information, but we have no obligation to employ any measures that the Town does not regularly employ in protecting the Town's confidential information. As emails can be intercepted and read, disclosed, or otherwise used or communicated by an unintended third party, or may not be delivered to each of the parties to whom they are directed, we cannot guarantee or warrant that email from us will be properly delivered and read only by the addressee. Therefore, we specifically disclaim any liability or responsibility whatsoever for interception or unintentional disclosure or communication of email transmissions, or for the unauthorized use or failed delivery of emails transmitted by us in connection with the performance of this engagement or the disclosure or communication of confidential or proprietary information arising therefrom (hereinafter collectively referred to as "Email Interruption"). Management agrees that we shall have no liability for any loss or damage to any person or entity resulting from related to any Email Interruption, including any consequential, incidental, direct, indirect, or special damages, such as loss of revenues of anticipated profits, and Management herby forever releases us from any such liability and shall indemnify us from any claim related thereto.

Board of Aldermen Town of Carrboro May 9, 2014 Page 9 of 9

This agreement and any claim arising out of the services provided shall be governed by the laws of the state of North Carolina, exclusive of its conflict of laws rules. The parties agree that any action between them related to or arising out of this engagement shall be brought only in the state or federal courts of North Carolina.

Whenever possible, each provision of this agreement shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision hereof shall be ineffective, or invalid, such ineffectiveness or invalidity shall be only to the extent of such prohibition or invalidity, without invalidating the remainder of the provision or the remaining provisions of this agreement, which shall otherwise remain in full force and effect. The agreements of the Town of Carrboro and Dixon Hughes Goodman LLP contained in the Contract to Audit Accounts and this attachment shall survive the completion or termination of this engagement.

Government Auditing Standards require that we provide Management with a copy of our most recent external peer review report and any letter of comment, and any subsequent peer review reports and letters of comment received during the period of the contract. Our 2011 peer review report accompanies this letter.

We appreciate the opportunity to be of service to Town of Carrboro and believe this letter accurately summarizes the significant terms of our engagement. If Management has any questions, please let us know. If Management agrees with the terms of our engagement as described in this letter, please sign the enclosed copy and the Contract to Audit Accounts and return it to us.

Very truly yours,

Dirlon Huges Doodman LLP

Dixon Hughes Goodman LLP

JAF/vII

Enclosure

#### ACKNOWLEDGED:

This letter correctly sets forth the understanding of the Town of Carrboro.

By:

Lydia Lavelle, Mayor

Date: \_\_\_\_\_

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Arche McAdoo, Finance Officer



AICPA Peer Review Program Administered by the National Peer Review Committee

December 9, 2011

Charles E Sams Jr, CPA Dixon Hughes Goodman LLP 1829 Eastchester Dr High Point, NC 27265

Dear Mr. Sams:

It is my pleasure to notify you that on December 8, 2011 the National Peer Review Committee accepted the report on the most recent system peer review of your firm. The due date for your next review is August 31, 2014. This is the date by which all review documents should be completed and submitted to the administering entity.

As you know, the report had a peer review rating of pass. The Committee asked me to convey its congratulations to the firm.

Sincerely,

Betty Jo Charles

Betty Jo Charles Chair—NPRC nprc@aicpa.org919 402-4502

cc: Candace Wright, CPA

Firm Number: 10017108 Review Number: 319553

America Counts on CPAs



A Professional Accounting Corporation Associated Offices in Principal Cities of the United States www.pncpa.com

#### System Review Report

To the Partners of Dixon Hughes Goodman LLP And the National Peer Review Committee

We have reviewed the system of quality control for the accounting and auditing practice of Dixon Hughes Goodman LLP (the firm) applicable to non-SEC issuers in effect for the year ended February 28, 2011. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants. The Firm is responsible for designing a system of quality control and complying with it to provide the Firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Our responsibility is to express an opinion on the design of the system of quality control and the Firm's compliance therewith based on our review. The nature, objectives, scope, limitations of, and the procedures performed in a System Review are described in the standards at www.aicpa.org/prsummary.

As required by the standards, engagements selected for review included engagements performed under *Government Auditing Standards*, audits of employee benefit plans and audits performed under FDICIA.

In our opinion, the system of quality control for the accounting and auditing practice of Dixon Hughes Goodman LLP in effect for the year ended February 28, 2011, has been suitably designed and complied with to provide the Firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass, pass with deficiency(ies) or fail.* Dixon Hughes Goodman LLP has received a rating of *pass.* 

Postlethupite Netterialle

Baton Rouge, Louisiana October 6, 2011



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## TITLE:

Update on Storm Water Flooding Issues

**PURPOSE:** The purpose of this item is to provide the Board of Aldermen an update on various storm water flooding issues since the last report on February 11, 2014. **DEPARTMENT:** Public Works Department

## **CONTACT INFORMATION:** George Seiz, Director of Public Works, 918-7427

## **INFORMATION:**

At the regular Board of Aldermen meeting on February 11, 2014, town staff provided a report about storm waste design standards and possible future considerations related to those standards. Included in the report was a summary and update of various storm water problem areas. As part of the discussion on February 11, the BOA requested staff to provide periodic updates on efforts to address these problem locations.

The Public Works Department has been in contact with Town Engineer Henry Wells who has estimated costs for further evaluation of the these problem areas. The estimates and new information are included below in the summaries for each location. New information is shown in italics. After evaluations of the locations are completed, staff will make recommendations for the Capital Improvement Plan

- **Tom's Creek** (2-11-14) - Following the suggestion of one of the neighbors along Tom's Creek, Town staff set up a series of meetings to go door to door and ask homeowners what problems they have and here about concerns and suggestions. There were 5 neighborhood meetings held from mid-July to early August and 16 out of 39 property owners came to the meetings and helped to answer questions on survey sheets. More evaluation is needed.

*Most technical information is already available. Will need to prepare mapping to explain impacts to properties - \$4,000 to \$5,000* 

- **105 Morningside Drive (2-11-14)** - yard flooding, water overtops the road, request to enlarge culvert. Staff has visited with the adjacent resident and discussed possible options. Preliminary analysis indicates

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that enlarging the culvert under Morningside will likely cause negative impacts downstream. Replacing sections of curb and/or installing some storm inlets may help mitigate the problem.

Possibly increase culvert size or add additional culvert, but must determine impacts downstream. More analysis to see if culvert can be enlarged and prepare construction cost estimate. - \$2,500 to \$4,000

- **400 Block of Broad St. (2-11-14)** - water overtopped road on June 30<sup>th</sup>, public road damage and private property damage. petition received, request to enlarge culvert. An emergency repair was made at this location costing about \$10,000. Preliminary review indicates the culvert would need to be enlarged from an 18" to 48" to meet current standards. Potential downstream impacts need to be reviewed as well as well as other possible options. Cost estimates for options need to be determined and programming in the CIP considered.

Some analysis already completed. Further review and prepare construction cost estimate - \$1,000 to \$1,500

- Old Pittsboro Road (2-11-14) - concerns expressed about storm water run-off, sewage in the drainage ditch, sitting water. Staff is still in the early stages of evaluating the storm water run-off issues. Ideas suggested such as widening the drainage ditch or piping the storm water could possibly be considered. OWASA made a repair last summer to address sewage backing into a storm junction box. As a follow up to that repair OWASA also did some public education outreach to citizens and businesses about the detriments of putting fats, oils and grease in sanitary sewers as requested by the BOA.

*Need to determine if under DENR or Corps of Engineers jurisdiction. Agencies may not let us do anything. Further evaluation - \$5,000 to \$7,000* 

- **1020 West Main Street -** *Private storm sewer on adjacent church property backs up in heavy rains and threatens crawl space and HVAC units of private property. Dillard St., High St. and Goldston Dr. drain to this area. Possible drainage study to evaluate existing storm sewer system. - Study -\$2,000 - \$4,000.* 

- Tributary to Morgan Creek adjacent to Public Works (2-11-14) - While clearing scrub trees this winter adjacent to the culvert pipes under Public Works Drive, Public Works staff has discovered significant erosion of the stream bank adjacent to the Public Works property. Appears to be a result from June 30, 2013 storm event. Location is still being evaluated to determine extent of repair work needed. Cost estimate for repair needs to be determined and programming in the CIP considered. A temporary more immediate repair may be necessary.

Sungate Design is working with another consultant to get a preliminary cost estimate for engineering and construction. Close proximity to NCDOT storm water culvert may require coordination with NCDOT. Further evaluation and prepare cost estimate - \$4,000 - \$5,000.

Agenda Date: Version: 1	Status:
5/20/2014	Consent
	Agend
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- Wilson Park Multi-Use Path (2-11-14) - Erosion along edge of path due to storm system overloading. An emergency repair was made by the Public Works Department. Repair work seems to be holding and will continue to monitor location.

Summary of Further Evaluation Costs -

Tom's Creek	\$4,000 - \$5,000
105 Morningside Dr.	\$2,500 - \$4,000
400 Block of Broad St.	\$1,000 - \$1,500
Old Pittsboro Rd.	\$5,000 - \$7,000
1020 West Main. St.	\$2,000 - \$4,000
Tributary to Morgan Creek	\$4,000 - \$5,000

Total Range - \$18,500 - \$26,500

Tentative time line -

Complete Evaluations - June - September, 2014 Prepare Recommendations for FY 15/16 CIP - October /November, 2014

**FISCAL & STAFF IMPACT:** Available funds in the current fiscal year (\$6,000) will be utilized to begin the evaluation work and \$20,000 has been budgeted in FY 14/15 to continue the evaluations. PW staff will be working with the consultant during the evaluations and staff hours will also be needed for CIP recommendations. There may be significant fiscal impacts in the future depending on solutions determined to adequately address some of the problem areas.

**RECOMMENDATION:** It is recommended the BOA accept the report.



File Number: 14-0163

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## TITLE:

Request to Make an Appointment to the Human Services Commission PURPOSE: The purpose of this item is for the Mayor and Board to consider making an appointment to the Human Services Commission.

## **DEPARTMENT:** Town Clerk **CONTACT INFORMATION:** Cathy Wilson 918-7309

**INFORMATION:** The Human Services Commission currently has two vacant seats. The Town Clerk has received an application from Barbara Foushee. That is the only application that has been received by the Clerk. The chair of the Human Services Commission has reviewed the application and completed a recommendation form (attached). The resolution would make an appointment to the Human Services Commission for a term to expire in February of 2016.

## FISCAL IMPACT:N/A

**RECOMMENDATION:** It is recommended that the Mayor and Board adopt the attached resolution.

#### A RESOLUTION MAKING AN APPOINTMENT TO THE HUMAN SERVICES COMMISSION

WHEREAS, Barbara Foushee has submitted his application to the Human Services Commission and there are two vacant seats.

# NOW, THEREFORE, THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO RESOLVES;

Section 1. The Board of Aldermen hereby appoints <u>Barbara Foushee</u> to the Human Services Commission for a term to expire in February of 2016.

Section 2. This resolution shall become effective upon adoption.

Name: Barbara Foushee Date of application/last contact: I met with Barbara today, 5/13/14
Summary of qualifications: I find Barbara to be a very organized, intelligent and cooperative person. We spent over an hour today. I feel that she has a solid grasp of the duties of an advisor on the Human Services Advisory Board. She indicated a willingness to study each and every grant, upon receipt, and would diligently do so.
Advisory Board Chair reconfirmed applicant's interest in serving by phone or e-mail.
_XYesNo (Briefly explain:) I met with Barbara today. She seems like a good fit for our Board and I look forward to working with her.
Applicant attended Advisory Board meeting prior to BOA review.
Yes (Date:) _XNo (Briefly
Our Board had finished for the year when I received Barbara's application. The only thing left was our deliberation over the disbursement of our funds and I did not feel it appropriate to invite someone to a meeting that seemed to be a closed meeting.
Applicant has demonstrated a clear understanding of the time commitment, roles and responsibilities of serving on the Advisory Board.
X_YesNo Briefly explain: I explained fully the obligations of the Board, the time constraints, and she was enthusiastic about doing the job. In addition to your comments above, please check other qualities that the applicant offers that would help the Advisory Board meet its goals for community representation. Please note that candidates who do not meet any of these qualities are

still eligible for appointment. Please communicate any urgent needs and priorities for Advisory Board composition to your Board of Aldermen Liaison.
_XGender diversity
_XRacial or ethnic diversity
XAge range diversity
XNeighborhood/geographic diversity
_XOccupation, experience or special skills
XPrevious public service or community involvement
Other:

## HUMAN SERVICES ADVISORY BOARD


# Agenda Item Abstract

File Number: 14-0170

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# TITLE:

Request to Approve a Supplemental Agreement with NCDOT Relating to the Bike Loop Detectors Project

**PURPOSE:** The Board is asked to approve the Supplemental Agreement to extend the milestone dates for completion of preliminary engineering and construction of the project. **DEPARTMENT:** Planning

## CONTACT INFORMATION: Jeff Brubaker - 919-918-7329

**INFORMATION:** Preliminary engineering (PE) is underway to install bicycle loop detectors at some signalized intersections in Carrboro. This is labeled TIP Project U-4726-DF. PE is complete except for right-of-way (ROW) certification. While this project is confined to improvements to signalized intersections within ROW, ROW certification is required for all federally-funded projects. Town staff have requested more information from NCDOT on the documentation necessary for requesting ROW certification. A response is pending.

The draft Supplemental Agreement is being processed by NCDOT. The Town has requested that it extend the PE milestone to August 31, 2014, and the construction milestone to August 31, 2015.

The resolution in Attachment A would approve the Supplemental Agreement and authorize the Town Manager to execute it.

**FISCAL & STAFF IMPACT:** No substantial fiscal impacts accrue to approving the resolution in Attachment A. Approximately 5 hours of staff time will be needed to process the Supplemental Agreement.

**RECOMMENDATION:** Staff recommend that the Board of Aldermen approve the resolution in Attachment A.

#### A RESOLUTION APPROVING A SUPPLEMENTAL AGREEMENT WITH NCDOT RELATING TO THE BIKE LOOP DETECTORS (U-4726-DF) PROJECT

WHEREAS, additional time is needed to complete preliminary engineering and construction of the Bike Loop Detectors project (U-4726-DF);

NOW, THEREFORE, BE IT RESOLVED by the Carrboro Board of Aldermen that the Board approves the Supplemental Agreement with NCDOT to extend preliminary engineering and construction milestone dates for the Bike Loop Detectors project and authorizes the Town Manager to execute the Supplemental Agreement.

This is the  $20^{th}$  day of May in 2014.



# Agenda Item Abstract

File Number: 14-0171

Agenda Date: Version: 1	Status:
5/20/2014	Consent
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Board of A	Type:Abst

# TITLE:

Application for Federal and State Financial Reimbursement for Ice Storm Response and Debris

**PURPOSE:** To designate agents to act on behalf of the Town to receive approximately \$22,000 from the Federal Emergency Management Agency (FEMA) and the North Carolina Department of Emergency Management for the ice storm that occurred on March 7, 2014.

**DEPARTMENT:** Fire-Rescue Department

## CONTACT INFORMATION: Travis Crabtree, 919-918-7349

**INFORMATION:** Orange County along with its' incorporated towns met the minimum criteria for Disaster Assistance, due to the impacts of the ice storm that crossed our jurisdictions on March 7, 2014. Due to the emergency calls for service caused by the storm, emergency power activations, personnel costs, vehicle and equipment hours, and debris cleanup, the Town of Carrboro is able to be reimbursed for some of the expenses incurred during and around the storm. Based on preliminary application for this assistance, the Town qualifies for \$22,000. To receive these funds, the Town is required to submit a formal application with a resolution designating agents authorized to act on behalf of the Town.

**FISCAL & STAFF IMPACT:** This reimbursement will be approximately \$22,000 to cover costs incurred from the ice storm on March 7, 2014.

**RECOMMENDATION:** Approve the attached resolution designating the Town Manager and Fire Chief as agents to act on behalf of the Town to receive these funds.

# A RESOLUTION TO DESIGNATE AGENT FOR STATE AND FEDERAL FINANCIAL ASSISTANCE UNDER FEMA

WHEREAS, the Town of Carrboro has qualified for certain state and federal financial assistance under the Robert T. Stafford Disaster Relief and Emergency Assistance Act; and

WHEREAS, the Town of Carrboro desires to receive such state and federal financial assistance.

NOW THEREFORE BE IT RESOLVED BY THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO THAT, The Town Manager is designated as the Primary Agent and the Fire Chief is designated as the Secondary Agent and authorized to execute and file application for any and all federal and/or state assistance on behalf of the Town for the purpose of obtaining state and federal financial assistance.

BE IT FURTHER RESOLVED THAT, The Town Manager and Fire Chief are authorized to represent and act for the Town of Carrboro in all dealings with the State of North Carolina and the Federal Emergency Management Agency for all matters pertaining to such disaster assistance required by grant agreements and to make certain assurances.

This resolution shall become effective upon adoption.



# Agenda Item Abstract

File Number: 14-0169

Agenda Date: Version: 1	Status:
5/20/2014	Consent
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Board of A	Type:Abst

# TITLE:

Request to Approve a Resolution Authorizing the Town Manager to Enter into a Memorandum of Understanding (MOU) and to Create Amendments as Needed between the Town of Carrboro and the University of North Carolina at Chapel Hill for Fiber Optic Infrastructure Facilities Sharing and/or Exchange

**PURPOSE:** The purpose of the MOU and Amendments is to allow the Town of Carrboro and the University of North Carolina at Chapel Hill to interconnect portions of their respective existing fiber optic cable plant to facilitate network path redundancy and diversity, access to high speed and low cost internet access through MCNC's NCREN network, facilitate interconnection of regional fiber networks for inter-municipality emergency services communications, fiber optic infrastructure planning, engineering and administration expertise sharing and many other benefits.

# DEPARTMENT: MO-IT

# CONTACT INFORMATION: Andy Vogel, 919-918-7305

**INFORMATION:** The Town of Carrboro and the University of North Carolina at Chapel Hill jointly desire to formally recognize and maintain a mutually beneficial and collaborative environment surrounding the planning, engineering, deployment, documentation and maintenance of their respective fiber optic infrastructure resources.

The Town of Carrboro and the University of North Carolina at Chapel Hill each utilize significant fiber optic infrastructure assets to interconnect their respective facilities, buildings and other interests. The Town of Carrboro and the University of North Carolina at Chapel Hill acknowledge that each entity would be able to enhance the scope, route diversity, redundancy and overall reliability of such connectivity through a structured and detailed process whereby the Town and University equitably, and by mutually beneficial means, share and/or exchange specific elements of their respective fiber cable plants. Therefore, it is the purpose of the MOU to establish the terms and conditions for the Town and University to equitably share and/or exchange defined elements of their respective (a.) fiber optic infrastructure systems, (b.) fiber optic infrastructure strategic planning, and (c.) fiber optic infrastructure engineering and administration expertise.

The initial term of the MOU is for five years and will be automatically extended for up to two additional five year terms with the ability to modify or terminate the agreement with notice. Amendments to the MOU will be

Agenda Date: Version: 1	Status:
5/20/2014	Consent
	Agend
In Control:	men <b>File</b>
Board of A	Type:Abst

created, as needed, to document and describe each instance of sharing or exchanging fiber optic infrastructure resources.

The Town of Carrboro and the University of North Carolina at Chapel Hill will have no ownership rights to the other organization's fiber optic infrastructure under this MOU or Amendments. Sharing and/or exchanging of fiber optic infrastructure, created under specific amendments, will be quid pro quo at no cost to either organization other than possible nominal splicing fees that are typically under five hundred dollars total cost.

Finally, the Town of Carrboro and the University of North Carolina at Chapel Hill will use each other's fiber optic infrastructure only for network interconnections among their respective Town or University owned buildings, facilities and assets to provide the benefits previously listed. No other uses are permitted unless previously authorized by mutual consent and agreement of the Town of Carrboro and the University of North Carolina at Chapel Hill. The Memorandum of Understanding between the Town of Carrboro and the University of North Carolina at Chapel Hill is Attachment A.

# FISCAL & STAFF IMPACT: None

**RECOMMENDATION:** Staff recommend that the Board adopt the resolution in Attachment B.

# MEMORANDUM OF UNDERSTANDING

# Between



The Town of Carrboro Carrboro, NC

And



The University of North Carolina at Chapel Hill Chapel Hill, NC

For

# FIBER OPTICAL INFRASTRUCTURE FACILITIES EXCHANGE

This FIBER OPTICAL INFRASTRUCTURE FACILITIES EXCHANGE MEMORANDUM OF UNDERSTANDING, henceforth referred to as "MOU", is made between:

The TOWN of CARRBORO, Information Technology Department, henceforth referred to as the "TOWN"

And

The UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, Communication Technologies Division of the Information Technology Services Department, henceforth referred to as the "UNIVERSITY".

#### 1. PURPOSE

The TOWN and the UNIVERSITY each utilize significant FIBER OPTICAL INFRASTRUCTURE assets to interconnect their respective facilities, buildings and other interests. The two Parties acknowledge that each entity would be able to enhance the scope, route diversity, redundancy and overall reliability of such connectivity through a structured and detailed process whereby the two Parties equitably, and by mutually beneficial means, share and/or exchange specific elements of their respective fiber cable plants. Therefore, it is the purpose of this MOU to establish the terms and conditions for the Parties to equitably share and/or exchange defined elements of their respective (a.) fiber optic infrastructure systems, (b.) fiber optic infrastructure strategic planning, and (c.) fiber optic infrastructure engineering and administration expertise.

FIBER OPTICAL INFRASTRUCTURE shall henceforth be referred to as "INFRASTRUCTURE".

#### 2. BACKGROUND

The TOWN has successfully deployed certain INFRASTRUCTURE assets inside the corporate limits of the Town of CARRBORO for the purpose of optically interconnecting the TOWN's various buildings, facilities and other interests. The TOWN wishes to strategically offer limited elements of said assets to the UNIVERSITY in exchange for (a.) greater optical connectivity, flexibility and diversity among the TOWN's interests, (b.) access to the Microelectronics Center of North Carolina (MCNC) and North Carolina Research and Education Network (NCREN) "Point-of-Presence" on the UNIVERSITY's main campus, and (c.) access to the UNIVERSITY's fiber optic engineering, maintenance and administrative experiences and expertise.

The UNIVERSITY has owned and operated inter-campus and inter-building optical fiber cable plants for approximately 25 years. The UNIVERSITY also faces challenges with upgrading and expanding its INFRASTRUCTURE assets to accommodate optical network growth, to address changes in optical technology, to accommodate growth of the UNC campus, and to maintain network connectivity to UNIVERSITY departments located throughout the Carrboro metropolitan area. The UNIVERSITY wishes to strategically offer limited elements of its INFRASTRUCTURE assets and ownership expertise to the TOWN in exchange for (a.) greater optical connectivity, flexibility and diversity among the UNIVERSITY's interests, (b.) enhanced geographic route diversity for interconnecting the UNIVERSITY's main campus to the its "Carolina North" campus, and (c.) assistance with INFRASTRUCTURE strategic planning for the future.

Additionally, the TOWN and the UNIVERSITY jointly wish to formally recognize and maintain a mutually beneficial and collaborative environment surrounding the planning, engineering, deployment, documentation and maintenance of their respective INFRASTRUCTURE resources.

#### 3. EFFECTIVE DATE AND INITIAL TERM

The effective date of this MOU shall be \_\_\_\_\_\_. The INITIAL TERM of the MOU shall remain in effect for five (5) years, or until an appropriate modification or termination agreement is reached between the TOWN and the UNIVERSITY as stipulated in Section 9. – MODIFICATION AND TERMINATION PROCEDURES.

#### 4. EXTENSION OF TERM:

The INITIAL TERM of this MOU shall automatically be extended for up to two (2) additional periods (each a "RENEWAL TERM") of five (5) years each unless either TOWN or UNIVERSITY terminate the MOU due to an uncured default by the other Party or as otherwise provided in the MOU. In consideration of each Party's investment, each Party will give the other Party good faith consideration to extending the term of the MOU for an additional period of time after the INITIAL TERM and the RENEWAL TERMs, as may be permissible under then applicable law. The INITIAL TERM as extended by the RENEWAL TERMs is hereinafter referred to as the "TERM."

#### 5. TERMS AND CONDITIONS

The TOWN and UNIVERSITY agree to the following terms and conditions:

- A. INFRASTRUCTURE: For the purposes of this MOU, "INFRASTRUCTURE" is defined as all usual and customary outside plant optical fiber cables, enclosures, splice cases, patch panels, racks, hardware, and pathways both above and below ground.
- B. INTENDED USE OF INFRASTRUCTURE: UNIVERSITY hereby grants TOWN a non-exclusive, cancelable, restricted right to use the INFRASTRUCTURE, as more particularly described in each "AMENDMENT" as attached hereto, solely for the purpose and in accordance with the terms and conditions of this MOU. TOWN hereby grants UNIVERSITY a non-exclusive, cancelable, restricted right to use the INFRASTRUCTURE, as more particularly described in each "AMENDMENT" as attached hereto, solely for the purpose and in accordance with the terms and conditions of this MOU. Each Party shall use the INFRASTRUCTURE only for optical interconnections among their respective buildings, facilities and assets geographically residing within the TOWN's corporate limits and/or on UNIVERSITY property located outside the Town. No other uses are permitted unless previously authorized by mutual consent and agreement and in writing by the Parties. Each Party shall have no ownership rights to the other Party's INFRASTRUCTURE.
- C. INFRASTRUCTURE AMENDMENTS: The Parties agree that, for each instance of sharing or exchanging INFRASTRUCTURE resources, each such action shall be assigned an "AMENDMENT" number for identification purposes. Each Amendment to this MOU, when executed, shall reference this MOU and incorporate its terms by reference.

TOWN & UNIVERSITY FIBER INFRASTRUCTURE MOU

- D. INFRASTRUCTURE DOCUMENTATION: The Parties agree that each AMENDMENT or other activity pursued under this MOU will be properly documented and shared between the Parties. The Parties further agree that such documentation may include written or graphical engineering best practices documents in paper or digital format as deemed appropriate. The Parties also agree to maintain and share INFRASTRUCTURE data in industry standard GIS format. Each AMENDMENT will be fully documented and shared between the Parties for planning, deployment, or administrative activity pursued under this MOU.
- E. MAINTENANCE: Each Party will, at its own cost, maintain its INFRASTRUCTURE included in this MOU in the same manner it maintains similar INFRASTRUCTURE outside of this MOU.
- F. INFRASTRUCTURE ALTERATION AND/OR RELOCATION: Each Party shall for good cause have the right to alter or relocate any portion of its INFRASTRUCTURE; provided, however, that such alteration or relocation (a) shall be the owning Party's sole cost and expense, (b) shall not result in any material interruption of service provided by the owning Party to the other Party, and (c) shall not result in impairment of the quality of service provided by the owning Party to the other Party following such alteration or relocation. The owning Party may exercise such rights after the Parties have mutually agreed upon a timeframe and location. Owning Party shall cooperate with the other Party in enabling other Party to perform standard maintenance or cutover procedures and shall ensure that the altered or relocated INFRASTRUCTURE is operational before discontinuing existing services.
- G. TERMINATION OF USE: Upon the expiration of the TERM or earlier termination as provided herein, each Party will vacate the other's INFRASTRUCTURE; will disconnect or otherwise remove INFRASTRUCTURE interconnections, apparatus and equipment; will ensure that the INFRASTRUCTURE is safe and in good order and condition (ordinary wear and tear excepted); and will have no further rights to INFRASTRUCTURE.
- H. STRATEGIC PLANNING: The TOWN and the UNIVERSITY acknowledge the desire and need to work collaboratively to evaluate, plan and deploy INFRASTRUCTURE to meet current and future needs. The Parties jointly agree and commit to meet annually, or more frequently as needed, to discuss and share strategic technology initiatives, to seek opportunities for collaboration, and to seek opportunities for joint development of enhanced INFRASTRUCTURE with the goals of avoiding duplication of deployments, promoting standardization of fiber optical infrastructure systems, and incorporating best practices for INFRASTRUCTURE engineering and administration.

#### 6. CONFIDENTIAL INFORMATION:

Each Party receiving Confidential Information ("Recipient") from the other Party ("Discloser") will protect the disclosed Confidential Information by using the same degree of care, but no less than reasonable degree of care, to prevent the unauthorized use, dissemination, or publication of the Confidential Information as Recipient uses to protect its own Confidential Information, subject to the North Carolina Public Records Law.

#### 7. ASSIGNMENT:

This MOU is not assignable. The MOU contains the entire understanding of both Parties as to the subjects covered herein and shall not be altered, amended or modified except by an agreement in writing executed by the duly authorized officials of both Parties.

#### 8. SUPERSESSION

This MOU superseded any and all previous or current fiber optic infrastructure agreements between the Parties, and any subsequent written or verbal amendments.

#### 9. MODIFICATION AND TERMINATION PROCEDURES

This MOU may be modified through the express written agreement and consent of the Parties. The Party desiring modifications shall submit a written request to the other Party, and the written request shall clearly outline the nature and purpose of the modifications. Upon receipt of the written request for modifications, the other party shall have sixty (60) calendar days to respond.

This MOU may be terminated by either Party upon delivery of a written notice to the other party stating the desire to terminate the MOU, provided that such notification is delivered at least six (6) months prior to the requested termination date.

#### 10. ENTIRE UNDERSTANDING

This MOU contains the entire understanding of the parties and shall not be altered, amended or modified except by mutual written agreement executed by authorized representatives of both parties.

#### 11. NOTICES

Any NOTICE or other communication required to be given by this MOU shall be in writing and shall be delivered to the following addresses:

For the TOWN:

The Town of Carrboro Information Technology 301 West Main Street Carrboro, NC 27510 Phone: 919-918-7305 Fax: 919-918-4456

#### For the UNIVERSITY:

The University of North Carolina at Chapel Hill Director, Communication Technologies Engineering and Operations Information Technology Services Department

TOWN & UNIVERSITY FIBER INFRASTRUCTURE MOU

ITS Franklin Building Campus Box 1150 Chapel Hill, NC 27599-1150 Phone: 919-445-8080 Fax: 919-445-9486

#### 12. OPERATIONAL POINTS OF CONTACT:

All OPERATIONAL activities executed under this AGREEMENT, including but not limited to collaborative investigations, engineering studies, strategic planning, designing, deployment, maintenance, testing, or decommissioning shall be in writing and shall be delivered to the following addresses:

For the TOWN:

Normal hours

The Town of Carrboro Office of the Manager of Information Technologies 301 West Main St. Carrboro, NC 27510 Phone: 919-918-7305

After hours and emergencies

The Town of Carrboro Help Desk Phone: 919-918-7305 after hours page-out service: 919-XXX-XXXX Emergencies: Dial 911 Carrboro, NC 27510

For the UNIVERSITY

Normal hours

Engineering Manager, ITS Communication Technologies E&O University of North Carolina at Chapel Hill ITS Franklin Building, 440 West Franklin Street Campus Box 1150 Chapel Hill, North Carolina 27599-1150 919.445.0127

After hours and emergencies

ITS 24/7 Help Desk (<u>www.help.unc.edu</u>) ITS 24/7 Help Desk Phone: 919.962.4357 UNC Public Safety Phone: 919.962.8100 Emergencies: Dial 911 University of North Carolina at Chapel Hill Chapel Hill, North Carolina 27599

#### IN WITNESS WHEREOF, the parties hereto have caused this MEMORANDUM OF UNDERSTANDING (MOU) to be executed by their duly authorized representatives:

FOR AND ON BEHALF OF THE TOWN OF CARRBORO, INFORMATION TECHNOLOGIES DEPARTMENT
By:
Name:
Title:
Date:

FOR AND ON BEHALF OF THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL, INFORMATION TECHNOLOGY SERVICES DEPARTMENT
By:
Name:
Title:
Date:

### A RESOLUTION AUTHORIZING THE TOWN MANAGER TO ENTER INTO A MEMORANDUM OF UNDERSTANDING (MOU) AND TO CREATE AMENDMENTS AS NEEDED BETWEEN THE TOWN OF CARRBORO AND THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL FOR FIBER OPTIC INFRASTRUCTURE FACILITIES SHARING AND/OR EXCHANGE

WHEREAS, the Town of Carrboro and the University of North Carolina at Chapel Hill jointly desire to formally recognize and maintain a mutually beneficial and collaborative environment surrounding the planning, engineering, deployment, documentation and maintenance of their respective fiber optic infrastructure resources; and,

WHEREAS, the Town of Carrboro and the University of North Carolina at Chapel Hill jointly acknowledge that each entity would be able to enhance the scope, route diversity, redundancy and overall reliability of network connectivity through a structured and detailed process whereby the Town and University equitably, and by mutually beneficial means, share and/or exchange specific elements of their respective fiber cable plants through an MOU and Amendments; and,

WHEREAS, the purpose of the MOU is to establish the terms and conditions for the Town of Carrboro and the University of North Carolina at Chapel Hill to equitably share and/or exchange defined elements of their respective (a.) fiber optic infrastructure systems, (b.) fiber optic infrastructure strategic planning, and (c.) fiber optic infrastructure engineering and administration expertise and that Amendments to the MOU will be created, as needed, to document and describe each instance of sharing and/or exchanging fiber optic infrastructure resources; and,

WHEREAS, the Town of Carrboro and the University of North Carolina at Chapel Hill will have no ownership rights to the other organization's fiber optic infrastructure as a result of this MOU or Amendments; and,

WHEREAS, the Town of Carrboro and the University of North Carolina at Chapel Hill will be sharing and/or exchanging fiber optic infrastructure, as laid out under specific Amendments, all sharing and/or exchanging will be quid pro quo at no cost to either organization other than possible nominal splicing fees;

NOW, THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Board authorizes the Town Manager to enter into a Memorandum of Understanding (MOU) and to Create Amendments as needed between the Town of Carrboro and the University of North Carolina at Chapel Hill for Fiber Optic Infrastructure Facilities Sharing and/or Exchange.



# Agenda Item Abstract

File Number:14-0168

Agenda Date: Version: 1	
5/20/2014	
In Control:	
Board of A	

Status: Public Hearin menFile Type:Abst

# TITLE:

Public Hearing on Town Manager's Recommended Budget for FY 2014-15

**PURPOSE:** To hold a public hearing on the Town Manager's recommended budget for the upcoming fiscal year as required by G. S. 159-12 (b). **DEPARTMENT:** Town Manager

CONTACT INFORMATION: David L. Andrews, 918-7315 and Arche L. McAdoo 918-7439

**INFORMATION:** The Manager presented his recommended budget for Fiscal Year 2014-15 to the Board of Aldermen on May 13, 2014. To ensure that the public has access to the budget document and is aware of the public hearing, G.S. 159-12 (a) requires the Town Clerk to have the budget document available for public inspection until the budget ordinance is adopted. The document is also available on the Town's website at www.townofcarrboro.org.

The statute also requires the Town Clerk to make a copy of the budget available to all news media in the county and to publish a statement that the budget has been submitted to the governing board, and is available for public inspection. The statement must also give notice of the time and place of the budget public hearing. Attached is the notice of the public hearing published by the Town Clerk in the Herald Sun and aired on WCHL-Radio.

FISCAL & STAFF IMPACT: The total recommended budget for FY 2014-15 is \$29.4 million.

**RECOMMENDATION:** The Board is requested to receive comments from the public on the recommended budget and provide directions to the Town Manager for preparation of the final budget ordinance for FY 2014-15.

# NOTICE OF PUBLIC HEARING

The Board of Aldermen will hold a public hearing on Tuesday, May 20, 2014 at 7:30 p. m. in Town Hall Board Room to receive citizen comments on the Town of Carrboro Recommended Budget for 2014-15. The budget is available for inspection in the Town Hall. Citizens are invited to make written or oral comments. Comments may be emailed to <u>cwilson@townofcarrboro.org</u>. The entire budget document may be viewed in the Town Clerk's Office from 8:30 a.m. to 5:00 p.m. weekdays or on the Town website at <u>www.townofcarrboro.org</u>.



# Agenda Item Abstract

File Number: 14-0078

Agenda Date: Version: 1	
5/20/2014	
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# TITLE:

Energy and Climate Action Planning

**PURPOSE:** The purpose of this item is to present the Board with a draft energy and climate protection plan, and receive feedback on future planning.

# **DEPARTMENT:** Planning

# CONTACT INFORMATION: Randy Dodd, (919) 918-7326

**INFORMATION:** The Town has been involved in efforts to inventory and reduce greenhouse gas emissions for more than ten years. During the past year, the Board of Aldermen directed staff to begin developing a plan that would identify potential areas for improving efficiencies in Town operations with a target goal of reducing the Town's annual emissions by two- to- seven percent. Beginning with an initial kick-off meeting on April 30th, 2013, representatives from all departments have collaborated to consider new opportunities for energy and climate protection planning and implementation. Staff presented concepts for the development of a plan at the October 8<sup>th</sup>, 2013 Board meeting, and have subsequently been considering related opportunities in capital improvements and annual budgeting updates. A draft Energy and Climate Protection Plan has been prepared with a near term (1-2 year) focus on municipal operations but also with references to existing programs and initiatives for the community. The plan attempts to help the Town "lead by example", and touches on operations for outdoor lighting, facilities, and the municipal fleet and as well as community buildings, transportation, renewable energy, and urban forestry. Moving forward, staff recommend more emphasis in the coming year with outreach to the community through a fall forum, temporary task force, support from UNC, and online collaboration. The draft plan is available at <<u>http://www.townofcarrboro.org/pzi/Env/PDFs/DraftEnergyPlan.pdf</u>.

**FISCAL & STAFF IMPACT:** Capital improvement and annual operating budget costs with energy and climate protection components have been presented separately as part of the CIP and operating budget updates. Additional staff time will be involved in finalizing and implementing the plan and outreach to community.

**RECOMMENDATION:** Staff recommends that the Board of Aldermen consider the resolution in Attachment A approving the draft plan and identifying any changes or additions for staff to consider in finalizing the plan, and authorize staff to finalize and implement the plan, including working with advisory board members to plan a fall community forum, online collaboration, and planning for one or more future UNC

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Capstone teams to provide support to the community. Staff also recommends that the Board of Aldermen consider the resolution in Attachment B establishing a temporary energy and climate planning task force.

#### ATTACHMENT A

### A RESOLUTION ACCEPTING THE DRAFT ENERGY AND CLIMATE PROTECTION PLAN AND DIRECTING STAFF TO MOVE FORWARD WITH NEXT STEPS FOR ENERGY AND CLIMATE PROTECTION PLANNING AND IMPLEMENTATION

WHEREAS, the Town has: signed on to the Mayors Climate Protection Agreement and adopted a Climate Protection Resolution in 2009;

WHEREAS, the Town participated in the Orange County Greenhouse Gas Inventory, and updated the inventory in 2011, 2012, and 2013, and has pursued emissions reductions through a variety of means; and

WHEREAS, Town staff have drafted an Energy and Climate Protection Plan;

NOW THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept the draft plan and authorize staff to finalize and implement the plan and work with advisory board members to plan a fall forum and UNC staff and students to support the planning effort through the Capstone program.

In finalizing the plan, the Board further directs staff to consider the following:



#### ATTACHMENT B

#### A RESOLUTION ACCEPTING STAFF RECOMMENDATIONS FOR ESTABLISHING A TEMPORARY ENERGY AND CLIMATE PLANNING TASK FORCE

WHEREAS, the Town has: signed on to the Mayors Climate Protection Agreement and adopted a Climate Protection Resolution in 2009;

WHEREAS, the Town participated in the Orange County Greenhouse Gas Inventory, and updated the inventory in 2011, 2012, and 2013, and has pursued emissions reductions through a variety of means; and

WHEREAS, Town staff have drafted an Energy and Climate Protection Plan;

WHEREAS, the Board of Aldermen have expressed an interest in establishment of a task force to support energy and climate action planning.

NOW THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept staff recommendations for establishment of a temporary Energy and Climate Planning Task force.

The Board further finds:

1)	
2)	
3)	



## TOWN OF CARRBORO

#### NORTH CAROLINA

FAX EMAIL



To: Mayor and Board of Aldermen David Andrews, Town Manager Patricia McGuire, Planning Director

From: Randy Dodd, Environmental Planner

Cc: Department Directors

Date: Wednesday, May 20<sup>th</sup>, 2014

Subject: Energy and Climate Action Plan

#### **Background and Summary**

This memo is a companion to a draft Energy and Climate Protection Plan prepared for Board review. Supplemental information is provided in this memo to support ongoing implementation of energy and climate protection efforts. The draft plan is available at <u>http://www.townofcarrboro.org/pzi/Env/PDFs/DraftEnergyPlan.pdf</u>.

#### **Information**

Town staff have been collaborating in 2013 and 2014 to recommend new energy and climate mitigation initiatives. After Board review of an update on October 8<sup>th</sup>, 2013, staff have focused on the best opportunities for inclusion in a draft Energy and Climate Protection Plan. The draft plan has been developed as a step in supporting the Town in reducing greenhouse gas emissions, becoming more energy efficient and generating more renewable energy. It has been created with a near term (1-2 year) and municipal operations focus, with a goal of approximately 5-10% reduction in municipal energy use. The draft plan is not a longer term, more comprehensive plan. While recognizing this focus, the plan includes sections relating to municipal support to the community, climate change adaptation, and appendices with additional contextual information. It is also important to note that the planning effort has focused on energy and climate protection/mitigation and not on climate change/peak fossil fuel vulnerability/adaptation/resiliency.

Topics discussed below are: specific responses to questions raised by the Board; <u>new</u> materials and concepts included in the draft plan that the Board has not yet seen; and recommendations for establishment of a temporary task force.

#### Response to Board Input

At the October 8<sup>th</sup> meeting, the Board provided input for staff for energy and climate protection planning as summarized below and organized by topic, along with staff responses.

#### 1. Advisory Board role:

• Alderman Slade suggested the creation of a Climate Change Advisory Board or the Environmental Advisory Board (EAB) becoming more focused on climate change. It was requested that the members of the EAB be consulted on this change.

- Alderman Seils suggested that the implementation of the Sustainability Plan should be the focus of the EAB, if its charge is amended to include climate change.
- Alderman Lavelle suggested that all advisory board members address climate change at least once a year and report back to the Board.

Staff response: The Board's interest has been shared with advisory boards. Staff support a community forum series in the fall of 2014 focusing on energy and climate action planning. Staff have participated recently in discussions with advisory board members about a community forum as has been done the past two years with affordable housing and zoning, and are optimistic regarding staff and advisory board collaboration from these discussions. It is also recommended that the Town support a time limited energy and climate action task force. Additional thoughts on the creation of the task force are provided at the end of this memo.

#### 2. Green CIP

• Alderman Slade asked that staff consider that all cost savings be used to ramp-up a Green CIP.

Staff response: The CIP update presented in January, 2014 included as one of the 6 major goals "Incorporating energy and climate protection strategies." A new section was added to the format for every project in the CIP addressing Energy and Sustainability Measures.

#### 3. First Responders

• Alderman Slade asked if the Police Department could be First Responders instead of the Fire Department.

Staff response: All police officers receive First Responder Training in Basic Law Enforcement Training (BLET). This is currently a 32-hour class teaching basic first aid. This certification does not mean an officer is sufficiently trained to run medical call responses. This is only a very basic introduction to medical care. In addition, this certification has expired for most officers since leaving BLET. The Carrboro Police Department would need to invest in significant training, equipment purchase, and restructuring to be capable to run medical calls. One major issue would involve equipment. The current vehicles that the PD operates are not big enough to contain all the needed medical equipment for a true medical responder. We would be doing the Town and Carrboro Fire and Rescue a disservice if we were to transfer this responsibility to the police department. CFD personnel are at a minimum EMT-B certified and trained to run medical calls. In addition, their vehicles are large enough to accommodate the required medical equipment.

In the last eight years, calls for service have increased from 862 up to 1517 with approximately 62% of these calls being of a medical type. At the same time population has increased and the area we protect has decreased, having recently lost the area near Southern Village. Recognizing the need for EMS as a major customer service avenue, Carrboro Fire-Rescue proactively pursued a higher more demanding EMS certification and this has paid off big with an extremely high cardiac arrest save rate compared to the rest of the state. Effective September 18, 2008, we are the only department in Orange County with Emergency Medical Technicians (EMT) and we are currently pursuing the next level with the endorsement of the Orange County Medical Director, Dr. Jane Brice. To date, five years later we are still the only department operating at this level and striving forward. This program was implemented because Orange County EMS had an ambulance shortage as was discussed during the Assembly of Government meeting several years ago. Since the county was unable to provide quality service at that time, an effort to better serve our citizens in a timely manner was enacted. At that time it was not unusual to have a 25 minute response time from the closest available ambulance. As of 11-5-13 at 1500 hours the county was out of ambulances again due to the volume of calls for service demanded on the local EMS system and the local rescue squad has been requested to staff a unit for coverage.

#### 4. Police Vehicles

Alderman Slade asked that Police Department consider using electric vehicles.

Alderman Lavelle requested that the Police Department consider using bikes for patrol, and if they cannot use bikes, to report back as to why this is not feasible.

Staff response: The police department tried utilizing a hybrid Honda Civic several years ago. The car was only outfitted with LED blue lights. A siren and radio could not be installed due to the limitations of the power system, which presented a problem with the ability to respond to calls and lack of compliance with North Carolina law. Other vehicle requirements and considerations include space for officers, equipment, infrastructure, cost, and training of staff. It is also important to recognize that Police Department annual fuel usage was down in 2013 by 8% compared to the previous years. Steps the Police Department has taken to reduce fuel use and emissions footprint include:

- Implemented mandatory foot patrols
- Engine shuts offs for stationary patrol with testing idle reduction system which monitors the battery's voltage while the vehicle is turned off and electronics are still on.
- Implemented use of a radar sign to assist with some speed enforcement instead of assigning a police vehicle in an area
- Testing auxiliary power management systems that operate a police cruiser's full electrical system, including lights, camera, radio, computer and communication devices, without engaging the vehicle's engine
- *Current patrol cars in fleet are 6 cylinder and have variable timing which drops them down to 3 cylinders*
- Implemented 4 cylinder cars in administrative positions
- Teach annual mandatory training in-house versus sending to Community Colleges.
- Purchase of Video Conference System which allows officers to appear remotely with Magistrate in Hillsborough
- Researching propane duel fuel system for our patrol fleet
- All cars except for a 3-4 older cars are outfitted with LED emergency lights

The main reason that we do not have officers on bikes is staffing. Carrboro is divided into 4 patrol areas covered by 6 officers. These officers consist of a supervisor, assistant supervisor and 4 patrol officers. Due to call volume, scheduled time off, court, and training it is difficult to put a patrol officer on a bike and still provide coverage to the citizens. In the past, the Community Service Division (CSD) was tasked with patrolling on bikes in the downtown area as well as other parts of town. With staff shortages throughout the years, our Community Officers have been pulled to assist with coverage of the town. Currently our CSD is staffed with a Lieutenant, a Sergeant and 2 officers. One of these officers works part-time with the Narcotics Investigator which limits the division's ability to be fully immersed in community projects. We are currently seeking out bicycle training and equipment for some officers in the CSD division to be on bikes. To outfit an officer with proper riding attire and gear for the bikes would cost approximately \$9000. We would also need to look at purchasing some type of tablet computer with a broadband connection that allows the officer access to our Records Management System (RMS) and the Division of Criminal Information (DCI). To accomplish this and allow us to have officers on bikes, the Police Chief suggests that the Town of Carrboro consider hiring three officers. One officer would be assigned to the Narcotics Division freeing up the existing CSD officer who splits time between the two divisions. The other two would be assigned to the CSD division. This would allow the police department to have a consistent bike presence throughout the town and allow the CSD to increase interactions with the citizens and businesses in town.

#### 5. Municipal, Commercial, and Residential Solar Installations

Alderman Slade asked that (A) staff consider solar rooftop banking on municipal and commercial buildings; (B) that staff look into the Solarize Asheville project for possible implementation in Carrboro; and (C) that the Town make the permitting process as seamless as possible for anyone that is interested in installing solar power. Alderperson Haven-O'Donnell requested (D) that staff prepare a visual tool that will demonstrate how the community solar model works. Alderman Seils suggested (E) that staff encourage developers to design buildings with idea of future solar in mind (he used the Shelton Station project as a previous reference).

Staff response: A) For municipal and commercial installations, additional clarity on steps being asked of staff for "solar rooftop banking" would be helpful. B) Staff have been collaborating with Rob Pinder on a Solarize Carrboro initiative. C) For permitting: the Town currently requires electrical and building permits for solar installations with combined fees of approximately \$165. Staff turnaround time for permit requests is 1-3 days. D) Staff have included a graphic in the draft Climate Protection and Energy Plan. E) Staff (and advisory boards) have included such recommendations in their past development review comments.

#### 6. Biofuels Pump

Alderman Slade asked that staff consider supporting a biofuel pump location that is available 24 hours.

Staff response: Public Works staff contacted Piedmont Biofuels and they are not interested in relocating the current pump or installing a new pump.

#### 7. Air Conditioning Study

Alderman Slade encouraged staff to complete an HVAC study at Town Hall and Century Center. Staff response: Completing studies for the Century Center and Town Hall has been included in the 2014 CIP update and 2014/15 operating budget. The Town Hall study also addresses usability and other mechanical upgrades/renovations.

#### 8. LED Outdoor Lighting

Alderman Seils stated that the LED project has the most return on investment and seems to be the highest priority. Alderman Lavelle asked staff to check with NCDOT about their position regarding the installation of LED lights on state maintained roads. She asked the Town Attorney to research if the Town can require developers to use LED lights. *Staff response: Staff have been actively working with other local government staff, the NC League of Municipalities, and Duke Energy to move outdoor LED lighting forward as expeditiously as possible and in consideration of Town interests, and anticipate a LED rate option to be available by July 1, 2014, although the fiscal impact and timing of LED implementation are currently not known. Staff have also contacted NCDOT. NCDOT has indicated that they will allow municipal lighting installations by way of encroachment and subject to the requirements as outlined in the NCDOT encroachment manual. They suggest that the Town coordinate interests with representatives of Duke Energy and the NCDOT Lighting and Electrical Squad.* 

#### "New" Materials and Concepts in Draft Plan

A good deal of the material presented in the draft plan directly follows from the October Board meeting and subsequent activities that have been shared with the Board via the CIP and Operating Budget updates and Board-Manager memos and are not included in this memo. For those who are not able to read the whole plan, Table 1 is provided below to help in focusing on sections that may be of the most immediate interest.

Section	Торіс	Notes
in Plan		
1	Background/Context	Sets the stage and scope of the plan
2	Intro to Municipal	This section sets the stage and scope for the municipal operations section of the
	_	plan
	Sections on lighting,	These sections mostly repeat information from what was previously presented to
	assessments, facilities,	BoA and included in CIP update. The main new concepts are: controls/setpoint
	equipment/purchasing,	strategy, life-cycle costs, and purchasing policy
	and fleet	
3	Municipal Support for	These sections mostly repeat information from what was previously presented to
	Community	BoA and included in CIP update.
4	Measurement, Inventory,	Recommend: continuing to work with Chris Lazinski for municipal inventory;
	Assessment, Reporting	UNC Capstone Team for community inventory; and potentially seeking other
		external support
5	Climate Change	This section provides contextual information for climate vulnerability planning in
	Vulnerability and	the southeastern US, but does not recommend specific goals or actions for
	Adaptation	Carrboro.
6	Appendices	"New" appendices included on climate change science and global climate planning

#### Table 1: "New" Materials in Draft Plan

#### Task Force Recommendation

With regard to the potential establishment of a temporary task force to support planning efforts, the following recommendations are offered:

- 1) The sole purpose of the task force would be to prepare a report to submit to the Board of Aldermen by June, 2015 that addresses, at a minimum:
  - a. Recommendations for new actions the Town can pursue to reduce nonrenewable energy use and greenhouse gas emissions from residential and commercial buildings in Carrboro
  - b. Recommendations for new actions the Town can pursue to reduce nonrenewable energy use associated with transportation in Carrboro
  - c. Recommendations for new actions the Town can pursue to promote renewable energy in Carrboro
  - d. Recommendations for new actions the Town can pursue to better manage vegetation, soil, and impervious surfaces to capture carbon, reduce energy use in buildings, mitigate the heat island effect, and reduce stormwater runoff
  - e. Any other recommendations the task force wishes to propose related to energy use and production and climate protection
  - f. Any other recommendations the task force wishes to propose related to local resiliency in consideration of climate change.
- 2) The task force would meet in the evening on the 3<sup>rd</sup> Thursday of the month for a total of 9-10 meetings. Staff will attend meetings and support the task force with logistics including agendas and minutes. Staff and advisory boards will coordinate to minimize impact on ongoing advisory board work during this period and leverage efforts with the planned fall 2014 forum, UNC Capstone support, and online collaboration.
- 3) The Board of Aldermen would appoint members to the task force at the Board's discretion, ideally in the spring/summer of 2014. It is recommended that existing advisory board members be recruited to participate on the task force, along with other community members at the Board's discretion, with a maximum of 7 official members. The primary minimum requirement for serving on the task force is recommended to be commitment to attendance at 5 or more meetings and contribution to the drafting of recommendations.
- 4) The task force will have the latitude to plan its meetings to focus on specific topics for individual meetings, collaborate between meetings, and invite participation from outside the task force to most effectively utilize the expertise and interests in the community. The meetings would be public meetings; non-task force community members could participate in one or more given meetings/topics.
- 5) The first task of the task force would be to create a draft report outline and schedule of topics for monthly meetings to help focus and organize the task force's work. It is recommended that a final meeting be reserved to review a draft report.
- 6) The task force may wish to organize participation and subgroups around specific topics to help focus and organize the task force's work, leverage skills/expertise and interest, and facilitate participation.

#### **Recommendation**

It is recommended that the Board of Aldermen provide any review comments and approve the draft plan, along with staff recommendations: creating and working with an Energy and Climate Action Task Force; continuing to work with advisory board members to plan a fall community forum on energy and climate; planning for one or more future UNC Capstone teams to provide support to the community in climate action planning; and promoting the use of MindMixer as a tool for online collaboration for energy and climate planning.

# TOWN OF CARRBORO NORTH CAROLINA

# **ENERGY AND CLIMATE PROTECTION PLAN**

# May 20, 2014

#### **BOARD OF ALDERMEN**

LYDIA LAVELLE, MAYOR BETHANY CHANEY, ALDERMAN JACQUELYN GIST, ALDERMAN RANDEE HAVEN-O'DONNELL, ALDERMAN SAMMY SLADE, ALDERMAN MICHELLE JOHNSON, ALDERMAN DAMON SEILS, ALDERMAN

> TOWN MANAGER DAVID ANDREWS

**DEPARTMENT HEADS** 

ANITA JONES-MCNAIR, RECREATION & PARKS ANNETTE STONE, ECONOMIC AND COMMUNITY DEVELOPMENT CAROL DORSEY, HUMAN RESOURCES CATHY WILSON, TOWN CLERK GEORGE SEIZ, PUBLIC WORKS PATRICIA MCGUIRE, PLANNING TRAVIS CRABTREE, FIRE AND RESCUE WALTER HORTON, POLICE

# TABLE OF CONTENTS

1.	Васко	GROUND AND CONTEXT	1
2.	ΜυΝΙ	CIPAL OPERATIONS	6
	Α.	LED OUTDOOR LIGHTING	10
	В.	FACILITIES	
		i. Building Assessments and Ratings	11
		ii. FACILITY ENERGY EFFICIENCY	12
	C.	FLEET REPLACEMENT AND EFFICIENCY	13
3.	MUNI	CIPAL SUPPORT FOR COMMUNITY SECTOR	14
	Α.	TRANSPORTATION	
	В.	Buildings	17
	С.	RENEWABLE PORTFOLIO	
4.	URBAN	N FOREST	21
5.	MEAS	UREMENT, INVENTORY, ASSESSMENT, AND REPORTING	22
6.	CLIMA	TE CHANGE: VULNERABILITY AND ADAPTATION	23
7.	GLOSS	SARY	27

#### **APPENDICES**

I.	SUMMARY OF CARRBORO'S GREENHOUSE GAS EMISSIONS INVENTORIES AND STATUS
	FOR CITIES FOR CLIMATE PROTECTION FIVE MILESTONES

- II. SUMMARY OF RECOMMENDED ENERGY IMPROVEMENTS FOR MUNICIPAL BUILDINGS
- III. URBAN FORESTRY, CLIMATE PROTECTION, AND ECOLOGICAL AND COMMUNITY BENEFITS
- IV. SUMMARY OF SCIENCE ON CLIMATE CHANGE
- V. BACKGROUND ON GLOBAL AND NATIONAL EFFORTS TO ADDRESS CLIMATE CHANGE

# **Executive Summary**

This Energy and Climate Protection Plan has been developed as a step in supporting the Town in reducing greenhouse gas emissions, becoming more energy efficient and generating more renewable energy. The plan focuses on identifying opportunities, best practices, and planning through budgeting and the Capital Improvement Program. It has been created with a near term focus, with a goal of approximately 5-10% reduction in municipal energy use in FY 14/15-FY 15/16.

The Town is committed to energy sustainability, using the following approaches:

- a. The Town will use this plan as an initial means of articulating:
  - i. Specific near term goals and actions to demonstrate the Town's commitment to responsible energy management and greenhouse gas reductions.
  - ii. Accountability and resources for implementation
- b. The Town will plan to refine this plan in the future to guide:
  - i. Longer term measurable and achievable goals and timelines
  - ii. Additional efforts to measure, inventory, assess, and report on progress
  - iii. Additional identification of energy conservation opportunities, concept development of projects and process changes, and prioritization of improvement efforts
  - iv. Funding and staff resources to define, develop, and execute projects and process improvements
  - v. Reviews of conservation efforts and regular updates to the Plan.
  - vi. Efforts to reach out to the community to identify and pursue community scale efforts for greenhouse gas emissions reduction, increased energy efficiency and renewable energy generation.

The Town has created this plan to address energy use primarily for municipal operations but also to recognize municipal support for the community sector. Key elements of the plan for Town streets and facilities include:

- For outdoor lighting, pursuing retrofits with LED lights
- For buildings:
  - Complete energy assessments at Century Center and Town Hall
  - Retrofitting lights and installing controls and sensors to reduce electricity demand.
  - Replacing older, inefficient heat pumps and appliances with Energy Star rated units prior to their failure.
- For the municipal fleet:
  - Pursue grant funding for a solid waste vehicle
  - Increased foot patrols/reduced vehicle idling
  - Supplementary battery systems.
  - Continued downsizing/rightsizing of vehicles
  - Potentially converting some vehicles to liquid propane (LP) gas (or another alternative fuel)

- Supporting practices that reduce the net consumption of fossil fuels, and increase the use of more sustainable energy sources.
- For public facilities and right-of-ways:
  - Inventory trees and develop and implement tree plans

For the Town's support of the community sector, the following recommendations are presented:

- Community Buildings
  - Explore and pursue opportunities for community outreach
  - Continue the Energy Efficiency Revolving Loan Fund for businesses
- Community Transportation
  - Commit local matching funds for greenways
  - Support Safe Routes to School Implementation Committee
  - Plan for increased transit service connections; car and bike sharing; walkability; carpooling and other TDM strategies
  - Consider GHG emissions in efforts such as parking and long-range transportation plans
- Expand upon efforts to promote renewable energy
  - Identify municipal host sites
  - Pursue outreach to identify investors
  - Continue to support Solarize Carrboro
- Urban forestry
  - Complete tree canopy analysis, and resource assessments and develop a community forestry master plan
- Continue collaboration with Orange Water and Sewer Authority, Orange County, Chapel Hill Transit and others.

In addition to presenting these recommendations for actions for the Town to pursue in the next 1-2 years, this plan includes a section on climate change adaptation and appendices with additional contextual information.

## **Background and Context**

This Energy and Climate Protection Plan is premised on reducing greenhouse gas emissions, becoming more energy efficient and generating more renewable energy. It recognizes the profound and unprecedented global reality of a changing climate and imperative for a healthier relationship with planetary cycles. This is the biocentric or ecocentric, life-affirming perspective. While pursuing this plan will reduce greenhouse gas emissions and environmental impacts, it is also motivated by significant anthropocentric (human) needs for strong local economies, resilience, human health, and societal benefits. Examples of relevant human needs include:

- Lower transportation and building operating costs
- Better environmental quality and a more livable, healthier community
- Insulation against future price hikes
- Retention of local dollars
- Energy independence

#### Vision & Guiding Principles

A premise of this plan is that the Town of Carrboro strives toward responsible energy management and climate protection in its policies and operations, and aims to demonstrate leadership to the community by the following guiding principles:

- Engaging and educating employees and the community about the challenges climate change presents and driving a collaborative process to implement innovative solutions.
- Promoting inter-departmental collaboration for short and long-term solutions to enhance the Town's organizational excellence and financial efficiency.
- Modeling responsible energy management through efforts in energy efficiency and renewable energy generation.
- Addressing climate change through strategic management of our Town facilities, transportation resources, infrastructure, and land use planning.
- Supporting continued development of a diverse, vibrant, local green economy.
- Measuring, monitoring and communicating the Town's progress toward a defined goal set.
- Partnering and collaborating with other public, private, and nonprofit organizations in harmony with these principles.

Can we meet the needs of the present without compromising the ability of future generations to meet their own needs?

The" Triple Bottom Line" balances environmental stewardship, economic growth and social responsibility.

from Asheville Sustainability Management Plan While this plan is a report to and for the community, its focus is on the municipal operations that the Town administers. This is the sector where the Town has the most responsibility and control. Given that climate protection, energy efficiency and generation, local living economies and many other community interests cannot be fully pursued within a limited jurisdictional and administrative context, this plan should also be considered within a larger context. Local government operations occur within the larger community scale and regional/state/national/global context. Values such as job creation, greater energy security and influence over energy choices, enhanced potential for public-private partnerships, and increased livability, while not being the focus of discussion in this plan, are important drivers and components for the long term success of the plan. Collaboration with a variety of public and private partners will

continue to be extremely important in pursuing the goals of climate protection and energy planning, and requires foresight and initiative at many levels. It is beyond the scope of this plan to attempt to fully articulate the details of this larger collaboration; this plan is intentionally focused on Town operations.



#### Planning Focus: Local Government

The U.S. Department of Energy has developed a "Guide to Community Strategic Energy Planning" that identifies two types of planning efforts: one focusing on the government operations and one focusing on the community at large. The former: includes a focus on government buildings, facilities, infrastructure, operations, and transportation; concentrates on activities for which the government has direct influence – personnel, operations, planning, and budgeting – which means tighter control over implementation. The latter (community-wide plan) is a broader plan to also include activities for the entire community that: expands the focus to include energy saving activities across the jurisdiction (residential, commercial, industrial, transportation, and other sectors) of the broader community; recognizes that, while local government actions can greatly influence, energize, and leverage effective activities in the broader community, the government has less direct control over these activities in comparison to a government-only plan. This plan focuses on the former (Local Government Operations), and also attempts to make some progress on the latter (Community Energy Activities).

#### **Building on Past Efforts**

This plan is the next step in over a decade of consideration of climate protection and energy planning in Carrboro. The Town has been involved in activities associated with inventorying greenhouse gas emissions and planning for and pursuing emissions reductions since 2001, when the Board of Aldermen adopted a resolution pledging the Town's commitment to reduce greenhouse gas emissions, improve air

quality and save energy through joining the Cities for Climate Protection (CCP) program. The Town participated with other local governments and ICLEI – Local Governments for Sustainability (an international association of local and regional governments dedicated to sustainable development) to develop a Greenhouse Gas Emissions Inventory for Orange County. Additionally, the Town is a signatory to the U.S. Conference of Mayors' "Mayors' Climate Protection Agreement" (see Appendix V for more information). Participating cities in the Agreement serve as conduits to spur local and state action in order to reduce global warming. In the Vision 2020 document, the Town adopted "sustainable" and "green" goals, objectives, and action items, ranging from sustainable land use patterns to reduced energy consumption.

In 2009, the Board of Aldermen passed a resolution resolving that the Board "will seek, and will facilitate the community at large, to cut CO2 emissions by its proportion of the amount which is required to stabilize the climate back to <350 ppm of  $CO_2$  ...", and asks staff to evaluate how to achieve this target for municipal operations and the community. This plan is a step towards pursuing this charge, while recognizing it is more responsive for municipal operations than for the community at large.

Also in 2009 Carrboro joined 33 other communities in achieving the NC League of Municipalities Green Challenge "Advanced" level. In 2011 A UNC Capstone Team partnered with the Town to complete a Greenhouse Gas Emissions Inventory focusing on Carrboro. In April 2012, a detailed municipal emissions inventory using local data was completed, with a recommendation that the Town "investigate the financial costs of implementing a GHG reduction policy across all Town operations with a goal of reducing emissions 2% of 2007 levels annually through at least 2025. If the costs are found to be acceptable, then it is recommended that the Town implement the policy in order to further the Town's stated goals of environmental stewardship and "leading by example"". This inventory was updated in the spring of 2013, with the Board requesting at its June 18<sup>th</sup>, 2013 meeting that staff also look into the implications of a 7% annual reduction in emissions. At its October 8<sup>th</sup>, 2013 meeting, the Board reviewed staff efforts to initiate this plan, and provided the direction to prepare this plan. Additional details regarding past efforts, the science and global context of climate change and protection are provided in sections and appendices of this plan.

#### **Organization of Plan**

The organization of this plan reflects the goals and historical foundation discussed above and the opportunities Town staff have been able to identify in this initial plan. The recommendations provided focus on tractable and specific areas of near term emphasis especially for municipal operations (and to a lesser extent for the broader community), and plans to pursue projects through the operational budget and Capital Improvement Program. The need for a longer term, more comprehensive plan is acknowledged. The focus for this plan is more immediate and tractable, i.e., what are the priorities for in the next 1-2 years.

Climate change is not an abstract problem for the future or one that will only affect fardistant places.

Rather, climate change is happening now, we are causing it, and the longer we wait to act, the more we lose and the more difficult the problem will be to solve.

Center for Biological Diversity The local government operations section of the plan addresses outdoor lighting, facilities, and the municipal fleet. The municipal support for the community section of the plan addresses community transportation, buildings, renewable energy, and the urban forest. A discussion is also provided on climate vulnerability and adaptation. Sections are presented in a common format as presented in the graphic below.

# LEGEND

## DESCRIPTION

What is proposed?

## BASIS

Why is this being recommended?

### BREAKDOWN

How will this be accomplished?

## LEAD DEPARTMENT

Which department is taking the lead?

## INTERNAL COORDINATION

Who will be involved on staff?

## **EXTERNAL COORDINATION**

Who else will be involved?

## **RESOURCES REQUIRED**

What is needed? Is it in the CIP? What year? Is it budgeted for next year?

CIP: CIP YEAR:

2014/15 BUDGET: 🗌

PAYBACK PERIOD	0-5 YEARS	5-10 YEARS	<b>10-15 YEARS</b>	<b>15-20 YEARS</b>	>20 YEARS
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# **Municipal Operations**

#### Introduction

The motivation for the Town to invest in municipal energy efficiency are many:

• Efficiency can *reduce greenhouse gas emissions and other air pollutants*, an important objective for addressing climate change and environmental health concerns.

• Improvements in the energy efficiency of local government operations (e.g., buildings, vehicle fleets) can reduce *maintenance and operating costs* and may *reduce or avoid capital costs*. These avoided costs can, in turn, *decrease or prevent increases in local taxes*, and allow for those funds to be spent elsewhere, which can result in *more investment in the local economy*.

• Efficiency can *improve local energy security* by decreasing demand for resources from outside the community.

• Improvements demonstrate the principal of *"leading by example"*, resulting in increased interest from the community.

At the same time, Carrboro faces challenges that are particularly noteworthy for a small town with aging building stock and modest access to capital relative to many larger jurisdictions.

Some of the challenges to comprehensively addressing energy efficiency are as follows:

• **Upfront capital cost:** With limited access to capital, the size and number of potential projects is more limited.

• Looking for quick payback period: A common approach is to choose measures that will pay for themselves quickly — the low-hanging fruit. There is a common tension between the limited number of projects with quick paybacks and the larger number of projects with both large capital and extended payback periods. This is where lifecycle cost analysis comes into play, as long-lived infrastructure can generate significant cost savings when measured over years of operating life.

• Lack of reliable information on energy expenditures and potential savings: The Town has only recently been able to more rigorously track energy usage, and does not have more comprehensive and detailed information on potential energy savings. Without this knowledge, it is difficult to determine where the most energy is being wasted, what the potential for savings are, and where opportunities lie. This is why projects identified to date are of the "low hanging fruit" variety, but not as comprehensive as needed.

The U.S. EPA recommends the following key approaches for assessing baseline building energy performance in existing buildings:

• Use available, standardized tools and audit protocols for baseline energy consumption assessments. For example, ENERGY STAR'S Portfolio Manager is an online tool that can be used to assess baseline energy performance in existing buildings and compile data across a portfolio of buildings.

• Benchmarking involves comparing a building's energy performance to the performance of similar buildings. The most meaningful benchmark comparisons compare buildings that operate in nearby areas or, at minimum, under similar climate conditions. It is best to perform records-based benchmarking over a two-year period, at minimum, to eliminate the effects of unusual weather conditions.

• Conduct technical assessments and audits. In addition to establishing baseline energy performance and determining a building's relative performance compared to its peers, a thorough energy performance assessment includes comparing the actual performance of a building's systems and equipment with its designed performance level or the performance level of top-performing technologies. These technical assessments can be conducted as part of a whole-building energy audit conducted by an energy professional and used to identify priority energy efficiency investments. If not bundled into the equipment cost, walk-through audits (ASHRAE Level I) are frequently priced at \$.02-\$.05 per square foot. Level II audits are frequently priced at \$.10-\$.15 per square foot. Investment grade audits (ASHRAE Level III) are frequently priced at \$.20-\$.30 per square foot, a sum that may vary depending on the complexity of the modeling to be performed.7

An investment-grade audit will determine which energy efficiency measures are cost-effective over a reasonable time horizon (often between 10 and 20 years). Targeted areas typically include building heat losses and excess energy consumption from older equipment. Recommendations can include simple items like insulation, window replacements, lighting replacements, boiler and chiller upgrades or replacements, high efficiency motors and variable frequency drives on pumps, and energy management control systems. Energy audits can also focus on local government services and operations such as for street lights and fleets.

Best practices for energy audits and retrofit installation include the following:

• Use qualified professionals. Energy audits are best performed under the direction of a professional or firm specializing in energy audit activities. Individuals qualified to perform energy audits may include licensed professional engineers, certified energy managers, or commissioning authorities. Firms qualified to conduct building energy audits include energy service companies (ESCOs), building engineering companies, and building energy consulting companies.

In the case of retrofits involving significant capital improvements, it is often wise to engage a third-party construction manager to ensure that the retrofit is taking place according to plan. It is wise to scrutinize the credentials of proposed service providers and to require multiple bids before selecting vendors. Local governments that lack a sufficiently trained staff to vet vendors might wish to contract with a third-party expert to help select vendors.
#### Past Efforts

For Town operations, the Town has taken the following steps in the past. In 2008 and 2009, the Town partnered with Waste Reduction Partners, a program sponsored by the State and Triangle J COG, to perform an energy audit of Town buildings (Century Center, Town Hall, Fire Station #1, Public Works). The Town also worked with Big Woods Engineering in 2009-2010 to identify lighting and HVAC retrofits that could be pursued through the Energy Efficiency Conservation Block Grant program administered by the State Energy Office for these four buildings.<sup>1</sup> Both of these efforts can be considered as "walk through audits".

The Town also designed the new fire substation on Homestead Road to LEED silver standards. In the past several years, Public Works staff has been replacing older (T-12 fluorescent) lighting ballasts and bulbs with higher efficiency (T-8) ballasts and bulbs. Public Works staff estimate that 40% of these fixtures have been upgraded to date. Other incremental steps have also been pursued, such as installation of programmable thermostats, a community solar project at the Town Commons, and contributions (\$80/month) for renewable energy to NC Green Power. The Town has also taken steps for the municipal fleet to reduce emissions, use alternative fuels, and save on operational expenses. Examples include: purchasing hybrid vehicles; implementation of 2007 emissions standards phased in over several years; downsizing/rightsizing of vehicle purchases; adoption of idling policy; and a fuel conservation initiative. Beginning in 2014, the Town is formalizing commitment to sustainability and energy measures in Capital Improvement and Operating Budget annual updates.

#### **Collaboration and Partnerships**

While not being formally part of Carrboro municipal operations, entities that the Town cooperates with are important partners for energy and climate action efforts. Perhaps the two most important of these are OWASA and Orange County. OWASA's water conservation efforts are important for energy conservation, as every gallon conserved is a gallon that is not pumped and treated. OWASA staff estimate that, for every 1000 gallons of treated water and sewage conserved, 7.5 kilowatt hours (kWh) of energy/electricity are also saved, which is equivalent to the energy generated by the solar array at Town Commons for 1.5 hours. In addition, OWASA is pursuing opportunities to reduce energy use and costs e.g., by replacing older mechanical equipment with more efficient units, installing more efficient lighting and temperature controls, and using renewable energy sources instead of conventional fuels. Work is underway to install more energy efficient treatment wastewater treatment equipment, which will reduce electricity usage by about 20 percent when the project is completed later this year. OWASA has recently presented a strategic plan which includes the development and implementation of an energy management plan to further reduce energy use. For solid waste, Orange County is recognized as being number one in the state for waste reduction, reaching 59% of its 61% reduction goal. The County is disposing 0.56 tons/person compared to the base year of 1991-92, when the disposal rate measured 1.36 tons. Waste reduction benefits emissions reductions both through reductions in methane (a potent greenhouse gas which is being captured at the landfill) and reduced emissions

<sup>&</sup>lt;sup>1</sup> The grant application was not funded because criteria favored economically disadvantaged communities; more information on measures recommended is available in Appendix II.

associated with hauling. The Town is faced with an emission reductions challenge with the closure of the landfill on Eubanks Road given the longer transport to the transfer station and out-of-county landfill. Another partner worth mentioning is Piedmont Biofuels (PBF) Cooperative; the Public Works facility has been hosting a community biodiesel pump run by PBF since 2004, with this pump being one of the earliest on the "B100" trail, and the supply chain for the fuel produced being provided from carbon neutral local sources. In 2012, the Town collaborated with Carrboro Community Solar to install a photovoltaic system at the Town Commons. In 2013/14, the Town has been providing logistical support to a nonprofit, Next Climate, Inc. to pursue "Solarize Carrboro" to encourage homeowner installation of solar electricity.

#### Steps Presented in This Plan

The sections that follow provide recommendations for the Town to pursue in the next 1-2 years with municipal operations to improve energy efficiency. A high priority action is to work with utility providers (Duke Energy and Piedmont Electric membership Corporation) to replace existing streetlights and area lights (currently leased from utility companies) on Town maintained property with LED fixtures. Other recommended actions include: completing studies and assessments of the Century Center HVAC system and Town Hall; improving energy use and management in buildings and equipment through energy savings capital and operational improvements; and pursuing fleet initiatives such as grant funding for more efficient vehicles, increased foot patrols/reduced vehicle idling, installing supplementary battery systems and continued downsizing/rightsizing of vehicles; and potentially converting some vehicles to LP gas (or another alternative fuel). It is also recommended that the Town continue to annually report on its municipal greenhouse gas emissions inventory to track changes in energy use, and consider other approaches for measuring, assessing, and reporting on energy use and emissions.

#### Referenc es

Some of this introduction is excerpted from:

USEPA Environmental Financial Advisory Board. January, 2014. Municipal Energy Efficiency and Greenhouse Gas Emissions Reduction: Financing and Implementing Energy Efficiency Retrofits in City-Owned Facilities. <u>http://www2.epa.gov/sites/production/files/2014-</u>02/documents/municipal engergy efficiency and ghg emissions reduction.pdf

See also:

ACEEE. "Fact Sheet: Energy Efficiency Policies for Local Governments." Available at: <u>https://www.aceee.org/fact-sheet/local-government-ee-policy</u>

# **2.A LED Outdoor Lighting**

#### DESCRIPTION

The proposed emphasis with outdoor lighting is to replace existing streetlights and area lights (currently leased from utility companies) on Town maintained property with LED fixtures. Because the Town does not own the lights, the timing of how quickly the Town may be able to pursue replacement with LED lights is currently unknown. The initial plan is to replace the roughly 700 fixtures on Town streets starting in FY 14-15 and complete the project in FY 2015-16. The remaining 200 fixtures on State (NCDOT) roads will require state approval with less certainty about a probable time frame. A rate structure for LED replacement of high pressure sodium (the predominant type of fixture in the current inventory) and metal halide under a utility owned option is currently under development. If a rate option and structure is made available that allows the Town to own street light fixtures, the Town will have an option of taking over ownership. The replacement timing and payback should become clearer in the summer of 2014.

#### BASIS

LED lights typically last over 100,000 hours, or 20+ years, and feature a "plug and play" electrical system which lowers maintenance costs. The LED lamps would be owned by the Town, rather than leased from the utility company, which would result in operational savings. LED lighting is much more efficient than current standard lighting fixtures, yielding a relatively short payback period for capital investment (3 years or less). The cost of LED lighting is also dropping rapidly, suggesting more favorable financial benefits. Street lighting is a large contributor to all municipal emissions (22%). It is anticipated that the LED streetlights would have a relatively rapid payback that could result in roughly a 10% municipal footprint reduction for the year(s) in which fixture replacement occurs.

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#### BREAKDOWN

- Develop and implement comprehensive streetlight replacement plan
- Replace streetlights first on Town property and then on State roads
- Coordinate with Duke Energy, PEMC, and NCDOT, and perform community outreach

#### LEAD DEPARTMENT

Public Works

#### INTERNAL COORDINATION

Outdoor lighting workgroup

#### **EXTERNAL COORDINATION**

Utility providers; contractors

#### **RESOURCES REQUIRED**

\$262k (preliminary estimate if customer owned option available); contract support

CIP: ⊠ CIP YEAR: 2014/15, 15/16 2014/15 BUDGET: ⊠

The City of Asheville has determined that LED streetlight replacement to be the best investment for meeting greenhouse gas and sustainability goals.

PAYBACK PERIOD	0-5 YEARS	5-10 YEARS	<b>10-15 YEARS</b>	15-20 YEARS	>20 YEARS

# **2.B.i Building Assessments and Ratings**

**DESCRIPTION:** Building energy assessments and ratings are valuable tools to determine the scope, costs, and energy and operational savings for future improvements and compare building energy use to other comparable buildings. In 2008 and 2009, the Town partnered with Waste Reduction Partners to perform an energy audit of Town buildings. The Town also worked with Big Woods Engineering in 2009-2010 to identify lighting and HVAC retrofits.<sup>1</sup> Carrboro could also work with a contractor to determine improvements needed for Town buildings to become an USEPA Energy Star<sup>™</sup> partner organization, and in doing so, participate in Portfolio Manager, EPA's online tool to award the Energy Star<sup>™</sup> designation. An Energy Star<sup>™</sup> facility meets strict energy performance standards, is less expensive to operate, and causes fewer GHG emissions than its peers. To qualify for the Energy Star<sup>™</sup> designation, a building must score in the top 25 percent based on EPA's National Energy Performance Rating System. Carrboro has not used the Portfolio Manager system, and doing so will require outside assistance because of limited staff time and expertise.

#### BASIS

Performing an energy assessment or audit is a crucial step to assessing and improving energy efficiency. There are many types of assessments that can be performed, ranging from 'walk-through audits' to more comprehensive 'process audits. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) refers to benchmarking as a process that involves collecting facility energy data, reviewing energy bills, and comparing the facility's energy consumption with similarly-sized facilities using similar processes. EPA recommends all facilities use Portfolio Manager or another benchmarking tool. Through analysis of the buildings in Portfolio Manager and in concert with building assessments, targeted energy conservation projects can be identified and demonstrate the energy benefits of the projects.

#### TASK BREAKDOWN

Complete study/assessment of Century Center HVAC system in FY 14/15

Complete study/assessment of Town Hall in FY 14/15

Consider other future building assessments beginning in FY 15/16

### LEAD DEPARTMENT:

Public Works

#### **INTERNAL COORDINATION**

**Buildings Energy Workgroup** 

### **EXTERNAL COORDINATION**

Contract support

#### **RESOURCES REQUIRED**

\$65k in FY 14/15 operating budget for Century Center, Town Hall studies (Town Hall includes nonenergy items)

CIP: O CIP YEAR: FY 14/15, 15/16

# 2014/15 BUDGET: 🛛

<sup>1</sup> See Appendix II for additional information

Payback to be determined as part of assessments

PAYBACK PERIOD	0-5 YEARS	5-10 YEARS	<b>10-15 YEARS</b>	15-20 YEARS	>20 YEARS
			11		

# **2.B.ii Facility Energy Efficiency**

**DESCRIPTION:** Energy efficiency in facilities applies to efforts to reduce energy consumption capital and operational improvements. Retro-commissioning projects ensure that existing building systems operate well considering their current use. Occupant behavior change is goal of communications strategies which encourage conservation. Improved controls involve measures such as upgraded thermostats, occupancy sensors, and enforcement of a setpoint policy, including carefully monitoring setpoints for unoccupied buildings for evenings, weekends and holidays. Life-cycle cost analysis incorporate energy conservation/ efficiency into the decision-making process for capital decisions to gain a full understanding of total cost over the useful life of project or equipment. Public utility incentives are available to subsidize costs for selected improvements. The Town can develop a policy requiring that Energy Star™ qualified products are chosen for purchases such as Information technology can continually be evaluated and operated for energy efficiency improvements Operation and maintenance best practices can continually be considered to identify procedures that consider and encourage equipment efficiency.

**BASIS:** Installation of more energy efficient measures, controls along with policies and strategies can reduce energy use and utility costs. Cost savings can potentially be reinvested. Significant reductions in energy use also means reductions in greenhouse gas emissions. Improvements may also allow for indoor air quality improvements that may not otherwise have been possible due to funding constraints. Retro-commissioning can produce significant cost savings, reduce energy waste, improve system operation beyond preventive maintenance and potentially yield a payback of less than 3 years. A more rigorous setpoint control procedure could significantly reduce energy waste and operating cost. Additional benefits could include avoided accelerated equipment degradation, and extended equipment life. Energy Star™ results in reductions in energy use without compromising and potentially improving quality and performance. Lowest life cycle cost is the most straightforward and easy-to-interpret measure of economic evaluation.

#### BREAKDOWN

Retro-commissioning: Century Center, Town Hall Internal staff communications Controls and setpoint strategy Life-cycle cost analysis Review purchasing policies/modify language Gather energy savings data when replacing existing equipment

# LEAD DEPARTMENT

Public Works/Management Services

# INTERNAL COORDINATION

Department Heads, Administrative Staff, Buildings Energy Workgroup

# **EXTERNAL COORDINATION**

Contract support/vendors

# **RESOURCES REQUIRED**

Studies of Century Center HVAC and Town Hall in FY 14/15 will help determine.

**CIP: CIP YEAR:** 2014/15-16/17

>20 YEARS

# 2014/15 BUDGET: 🛛

**15-20 YEARS** 

#### PAYBACK PERIOD

0-5 YEARS 5-10

**5-10 YEARS 10-15 YEARS** 

# **2.C FLEET REPLACEMENT AND EFFICIENCY**

**DESCRIPTION:** Historically, the Town has taken steps for the municipal fleet to reduce emissions and save on operational expenses. Examples of practices include: purchasing hybrid vehicles; implementation of 2007 emissions standards; downsizing/rightsizing of vehicle purchases; adoption of idling policy; and a fuel conservation initiative. Data has demonstrated that carbon emissions from the fleet have decreased. As older vehicles are replaced with newer, more efficient models, this trend should continue. Based on early information for FY 13/14, the increase in emissions due to transporting solid waste to Durham may not be as large as expected. For FY 14-15, if vehicles are replaced, added and deleted as planned, the vehicle fleet should produce 658.19 MTCDE, a decrease of 2.09% from FY12-13. That metric assumes the removal of two vehicles from the fleet, the addition of one fuel-using vehicle (a Vacuum Leaf Loader that performs the work currently requiring four pieces of equipment), the replacement of police vehicles with newer, more-efficient vehicles and a more efficient Fire Engine. Additional opportunities to decrease GHG emissions in the Town's fleet in FY14-15 include potential grant funding for a hybrid MSW collection vehicle (decreasing emissions to 653.41 MTCDE or a reduction of 2.81% from FY 12-13 levels); increased foot patrols and reduced vehicle idling in the Police Department; and use of supplementary battery systems in Police vehicles that allow the vehicle's systems to run without the engine. The Town participates in the Triangle Clean Cities Coalition which provides grant funding, technical assistance, and networking opportunities. Additional strategies under consideration for future years include downsizing/rightsizing vehicles up for replacement and converting portions of the fleet to LP gas (or another alternative fuel).

**BASIS:** The fleet is responsible for about 1/3 of the Town's total municipal sector emissions; a more efficient fleet is therefore an important component of climate and energy planning. Increased efficiency has the potential to also provide positive fiscal impacts such as reduced operating costs and life cycle costs. Replacement vehicles

should be acquired with the goal of minimizing operational costs by replacing the vehicles in a timely manner.

#### BREAKDOWN

Implement CFAT grant award for municipal solid waste vehicle

Increased foot patrols/reduced vehicle idling

Supplementary battery systems.

Continued downsizing/rightsizing of vehicles

Potentially converting some vehicles to LP gas (or another alternative fuel; future years)

# LEAD DEPARTMENT

Manager's Office and Department Directors

# INTERNAL COORDINATION

Fleet Workgroup

# **EXTERNAL COORDINATION**

Vendors; Clean Cities Coalition; NC Solar Center

# **RESOURCES REQUIRED**

Equipment financing annually updated

CIP: 🛛	CIP YEAR: All
2014/15 B	UDGET: 🛛

#### 5 police vehicles to be purchased in FY 14/15 will be equipped with a Havis Idle Manager to allow officers to pursue critical work without the engine.

PAYBACK PERIOD0-5 YEARS5-10 YEARS10-15 YEARS15-20 YEARS>20 YEARS

# **Community Sector**

#### Introduction

While it is difficult to quantify, the community transportation sector is perhaps the sector in which the Carrboro has made the most progress in addressing and reducing energy usage historically. To provide alternatives to vehicle use in general, the Town has been a partner in the State's most ambitious and successful (and fare free since 2001) transit program (Chapel Hill Transit) for several decades. The system provides over 7 million rides per year. The Town contributes about \$1M annually to the operation of the system, or about 5% of the Town's annual budget. In addition to the high ridership, higher efficiency busses are being employed in the fleet, with 15 new hybrid busses acquired in 2013 (one third of the fleet is now employing hybrid technology), and solarizing lighting at bus stops has also been pursued. The Town has also been assertively supporting bicyclists and pedestrian for many years, with the Town being recognized as a "Silver" level bicycle friendly community by the League of American Bicyclists. (Carrboro is one of a handful of communities, and the smallest, east of the Mississippi River to receive this designation.) The Town has promoted walkability and bikability through the Safe Routes to School Action Plan, bicycle facilities<sup>1</sup>, and sidewalks and greenways with support from a bond passed in 2003. The Town continues to pursue other measures (e.g., transportation demand management, transit-oriented/mixed use land use planning, participation in regional transit efforts, road connectivity, alternative fuels) to reduce community vehicle miles traveled and emissions and encourage alternative transportation modes. A relatively recent area of focus relevant to community transportation has been working to expand affordable housing options for workers employed in and near Carrboro that currently commute long distances, in part because of high local housing costs.

With support from federal stimulus funds, Carrboro pursued efforts in the past several years to reduce energy use in buildings in the community through establishment of the "Worthwhile Investments Save Energy" (WISE) program. During the recently ended grant period, the Carrboro WISE program: provided commercial loans to local businesses through the Energy Efficiency Revolving Loan Fund (EERLF); provided incentives for 18 single-family home and two multifamily complexes energy efficiency retrofits; reached over 200 additional citizens in Chapel Hill and Carrboro through a grass roots energy efficiency outreach and education campaign; and trained home performance contractors to be Home Performance with Energy Star certified contractors.

#### Steps Presented in This Plan

The sections that follow provide recommendations for the Town to pursue in the community to improve energy efficiency, support renewable energy, and pursue urban forestry efforts that have energy efficiency, climate protection, and other benefits. For community transportation, it is recommended that the Town continue initiatives underway and more explicitly consider energy and climate protection in transportation-related planning. For community buildings, it is recommended that the Town continue

<sup>&</sup>lt;sup>1</sup> e.g., bike lanes, sharrows, multi-use paths, paved shoulders

to offer and promote energy efficiency loans to businesses through the Energy Efficiency Revolving Loan Fund (EERLF), to support community volunteers ("Elite Petes") trained by Clean Energy Durham, and to support Solarize Carrboro. To support renewable energy, Town staff will continue to work with Solarize Carrboro. Further involvement with community solar projects will require additional dedication of resources and/or initiative from the community in pursuing a project in collaboration with the Town. Further urban forestry efforts are recommended to provide climate protection and energy benefits, and also recognize the many other benefits of urban trees. Ongoing measurement, inventory, assessment, and reporting is also recommended, which will require support through collaboration (as has been done in the past) with UNC potentially others.

# **3.A Community Transportation**

#### DESCRIPTION

The Town has historically been active in the community transportation sector. No significant new direction is recommended in this plan; it is recommended that initiatives underway are continued and energy and climate protection is more explicitly considered in transportation-related planning. The Town has been a partner in Chapel Hill Transit, which is an alternative to automobile use. The Town has also been assertively supporting bicyclists and pedestrians for many years through the construction of bicycle facilities, sidewalks, and greenways. The Town adopted a bicycle plan in 2009 and a Safe Routes to School action plan in 2012. The Town also continues to pursue transportation demand management, transit-oriented/mixed-use land use planning, participation in regional transit efforts, road connectivity, and alternative fuels. A step that is included in Town planning documents and worth emphasizing for its climate protection/energy benefits is to identify local matching funds to allow greenway design work for Bolin Phase 2 and Morgan future phases to proceed. With the expiration of grant funds, it is also recommended that the Town offer support for Safe Routes to School implementation.

#### BASIS

Conceptually, changes in energy use and greenhouse gas emissions for the community transportation sector are directly associated with: changes in population; changes in vehicular use per capita; and changes in technology affecting energy use and emissions. These in turn are affected by factors such as alternatives available, infrastructure, land use, and economics. Quantifying the GHG footprint associated with vehicular use in Carrboro is difficult. A UNC Capstone team (2011) pursued this using a regional transportation model (RTM). The Durham-Chapel Hill-Carrboro Metropolitan Planning Organization (DCHC-MPO) uses the Triangle Regional Model, a unified four-step travel demand model that estimates vehicle miles traveled (VMT) based on trip generation, trip distribution, mode choice and route assignment. Some MPOs also employ models that estimate GHG emissions.

#### BREAKDOWN

- \* Commit local matching funds for greenways
- \* Support Safe Routes to School Implementation Committee
- \* Plan for: increased transit service connections; car and bike sharing; walkability; carpooling and other TDM strategies
- \* Consider GHG emissions in efforts such as parking and long-range transportation plans

# LEAD DEPARTMENT

Planning

#### INTERNAL COORDINATION

Community Transportation Workgroup

#### **EXTERNAL COORDINATION**

MPO, transit agencies, NCDOT, Chapel Hill

#### **RESOURCES REQUIRED**

Support for the above actions

CIP: CIP YEAR:2014-2020 2014/15 BUDGET: C

>20 YEARS

		— payback dif	ficult to determine	$\rightarrow$	
PAYBACK PERIOD	0-5 YEARS	<b>5-10 YEARS</b>	<b>10-15 YEARS</b>	<b>15-20 YEARS</b>	

"Dear future generations. Please accept our apologies. We were running drunk on petroleum" -Kurt Vonnegut

# **3.B Community Buildings**

# DESCRIPTION

For three years and with support from federal stimulus funds, the Town pursued energy efficiency in buildings through the WISE (Worthwhile Investments Save Energy) program. WISE: provided loans for businesses and incentives for single-family homeowners and multifamily complexes; reached over 200 additional citizens through a grass roots energy efficiency outreach and education campaign designed by Clean Energy Durham; and trained home performance contractors to be Home Performance with Energy Star certified contractors. Now that the grant and program has ended, the Town has a new challenge: how to maintain the momentum created by the WISE program without the federal support. Two modest next steps envisioned for sustaining the initiatives established with the WISE program are to continue to offer and promote energy efficiency loans to businesses through the Energy Efficiency Revolving Loan Fund (EERLF) and to support community volunteers ("Elite Petes") trained by Clean Energy Durham, and the Solarize Carrboro initiative.

#### BASIS

The U.S. Green Building Council (USGBC) provides statistics which indicate that, nationally, buildings account for 40% of primary energy use, 72% of electricity consumption and 39% of  $CO_2$  emissions. Studies have determined that improving buildings can reduce energy use and  $CO_2$  emissions by up to 50%. Community buildings are the largest single contributor to the community greenhouse gas footprint, with electricity consumption estimated to contribute about six times as much as natural gas consumption. The utilities providing electricity continue to rely on coal, along with nuclear energy, for a significant portion of the energy supply. An emphasis on community buildings, and particularly on electrical consumption, is therefore an essential component of energy and climate protection planning in Carrboro. At a municipal level, however, the Town has limited legal authority and responsibility for the energy supply and efficiency of private buildings, and also limited capacity. The current best options available include support for outreach and education and promoting the EERLF.

#### BREAKDOWN

- Explore opportunities to maintain grass roots outreach; support Solarize Carrboro
- Update website
- Continue to offer loans through the EERLF and explore ways to promote the loan program

# LEAD DEPARTMENTS

Planning and Economic and Community Development

### INTERNAL COORDINATION

**Community Buildings Workgroup** 

# **EXTERNAL COORDINATION**

Businesses, Elite Pete volunteers, Next Climate, Inc.

# **RESOURCES REQUIRED**

Small operating and outreach budget

CIP: CIP YEAR:

# 2014/15 BUDGET: 🛛

**15-20 YEARS** 

**PAYBACK PERIOD** 

0-5 YEARS 5-1

**5-10 YEARS 10-15 YEARS** 

# **3.C Renewable Portfolio**

**DESCRIPTION:** Renewable energy sources include photovoltaics, solar thermal, wind, and geothermal heat. To be financially competitive, "renewables" take advantage of federal and state tax credits, renewable energy credits and accelerated depreciation. As a municipality, Carrboro cannot take advantage of these incentives alone. As a pilot project to investigate alternatives, the Town partnered with Carrboro Community Solar in 2012 for a small-scale (5kW) solar electric system at the Town Commons. The community investing model results in an "average" breakeven return for private investors in 5-6 years, and a free or bargain system for the Town after 5-6 years with revenue generating ability from the sale of electricity. In the community sector, the "Solarize" model is currently being tested to encourage homeowners to install solar electric systems. <a href="http://www.solarizenc.org/">http://www.solarizenc.org/</a>

**BASIS:** Currently, cost-effective integration of renewable energy is dependent upon partnerships with private sector investors who can take advantage of the available tax credits and depreciation for installing renewable systems, and funnel their tax liability towards renewable energy. North Carolina is currently a progressive state regarding these credits, and when coupled with the federal tax credits, renewable energy becomes much more cost-effective. It is worth noting that these credits are not indefinite and will need to be renewed in the next two years to continue to incentivize renewable energy. A non-monetary "value" should also be placed on renewable energy development in Carrboro. Using installed systems for demonstration can provide Carrboro a "value-added" characteristic to pursue outreach about the importance of renewable energy. Into the future, a mix of solar energy with conventional energy will also reduce the overall utility cost for the Town.

#### BREAKDOWN

Community Solar Project:

- Identify municipal host site(s)
- Pursue outreach to identify investors

Enter into lease agreement for system



Continue to support Solarize Carrboro

### LEAD DEPARTMENT

TBD

INTERNAL COORDINATION

TBD

**15-20 YEARS** 

#### **EXTERNAL COORDINATION**

Private investors

# **RESOURCES REQUIRED**

Consider contract support for community investing

CIP: CIP YEAR:

**>20 YEARS** 

# 2014/15 BUDGET: 🗆

PAYBACK PERIOD

**0-5 YEARS 5-10 YEARS 10-15 YEARS** 

*"Community is the secret ingredient of sustainability" –Nick Meima and Abraham Paiss.* Second graphic Courtesy of Appalachian Institute for Renewable Energy: www.aire-nc.org

# **3.C Renewable Portfolio**

The Town collaborated with Carrboro Community Solar in 2012 to install a photovoltaic system at the Town Commons (see <u>www.carrborosolar.org</u>.) General graphics of the community investing model are shown below. More information on this model is available at <u>http://aire-nc.org/</u>.



*"Community is the secret ingredient of sustainability" –Nick Meima and Abraham Paiss. Second graphic Courtesy of Appalachian Institute for Renewable Energy: www.aire-nc.org* 

# **3.C Renewable Portfolio**



*"Community is the secret ingredient of sustainability" –Nick Meima and Abraham Paiss. Second graphic Courtesy of Appalachian Institute for Renewable Energy: www.aire-nc.org* 

# 3.D Urban Forestry Program

# **DESCRIPTION** :

The Town has been pursuing urban forestry efforts for many years. Examples include participation in Tree City USA and Arbor Day, purchase of the Adams Tract and development of a management plan for the property, and development of provisions for tree protection and open space in the Land Use Ordinance, including a potential update to the ordinance currently under review by staff. Further program development is recommended as a part of this plan to provide climate protection and energy benefits, and also recognize the many other benefits of urban trees (see Appendix 3). Examples of initiatives that can be considered included: tree inventories, canopy analysis and resource assessments; development of master tree plans for streets and facilities and the community, and pursuit of actions that would help the Town qualify for a Tree City USA Growth Award and be eligible for the NC Forest Service urban forestry grant program.

### **BASIS:**

There is significant merit and synergy in managing the Carrboro's forest to reduce energy consumption and store carbon, while simultaneously forwarding many community goals. Trees influence thermal comfort and energy use by providing shade and reducing wind speeds. For example, three or more large trees strategically placed on sunny sides of a house reduce the air-conditioning demand as much as 30 percent. One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen. The urban forest also provides significant ecological and societal services such as air, water and soil quality improvement, wildlife habitat, enhanced biodiversity, mental, emotional and physical health and well-being, aesthetic value, and economic value. Another urban forestry interest is in planning for forest resilience in consideration of the impacts of climate change.

#### BREAKDOWN

Complete tree inventories, canopy analysis, and resource assessments

Develop public and community master plans

Investigate grant opportunity with NCFS

#### LEAD DEPARTMENT

Public Works, Planning

#### **INTERNAL COORDINATION**

Public Works, Planning

# **EXTERNAL COORDINATION**

North Carolina Forest Service

#### **RESOURCES REQUIRED**



2014/15 BUDGET: 🗌

< payback difficult to determine  $\longrightarrow$ 

#### PAYBACK PERIOD0-5 YEARS5-10 YEARS10-15 YEARS15-20 YEARS>20 YEARS

*"Imagine if trees gave off WiFi signals. We'd be planting so many trees and would probably save the planet. Too bad they only give off the air we breathe". Viral internet posting of unknown origin* 

# 4. Measurement, Inventory, Assessment, and Reporting

**DESCRIPTION:** Measurement involves monitoring and metering energy use, and is vital in creating "management by fact." An inventory involves using the measurement data along with calculations and analysis to comprehensively compile estimates of energy use and associated greenhouse gas emissions for different types of uses. Assessment involves the process of studying and placing in context the measurements and inventory information. Reporting involves sharing the results with the community in a way that is meaningful. Software tools such as emissions software, energy dashboards, and scorecards are increasingly being used for these activities. The Town has been involved in annual monitoring of municipal emissions for several years, and has worked with other local jurisdictions and a UNC Capstone team on community emissions estimates. The American Council for an Energy Efficient Economy (ACEEE) has developed a scorecard that allows communities to score their energy efficiency efforts by evaluating locally-enacted programs and policies across local government operations, community-wide initiatives, and building, energy and water, and transportation policies.

**BASIS:** Milestone 5 of Cities for Climate Protection specifically calls for monitoring. Pursuing these activities is important to create a feedback loop, inform stakeholders, and to create transparency. Based on experience, the payback for an energy dashboard system is typically less than three years due to increased energy awareness and identified energy conservation opportunities. Organizations and business that monitor and report alone have seen energy consumption drop by 5 to 10 percent. The ACEEE Local Energy Efficiency Self-Scoring Tool provides the benefit of presenting options for the Town to consider for future actions, and for comparing efforts with other jurisdictions.

#### BREAKDOWN

- Identify and obtain best software tools
- Seek and obtain support
- Complete and submit ACEEE scorecard

# LEAD DEPARTMENT

Planning

### INTERNAL COORDINATION

All workgroups

### **EXTERNAL COORDINATION**

Support from contractors and possibly UNC

#### **RESOURCES REQUIRED**

Staff time and budget for contract support

CIP:  $\Box$  CIP YEAR:

2014/15 BUDGET: 🗌

#### $\leftarrow$ payback specific to action pursued $\rightarrow$

	PAYBACK PERIOD0-5 YEARS5-10 YEARS10-15 YEARS15-20 YEARS>20 YEARS	
--	--	--

# 5. Climate Change: Vulnerability and Adaptation

The following discussion is excerpted from the recently completed study "Climate of the Southeast United States: Variability, Change, Impacts, and Vulnerability (Ingram et al (ed.), Island Press, 2013). It does not specify actions or goals, but is included to provide a context for future consideration of adaptation strategies in Carrboro.

Climate adaptation can be defined as the "adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects". It is a different concept than the primary focus of this plan, climate change mitigation. Climate change mitigation refers to activities that avoid or decrease the release of greenhouse gas (GHG) emissions, or decrease atmospheric GHG concentrations, e.g., carbon storage in forests or soils. Closely related to the concept of adaptation is climate resilience. ICLEI<sup>1</sup> has developed a 5 step resiliency process that is similar to their 5 step process for climate mitigation:

Milestone One: Conduct a Climate Resiliency Study

Milestone Two: Set Preparedness Goals

Milestone Three: Develop a Climate Preparedness Plan

Milestone Four: Publish & Implement Preparedness Plan

Milestone Five: Monitor & Reevaluate Resilience

The process of adaptation can be conceptualized as a series of steps moving from developing an understanding of current and future climate changes related to the system of interest, assessing vulnerabilities and risks, evaluating management options, implementing strategies, monitoring outcomes, and re-evaluating those analyses and decisions (Figure 1). The process generally prescribes multiple iterations to incorporate new information and changing conditions. The emphasis on risk management and identification of opportunities and co-benefits differs among frameworks, but there is good consistency at the conceptual level that this is a critical piece to adaptation.

<sup>&</sup>lt;sup>1</sup> ICLEI stands for International Council for Local Environmental Initiatives," but in 2003 the organization dropped the full phrase and became "ICLEI-Local Governments for Sustainability"



**Figure 13.1** Adaptation planning is envisioned as a cyclical, iterative process incorporating these six steps (NRC 2010a).

The adaptation/resilience process is complex and must include partnerships for cross-disciplinary coordinated response from many sectors including financial, technical, governance, and social. In the future, as groups move from risk and vulnerability assessments to strategic adaptation planning and implementation, it is anticipated that there will be a shift in activities and information needs that place more emphasis on costs, benefits, and co-benefits of adaptations. As efforts advance, evaluation of adaptation efforts will become important in decision making.

The remainder of this section includes a high level summary of some of the findings and implications from the southeastern US study, organized by major theme (temperature change; precipitation change; human health; built environment; energy; forests) as a starting point for identifying climate change implications (step 1 in figure above) that will need to be considered in adaptation planning. The discussion includes agricultural interests because of the Carrboro's commitment to supporting farmers.

#### Temperature Change

Increasing temperatures and the associated increase in frequency, intensity, and duration of extreme heat events will affect public health, natural and built environments, energy, agriculture, and forestry. 2014 National Climate Assessment: Southeast Region

Since the 1970s, temperatures have steadily increased in the southeastern US, with the most recent decade (2001 to 2010) noted as the warmest on record. A portion of this warming may be due to increased nighttime temperatures resulting from human development of the earth's surface. There is better scientific agreement and overall confidence in temperature projections, which indicate an overall increase through the end of the 21<sup>st</sup> century. Increases in the length of the growing season, the number of cooling degree days, the number of consecutive hot days, and interannual temperature variability are all projected to occur.

Non-native, invasive species will increase due to less frequent and shorter durations of cold temperatures caused by climate change. Increasing summer heat stress will reduce crop productivity,

especially if it occurs during flowering and seed set and if it is combined with drought. Warm temperatures during the winter months reduces fruit set on crops that have a chilling requirement. These adverse impacts can be partly offset through the application of growth regulators, but such methods increase costs of production. Heat stress already limits production of dairy and livestock, especially during summer months. An increased frequency of heat stress events will have the potential to force some dairy and livestock production northward.

Warming air temperatures likely will increase regional drying through increased forest water use via evapotranspiration (ET) regardless of changes in precipitation, and this drying will likely increase wildfire risk across southeast USA forests. Longer growing seasons will likely increase the risk of insect outbreak and very likely will expand the northern range of some species, such as the southern pine beetle.

#### **Precipitation and Runoff**

Mean annual precipitation may slightly increase in North Carolina through the first half of the 21st century. The greatest changes are expected during the summer months. However, water availability in central North Carolina is not expected to increase, as evapotranspiration will also increase. Interannual precipitation variability has increased across the southeast region, with more exceptionally wet and dry summers compared to the middle of the 20th century.

Flood frequency likely will increase as a result of predicted increased numbers and intensity of storms. Floods cause direct damage to crops, especially if they occur during fruit set or near crop maturity, as well as indirect damage through soil erosion, leaching of nutrients, and loss of future productivity. More frequent droughts coupled with increasing water demands from greater evapotranspiration (ET) and growing human consumption may result in more frequent stream drying, even in systems historically considered perennial.

Under most scenarios and locations in the southeast, the net effect of temperature and precipitation changes will result in a greater uptake of soil water by forests and lead to reductions in streamflow. Future climate warming likely will increase water loss through evapotranspiration (ET) due to increased evaporative potential and plant species shift. Greater ET can decrease total streamflow, groundwater recharge, flow rate, and regional water supplies.

Regionally, water supply stress is projected to increase significantly by 2050 due to hydrologic alteration caused by climate change and increased water use by key economic sectors, such as domestic water supply, irrigation agriculture, and power plants. Water supply stress will become most severe in the summer season when normal rainfall is typically not sufficient to meet evaporative demand of the atmosphere. Declining runoff and increasing demands for water resources are likely to increase the pressure on the existing reservoirs, leading to deeper and longer lasting drawdowns. Runoff and soil erosion potential are projected to increase in some areas due to changes in rainfall that either increase rainfall erosivity or decrease vegetative cover protection.

#### Human Health

Climate change is expected to have a broad impact on human health. Major categories for human health consideration in central North Carolina include: extreme weather events (e.g., more extreme heat events); air quality and respiratory/airway diseases; vector-borne and zoonotic disease; water

quality and quantity; and healthcare disruption. Health impacts in other areas, such as mental health and food security may also occur, but more research is needed to determine the potential effects.

Rising air temperatures will worsen heat waves and increase levels of harmful pollutants such as ozone. Shifts in precipitation are expected to lead to more extreme precipitation events that can cause direct injury and other related health effects. Vector-borne disease like dengue and malaria could be affected by rising temperatures and shifting precipitation patterns.

#### **Built Environment**

Development of adaptation plans to maintain built environment infrastructure are imperative to cope with the effects of climate change and to ensure built environment sustainability. Because of the complexity of the built environment and its supporting ecosystems, we must operate at a componentby-component level to assess various types of adaptability measures needed to make the individual systems sustainable and resilient. Good stewardship of the resources that comprise the subcomponents of systems related to the built environment, as well as climate change adaptation planning, are primary requirements of success in dealing with these challenges. Both "grey" and "green" infrastructure should be considered. Areas of the built environment likely to be affected by climate change (and not described under other headings) include: the urban heat island effect; the urban wildland interface; tourism; poverty and socio-economic vulnerability; migration, and security.

#### **Energy Sector**

As the climate changes, concerns exist for energy services due to the potential for changing patterns of demand, such as increased demand for air conditioning, as well as the potential impacts on electricity generating capacity and energy distribution infrastructure. Improvements in both energy efficiency and renewable energy generation provide a large potential for a more resilient energy sector.

#### **Forests**

Despite climate and land use changes, forests in the southeastern USA will likely continue to provide a sink of atmospheric carbon dioxide ( $CO_2$ ). There is potential for mitigating  $CO_2$  emissions through carbon sequestration in soils and plant biomass. Protection of these natural carbon sinks in the face of development pressures is an important issue for climate change mitigation. The potential savannafication of the southeast, in which forests are converted into more open woodlands due to a combination of hotter and drier conditions, is one of the most significant potential climate change impacts in the USA.

#### **References**

Ingram, K., K. Dow, L.Carter, J. Anderson (eds). Climate of the Southeast United States: Variability, Change, Impacts, and Vulnerability. Washington, D.C. Island Press, 2013.

NRC (National Research Council), 2010. Adapting to the Impacts of Climate Change. Washington, D.C. National Academies Press,

# **Glossary and Acronyms**

**ASHRAE:** The American Society of Heating, Refrigerating and Air-Conditioning Engineers, founded in 1894, is a global society advancing human well-being through through energy efficiency, indoor air quality, refrigeration and sustainability within the industry. <u>https://www.ashrae.org/about-ashrae/</u>

**Capstone:** "Capstone" refers to the Capstone Research Projects of the UNC Institute for the Environment. These projects bring together the education, research and outreach/service missions of the Institute. They are conducted by teams of undergraduate students. Topics for the projects are selected from recommendations by Community Advisory Boards and other clients and focus on a significant environmental issue requiring broad, interdisciplinary research. The projects are a learning experience for our students, a chance for them to conduct team-based research typical of professional practice and the Institute's way of using the expertise of Carolina to help find solutions to the issues facing communities. <u>http://www.ie.unc.edu/for\_students/courses/capstone.cfm</u>

**Energy Efficiency Revolving Loan Fund:** In the fall of 2010, Carrboro combined federal and local funding to seed a new small business loan fund aimed at improving building energy efficiency. These funds are being administered in a similar model as Carrboro's existing Small Business Revolving Loan Fund. The goals of these loans include reduced energy consumption (15-20%) and reduced energy bills for local businesses. Funds are available to all for- and non-profit businesses in Carrboro town limits with 50 employees or fewer. Applications are first-come first-served and loans are subject to

availability. <u>http://www.townofcarrboro.org/ECD/PDFs/EERLF/EERLFCarrboroDescriptionandCri</u> <u>teria.pdf</u>

**Energy Star:** ENERGY STAR is a U.S. Environmental Protection Agency (EPA) voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency. The ENERGY STAR program was established by EPA in 1992, and is " a basic engineering research and technology program to develop, evaluate, and demonstrate non–regulatory strategies and technologies for reducing air pollution." In 2005, Congress updated the program "establish at the Department of Energy and the Environmental Protection Agency a voluntary program to identify and promote energy–efficient products and buildings in order to reduce energy consumption, improve energy security, and reduce pollution through voluntary labeling of or other forms of communication about products and buildings that meet the highest energy efficiency standards."

**ESCO:** An energy service company or energy savings company (acronym: ESCO or ESCo) is a commercial or non-profit business providing a broad range of energy solutions including designs and implementation of energy savings projects, retrofitting, energy conservation, energy infrastructure outsourcing, power generation and energy supply, and risk management *(from Wikipedia).* 

**GHG emissions:** A greenhouse gas (sometimes abbreviated GHG) is a gas in an atmosphere that absorbs and emits radiation within the thermal infrared range. This process is the fundamental

cause of the greenhouse effect. The primary greenhouse gases in the Earth's atmosphere are water vapor, carbon dioxide, methane, nitrous oxide, and ozone. Greenhouse gases greatly affect the temperature of the Earth; without them, Earth's surface would average about 33 °C colder. Emissions refer to the process and quantity of gas being released into the atmosphere from various sources.

**HPwES:** The Home Performance with Energy Star is a national program that has supported over 330,000 homeowners with whole house improvements that improve comfort and indoor air quality while reducing energy

bills. http://www.energystar.gov/index.cfm?fuseaction=hpwes\_profiles.showsplash

**ICLEI:** An organization "International Council for Local Environmental Initiatives," but in 2003 the organization dropped the full phrase and became "ICLEI-Local Governments for Sustainability". <u>http://www.iclei.org</u>

**LED lights:** LED lighting products use light emitting diodes to produce light very efficiently. An electrical current passed through semiconductor material illuminates the tiny light sources called LEDs. The heat produced is absorbed into a heat sink. LEDs are now being incorporated into bulbs and fixtures for general lighting applications. LEDs are small and provide unique design opportunities.

**Portfolio Manager:** EPA created ENERGY STAR Portfolio Manager<sup>®</sup>, an online tool you can use to measure and track energy and water consumption and greenhouse gas emissions based on the premise that you can't manage what you don't measure. It is used to benchmark the performance of one building or a whole portfolio of buildings, all in a secure online environment. <u>http://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/use-portfolio-manager</u>

**Retro-commissioning:** When most existing buildings were built, energy efficiency was not a major concern. The result is a building using more energy to accomplish less. Even if it was fully commissioned when built, the building may not be operating at peak efficiency today. A comprehensive testing of building systems with the goal of improving quality — retrocommissioning — allows building deficiencies to be identified and corrected for optimum energy use. Retrocommissioning is a systematic process to improve an existing building's performance that will increase occupant comfort and save energy. The process can be performed alone or with a retrofit project. Typical energy savings are between 5 percent and 20 percent, often with paybacks of less than one year. Retrocommissioning consists of four phases. In the planning phase, the building systems to be analyzed are identified. The next phase determines how those systems are supposed to operate, and a prioritized list of operating deficiencies is prepared. During the implementation phase, the highest priority deficiencies are corrected and proper operation is verified. In the hand-off phase, improvements are reported and facilities executives are shown how to sustain proper operation.

**Transportation Demand Management (TDM):** Ttransportation demand management is the application of strategies and policies to reduce travel demand (specifically that of single-occupancy private vehicles), or to redistribute this demand in space or in time. In transport as in any network, managing demand can be a cost-effective alternative to increasing capacity. A

demand management approach to transport also has the potential to deliver better environmental outcomes, improved public health, stronger communities, and more prosperous and livable cities. <u>http://mobilitylab.org/2013/09/18/tdm-is-not-scary-a-101-on-transportation-</u> <u>demand-management/</u>

**Solarize Carrboro:** Solarize Carrboro is a collaboration between NextClimate (a Carrboro-based non-profit), the Town of Carrboro, and the NC Solar Center that makes solar simple and affordable. The solar installer partners are Southern Energy Management and Yes! Solar Solutions.

**WISE Program:** The Town of Carrboro conducted a Town-wide energy efficiency program for small commercial business owners and homeowners from 2010-2013 with federal stimulus funding. The program was a collaboration between the Carrboro, Chapel Hill, the Southeastern Energy Efficiency Alliance, Clean Energy Solutions (CESI), Clean Energy Durham, and a network of prequalified contractors.

# Appendix I

# Summary of Carrboro's Greenhouse Gas Emissions Inventories and Status for

# **Cities for Climate Protection Five Milestones**

A common theme discussed in this Plan and principle impetus for pursuing the Plan is the reduction of greenhouse gas (GHG) emissions. The baseline of GHG conditions below establishes a foundation for Planning. As discussed in Appendix 4, climate change has multiple and far-reaching environmental, economic, and social effects. In order to begin to mitigate the effects of global warming, Carrboro is emphasizing the importance of understanding its GHG emissions profile. Table 1 summarizes the date and focus of previous inventories.

#### Table 1. Summary of Previous Greenhouse Gas Inventories

Inventory	Inventory	Completed By	Link
<u>Date</u>	<u>Focus</u>		
2005	All emissions	ICLEI and local	http://www.co.orange.nc.us/ercd/greenhousegas.asp
	in county	governments	
2009	Carrboro	UNC Capstone	April 19, 2011 Board of Aldermen agenda item
	municipal	Team	at http://www.townofcarrboro.org/BoA/Agendas/2011/04_19_2011.htm
	and		
	community		
2011	Carrboro	Chris Lazinski	April 3, 2012 Board of Aldermen agenda item
	municipal		at http://www.townofcarrboro.org/BoA/Agendas/2012/04_03_2012.htm
2012	Carrboro	Chris Lazinski	June 18, 2013 Board of Aldermen agenda item
	municipal		at http://carrboro.legistar.com/Calendar.aspx

A baseline greenhouse gas emissions inventory provides a starting point for planning for emissions reductions, and is considered to be one of the 5 milestones of the CCP 5 Milestone process (Table 2).

#### **Table 2. Cities for Climate Protection Five Milestone Process**

Milestone	Description	Notes
1	Conduct a baseline	See above
	emissions	
	inventory and	
	forecast.	
2	Adopt an emissions	The Orange County inventory presented several scenarios for
	reduction target.	reduction targets. The Board of Aldermen adopted a climate
		protection resolution in 2009. Further articulation of the resolution
		using a 2%-7% annual reduction goal is currently being reviewed.
3	Develop a Local	The Orange County inventory and above agenda items presented
	Action Plan	preliminary concepts for inclusion in a Local Action Plan.
4	Implement policies	As described in plan.
	and measures	
5	Monitor and verify	The Town has been involved in annual monitoring of municipal
	results	emissions for the past two years, and worked with a UNC Capstone
		team on emissions estimates in 2011.

Standard greenhouse gas (GHG) reporting classifies emission types into three types or "scopes". Scope 1 emissions are direct emissions resulting from the combustion of fuel on-site. Examples of Scope 1 emissions include vehicular tailpipe emissions from vehicles and emissions from burning natural gas to heat buildings. Scope 2 emissions are indirect emissions associated with the consumption of purchased or acquired energy. Scope 2 emissions primarily result from electricity consumption. Scope 3 emissions are other indirect emissions not covered in Scope 2, such as the extraction and production of purchased materials and fuels, electricity-related activities such as transmission and distribution losses, outsourced activities, and waste disposal.

#### UNC Capstone Team Inventory (2011)

The UNC Capstone team inventory summary is shown in Table 4.

#### Municipal Inventory (2012, 2013 Update)

One conclusion from the Town's municipal inventory is that the Town total emissions of roughly 2k metric tons of carbon dioxide equivalents (MTCDE), is a little less than 2% of the 115k total community inventory, including all community and public sources (Figure 1).

TABLE 4: UNC	Scope 1 GHGs	Scope 2 GHGs	Scope 3 GHGs	Row Total
Capsione Inventory	(MICDE)	(MICDE) f Combono Municipal	(MICDE)	(MICDE)
	<u>10wn o</u> (exclude	es school and OWASA	sources)	
Buildings and	100	40.4		
Facilities	100	484	-	584
Streetlights,				
Floodlights and	-	467	-	467
Traffic Signals				
Vehicle Fleet	676	-	-	676
OCSW	-	-	55	55
Public Transit*				
(Chapel Hill	-	-	960	960
Transit)				
Municipal Subtotals	77(	051		1 707
(excluding Scope 3)	//0	951	-	1,/2/
Municipal Subtotals	776	051	1015	2 742
(including Scope 3)	//0	931	1015	2,742
	Town	of Carrboro Public S	ources	
	(includes municip	pal, school, OCSW and	OWASA sources)	1
Schools				
(within municipal	1,292	4,651	-	5,943
limits)				
OWASA	-	-	2,030	2,030
Public Subtotals	2.068	5.602	-	7.670
(excluding Scope 3)	,	- )		,
Public Subtotals	2,068	5,602	3,045	10,715
(including Scope 5)	Town of	Combono Community	. Sources	
	<u>10wii 01</u>	excludes public sources	y Sources	
Residential	8.430	44.691	-	53,121
Commercial	1.782	16.687	_	18,469
				55
Industrial	15	39	-	(due to rounding)
Transportation				
(within municipal	31,576	-	-	31,576
limits)				
OCSW	-	-	1,678	1,678
Community				
Subtotals	41,803	61,417	-	103,220
(excluding Scope 3)				
Community				104 899
Subtotals	41,803	61,417	1,678	(due to rounding)
(including Scope 3)				(aue to rounding)
Town of Carrboro Sources (includes community and public sources)				
Town total	(include,	s community and public		
(excluding schools	42.579	62.368	_	104.946
excluding Scope 3)	,079	0_,000		101,910
Town total				
(including schools.	43,871	67,019	-	110.889
excluding Scope 3)				
Town total				115 (1)
(including schools,	43,871	67,019	4,723	(due to rounding)
including Scope 3)				(due to rounding)

\* For this table, Chapel Hill Transit buses GHG emissions are considered as Scope 3 relative to Carrboro because the Town of Chapel Hill administers the service.



# Figure 1<sup>1</sup>

#### POLICY AND IMPLEMENTATION RECOMMENDATIONS FROM INVENTORIES

The community and organizations the Town partners with are encouraged to refer to these inventories for additional recommendations, with examples provided below.

#### From the Orange County Inventory:

- ∞ Explore further retrofits on all municipal buildings;
- $\infty$  Evaluate fleet for improvements to fuel efficiency and the use of alternative fuels;
- ∞ Further advance green purchasing policies;
- $\infty$  Study the viability of alternative vehicles (e.g., hybrids) for their fleets; and
- ∞ Solar panels (alternative energy source) installed on all LED traffic signals or flashers to power them.

<sup>&</sup>lt;sup>1</sup> Inventory update completed by Chris Lazinski, first as a UNC DELTA Fellow and then under contract. Emissions are shown for 2012. For future calculations, staff intend to use a 3-year average as a baseline.

Recommendations for ways in which the various communities can reduce emissions in the community sector include:

∞ Further partnership development between the jurisdictions and the local utilities;

 $\infty$  Work with state and federal programs that could be implemented within the jurisdictions;

 $\infty$  Reduce single occupancy vehicle (SOV) trips throughout the jurisdictions through transportation demand management (TDM) initiatives, and promotion of non-motorized transportation planning principals; and

 $\infty$  Further partnership development with community groups and local businesses.

#### From the UNC Capstone Inventory:

All traditional incandescent light bulbs should be replaced with compact fluorescent light bulbs (CFLs) or Light-Emitting Diodes (LED)s.

Purchase Energy Star appliances when replacing outdated equipment, and they should be promoted to the residential and commercial sectors of Carrboro

Setpoints: Room temperature should be adjusted seasonally; UNC Energy Management policy, for example, recommends setting summer indoor temperatures to 76-78°F and winter indoor temperatures to 69-71°F

Set up an energy resource center of its own, perhaps in the form of an Energy Efficiency Exhibit at the Century Center

Encourage energy conservation in its municipal buildings by holding a competition between occupants of different town buildings for the greatest percent reduction in energy intensity.

#### From the municipal inventory (Lazinski):

It is recommended that Carrboro explore the feasibility and fiscal impact of implementing a GHG reduction policy that sets an annual reduction goal of 2% of 2007 levels per year annually through at least 2025. An annual percent reduction strategy is recommended because it provides the most easily measurable goal for the Town to pursue. Implicit in future efforts would be exploration of the best financing mechanisms for pursuing efforts, whether it is through performance contracting, an internal revolving fund or "energy bank", community investing in renewable energy, or other ways to finance projects through energy savings, as well as possibly through debt servicing such as Qualified Energy Conservation Bonds.

# Appendix II: Summary of Recommended Energy Improvements for Municipal Buildings, 2010 Study (Big Woods Engineering)<sup>1</sup>

Building/Improvement	<u>Upfront</u>	<u>Annual</u>	Annual
	<u>Cost</u>	Energy	<u>Cost</u>
		<u>Savings</u>	<u>Savings</u>
Town Hall: 1) Lighting retrofit: T12 to T8 fixtures/lamps (50%	\$30k	44,865 kWh	\$4030
delamping); Incandescent to CFL; Exit signs to LED 2) Heat pump			
replacement : 4 units (2,3,4,5 ton), 6 SEER to 16 SEER			
Fire Station #1: 1)Lighting retrofit: T12 to T8 fixtures/lamps (50%	\$23k	19,700 kWh	\$1170
delamping); 2) Heat pump replacement : 4 units (3 ton), 8 SEER to			
16 SEER			
Public Works:1) Lighting retrofit: T12 to T8 fixtures/lamps (50%	\$8k	10,270 kWh	\$822
delamping)			
Century Center: Lighting Controls: new switches and sensors for	\$15k	38,000 kWh	\$2300
corridors, meeting rooms, and offices- substantial wiring work			
required and engineer stamp. 60 fixtures are currently			
uncontrolled and on 24/7. Remaining fixtures to be controlled			
would benefit from sensors in meeting rooms, offices, and other			
rooms. (Note that heating/cooling system beyond scope of Big			
Woods study)			

<sup>&</sup>lt;sup>1</sup> Public Works staff estimate that T12 to T8 replacements are 40% complete.

The costs and energy savings have not been adjusted for inflation or other factors from 2010. More efficient (19 to 20 SEER rated), and more expensive, heat pumps are now available. The cost of a four ton 20 SEER unit currently averages about \$6,500 to \$7500.

# Appendix III: Urban Forestry, Climate Protection, and Ecological and Community Benefits

The following discussion demonstrates why Carrboro's urban forest has a wide variety of benefits that include but are not just limited to climate protection and energy management.<sup>1</sup> Therefore, there is significant merit and synergy in managing the forest to reduce energy consumption and store carbon, while simultaneously forwarding many community goals.

Nationally, urban forests in the United States are estimated to contain about 3.8 billion trees, with an estimated structural asset value of \$2.4 trillion. This dollar value reflects only a portion of the total worth of an urban forest. Urban trees also provide innumerable ecosystem services that affect both the local physical environment (such as air and water quality) and the social environment (such as individual and community well-being) that contribute to urban quality of life.

Urban forest services and benefits include:

<u>Local climate and energy use</u>—Trees influence thermal comfort and energy use by providing shade and reducing wind speeds. The establishment of 100 million mature trees around residences in the United States has been estimated to save about \$2 billion annually in reduced energy costs. For example, three or more large trees strategically placed on sunny sides of a house shade it from the hot summer sun, thus reducing the air-conditioning cost as much as 30 percent.

<u>Carbon storage</u>—urban trees mitigate climate change by directly storing carbon within their tissues and by reducing carbon emissions from power plants through lowered building energy use. Urban trees in the conterminous United States have been estimated to store 770 million tons of carbon, valued at \$14.3 billion. One acre of forest absorbs six tons of carbon dioxide and puts out four tons of oxygen. This is enough to meet the annual needs of 18 people.

<u>Air quality</u>—Trees improve air quality by lowering air temperatures and removing air pollutants and in doing so, reducing the impacts of emissions from both stationary and mobile sources. Urban trees in the conterminous United States have been estimated to remove some 784,000 tons of air pollution annually, with a value of \$3.8 billion.

<u>Water flow and quality</u>—Trees improve water quality, reduce runoff and erosion, and mitigate the need for costly stormwater treatment by intercepting and retaining or slowing the flow of precipitation reaching the ground. This allows more recharging of the ground water supply. During an intense storm in Dayton, OH, for example, the tree canopy was estimated to reduce potential runoff by 7 percent. In Carrboro, increased tree canopy could have a specific regulatory benefit of helping the Town comply with rules to protect Jordan Lake by reducing nitrogen and phosphorus in runoff.

Wildlife and biodiversity—Urban forests help create and enhance animal and plant habitats.

<sup>&</sup>lt;sup>1</sup> Most of information in this section extracted from Nowak, D. et al., "Sustaining America's Urban Trees and Forests". USDA Forest Service, Northern Research Station. State and Private Forestry General Technical Report NRS-62. June 2010.

<u>Soil quality</u>—Trees 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.

<u>Community well-being</u>—Urban forests make important contributions to the economic vitality and character of a city, neighborhood, or subdivision. Community involvement in urban forestry efforts has been demonstrated to contribute to a stronger sense of community and neighborhood empowerment.

Individual well-being and public health—The presence of urban trees and forests creates a more aesthetic, pleasant, and emotionally satisfying place in which to live, work, and spend leisure time. Urban trees also provide numerous health benefits. For example, tree shade reduces ultraviolet radiation and its associated health problems. Hospital patients with window views of trees have been shown to recover faster and with fewer complications than patients without such views. The reduction in airborne pollutants results in significant human health benefit such as reduced rates of respiratory disease and illness. In laboratory research, visual exposure to settings with trees has produced significant recovery from stress within five minutes, as indicated by changes in blood pressure and muscle tension.<sup>2</sup>

<u>Aesthetics-</u> trees are not only beautiful in themselves but add beauty to their surroundings. Trees add color to the urban scene, soften the harsh lines of buildings, screen unsightly views, and provide privacy and a sense of solitude and security, while contributing to the general character and sense of place in communities. The specimen trees in downtown Carrboro are a great example of this benefit.

<u>Noise abatement</u>—properly designed plantings of trees and shrubs can significantly reduce noise. Wide plantings (around 100 ft.) of tall dense trees combined with soft ground surfaces can reduce apparent loudness by 50 percent or more (6 to 10 decibels).

<u>Real estate and business</u>—landscaping with trees can increase property values and commercial benefits. One study found that on average, prices for goods purchased in Seattle were 11% higher in landscaped areas than in areas with no trees. A mature tree can often have an appraised value of between \$1,000 and \$10,000<sup>3</sup>. Landscaping, especially with trees, can increase property values as much as 20 percent.<sup>4</sup>

A well-recognized national nonprofit, American Forests, recommends that communities set and maintain tree canopy goals. A community can design tree cover targets that fit the policy and environmental quality needs of the community. Chapel Hill updated its tree protection ordinance, and in doing so, established minimum tree canopy standards:<sup>5</sup> As another local example, Raleigh recognizes the community benefits of the urban forest by treating it as a local government capital responsibility. The City not only maintains an active urban forestry program<sup>6</sup>, but also includes significant funds for tree replacement in their capital budget. Town staff are considering using i-Tree, a state-of-the-art, peer-reviewed software suite from the USDA Forest Service, as a tool to support urban forestry efforts. The i-Tree tools help communities strengthen their urban forest management and advocacy efforts by quantifying the environmental services that trees provide and the structure of the urban forest. More information is available at http://www.itreetools.org/index.php.

<sup>&</sup>lt;sup>2</sup> Dr. Roger S. Ulrich Texas A&M University, as reported by City of Raleigh

<sup>&</sup>lt;sup>3</sup> Council of Tree and Landscape Appraisers, as reported by City of Raleigh

<sup>&</sup>lt;sup>4</sup> ICMA, as reported by City of Raleigh

<sup>&</sup>lt;sup>5</sup> <u>http://www.townofchapelhill.org/index.aspx?page=879</u> (December, 2010)

<sup>&</sup>lt;sup>6</sup> <u>http://www.raleighnc.gov/neighbors/content/PRecParks/Articles/UFDivision.html</u>

# Appendix IV: Summary of Science On Climate Change

Table 1 summarizes some of the important indicators of the global impacts of climate change.

Air Temperature	Extreme Weather Events
The decade from 2000 to 2010 was the warmest on	Extreme weather events, most notably heat waves and
record <sub>1</sub> ; 2005 and 2010 tied for the hottest years on	precipitation extremes, are striking with increased
record <sub>2</sub> ; January through September 2012 were the	frequency <sub>8</sub> , with deadly consequences for people and
warmest first nine months of any year on record for the	wildlife
contiguous U.S. <sub>3</sub>	
Public Health	Recent years have seen central North Carolina
	experiencing drops of 5 to 15 percent of annual rainfall.
	Availability of fresh water for drinking and other uses in
	much of North Carolina will also trend downward in the
	next 50 years, perhaps by 2.5 percent $_{13}$ .
The Environmental Protection Agency determined that	In the US in 2011, a record 14 weather disasters
current and future greenhouse gas concentrations	(droughts, heat waves, and floods) occurred that cost at
endanger public health <sub>6</sub>	least \$1 billion each in damages/loss of human lives <sub>9</sub>
According to the Global Humanitarian Forum, climate	Climate change creates conditions that lead to more
change is already responsible every year for some	destructive storms like 2012's Superstorm Sandy $_{10}$ , by
300,000 deaths, with 325 million people seriously	loading storms with more energy and more rainfall $_{ m 11}$ ,
affected <sub>7</sub>	raising sea levels and causing storm surge to ride on a
	higher sea surface so that more coastline floods <sub>12</sub> , and
	warming the Arctic and melting sea ice, which causes
	changes in the jet stream that are bringing more
	extreme weather to the U.S. 13
Economic Impacts	Sea Level Rise
According to the Global Humanitarian Forum climate	The world's land-based ice is rapidly melting,
change is already responsible every year economic	threatening water supplies in many regions and
losses worldwide of U.S. \$125 billion <sub>7</sub>	raising sea levels <sub>19</sub> , and Arctic summer sea ice extent
	has decreased to about half what it was several
	decades $ago_{20}$ , and reached a record low in $2012_{21}$ ,
	with an accompanying drastic reduction in sea-ice
	thickness and volume <sub>22</sub> , which is severely jeopardizing
	ice-dependent animals <sub>23</sub>
Climate change is affecting food security by reducing	Global sea level is rising 60% faster than projected by
the growth and yields of important crops <sub>14</sub> ; droughts,	the Intergovernmental Panel on Climate Change <sub>24</sub> ; the
floods and changes in snowpack are altering water	U.S. East Coast is a hotspot for sea level rise with rates
supplies <sub>15</sub> ; as of October 2, 2012, 64.6 percent of the	three to four times faster than the global average <sub>25</sub> ; sea
contiguous U.S. was experiencing moderate-to-	level rise is accelerating in pace <sub>26</sub> ; and sea level could
exceptional drought <sub>16</sub> ; and in 2012, the USDA	rise by one to two meters in this century, threatening
designated more than half (50.3 percent) of all U.S.	millions of Americans with severe flooding <sub>27</sub>
counties disaster areas, mainly due to drought <sub>17</sub>	
Biodiversity	
Scientists have concluded that by 2100 as many as one	The current level of $CO_2$ in the atmosphere is
in 10 species may be on the verge of extinction due to	approximately 392 parts per million $_4$ (ppm). One of the
climate change <sub>18</sub>	world's leading climate scientists, Dr. James Hansen,
	stated in 2008: "If humanity wishes to preserve a planet
	similar to that on which civilization developed and to
	which life on Earth is adaptedCO <sub>2</sub> will need to be
	reduced to at most 350 ppm" <sub>5</sub>

The International Panel on Climate Change (IPCC) Fifth Assessment Report confirms the necessity for immediate and sustained action. The IPCC report reveals how close we are to a turning point in the earth's climate system, and reveals two critical numbers that speak to the urgency of the situation: • One trillion tons – a maximum global carbon budget of one trillion tons burned is necessary to keep global warming under two degrees Celsius above preindustrial levels; and • 2020 – the year global CO<sub>2</sub> emissions must peak in order to burn less than one trillion tons of carbon

 2020 – the year global CO<sub>2</sub> emissions must peak in order to burn less than one trillion tons of carbon (the world has already burned more than half of that to date).

The underlying conclusion of the report is that the time has arrived for taking the necessary steps to preserve livable conditions on earth: i.e., we must stop burning fossil fuels as quickly as possible. Only by peaking GHG emissions in the year 2020 or sooner, and phasing out conventional fossil fuel burning around 2080, can we stay beneath the total of one trillion tons of carbon burned, which represents the threshold of catastrophic climate change, as shown in the following graphs:



A GHG emissions peak by about 2020 (RCP 2.6) will be necessary to keep global warming under the two degrees Celsius (above preindustrial levels) threshold. If we exceed the world carbon budget of one trillion tons burned (RCP 4.5, 6.0 and 8.5), the models project the planet will keep warming and it will be virtually impossible to bring global average temperature back under the two degrees Celsius threshold.

The good news is U.S. GHG emissions peaked in 2007 and are currently 12% below 2007 levels. We must continue this trend in America. The bad news is, global GHG emissions are continuing to rise. The major driver of global energy consumption and GHG emissions over the next two decades is projected to be increasing urbanization. During this period, an area equal to a staggering 3.5 times the entire built environment of the U.S. will be redesigned, reshaped, and rebuilt in urban areas worldwide.

There is consensus among climate scientists that the increase of GHG emissions are caused by human activities such as the burning of fossil fuels, change in land use, and increased agriculture production. According to the International Panel on Climate Change (IPCC), concentrations of GHGs in the atmosphere have been on the rise since the industrial age. Currently, the concentration of carbon dioxide  $(CO_2)$  is over 390 ppm, which far exceeds pre-industrial levels and those seen in the past 650,000 years (as determined through the analysis of ice core data). According to the IPCC, the concentration of CO2 in the atmosphere will need to plateau at 450 ppm in order to stabilize emissions and the effects of climate change. Because  $CO_2$  stays in the atmosphere for approximately 50 years, we are committed to a level of climate change from emissions already released, regardless of reductions made today.

There are six GHGs as identified by the IPCC: carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ), hydrofluorocarbons (HFC), perfluorocarbons (PFC), and sulfur hexafluoride ( $SF_6$ ). Each of these gases contributes to the greenhouse effect by trapping heat in the atmosphere and causing the global temperature to increase. The effects of climate change are already being seen throughout the world: global circulation models around the world indicate with high confidence that increased global temperature have led to a decrease in mountain glaciers and snow cover affecting water sources, increased global ocean temperatures, and melting of ice sheets. Both of the latter lead to a rise in sea levels, and in addition, an increase in ocean temperature may lead to greater storm intensity. The U.S. Environmental Protection Agency (EPA) projects that the effects of climate change on the state of North Carolina could include increased temperatures in all seasons, leading to more heat-related death and disease and affecting water quality and supply, increased precipitation resulting in flash flood events in the mountains and subsequent soil erosion, and the loss of species that have adapted to the state's historical climate.

### References

5. J. Hansen et al., *Target atmospheric CO<sub>2</sub>: Where should humanity aim?*, Open Atmos. Sci. 2, 217 (2008), <u>http://pubs.giss.nasa.gov/abs/ha00410c.html</u>.

6. U.S. Environmental Protection Agency, *Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act*, 74 Federal Register 66496-66546 (Dec. 15, 2009) (to be codified at 40 C.F.R. ch. 1), http://epa.gov/climatechange/endangerment.html (last visited 4/2/12)

7. Global Humanitarian Forum, The Anatomy of a Silent Crisis

(2009), www.eird.org/publicaciones/humanimpactreport.pdf , p.1 of pdf.

http://www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report/global-climate-change; D. Coumou and S. Rahmstorf, *A decade of weather extremes,* Nature Climate Change (2012), http://dx.doi.org/10.1038/NCLIMATE1452.

9. National Oceanic and Atmospheric Administration, *Extreme Weather 2011*, <u>http://www.noaa.gov/extreme2011/</u> (last visited April 2, 2012); Press Release, World Meteorological Organization, *2011: world's 10th warmest year*,

<sup>1.</sup> Press Release, National Aeronautic Space Association, NASA Research Finds Last Decade was Warmest on Record, 2009 One of the Warmest Years (Jan. 21, 2010), <u>www.nasa.gov/home/hqnews/2010/jan/HQ\_10-017</u> Warmest\_temps.html.

<sup>2.</sup> National Oceanic and Atmospheric Administration, *NOAA: 2010 Tied for Warmest Year on Record,* www.noaanews.noaa.gov/stories2011/20110112\_globalstats.html (last visited on 3/30/12)

<sup>3.</sup> http://www.ncdc.noaa.gov/sotc/national/2012/9.

<sup>4.</sup> What the World Needs to Watch, http://co2now.org (last visited on 3/30/12); Earth System Research Laboratory of NOAA, Trends in Atmospheric Carbon Dioxide, www.esrl.noaa.gov/gmd/ccgg/trends/ (last visited on 4/2/12).

<sup>8.</sup> Intergovernmental Panel on Climate Change (IPCC), *Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation (SREX)* (2012), <u>http://ipcc-wg2.gov/SREX/</u>; U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Global Climate Change* (2009),

warmest year with La Niňa on record, second-lowest Arctic sea ice extent

(2012), www.wmo.int/pages/mediacentre/press\_releases/gcs\_2011\_en.html .

10. http://www.marketwatch.com/story/sandy-to-cost-new-york-42-billion-2012-11-26 .

11. http://www.pnas.org/content/early/2012/10/10/1209542109.abstract

12. http://www.usgs.gov/newsroom/article.asp?ID=3256&from=rss\_home#.UJBC22eHPAU.

13. http://www.agu.org/pubs/crossref/2012/2012GL051000.shtml; http://www.pnas.org/content/109/11/4074.

14. D.B. Lobell et al., *Climate Trends and Global Crop Production Since 1980*, Science 333, 616 (July 29, 2011), <u>www.sciencemag.org/content/early/2011/05/04/science.1204531.abstract</u>; U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Agriculture* 

(2009), www.globalchange.gov/publications/reports/scientificassessments/us-impacts/full-report/climate-change-impacts-by-sector/agriculture .

15. U.S. Global Change Research Program, *Global Climate Change Impacts in the US: Water Resources* (2009), <u>www.globalchange.gov/publications/reports/scientific-assessments/us-impacts/full-report/climate-change-impacts-bysector/water-resources</u>

16. October 2, 2012 U.S. Drought Monitor; http://www.ncdc.noaa.gov/sotc/national/2012/9

17. http://www.usda.gov/wps/portal/usda/usdahome?contentidonly=true&contentid=2012/08/0260.xml .

18. I.M.D. Maclean and R.J. Wilson, *Recent ecological responses to climate change support predictions of high extinction risk*, PNAS 108, 12337 (2011), <u>http://www.pnas.org/content/108/30/12337</u>, summary at <a href="http://www.sciencedaily.com/releases/2011/07/110711151457.htm">http://www.sciencedaily.com/releases/2011/07/110711151457.htm</a>.

19. Intergovernmental Panel on Climate Change (IPCC), Climate Change 2007: Synthesis Report (2007),

http://www.ipcc.ch/publications\_and\_data/publications\_ipcc\_fourth\_assessment\_report\_synthesis\_report.htm, pp. 30, 49 of pdf.

20. J. Stroeve et al., Arctic Sea Ice Extent Plummets in 2007, EOS 89, 2 (January 8, 2008),

http://www.agu.org/pubs/crossref/2008/2008EO020001.shtml , p. 13 of pdf.

21 http://nsidc.org/arcticseaicenews/2012/09/arctic-sea-ice-extent-settles-at-record-seasonal-minimum/ .

22. Polar Science Center, Arctic Sea Ice Volume Anomaly, version

2, http://psc.apl.washington.edu/wordpress/research/projects/arctic-sea-ice-volume-anomaly/ (last visited April 3, 2012); R. Kwok and D.A. Rothrock, *Decline in Arctic sea ice thickness from submarine and ICES at records: 1958-2008*, Geophysical Research Letters 36, L15501

(2009), http://www.agu.org/pubs/crossref/2009/2009GL039035.shtml

23. Center for Biological Diversity and Care for the Wild International, *Extinction: It's Not Just for Polar Bears* (2010), http://www.biologicaldiversity.org/programs/climate law institute/the arctic meltdown/arctic extinction report.html 24. http://iopscience.iop.org/1748-9326/7/4/044035/article.

25. http://www.usgs.gov/newsroom/article.asp?ID=3256&from=rss\_home#.ULZ\_vGeHMmR

26. M.A. Merrifield et al., *An Anomalous Recent Acceleration of Global Sea Level Rise*, Journal of Climate 22, 5772 (2008), <u>http://journals.ametsoc.org/doi/abs/10.1175/2009JCLI2985.1</u>.

27. B.H. Strauss, *Tidally adjusted estimates of topographic vulnerability to sea level rise and flooding for the contiguous United States*, Environmental Research Letters 7 (2012), <u>http://iopscience.iop.org/1748-9326/7/1/014033</u>, summary at http://www.sciencedaily.com/releases/2012/03/120314111738.htm; <u>http://dels.nas.edu/Report/Level-Rise-Coasts/13389</u>

28. For Clean Air Act facts, see Center for Biological Diversity, The Clean Air Act Works (2011),

http://www.biologicaldiversity.org/programs/climate\_law\_institute/global\_warming\_litigation/clean\_air\_act/pdfs/CleanA irActWorks\_032011.pdf; and U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act,* 1970 to 1990 (1997), http://www.epa.gov/air/sect812/; and U.S. Environmental Protection Agency, *The Benefits and Costs of the Clean Air Act, 1990 to 2010* (1999), http://www.epa.gov/air/sect812/.

29. 2014 National Climate Assessment. U.S. Global Change Research Program, Suite 250, 1717 Pennsylvania Ave, NW, Washington, DC 20006. http://nca2014.globalchange.gov/report

# Appendix V:

# Background on Global and National Efforts to Address Climate Change

In 1993, one year after the Rio Earth Summit, the International Council for Local Environmental Initiatives (ICLEI) launched the Cities for Climate Protection Campaign to support local governments in greenhouse gas emissions monitoring and reduction. This program is the most widely-used method to date that local governments have adopted to address global warming. Cities for Climate Protection leads participants through a five-milestone framework (see *Box 1*) to reduce emissions through policies and practices that conserve energy and develop renewable energy sources. Local governments worldwide are participating in this campaign, including hundreds of municipalities in the U.S.

On February 16, 2005 the Kyoto Protocol went into effect for the 141 countries that ratified it, which notably did not include the United States and Australia. Since then, four significant efforts have been launched to promote and support local government action on climate change:

<u>Mayors Climate Protection Agreement</u>. On the same day that the Kyoto Protocol went into effect, Seattle Mayor Greg Nickels issued a challenge for U.S. mayors to agree to "meet or beat" the greenhouse gas reduction goals of the Protocol in their own cities. This challenge was formalized as the U.S. Mayors Climate Protection Agreement (see *Box 2*) and passed unanimously by the U.S. Conference of Mayors in June 2005.

<u>World Mayors and Municipal Leaders Declaration on Climate Change</u>. At the December 2005 United Nations Climate Change Conference (which included the eleventh meeting of nations party to the UNFCCC and the first meeting of those party to the Kyoto Protocol) the parallel Fourth Municipal Leaders' Summit on Climate Change adopted the World Mayors and Municipal Leaders Declaration on Climate Change. The Declaration endorsed emissions reduction targets of 30 % by 2020 and 80% by 2050 for developed countries, and asserted the need for local governments to have a greater role in UNFCCC efforts.

<u>Clinton Climate Initiative.</u> In August 2006, the William J. Clinton Foundation launched a partnership with the Large Cities Climate Leadership Group by establishing the Clinton Climate Initiative. The Initiative is organizing an international purchasing consortium of the world's largest cities to bring down the cost of energy-efficient products and to accelerate development of emissions-reducing technologies. Although formal membership in the program is restricted to the world's 40 largest cities, smaller cities can receive some benefit by joining as affiliates.

<u>Cool Counties Climate Stabilization Declaration</u> On 16 July 2007, twelve large U.S. counties and the Sierra Club launched the Cool Counties Climate Stabilization Declaration, in which signatories pledge to reduce global warming emissions 80 percent by 2050. The Declaration also calls for vehicle fuel economy standards to be raised to 35 miles per gallon within a decade.

The U.S. Conference of Mayors, ICLEI, the City of Seattle and the Sundance Institute have partnered to make global warming information and mitigation resources-including handbooks and best practices

reports-available at a single online portal, www.coolmayors.com. The U.S. and Canadian affiliates of the international Climate Action Network include organizations that are working on global warming at the local, state/provincial, regional and national levels. Other efforts are underway at state and regional levels, such as the development of carbon "cap-and-trade" systems, renewable portfolio standards, emissions targets and climate action plans

#### **Box 1: Cities for Climate Protection**

Local governments join the Cities for Climate Protection (CCP) campaign by passing a resolution pledging to reduce greenhouse gas emissions from their local government operations and throughout their communities. To help cities achieve their goals, ICLEI then assists the cities undertake the CCP's five milestones. The five milestones of the CCP and the methodology that underlies the milestones provide a simple, standardized means of calculating greenhouse gas emissions, of establishing targets to lower emissions, of reducing greenhouse gas emissions and of monitoring, measuring and reporting performance.

The five milestones are:

Milestone 1. Conduct a baseline emissions inventory and forecast. Based on energy consumption and waste generation, the city calculates greenhouse gas emissions for a base year (e.g., 2000) and for a forecast year (e.g., 2015). The inventory and forecast provide a benchmark against which the city can measure progress.

Milestone 2. Adopt an emissions reduction target for the forecast year. The city establishes an emission reduction target for the city. The target both fosters political will and creates a framework to guide the planning and implementation of measures.

Milestone 3. Develop a Local Action Plan. Through a multi-stakeholder process, the city develops a Local Action Plan that describes the policies and measures that the local government will take to reduce greenhouse gas emissions and achieve its emissions reduction target. Most plans include a timeline, a description of financing mechanisms, and an assignment of responsibility to departments and staff. In addition to direct greenhouse gas reduction measures, most plans also incorporate public awareness and education efforts.

Milestone 4. Implement policies and measures. The city implements the policies and measures contained in their Local Action Plan. Typical policies and measures implemented by CCP participants include energy efficiency improvements to municipal buildings and water treatment facilities, streetlight retrofits, public transit improvements, installation of renewable power applications, and methane recovery from waste management.

Milestone 5. Monitor and verify results. Monitoring and verifying progress on the implementation of measures to reduce or avoid greenhouse gas emissions is an ongoing process. Monitoring begins once measures are implemented and continues for the life of the measures, providing important feedback that can be used to improve the measures over time. The five milestones provide a flexible framework that can accommodate varying levels of analysis, effort, and availability of data. This element makes the CCP both unique and innovative, by increasing its transferability amongst local governments. It is the breadth of this program that enables it to cross north/south, developed/ developing, metropolis/town boundaries and that has made it successful worldwide.
### **Box 2: US Mayors Climate Protection Agreement**

The mayors of ten cities introduced the U.S. Mayors Climate Protection Agreement to the U.S. Conference of Mayors on June 13, 2005, where it was passed unanimously. By mid-2007, over 600 mayors had signed the agreement. From City of Seattle, www.seattle.gov/mayor/climate

### The U.S. Mayors Climate Protection Agreement

A. We urge the federal government and state governments to enact policies and programs to meet or beat the Kyoto Protocol target of reducing global warming pollution levels to 7% below 1990 levels by 2012, including efforts to reduce the United States' dependence on fossil fuels and accelerate the development of clean, economical energy resources and fuel-efficient technologies such as conservation, methane recovery for energy generation, wind and solar energy, fuel cells, efficient motor vehicles, and biofuels;

B. We urge the U.S. Congress to pass the bipartisan Climate Stewardship Act sponsored by Senators McCain and Lieberman and Representatives Gilchrist and Olver, which would create a flexible, market-based system of tradable allowances among emitting industries; and

C. We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities such as:

1. Inventory global warming emissions in City operations and in the community, set reduction targets and create an action plan.

2. Adopt and enforce land-use policies that reduce sprawl, preserve open space, and create compact, walkable urban communities;

3. Promote transportation options such as bicycle trails, commute trip reduction programs, incentives for car pooling and public transit;

4. Increase the use of clean, alternative energy by, for example, investing *in* "green tags", advocating for the development of renewable energy resources, and recovering landfill methane for energy production;

5. Make energy efficiency a priority through building code improvements, retrofitting city facilities with energy efficient lighting and urging employees to conserve energy and save money;

6. Purchase only Energy Star equipment and appliances for City use;

7. Practice and promote sustainable building practices using the U.S. Green Building Council's LEED program or a similar system;

8. Increase the average fuel efficiency of municipal fleet vehicles; reduce the number of vehicles; launch an employee education program including anti-idling messages; convert diesel vehicles to bio-diesel;

9. Evaluate opportunities to increase pump efficiency in water and wastewater systems; recover waste water treatment methane for energy production;

10. Increase recycling rates in City operations and in the community;

11. Maintain healthy urban forests; promote tree planting to increase shading and to absorb C02; and

12. Help educate the public, schools, other jurisdictions, professional associations, business and industry about reducing global warming pollution.



# Agenda Item Abstract

# File Number: 14-0165

Agenda Date: Version: 1	
5/20/2014	
In Control:	
Board of Al	

Status: Other Matters enFile Type: Abstr

# TITLE:

A Resolution Making an Appointment to the OWASA Board of Directors

**PURPOSE:** The Mayor and Board of Aldermen are requested to consider making an appointment to one of the Town's seats on the OWASA Board of Directors. **DEPARTMENT:** Town Clerk

# CONTACT INFORMATION: Cathy Wilson, 918-7309

**INFORMATION:** The Town of Carrboro has two seats on the Orange Water and Sewer Authority Board of Directors. Currently, Steve Dear is serving as Carrboro's representative. Former representative, Dana Stidham Raborn, resigned on April 11, 2014 due to relocation. The Town has been notified that OWASA would like to fill the vacant seat as soon as possible. The resolution making an appointment sets the new term expiration to June 30, 2016. Applications were received from Virginia (Ginger) Guidry ,Todd L. Peterson, and Quinton Harper.

This item was originally scheduled on May 13, 2014 and was tabled until tonight's meeting.

# FISCAL & STAFF IMPACT: N/A

**RECOMMENDATION:** Staff recommends that the Mayor and Board of Aldermen consider the applications and adopt the attached resolution making an appointment to the OWASA Board of Directors.

# A RESOLUTION MAKING AN APPOINTMENT TO THE ORANGE WATER AND SEWER AUTHORITY BOARD OF DIRECTORS

WHEREAS, The Town of Carrboro has two seats on the Orange Water and Sewer Authority Board of Directors; and,

WHEREAS, there is a vacancy in one of those seats; and,

WHEREAS, the Town Clerk has advertised for this position and received applications from:

- 1) Virginia (Ginger) Guidry
- 2) Todd L. Peterson
- 3) Quinton Harper

NOW, THEREFORE, THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO HEREBY RESOLVES:

Section 1: (INSERT NAME) is hereby appointed as the Town's representative on the OWASA Board of Directors for a term to expire on June 30, 2016.

Section 2: A copy of this resolution shall be forwarded to OWASA.

Section 3. This resolution shall become effective upon adoption.



# Agenda Item Abstract

# File Number: 13-0332

Agenda Date: Version: 1	Statu
5/20/2014	Matte
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Status: Other Matters enFile Type: Abstr

# TITLE:

CUP Minor Modification by the Legends AIS Homeowners Association to reclassify affordable units as market -rate

**PURPOSE:** The Legends AIS Homeowners Association has submitted an application requesting a modification to their Conditional Use Permit to allow the designated affordable units in the subdivision to be converted to market-rate units per specific arrangements described in this report. In order to fulfill their request, an associated text amendment to the LUO is required.

# **DEPARTMENT:** Planning

# **CONTACT INFORMATION:** Jeff Kleaveland (918-7332)

**INFORMATION:** On behalf of the owners' of the designated *affordable* homes of the Legends AIS subdivision, their homeowners' association has submitted a request to modify the Legends conditional use permit to allow these affordable units to be converted to market rate units via a proposal detailed in this report. These units are not managed by the Community Home Trust (or any other such agency) and several of the owners are finding that the arrangement, because of expensive HOA dues and other factors, threatens their ability to remain in their homes. See the attached letter from one of the homeowners for reference (Attachment B).

### Background:

The Legends AIS Conditional Use Permit was issued on August 22, 2006 (Attachment C). The affordable units in this development were constructed pursuant to the LUO provisions of Section 15-182.4 *Residential Density Bonuses for Affordable Housing*. This section allows the developer to build bonus market-rate units if a corresponding deed-restricted affordable unit is constructed.

At the time of Legends permitting, Section 15-182.4 did not include the current, more detailed ordinance provisions which in effect prescribe professional management of the affordable units such as is provided by the Community Home Trust (CHT). Therefore, the Legends developer was responsible only for deed restricting the units for a period of 99 years and selling the units at the price point required by the section's formula. The developer was not required to verify income eligibility of the buyers or to address the impacts of HOA dues on long term affordability. The correspondence from 2006 with the developer and CHT used to confirm the pricing for these units at Legends can be found in Attachment D.

Agenda Date: Version: 1	Status: Other
5/20/2014	Matters
In Control:	enFile Type:
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### For comparison: Community Home Trust management, impact of subsidy

For reference, the Community Home Trust increases the affordability of their units by pre-qualifying buyers such that their mortgage will be combined with a subsidy. The subsidy lowers the county-recorded tax rate valuation of the home via the provisions of GS-105-277.17 (Attachment E). This statute allows the county tax valuation to be based only upon the amount of money the purchaser brings to the transaction (the *initial investment basis*); it does not include any subsidy moneys also provided to purchase the home. In contrast, the Legends affordable units appraised just as would be any other residence in the county which results in a higher tax burden to the owner.

The Community Home Trust retains title to their homes while conveying ownership via a renewable 99-year ground lease. In addition, CHT charges monthly fees to its homeowners to pay for administration of the ground leases and for accruing funds to pay for major expected house costs beyond normal maintenance (i.e. HVAC, roofing, etc.); in total, these fees range from about \$70.00 to \$170.00 per month. These costs and the expected HOA dues are incorporated into the pre-qualification financing of their homeowners.

The combination of the subsidy and the property tax reduction, along with the considerations given for the actual ownership costs of the home, provides an affordability advantage to CHT homes.

### **Legends Affordable Units**

For several of the Legends Affordable Unit owners, the prospect of a poor resale price, the lack of subsidy (as used by CHT), and rises in homeowners associations dues, have made living in these units less affordable than originally expected.

### Resale Price

The *allowed* selling price of the Legend's affordable units has declined since when the homes were first put on the market in <u>2009</u>. This is because the home pricing calculation uses the Area Median Income (AMI) statistic, provided by HUD, to calculate the sales price has declined. Pricing is designed to be affordable for a two person family earning 80% of the AMI. All of the affordable units in Legends are townhomes.

As illustrated in the table below, the AMI dropped about 5% in <u>2010</u> when the boundaries of the Metropolitan Statistical Area (MSA) were redrawn to include Durham, Chapel Hill and Carrboro rather than Cary and Raleigh. This results in an attendant decrease in the *allowable* sales price.

Year	<u>AMI</u>	80% Median Income for a family of 2
2013	\$67,700	\$43,350
2012	\$68,700	\$44,000
2011	\$67,800	\$43,400
2010	\$66,500	<u>\$43,400</u> (Notice reduction from previous year.)
2009	\$65,500	\$45,650 (The year the Legends affordable units were marketed.)
2008	\$62,100	\$45,650
2007	\$60,100	\$45,650

Agenda I 5/20/2014 In Contro Board of A	Date: Version 4 bl: Al	: 1	<b>Status:</b> Other Matters en <b>File Type:</b> Abstr		
2006	\$61,700	\$45,650	1		
2005**	\$69,800	\$45,650			
2004**	\$69.800	\$45.650	1		

2003\*\* \$69,800 \$45,200

\*\* Raleigh, Durham, Chapel Hill MSA

Legends Affordable Units Market Rate Conversion Proposal:

The HOA's proposal to remedy this situation involves a modification to the CUP. Staff has determine that, in addition, a text amendment to the LUO is also necessary. The modification to the CUP involves allowing the affordable units to be converted to market-rate units in such a fashion that secures some possible appreciation for the buyer while providing to the Town a possible share of the proceeds. The modification to the LUO involves a text amendment specific to Legends that will allow the market-rate conversion and will allow the additional unit density created by the market-rate conversion. The amendment will be limited to only those developments with affordable units permitted under the old ordinance that did not seek CHT management. The Legends AIS is the only such development in Town that meets these criteria.

The Legends HOA's proposal is attached (Attachment F). Specifically they propose the following:

- 1. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:
  - a. Real estate commissions are deducted from the proceeds ;
  - b. Owner to retains the first \$5000 of equity appreciation;
  - c. Owner to retain eligible capital improvement costs (such as unit upgrades);
  - d. Any remaining surplus proceeds are shared 50/50 with the Town and Owner
    - i. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;
- 2. The affordable unit converts to market-rate with no restrictions;
- 3. A sunset clause is provided whereupon the affordable unit converts to market rate automatically after a period of 20 years;

Please review the attached letter from the Legends HOA describing the problem and detailing their proposal for repair (Attachment F). Robert Dowling from CHT has reviewed this proposal and supports its arrangements. His written response is attached (Attachment G). Staff supports the proposal but suggests the Board consider whether the sunset clause should be included as discussed in Mr. Dowling's letter.

# Payment in Lieu

The current payment in lieu for affordable housing Town's 2013-2014 Miscellaneous Fees and Charges Schedule is \$32,167. This number is based on a three year rolling average of the *median* value of *all* the homes in the CHCCS School District. In a new development undergoing permitting, the payment-in-lieu option allows developers to obtain bonus units without having to build a corresponding affordable unit so long as the Board accepts the payment. This option in the LUO does not include considerations for the market-rate conversion of affordable units that have already been built.

### Comparative Analysis of Market Rate and Affordable Housing units

For general reference, in the attached comparative analysis of Ballentine and Legends affordable housing units, the specific differences in stamp value (which is meant to reflect the sales price of the home) as recorded by Orange County can be reviewed. Also included in this spreadsheet is a comparative analysis of market-rate unit stamp values and the approximate per/square foot costs to provide some pricing context (Attachment H).

### Necessary LUO Amendment

At this time only three (3) affordable units can be converted to market rate units without violating provisions of the LUO pertaining to density. For this reason, staff prepared a draft text amendment that would allow the remaining affordable units to be converted (Attachment I). In particular, this amendment would apply *only* to those subdivisions approved under the pre-June 2007 density bonus ordinance which allowed the HOA management scenario that Legends is now experiencing. Any permit modification allowing the units to be converted to market-rate can only be done if the associated text amendment is approved in advance.

Note that the HOA and affordable unit owners assume responsibility for having their covenants, declarations, deeds and plats revised as needed. A condition would be to include language that allows *all* of the market-rate units to be converted subject to the approval of the text amendment discussed above. The following condition is written accordingly:

- 1. That, pursuant to a text amendment allowing for the conversion of designated affordable units into market-rate units without violating the density provisions of the LUO (applicable only for developments approved prior to June 2007 that utilized the provisions of Section 15-182.4), the Legends AIS Conditional Use Permit be amended to allow the designated affordable units to be treated as follows:
  - a. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:
    - i. Real estate commissions are deducted from the proceeds ;
    - ii. Owner to retains the first \$5000 of equity appreciation;
    - iii. Owner to retain eligible capital improvement costs (such as unit upgrades);
    - iv. Any remaining surplus proceeds are shared 50/50 with the Town and Owner
    - v. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;
    - vi. The affordable unit converts to market-rate with no restrictions;
    - vii. A sunset clause is provided whereupon any of the affordable units automatically converts to market rate after a period of 20 years (from the date of this permit modification);
- 2. That the all applicable recorded documents containing references to the affordable units, including the deeds, the Homeowner Association Covenants and Declarations, and the Legends final plat, will be re-recorded accordingly to reflect the conditions of this permit modification.

A draft text amendment has been provided (Attachment I). The Board of Aldermen must receive public comment before adopting amendments to the LUO. Planning Board and Orange County review is also needed.

Agenda Date: Version: 1	Status: Other
5/20/2014	Matters
In Control:	enFile Type:
Board of Al	Abstr

FISCAL & STAFF IMPACT: Staff time, application fee collected, potential receipt of payment in lieu moneys.

**RECOMMENDATION:** Should the Board consider the applicant's request and justifications acceptable, staff recommends that the Board adopt the attached resolution approving the permit modification to the Legends AIS Conditional Use Permit subject to the following condition (below) and the resolution setting a public hearing for the necessary text amendment to the LUO relating to the affordable housing provisions (attachments A and A-1):

- 1. That, pursuant to a text amendment allowing for the conversion of designated affordable units into market-rate units without violating the density provisions of the LUO (applicable only for developments approved prior to June 2007 that utilized the provisions of Section 15-182.4), the Legends AIS Conditional Use Permit be amended to allow the designated affordable units to be treated as follows:
  - a. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:
    - i. Real estate commissions are deducted from the proceeds ;
    - Owner to retains the first \$5000 of equity appreciation; ii.
    - iii Owner to retain eligible capital improvement costs (such as unit upgrades);
    - Any remaining surplus proceeds are shared 50/50 with the Town and Owner iv
    - The Town's portion is directed to the Town of Carrboro Affordable Housing V. Special Revenue Fund;
    - The affordable unit converts to market-rate with no restrictions; vi.
    - vii. A sunset clause is provided whereupon any of the affordable units automatically converts to market rate after a period of 20 years (from the date of this permit modification);
- 2. That the all applicable recorded documents containing references to the affordable units, including the deeds, the Homeowner Association Covenants and Declarations, and the Legends final plat, will be rerecorded accordingly to reflect the conditions of this permit modification.

### A RESOLUTION APPROVING A MINOR MODIFICATION TO THE LEGENDS AIS CONDITIONAL USE PERMIT AUTHORIZING THE MARKET RATE CONVERSION OF CERTAIN AFFORDABLE HOUSING UNITS (AS DEFINED BY THE LUO) SUBJECT TO THE CONDITION HEREIN.

**WHEREAS**, the Carrboro Board of Aldermen approved a Conditional Use Permit for the Legends Architecturally Integrated Subdivision on August 22, 2006; 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 Board of Aldermen approve the Minor Modification to the Legends AIS CUP subject to the following condition:

- That, pursuant to a text amendment allowing for the conversion of designated affordable units into market-rate units without violating the density provisions of the LUO (applicable only for developments approved prior to June 2007 that utilized the provisions of Section 15-182.4), the Legends AIS Conditional Use Permit be amended to allow the designated affordable units to be treated as follows:
  - a. That the affordable unit can be sold at market rate if owners choose to do so and that the proceeds from the sale are treated as follows:
    - i. Real estate commissions are deducted from the proceeds ;
    - ii. Owner to retains the first \$5000 of equity appreciation;
    - iii. Owner to retain eligible capital improvement costs (such as unit upgrades);
    - iv. Any remaining surplus proceeds are shared 50/50 with the Town and Owner
    - v. The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund;
    - vi. The affordable unit converts to market-rate with no restrictions;
    - vii. A sunset clause is provided whereupon any of the affordable units automatically converts to market rate after a period of 20 years (from the date of this permit modification);
- 2. That the all applicable recorded documents containing references to the affordable units, including the deeds, the Homeowner Association Covenants and Declarations, and the Legends final plat, will be re-recorded accordingly to reflect the conditions of this permit modification.

This the 20<sup>th</sup> day of May, 2014

### AN ORDINANCE AMENDING THE PROVISIONS OF THE CARRBORO LAND USE ORDINANCE RELATING TO RESIDENTIAL DENSITY BONUS FOR AFFORDABLE HOUSING AND ALTERNATIVE METHODS FOR ACHIEVING THE TOWN'S AFFORDABLE HOUSING GOAL

### \*DRAFT 5-14-2014\*

### THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

Section 1. Subsection 15-182.4 of the Carrboro Land Use Ordinance is amended by the addition of a new subsection (j) that reads:

(j) Notwithstanding the foregoing, projects that were approved under the requirements of this section prior to the amendments adopted on June 26, 2007, the Board of Aldermen may allow affordable units to be converted to market rate units by accepting a payment in lieu. In these instances, the maximum density shall be based on the units constructed and shall not include units for which a payment-in-lieu has been made.

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

Section 3. This ordinance shall become effective upon adoption.

### A RESOLUTION SETTING A PUBLIC HEARING ON AN ORDINANCE AMENDING THE CARRBORO LAND USE ORDINANCE RELATING TO RESIDENTIAL DENSITY BONUS FOR AFFORDABLE HOUSING AND ALTERNATIVE METHODS FOR ACHIEVING TOWN'S AFFORDABLE HOUSING GOAL

WHEREAS, the Board of Aldermen seeks to provide ample opportunities for the public to comment on proposed amendments to the Land Use Ordinance;

NOW, THEREFORE BE IT RESOLVED that the Board of Aldermen sets a public hearing on June 24, 2014, to consider adopting "An Ordinance Amending the Carrboro Land Use Ordinance Relating to Residential Density Bonus for Affordable Housing and Alternative Methods for Achieving the Town's Affordable Housing Goal."

BE IT FURTHER RESOLVED that the draft ordinance is referred to Orange County, 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:

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

This is the 20<sup>th</sup> day of May in the year 2014.

In 2010, I purchased an Affordable Housing townhouse in the Legends at Lake Hogan neighborhood. Our neighborhood consists of three types of homes: (10) "Affordable Housing" townhomes, (6)Market Value townhomes, and (45)Market Value Single Family Homes. Unlike the other similarly mixed types of neighborhoods in this area, our Affordable Housing units were not placed in the Community Home Trust.

It was my understanding that the Affordable Housing townhomes were built for people like me. I have lived and worked in Chapel Hill for 11 years, had never owned a home before and make a low income salary, less than 80% of the area median income.

Even though my home is classified as Affordable Housing, there are no provisions from the Town or in the HOA covenants protecting us. As a result, we are charged the same HOA fees as all the Market Value homes, most of which cost between \$400,000 and \$500,000.

My home is valued at \$129,000. I work for the state, make a low income salary, and have not received a raise in 6 years. I cannot afford the same HOA dues as someone in a half million dollar home.

All of the other Affordable Housing units in Chapel Hill and Carrboro are managed by the Community Home Trust, but the ten of us are not. The original sales price of our units is the only aspect of our homes that is Affordable. All of the other expenses associated with our homes and living in our neighborhood are Market Value. The Community Home Trust manages the HOA fees for their homeowners so that the homes remain Affordable long term. However, in our situation the HOA board is allowed to increase the dues 10% per year with no vote from the Homeowners. As a result, our dues have increased 30% in 3 years. The HOA president stated in last year's annual community meeting that we can expect 10% increases for the next several years, at least. That equates to a 40% increase (or more) in dues since we purchased these homes in 2010.

We can also be billed special assessments at any time and failure to pay them will result in a lien on our homes.

I'm currently paying almost 10% of my monthly income to the HOA. I have paid over \$7,200 into the HOA since 2010. When these fees increase again, I will be forced to sell my home.

When these fee increases began, I started looking into selling my home. When I did so, I discovered that a significant problem I face is that the resale value of my home has decreased significantly since I moved in due to the Area Median Income decreasing over the past few years and our homes being bound to this formula. Our homes are bound by deed restrictions indicating that we must sell our homes at a price in which a person making 80% of the Area Median Income can afford. This number has declined so much since 2010 that this would equate to a loss of approximately \$20,000 per homeowner. So, while I am struggling to afford the increasing HOA dues for this neighborhood, I also cannot afford to sell at such a huge financial loss.

The Legends Affordable Housing homeowners are paying top dollar to the HOA to maintain these homes, and to maintain the condition of the neighborhood yet the number we can resell these units for continues to go down. These homes were built for low income people like me, yet low income homeowners have absolutely no chance of long term home ownership in this neighborhood. We cannot afford the same HOA dues as Market Value homeowners living in a Market Value neighborhood. These units cannot sustain Affordability long term. It has been just four years since I moved in, and this neighborhood is no longer affordable to me.

I would appreciate your help in resolving this unfair situation before I'm forced to sell at a significant financial loss to me personally.

Kristen Hensley 409 Legends Way Chapel Hill, NC 27516



ATTACHMENT B-1

M SG

PREPARED BY AND RETURN TO: TOWN CLERK TOWN OF CARRBORO 301 West Main Street CARRBORO, NORTH CAROLINA 27510



### ORANGE COUNTY NORTH CAROLINA

### TOWN OF CARRBORO CONDITIONAL USE PERMIT GRANTED Jones Property AIS

On the date(s) listed below, the Board of Aldermen of the Town of Carrboro met and held a public hearing to consider the following application:

APPLICANT: 1 <sup>st</sup> American Builders
OWNERS: Priority Development, L.P., a Delaware Limited Partnership
PROPERTY LOCATION (Street Address): 8112 Old NC 86
TAX MAP, BLOCK, LOT(S): 7.23.C.31F 9860.92-6679
PROPOSED USE OF PROPERTY: Major subdivision consisting of 49 single-family detached residences and 16 townhomes.
CARRBORO LAND USE ORDINANCE USE CATEGORY: 26.100, 1.111 and 1.320
MEETING DATES: June 27 and August 22, 2006

Having heard all the evidence and arguments presented at the hearing, the Board finds that the application is complete, that the application complies with all of the applicable requirements of the Carrboro Land Use Ordinance for the development proposed, and that therefore the application to make use of the above-described property for the purpose indicated is hereby approved, subject to all applicable provisions of the Land Use Ordinance and the following conditions:

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



Page 2 Jones Property Conditional Use Permit

Development Review Administrator in writing and specific written approval obtained as provided in Section 15-64 of the Land Use Ordinance.

- 2. If any of the conditions affixed hereto or any part thereof shall be held invalid or void, then this permit shall be void of no effect.
- 3. The continued affordability of the units (lots 51, 52, 55, 56, 59, 60, 61, 62, 63, 64) must be specified in the Homeowner's Association documents per the provisions of Section 15-182.4 of the Land Use Ordinance. These documents must be approved by the Town Attorney prior to construction plan approval.
- Certificates of Occupancy for each of the seven (7) bonus 'market-rate' units may not be issued until such time as all of the affordable units (lots 51, 52, 55, 56, 59, 60, 61, 62, 63, 64) are constructed and offered for sale or rent for an amount consistent with the language found in Section 15-182.4 of the Town of Carrboro Land Use Ordinance.
- 5. No additions or interior renovations designed to increase the heated square footage of the size-restricted units (lots 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65) can be approved/completed within the first year following the issuance of the Certificate of Occupancy (CO) per Section 15-188(e). This statement must also be included on the recorded final plat.
- 6. That the single-family home lots, when developed, have sufficient room to conveniently park two cars, off of the street, without blocking the sidewalk. Garages may not be counted toward this requirement. This parking will be shown on individual plot plans during the building permit stage.
- 7. That on the construction plans, a handicap van accessible parking space and corresponding ramp be provided in each of the two townhome parking lots, to be shown on the construction plans
- 8. That, if it is determined that the construction of the sewer in the proposed location will cause a rise in the 100 year flood, the developer will be allowed to construct the sewer only if the Board of Aldermen concludes that such rise does not constitute "damage" to the affected property in accordance with Section 15-263 of the Land Use Ordinance.
- 9. Prior to construction plan approval, the on-site, 100-year floodplain needs to be field-located and that information needs to be shown on the plans, subject to the approval of the Town Engineer. Furthermore, if any lots shown on the preliminary plat are so constricted by areas made unbuildable in accordance with this condition that they cannot practicably be developed, then the preliminary plat must be redesigned to eliminate such lots. Similarly, if any areas shown as bio-retention facilities are shown to fall within the 100 year floodplain, that they will be redesigned to eliminate this encroachment. Any changes required by this condition are subject to the provisions of Section 15-64 of the Land Use Ordinance.
- 10. Prior to construction plan approval, the crossings of the PSNC gas transmission line must be field-verified to meet PSNC's minimum cover and maximum fill requirements, subject to the approval of the Town Engineer.
- 11. 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.
- 12. That the developer shall include a detailed stormwater system maintenance plan. This maintenance plan shall specify the entity responsible for performance of all elements of this maintenance plan, shall indicate how that entity will fund said maintenance, and shall clearly indicate that the Town of Carrboro is not responsible for these activities. The maintenance plan shall include scheduled maintenance activities for each stormwater best management practice (BMP) in the development, (including but not limited to cisterns,

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### ATTACHMENT B-3

Page 3 Jones Property Conditional Use Permit

bio-retention areas, swales, constructed wetlands, level spreaders, energy dissipaters, and buffers), performance evaluation protocol for each BMP, and frequency of selfinspection and self-reporting requirements (including a proposed inspection/reporting template clearly indicating how often reports will be submitted to the Town of Carrboro) for maintenance and performance of each BMP. The maintenance plan and supporting documentation shall be submitted to the Town Engineer and Environmental Planner for approval prior to construction plan approval. Upon approval, the maintenance plan and supporting documentation shall be included in the construction drawings and homeowner's association documentation to ensure the long-term maintenance of the BMPs.

- 13. That the developer provide a written statement from the electrical utility stating that electric service can be provided to all locations shown on the construction plans prior to the approval of the construction plans.
- 14. That an additional fire hydrant be placed, to the satisfaction of the Town Fire Marshall, at the entrance to the development off of Hogan Hills Road and that this hydrant is to be shown on the construction plans.
- 15. That fire flow calculations and building-sprinkler design (as required) must be submitted and approved by the Town Engineer and Town Fire Department prior to construction plan approval.
- 16. That the applicant submit a Voluntary Annexation Petition to the Town Planning Department prior to final plat approval.
- 17. That the applicant receive CAPs from the Chapel Hill Carrboro City Schools District pursuant to Article IV, Part 4 of the Land Use Ordinance, prior to construction plan approval.
- 18. That, for the townhome parking lots, the Board hereby allows a deviation from the parking requirements of 15-291(g), finding that 31 spaces combined are sufficient to serve the 16 townhomes. Per 15-292(a), the Board makes this finding based on evidence submitted by the applicant as referenced in Attachments G of the staff report.
- 19. That all references to the project as being a part of the Lake Hogan Farms Homeowner's Association or subdivision be removed on the construction drawings.
- 20. That street trees, per the provisions of Section 15-315 of the Land Use Ordinance, be provided along the east side of the Lake Hogan Farms Road extension on the construction drawings.
- 21. In accordance with Section 15-182.4, the developer shall include in the restrictive covenants applicable to the subdivision, and in the deeds for the affordable units, covenants and restrictions that are sufficient to ensure that the affordable units will remain affordable as described in that section. Those covenants and restrictions shall include provisions that will allow the Town of Carrboro to enforce the commitment that the housing units remain affordable. These documents shall be subject to the approval of the Town Attorney.
- 22. That an *additional* speed table be provided, to be located approximately 400 to 500 feet west of the currently proposed speed table on Hogan Hills Road. The exact location of said speed table shall be coordinated during construction plan review.
- 23. That screened storage areas for the rollout garbage containers are provided for the townhome units and that their design and location be coordinated during construction plan review.
- 24. That mulch piles created during construction shall not exceed 8 feet in height, 20 feet in width and 20 feet in length. Piles shall be separated from adjacent piles and other exposures by 50 feet and a fire apparatus access road approved by the Fire Department shall be provided within the 50-foot separation.
- 25. That an area on the development be reserved for a future bus stop.

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Page 4 Jones Property Conditional Use Permit

26. That, in an effort to maintain the rural character of the Northern Transition Area by managing lighting and glare, the street lights be full cutoff —and that the HOA documents require all outdoor lighting fixtures on the new homes or associated with common facilities be International Dark Sky Association (IDA) certified

This permit shall automatically expire within two years of the date of issuance if the use has not commenced or less than 10 percent (10%) of total cost of construction has been completed or there has been non-compliance with any other requirements of Section 15-62 of the Carrboro Land Use Ordinance.

All street construction on those streets proposed for acceptance by the Town of Carrboro shall be certified by an engineer. Engineering certification is the inspection by the developer's engineer of the street's subgrade, base material, asphalt paving, sidewalks and curb and gutter, when used. The developer's engineer shall be responsible for reviewing all compaction tests that are required for streets to be dedicated to the town. The developer's engineer shall certify that all work has been constructed to the town's construction specifications.

If this permit authorizes development on a tract of land in excess of one acre, nothing authorized by the permit may be done until the property owner properly executes and returns to the Town of Carrboro the attached acknowledgment of the issuance of this permit so that the town may have it recorded in the Orange County Registry.

### NORTH CAROLINA

#### ORANGE COUNTY

IN WITNESS WHERE For the town of Carrboro has caused this permit to be issued in its name, and the undersigned bring mild of the property above described, do hereby accept this Conditional Use Permit, togetter with all its conditions, as binding upon them and their successors in interest.

ATTEST: The TOWN OF CARRBORO ATTEST: Town Clerk Town Manager

I, **Dhaimin Miman** a Notary Public in and for said County and State, do hereby certify that Sarah C. Williamson, Town Clerk for the Town of Carrboro, personally came before me this day and being by me duly sworn says each for himself that she knows the corporate seal of the Town of Carrboro and that the seal affixed to the foregoing instrument is the corporate seal of the Town of Carrboro, that Steven E. Stewart, Town Manager of said Town of Carrboro and Sarah C. Williamson, Town Clerk for the Town of Carrboro subscribed their names thereto; that the corporate seal of the Board of Aldermen, and that said instrument is the act and deed of the Town of Carrboro.

IN WITNESS THEREOF, I have hereunto set by hand and notarial seal this the  $\frac{8}{Ma_{Y}}$  day of  $Ma_{Y}$ , 2007.

(SEAL)



Sharming Mirman

My Commission Expires: November 30,2008



IN TESTIMONY WHEREOF, the undersigned Limited Liability Partnership Grantor has caused this instrument to be executed in the appropriate partnership name by the duly authorized general partner, and has adopted as its seal the word "Seal" appearing beside its name and their signature(s), this sealed instrument being executed and delivered on the date first above written.

PRIORITY DEVELOPMENT, L.P. A Delaware Limited Partnership

(SEAL)

By: Fhills
Title: CFO

Teyas	(STATE)
Harris	(COUNTY)

1. Mishr F.	Kink	, a N	otary Pub	olic of the	County a	nd St	ate
aforesaid, certify that	nart F	Bitting		personally	appeared be	efore	me
this day and acknowledged	that he is	<u> </u>	CF	D	of	Prior	ity
Development, L.P., a Delaware	Limited Partn	ership, and t	that by aut	hority duly	given and a	as the	act
of the limited partnership, th	ne foregoing	instrument	was sign	ned in its	name by	him	as
CFO	on	behalf	of the	limited	partners	hip	as
CF0	thereo	f all by auth	ority duly	given.			
			-				

Witness my hand and official seal, this	10 <sup>th</sup> day of <b>October</b> , 2006.
	$\langle$
	Marcha King
(SEAL)	Notary Public
My commission expires: $4-5-10$	O

(Not valid until fully executed and recorded)



-	
IF	PREPARED BY AND RETURN TO:
11	TOWN CLERK
	TOWN OF CARRBORO
11	301 West Main Street
	CARRBORO, NORTH CAROLINA 27510



113 Edinburgh South Drive, Suite 120 • Cary, North Carolina 27511 (919) 659 - 1500 (Office) • (919) 460 - 9793 (Fax)

February 2, 2010

MEMORANDUM FOR: Planning Department, Town of Carrboro, North Carolina

SUBJECT:

Legends at Lake Hogan Project - Affordable Housing Pricing

- 1. Purpose. The purpose of this memorandum is to request Town approval for maximum pricing for Affordable Housing Units (AHU), pursuant to the project Conditional Use Permit (CUP) and Section 15-182.4 of the Town of Carrboro Land Use Ordinance (LUO).
- 2. Background.
  - a. A Conditional Use Permit (CUP) was granted for the Legends at Lake Hogan major subdivision project (which was previously known and referred to as the Jones Property) on August 22, 2006. This project consists of 49 single-family detached residences and 16 townhomes.
  - b. This CUP designated ten of the townhome units as Affordable Housing Units.
  - c. This CUP further states that these Affordable Housing Units are to be offered for sale for an amount consistent with the language found in Section 15-182.4 of the Town of Carrboro Land Use Ordinance (LUO).
  - d. Section 15-182.4 of the LUO states:
    - i. "[An] affordable housing unit must be offered for sale or rent at a price that does not exceed an amount that can be afforded by a family whose annual gross income equals eighty percent of the median gross annual family income, as most recently updated by the United States Department of Housing and Urban Development, for a family of a specific size within the Metropolitan Statistical Area where the Town of Carrboro is located."
    - ii. "It is conclusively presumed that a family can afford to spend thirty percent of its annual gross income on housing costs....[T]he term "housing costs" shall mean the costs of principal and interest on any mortgage, real property taxes, insurance, fees paid to a property owners association, and any ground lease or maintenance fees."



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- 3. Discussion. Weekley Homes, L.P. requests approval to offer the ten Affordable Housing Units within its Legends at Lake Hogan community for sale for \$134,000 each. Such prices are within the threshold defined within Section 15-182.4 of the Town of Carrboro LUO.
  - a. 80% of Median Annual Income (2-person Household): \$45,650
  - b. Annual Income translated to Monthly Income: \$45,650 / 12 = \$3,804
  - c. Available Monthly Housing Cost (30% of Income): \$3,804 x 30% = \$1,141
  - d. Monthly Housing Cost Expenses:
    - i. Insurance: \$35
    - ii. Homeowners' Association Fees: \$130
    - iii. Real Property Taxes:
      - 1. Estimated Assessed Value: \$150,000 (mid-point)
      - 2. \$150,000 x 1.6858% = \$3,119 / 12 months = \$253
    - iv. Subtotal: \$35 + \$130 + \$253 = \$418
  - e. Remaining Monthly Housing Cost to use towards Principal and Interest: \$1,141 minus \$418 = \$723
  - f. Assuming a 30-year, Fixed Rate Mortgage Rate of 5.0% (per Freddie Mac, for the week of 1/28/10, the average 30-year Fixed Rate was 4.98%), and a Principal & Interest payment of \$723, a standard Amortization Schedule yields a Loan Principal of \$134,000 (see enclosed amortization schedule).



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4. Point of contact for this request is the undersigned at (919) 659-1502 / rbowen@dwhomes.com.

Thank you very much.

Thurm Bowen Land Manager, Raleigh Division Weekley Homes, L.P.

Exhibits:

- 1 Department of Housing and Urban Development (HUD) Household Income Data
- 2 Average Mortgage Rates, Freddie Mac
- 3 Amortization Schedule

Notes/Sources: <sup>1</sup>HUD Income Limits for applicable MSA <sup>2</sup>Government National Mortgage Association (GNMA) (aka "Ginnie Mae") <sup>3</sup>Federal Home Loan Mortgage Corporation ("Freddie Mac")

STATE: NORTH CAROLINA		3 5 5 6 6 1 1 7		[	N C O M E	LIMIT			
Asheville, NC MSA	PROGRAM	1 PERSON	2 PERSON	3 PERSON	4 PERSON	S PERSON	6 PERSON	7 PERSON	8 PERSON
Asheville, NC RMFA									
EY 2009 MBT: 55700	30% OF MEDIAN	11700	13350	15050	16700	18050	19350	20700	22050
	VERY LOW INCOME	19500	22300	25050	27850	30100	32300	34550	36750
Hausond County NC RMFB	TOM-TNCOME	31200	UCACE	007 DB	44000	00125	00/19	06266	00996
FY 2009 MEI: 49700	30% OF MEDIAN	10450	11950	13450	14950	16150	17350	18550	19750
	VERY LOW INCOME	17450	19950	22450	24950	26950	28950	30950	32950
	LOW-INCOME	27950	31900	35900	39900	43100	46300	49500	52650
Burlington, NC MSA									
FY 2009 MFI: 54700	30% OF MEDIAN	11800	13500	15150	16850	18200	19550	20900	22250
	VERI LOW INCOME	19650	22450	25250	28050	30300	32550	34800	37050
	LOW-INCOME	31450	35900	40400	44900	48500	52100	55700	59250
Charlotte-Gastonia-Concord	d, NC-SC MSA								
Anson County, NC HMFA									
FY 2009 MFI: 44100	30% OF MEDIAN	10450	11950	13450	14950	16150	17350	18550	19750
	VERY LOW INCOME	17450	19950	22450	24950	26950	28950	30950	32950
	LOW-INCOME	27950	31900	35900	39900	43100	46300	49500	52650
Charlotte-Gastonia-Conce	ord, NC-SC HMFA								
FY 2009 MFI: 66500	30% OF MEDIAN	13950	15950	17950	19950	21550	23150	24750	26350
	VERY LOW INCOME	23300	26600	29950	33250	35900	38550	41250	43900
	LOW-INCOME	37250	42550	47900	53200	57450	61700	65950	70200
Durham, NC MSA									
* Durham, NC BMEA									
FY 2009 MET: 65500	30% OF MEDIAN	15000	17100	19250	21400	23100	24800	26550	28250
	VERY LOW INCOME	24950	28500	32100	35650	38500	41350	44200	47050
	LOW-INCOME	39950	* 45650	51350	57050	61600	66200	70750	75300
Person County, NC HMFA									
FY 2009 MET: 54300	30% OF MEDIAN	00411	13050	14650	16300	17600	18900	20200	21500
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Fayetteville, NC MSA									
Fayetteville, NC HMFA									
FY 2009 MFI: 51600	30% OF MEDIAN	10850	12400	13950	15500	16750	18000	19200	20450
	VERY LOW INCOME	18050	20650	23200	25800	27850	29950	32000	34050
	LOW-INCOME	28900	33050	37150	41300	44600	47900	51200	54500
Boke County, NC EMER. Ev 2000 MET: 15200	305 OF NEW TAN	10460	11060	13460	14060	16160	1350	10660	10760
	LOW-INCOME	27950	31900	35900	00668	43100	46300	49500	52650

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### 2010 PRIMARY MORTGAGE MARKET SURVEXCHMENT C-5 Summary page with all rate types - U.S. averages

We make home possible

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Week	FRM	points	FRM	points	ARM	points	margin	ARM	points	margin	spread
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1/7	5.09	0.7	4.50	0.7	4.44	0.6	2.74	4.31	0.6	2.75	0.78
1/14	5.06	0.7	4.45	0.6	4.32	0.6	2.74	4.39	0.5	2.75	0.67
1/21	4.99	0.7	4.40	0.6	4.27	0.6	2.74	4.32	0.6	2.74	0.67
1/28	4 98	06	4 39	0.6	4 25	06	2 74	4.29	0.5	2.75	0.69

Although Freddie Mac attempts to provide reliable, useful information in this document, Freddie Mac does not guarantee that the information is accurate, current or suitable for any particular purpose. Estimates contained in this document are those of Freddie Mac currently and are subject to change without notice.

# Mortgage Amortization

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Inp	uts		二十百 臣 相		<b>Key Figures</b>			
Loai	n nrincinal amount		\$134,000,00		Annual Ioan r	avmonte	ana ha bara ada.	¢0 601 70
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-	Feb	\$133,840,48	\$723.44	\$160.19	\$563.25	\$319.52	¢1 127 17	¢133,690,20
-	Mar	\$133,680,29	\$723.44	\$160.87	\$562.57	\$480.58	¢1 680 74	¢133,510,42
	Anr	\$133 519 42	\$723.44	\$161.55	\$561.89	\$647.13	\$2,000.71	¢133,313,42
	Mav	\$133,357,87	\$723.44	\$162.23	\$561.05	\$804.36	\$2,812.84	\$133,007.07
	Jun	\$133,195,64	\$723.44	\$162.91	\$560.53	\$967.27	\$3 373 37	\$133,032,73
	Jul	\$133.032.73	\$723.44	\$163.59	\$559.85	\$1 130.86	\$3,933,22	\$132,869,14
	Aug	\$132,869,14	\$723.44	\$164.28	\$559.16	\$1 295 14	\$4 492 38	\$132,009,11
	Sep	\$132,704.86	\$723.44	\$164.97	\$558.47	\$1,460,11	\$5,050,85	\$132,539,89
	Oct	\$132,539,89	\$723.44	\$165.67	\$557.77	\$1,625,78	\$5,608,62	\$132,335,05
	Nov	\$132.374.22	\$723.44	\$166.37	\$557.07	\$1,792,15	\$6,165,69	\$132,207,85
	Dec	\$132,207.85	\$723,44	\$167.07	\$556.37	\$1.959.22	\$6,722.06	\$132,040.78
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2	\$132.040.78	\$8,681,28	\$2,060,74	\$6,620,54	\$4 019 96	\$13 342 60	\$129 980 04	
3	\$129,980.04	\$8,681,28	\$2,166,99	\$6,514,29	\$6,186,95	\$19,856,89	\$127,813,05	
4	\$127.813.05	\$8.681.28	\$2,278,99	\$6,402.29	\$8,465.94	\$26,259,18	\$125,534,06	
5	\$125.534.06	\$8,681,28	\$2,396,78	\$6,284,50	\$10,862.72	\$32,543,68	\$123,331,00	
6	\$123,137,28	\$8,681,28	\$2,520.66	\$6,160.62	\$13,383,38	\$38,704,30	\$120,616,62	
7	\$120.616.62	\$8.681.28	\$2,650.94	\$6.030.34	\$16.034.32	\$44,734,64	\$117 965 68	
8	\$117,965.68	\$8,681,28	\$2,787,96	\$5,893.32	\$18,822.27	\$50.627.97	\$115,177,73	
9	\$115,177,73	\$8,681,28	\$2.932.05	\$5,749,23	\$21,754.32	\$56,377,20	\$112,245.68	
10	\$112,245.68	\$8,681,28	\$3.083.60	\$5,597,68	\$24.837.92	\$61,974,88	\$109,162,08	
11	\$109,162.08	\$8,681,28	\$3.242.97	\$5,438,31	\$28,080,89	\$67,413,19	\$105,919,11	
12	\$105,919.11	\$8,681,28	\$3,410,59	\$5,270.69	\$31,491,48	\$72.683.88	\$102,508,52	
13	\$102,508.52	\$8,681.28	\$3,586,87	\$5,094,41	\$35.078.35	\$77.778.29	\$98,921,65	
14	\$98,921.65	\$8,681.28	\$3,772,25	\$4,909.03	\$38,850.60	\$82.687.32	\$95,149,40	
15	\$95,149.40	\$8,681.28	\$3,967.22	\$4,714.06	\$42,817.82	\$87,401.38	\$91.182.18	
16	\$91,182,18	\$8,681.28	\$4,172.27	\$4,509.01	\$46,990.10	\$91,910.38	\$87,009,90	
17	\$87,009.90	\$8,681.28	\$4,387.92	\$4,293.36	\$51,378.01	\$96,203,75	\$82,621,99	
18	\$82,621.99	\$8,681.28	\$4,614.71	\$4,066.57	\$55,992.72	\$100,270.32	\$78,007.28	
19	\$78,007.28	\$8,681.28	\$4,853.22	\$3,828.06	\$60,845.95	\$104,098.37	\$73,154.05	
20	\$73,154.05	\$8,681.28	\$5,104.06	\$3,577.22	\$65,950.01	\$107,675.59	\$68,049,99	
21	\$68,049.99	\$8,681.28	\$5,367.87	\$3,313.41	\$71,317.88	\$110,989.00	\$62,682.12	
22	\$62,682.12	\$8,681.28	\$5,645.31	\$3,035.97	\$76,963.19	\$114,024.97	\$57,036.81	
23	\$57,036.81	\$8,681.28	\$5,937.09	\$2,744.19	\$82,900.28	\$116,769.16	\$51,099.72	
24	\$51,099.72	\$8,681.28	\$6,243.95	\$2,437.33	\$89,144.23	\$119,206.49	\$44,855.77	
25	\$44,855.77	\$8,681.28	\$6,566.67	\$2,114.61	\$95,710.90	\$121,321.10	\$38,289.10	
26	\$38,289.10	\$8,681.28	\$6,906.07	\$1,775.21	\$102,616.97	\$123,096.31	\$31,383.03	
27	\$31,383.03	\$8,681.28	\$7,263.02	\$1,418.26	\$109,879.99	\$124,514.57	\$24,120.01	
28	\$24,120.01	\$8,681.28	\$7,638.41	\$1,042.87	\$117,518.40	\$125,557.44	\$16,481.60	
29	\$16,481.60	\$8,681.28	\$8,033.20	\$648.08	\$125,551.60	\$126,205.52	\$8,448.40	
30	\$8,448.40	\$8,681.28	\$8,448.40	\$232.88	\$134,000.00	\$126,438.40	\$0.00	

# ATTACHMENT C-7



Jim Tucker President Mary Bratsch Vice President Lisa Inman Secretary Michael Hansen Treasurer

John Cooper Laurin Easthom Gary Giles Jacquelyn Gist Pam Hemminger Brian Lowen Bruce Runberg Mary Jean Seyda Jonathan Weiler

Robert Dowling Executive Director

### Funding Provided by:

Town of Chapel Hill Orange County Town of Carrboro Town of Hillsborough

PO Box 307 104 Jones Ferry Road Suite C Carrboro, NC 27510 919.967.1545 Fax 919.968.4030 CommunityHomeTrust.org October 16, 2009

Date:

То:	Steve Stewart, Carrboro Town Manager
From:	Christine Westfall, Community Home Trust
Сору:	James Harris, Jeff Kleaveland, Robert Dowling

Subject: Legends at Lake Hogan Affordable Housing Pricing

Jeff Kleaveland asked me to review David Weekley Homes' proposal for pricing affordable housing for the Legends at Lake Hogan project. I reviewed the September 15<sup>th</sup> memorandum and have the following comments:

1. David Weekley Homes' assumptions for monthly housing cost expenses, including insurance, homeowners' association dues, and property taxes seem reasonable to me and in line with expenses we see on our Home Trust properties. However, the buyers of these homes may also have to pay private mortgage insurance (PMI), which could add \$60 to \$80 a month to their housing expenses. The Town might want to request that David Weekley Homes add PMI to their affordability calculations.

I would also like to note that while these expense assumptions are in line with today's figures, the actual cost of these items may rise, due to inflation, by the time these homes close.

David Weekley calculates that after the above expenses are taken into account, a family earning \$45,650 a year would have \$651 left over to pay their mortgage (principle and interest), if their housing payment does not exceed 30% of their gross monthly income. Our amortization spreadsheets show that a mortgage payment of \$651 corresponds to a loan amount of \$114,655. David Weekley calculations return a loan amount of \$142,035. If \$114,655 is the correct amount, than that would represent the maximum price that would be affordable to households of 2 at 80% of the area median income.

2. David Weekley Homes' memo does not outline their plan for maintaining the affordability of the homes upon resale, so I cannot comment on this aspect of their affordable housing plan.

I would be happy to answer any questions you have about our calculations or this memorandum, and can be reached at (919) 967-1545 ext 305.

Mundone Wesffell

### GENERAL ASSEMBLY OF NORTH CAROLINA SESSION 2009

### HOUSE BILL 1586 RATIFIED BILL

### AN ACT TO CLARIFY THE VALUATION OF COMMUNITY LAND TRUST PROPERTY.

The General Assembly of North Carolina enacts:

**SECTION 1.** Article 12 of Subchapter II of Chapter 105 of the General Statutes is amended by adding a new section to read:

### "§ 105-277.17. Taxation of community land trust property.

(a) <u>Classification. – Community land trust property is designated a special class of</u> property under Section 2(2) of Article V of the North Carolina Constitution and must be appraised, assessed, and taxed in accordance with this section.

- (b) Definitions. The following definitions apply in this section:
  - (1) Community land trust developer. A nonprofit housing development entity that is an exempt organization under section 501(c)(3) of the Code and that transfers community land trust property to a qualifying owner.
  - (2) <u>Community land trust property. Improvements to real property that meet all of the following conditions:</u>
    - a. A fee or leasehold interest in the improvements is transferred subject to resale restrictions contained in a long-term ground lease of not less than 99 years.
    - b. The community land trust developer retains an interest in the property pursuant to the deed of conveyance or the long-term ground lease.
  - (3) Ground lease. A lease between the community land trust developer of a dwelling site, as landlord, and the owner or lessee of a permanent residence constructed on the dwelling site, as tenant. The leasehold interest of the tenant in the dwelling site includes an undivided interest and nonexclusive easement for ingress and egress to the dwelling site and for the use and enjoyment of the common areas and community facilities, if any.
  - (4) Income. Defined in G.S. 105-277.1(b).
  - (5) Initial investment basis. The most recent sales price, excluding any silent mortgage amount, of community land trust property.
  - (6) Qualifying owner. A North Carolina resident who (i) occupies, as owner or lessee, community land trust property as a permanent residence and (ii) is part of a household, the annual income of which at the time of transfer and adjusted for family size is not more than one hundred percent (100%) of the local area median family income as defined by the most recent figures published by the U.S. Department of Housing and Urban Development.
  - (7) Resale restrictions. Binding restrictions that affect the price at which a qualifying owner's interest in community land trust property can be transferred for value to a subsequent qualifying owner or the community land trust developer.
  - (8) Silent mortgage amount. The amount of debt incurred by a qualifying owner that is represented by a deed of trust or leasehold deed of trust on community land trust property and that earns no interest and requires no repayment prior to satisfaction of any interest-earning mortgage or a subsequent transfer of the property, whichever occurs first.
  - (9) Transfer. Any method of disposing of an interest in real property.

(c) Valuation. – The initial appraised value of community land trust property in the year the property first qualifies for classification under this section is the initial investment basis. In



subsequent general reappraisals, the value of the community land trust property shall not exceed the sum of the restricted capital gain amount and the initial investment basis. The restricted capital gain amount is the market value of the community land trust property that would be established for the current general reappraisal if not for this classification (i) adjusted to the maximum sales price permitted pursuant to the resale restrictions effective for a hypothetical sale occurring on the date of reappraisal, if less, and (ii) subtracting the initial investment basis and any silent mortgage amount."

**SECTION 2.** G.S. 105-278.6(e) reads as rewritten:

"(e) Real property held by an organization described in subdivision (a)(8) for a charitable purpose under this section as a future site for housing for individuals or families with low or moderate incomes may be classified under this section for no more than five years. The taxes that would otherwise be due on real property exempt under this subsection shall be a lien on the property as provided in G.S. 105-355(a). The taxes shall be carried forward in the records of the taxing unit as deferred taxes. The deferred taxes are due and payable in accordance with G.S. 105-277.1F when the property loses its eligibility for deferral as a result of a disqualifying event. A disqualifying event occurs when the organization fails to construct property was not used for low- or moderate-income housing on the site-within five years from the first day of the fiscal year the property was classified under this subsection."

**SECTION 3.** G.S. 105-282.1(a)(2)c. reads as rewritten:

"c. Special classes of property classified for taxation at a reduced valuation under G.S. 105-277(h), 105-277.1, 105-277.1C, 105-277.10, 105-277.13, 105-278, or 105-277.15.105-277.15, 105-277.17, or 105-278."

**SECTION 4.** This act is effective for taxes imposed for taxable years beginning on or after July 1, 2010.

In the General Assembly read three times and ratified this the 11<sup>th</sup> day of August, 2009.

Walter H. Dalton President of the Senate

Joe Hackney Speaker of the House of Representatives

Beverly E. Perdue Governor

Approved \_\_\_\_\_.m. this \_\_\_\_\_ day of \_\_\_\_\_, 2009

# Town of Carrboro - Affordable Townhome issue Legends at Lake Hogan Farms

### May 7, 2014

In this letter we propose a solution to the Legends at Lake Hogan Farms affordable townhome issue that has been discussed recently with the town. This solution is being recommended by the Legends at Lake Hogan HOA Board, a majority of the Legends at Lake Hogan Affordable Townhome owners and by Robert Dowling of the Community Home Trust. We believe that the proposed solution will provide relief to the affordable townhome owners while providing resources in the Town's affordable housing fund and minimizing impact on other stakeholders.

# **Issue History**

### Legends at Lake Hogan Farms

(49) Single family homes

### (16) Townhomes- 6 "market rate" townhomes & 10 "affordable" townhomes

- David Weekley Homes introduced an affordable home concept at the Legends at Lake Hogan Farms Townhomes that fell within the guidelines of the town's Affordable housing initiative, but unfortunately the concept has proven to be unsustainable in its current form. The sales prices for these units were in keeping with the Affordable house initiative, but the program lacked sufficient resources to assist homeowners in affordable units with increasing cost items such as HOA dues, HOA assessments for common area issues as well as utilities, taxes, etc.

-In contrast to the Legends Affordable Townhomes there is the Community Home Trust affordable home concept. In this program potential increases in variable cost items such as HOA dues, etc., are anticipated by the Community Home Trust and they advise homeowners of these probable cost increases prior to the home purchase. I would add that Community Home Trust homes tend to have lower purchase prices than the Legends homes which make homes more affordable for qualifying homeowners. In summary, the Community Home Trust is a successful program that provides their home owners an affordable home with guidance and resources to assist in retaining home ownership.

- The Legends affordable home situation is regrettable as the townhome owners have no institutions or advocates to help manage the variable costs and maintain their home as an affordable home. The Legends at Lake Hogan HOA inquired about the possibility of having Legends Affordable units integrated into the Community Home Trust but Robert Dowling, Executive Director of Community Home Trust advises this is not possible after the fact.

- Currently some of the Affordable Townhome residents at Legends have serious financial challenges due to job losses, stagnant wages, and the increasing costs of homeownership. A number of these residents do not think they can continue to afford living at Legends under the Town of Carrboro's ordinance that applies restrictions to the resale price of affordable units. A letter from one of the Affordable Townhome owners is enclosed for your consideration

The Town of Carrboro ordinance includes a "resale formula" that forces residents who wish to sell to market their homes at thousands of dollars less than their original purchase price. Some of these residents report that they do not possess the capital necessary to sell their home at a loss, while also paying real estate commissions on a sale.

In short, some of our residents are in an untenable situation. They cannot afford to stay in their homes and they cannot afford to sell their homes given the restrictions currently in place.

The David Weekley affordable home concept at the Legends development is not accomplishing its intended purpose and will continue to be a problem for all future residents of these affordable townhomes. The affordable townhomes were sold at a lower price than the "market rate" townhomes in the Legends development but everything else including HOA fees, etc., is at market rate. We seek a practical solution to ease the burden of homeowners and convert the townhomes to market rate as they can no longer be considered "affordable".

Hal Dickson, Brad Davis & Erin Zuiker Legends at Lake Hogan HOA

The following solution for the Legends Affordable Townhomes is being recommended by the Legends at Lake Hogan HOA Board, a majority of the Legends at Lake Hogan Affordable Townhome owners and is supported by Robert Dowling of the Community Home Trust.

# Affordable Home Resale Solution

# <u>Goals:</u> Ease burden on homeowners, potentially provide resources to the Town for affordable housing and minimize financial burden on other stakeholders

-Townhomes can be sold at market rate if owners choose to do so

- -Townhome owner to recover initial investment in home
- -Townhome owner to deduct real estate commissions out of proceeds
- -Townhome owner to retain the first \$5000 of equity appreciation
- -Townhome owner to retain eligible capital improvement costs as agreed
- Surplus funds shared 50/50 with the Town and Homeowner
- -The Town's portion is directed to the Town of Carrboro Affordable Housing Special Revenue Fund
- -The townhome converts to market rate with no restrictions
- A sunset clause of 20 years whereupon the home converts to market rate automatically
- -Town receives increase in annual tax revenue on units converted to market rate

## Current resale formula restriction for a Townhome with a purchase cost of \$134,000

1.	80% of the 2014 annual median income for a 2 person family =	\$42,050 or \$3504/mo	onth				
2.	30% of monthly income spent on affordable housing = $3504  X$	30% = \$1051					
3.	Less Property tax/me	onth = (\$184)					
4.	HOA fees/m	onth = (\$173)					
5.	Insurance/m	onth = <u>( 40)</u>					
6.	Amount/month available for Principal & Interest	= \$654					
7.	Principal/Interest payment of \$654month and using an interest r	ate of 5%,					
	as per www.mortagecalculator.org yields a home purchas	se price of \$122,000					
8.	Allowable resale price according to the Town ord	nance is	<u>\$122,000</u>				
	Net loss for homeowner whose home cos	st \$134,000	(\$12,000)				
	Real estate fees of	of 6 %	<u>(\$8,040)</u>				
	Projected loss for Town	home owner	\$20,040				
<b>-</b>	and of Draw and so also also						
Exai	nple of Proposed resale plan						
	Townhome sells at market rate of	\$165,000					
	Less resale factors						
	a. Original home price	(\$134,000)					
	<ul> <li>b. Real estate commissions @ 6%</li> </ul>	(\$13,200)					
	c. Equity Appreciation allowance	(\$5,000)					
	d. Capital improvements	( <u>\$000?)</u>					
	Surplus proceeds	\$12,800					
	Surplus proceeds are shared on 50%/50% basis						
	Homeowner	\$6,400					
	Town of Carrboro \$6,400						

Payment in Lieu of to the Town of Carrboro is \$6,400

The payment in lieu of <u>\$6,400 would be donated to the Town of Carrboro for the Town Special</u> <u>Revenue Fund</u>.

Please note that since home sale prices will vary this formulation does not guarantee surplus proceeds to the homeowner or the town. In the event there are no surplus proceeds, the home would convert to market rate as is.

A possible partial use of these proceeds may be to subsidize the HOA dues, fees and assessments of the remaining Affordable Townhome owners that are trying to retain home ownership.



### BOARD OF DIRECTORS

Alan Lee President

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Executive Director Robert Dowling May 12, 2014

Mayor Lydia Lavelle and the Carrboro Board of Aldermen Carrboro Town Hall 301 West Main Street Carrboro, NC 27510

Dear Mayor Lavelle and Members of the Board of Aldermen:

This letter is written to support the proposal being brought to you by the homeowner's association at the Legends at Lake Hogan Farms. As described in the letter from the HOA board, the affordable housing at the Legends has not worked very well for some of the homeowners.

This really is a difficult situation for at least one owner who cannot afford to remain in her home nut cannot afford to sell it and lose money. Without reiterating all the problems faced by the homeowners, I think it is reasonable for the Town to recognize that this development was flawed from the outset. Further, I think the proposed solution, which unwinds the affordability restrictions when the homes resell, is a reasonable solution.

By allowing the homeowners to sell their homes at market prices, the Town will be surrendering affordability. However, the affordable townhomes are not truly affordable to the intended target – meaning households earning less than 80% of median income. And each year they become less affordable as costs increase and median income declines.

The proposal from the homeowner association would allow homeowners to sell their homes for market prices and retain the first \$5,000 of appreciation after commissions. I believe this is a generous proposal, but warranted given the financial and emotional stress placed upon the affordable owners. Splitting the remaining proceeds 50/50 with the Town seems like a fair arrangement, allowing the Town to capture some of the value embedded in the affordable homes.

I originally had recommended the 50/50 split without a sunset clause, meaning there would never be a time when the homeowners would receive all of the proceeds. But after a series of discussions, I agreed to support a 20 year sunset clause, even though this clause could reduce affordable housing revenues to the Town.

The sunset clause is a strong financial incentive for the ten homeowners to remain in their homes for twenty years. However, we know that some will need to sell in the short term; others will experience life and job changes over time that will require them to move.

I should mention here that this entire proposal should be conditional on homeowners continuing to reside in their homes and not renting them. Renting should disqualify an owner from the sunset provision.

Those who remain in their homes for twenty years will also be incented to maintain their properties. The promise of a financial windfall in 2034 should allow these homeowners to absorb increases in HOA dues, property taxes, etc. In addition to higher dues and taxes, homeowners will be required to invest a great deal into their homes in the course of twenty years. These investments will benefit the entire neighborhood.

In conclusion, I am supportive of the proposal because I know the affordable housing at the Legends was flawed from the beginning. The proposal from the HOA provides a means for the homeowners who are struggling with the costs of ownership to sell their homes and not lose money. It also should provide some funds to the Town's affordable housing trust fund. And lastly, it will provide an incentive to the homeowners who remain to maintain their homes and absorb the increases in dues.

Thank you for your consideration of this perspective.

Sincerely,

Paket Douly

**Robert Dowling Executive Director** 

### Ballentine CHT versus Legends affordable Townhomes, prices

The following information is for the Board's reference. Note that a significant source of affordability for CHT homes is the housing subsidy which lowers the mortgage total and also lowers the tax valuation of the property.

### BALLENTINE Community Home Trust Affordable Townhomes (Built to date)

			Square
Address	Mortage Amount (and tax valuation)	Bedrooms	footage
202 Lexes Trail	100,000	3	1243
204 Lexes Trail*	125,000	2	1155
208 Lexes Trail*	125,000	2	1155
212 Lexes Trail	75,000	2	1144
216 Lexes Trail	89,250	2	1155
220 Lexes Trail	80,000	2	1155
224 Lexes Trail	75,000	2	1144
228 Lexes Trail	135,000	3	1273

\* sold to over-80% buyer so no subsidy involved.

Average Price:	\$100,531
Average Square Footage:	1178.00
Average Price/Square Feet:	\$85.00

### LEGENDS Homeowner's Association managed Affordable Townhomes (all)

			Square
Address	Tax valuation	Bedrooms	footage
203 Legends Way	131,000	2	1135
205 Legends Way	133,422	2	1203
207 Legends Way	129,275	2	1090
209 Legends Way	133,422	2	1199
401 Legends Way	133,422	2	1199
403 Legends Way	129,275	2	1090
405 Legends Way	130,354	2	1135
407 Legends Way	133,422	2	1203
409 Legends Way	129,275	2	1090
411 Legends Way	133,422	2	1199
	Average Price:	\$131.629	

Average Price:	\$131,629
Average Square Footage:	1154.30
Average Price/Square Feet:	\$114.00

### Market Rate Data

The following tables show similar data for *market-rate* townhomes in Ballentine and Legends. This data may be useful in approximating possible market-rate sale prices for the Legends affordable units.

### **BALLENTINE** Market Rate Comparables (based on tax valuation at time of sale)

			Square
Address	Tax valuation	Bedrooms	footage
250 Lexes Trail	289,600	3	2524
254 Lexes Trail	253,600	3	2074
258 Lexes Trail	253,800	3	2074
262 Lexes Trail	253,600	3	2074
266 Lexes Trail	253,600	3	2074
270 Lexes Trail	253,600	3	2074
274 Lexes Trail	289,600	3	2524
	Average Price:	\$263,914	
	Average Square Footage:	2202.57	
	Average Price/Square Feet:	\$119.00	

### LEGENDS Market Rate Comparables (based on tax valuation at time of sale)

	·		Square
Address	Tax valuation	Bedrooms	footage
213 Legends Way	195,982	2	1299
215 Legends Way	195,287	2	1277
217 Legends Way	195,287	2	1277
219 Legends Way	194,538	2	1299
317 Legends Way	195,300	2	1277
319 Legends Way	194,500	2	1299
	Average Price:	\$195,149	
	Average Square Footage:	1288.00	
	Average Price/Square Feet:	\$151.00	



# Agenda Item Abstract

# File Number: 14-0127

Agenda Date: Version: 1	
5/20/2014	
In Control:	
Board of Al	

Status: Other Matters enFile Type: Abstr

# TITLE:

CUP Minor Modification - Carrboro Plaza, Addition of Freestanding Walk-up ATM

**PURPOSE:** Wells Fargo as represented by the Carrboro Shopping Center, LLC, has submitted an application to add a freestanding walk-up ATM machine to the Carrboro Plaza Shopping Center (see attached). The ATM is proposed to be located within the southeastern quadrant of the existing parking lot. **DEPARTMENT:** Planning

# **CONTACT INFORMATION:** Jeff Kleaveland; 919-918-7332

**INFORMATION:** The Conditional Use Permit for Carrboro Plaza located at 104 Highway NC 54 (PIN 9778185680) was approved by the Board of Aldermen in 1983. Subsequent permit amendments have been approved since this date. The original permit is attached.

The applicant seeks permission to remove one parking space and convert one space into a handicap parking space to install a walk-up ATM per the attached site plan. This will result in a net loss of one parking space. They will also install a handicap ramp on the adjacent sidewalk with a striped crossing to the ATM. The ATM will have bollards installed to prevent drive up use and to protect the ATM unit.

<u>Parking</u>: Carrboro Plaza, has excess parking capacity and the loss of one parking spaces will not create a nonconformity. The owner's property management representative has provided the attached letter stating that the loss of the parking space is acceptable.

<u>Stormwater:</u> There is no stormwater impact as the ATM will be occupying an existing paved area. It does not negatively impact the existing water flow pattern to existing stormwater inlets. The plans have been recommended for approval by Sungate.

<u>Lighting</u>: The proposed ATM has three downward-facing soffit lighting fixtures that are fully shielded. They are not sufficiently bright, or mounted high enough, to increase the footcandle readings at the property lines.

Signage: The ATM's signage must abide with the Carrboro Plaza master sign permit which has no additional square footage to allocate to the ATM. By the LUO, this will prohibit addition signage that is visible from the street R/W's but it will not prohibit the signage that faces internal to the site. The applicant has agreed to deactivate the illuminated banding at the top of the structure. Such illuminated bands are prohibited by Section

Agenda Date: Version: 1	Status: Other
5/20/2014	Matters
In Control:	enFile Type:
Board of Al	Abstr

15-281(e) of the LUO.

<u>Miscellaneous</u>: The plans have been reviewed by Public Works, Police, Fire, Inspections and Transportation and are found to be acceptable.

FISCAL & STAFF IMPACT: Staff time; fees collected from the applicant.

**RECOMMENDATION:** Town Staff recommends that the Board of Aldermen review, deliberate and make a decision regarding the applicant's request. If the request is approved it is recommended that the attached resolution approving the Minor Modification to the Carrboro Plaza Conditional Use Permit be adopted.

### A RESOLUTION APPROVING A MINOR MODIFICATION TO THE CARRBORO PLAZA CONDITIONAL USE PERMIT AUTHORIZING THE SITING OF A WALK-UP AUTOMATIC TELLER MACHINE IN THE AREA DESCRIBED BY THE SUBMITTED PLANS.

WHEREAS, the Carrboro Board of Aldermen approved a Conditional Use Permit for the Carrboro Plaza CUP in 1983; 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 Carrboro Plaza CUP, authorizing the location of the walk-up ATM per the specifications of the submitted plans and further subject to all applicable provisions of the Town of Carrboro Land Use Ordinance.

This the 20<sup>th</sup> day of May, 2014
# **TOWN OF CARRBORO**

LANDUSE PERMITAPPLICATION



DATE:	FEE:
APPLICANT: Wells Fargo Bank	OWNER: Carrbono Shopping Center Fuc
ADDRESS 525 Market Street	ADDRESS: PO BOX 1983
CITY/STATE/ZIP San Francisco, Califor	nia, 94105 Athens GA 30403
TELEPHONE/EMAIL: 301-356-2494 PHONE: kigerm	a@svwinc.com PHONE: TOU BALL: MURICOTUG-CON
LEGAL RELATIONSHIP OF APPLICANT TO PROPERTY O	DWNER: PIN:
PROPERTY ADDRESS: 104 Hwy 54, CArrboro, NC	27510 PROPOSED LAND USE & USE CLASSIFICATION:
PRESENT <b>CASH BOOM</b> PARKING LOT	LOT AREA:Square Feel
ZONING DISTRICT(S) AND AREA WITHIN EACH (includin	g Overlay Districts):
# OF BUILDINGS TO REMAIN	# OF BUILDINGS PROPOSED
EXISTING GROSS FLOOR AREA OF BUILDING(S)	GROSS FLOOR AREA (of proposed BUILDING / proposed ADDITION) AMOUNT OF IMPERVIOUS SURFACE / proposed
square feet	square feetsquare feet

NAME OF PROJECT/DEVELOPMENT:

The average of the second s	**INFORMATION REQUESTED (Refer to Attached Key)
SUBDIV. FINAL PLAT /	1, 18, 19, 21, 23, 31, 33, 34, 38
EXEMPTPLAT	
CONDITIONAL USE	1, 2, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27 28, 29,
PERMIT (CUP)	30, 32, 34, 35, 36, 37, 38
CUP MODIFICATION	SAME AS CONDITIONAL USE PERMIT (CUP)
SPECIAL USE PERMIT (SUP)	1, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 32, 34, 35, 36, 37, 38
	SAME AS SECTAL USE DEDMIT (SUD)
SUP WIDDIFICATION	
ZONING PERMIT (Project)	1, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 22, 23, 24, 25, 26, 27, 29, 30, 32, 34, 35, 36, 37, 38
ZONINC DE PMIT (Building)	9 10 22 24 34 37 (also see "Building Permit Review - Residences Only" checklist)
Residential Infill & Additions	
SIGN PERMIT	1, 10, 13, 14, 17, 20, 38
VARIANCE	4, 5, 10, 20, 29, 34, 38, Attachment A
APPEAL	4, 5, 38, Attachment B
SPECIAL EXCEPTION	I, 4, 5, 8, 10, 20, 35, Attachment C
APPLICANT:	OMARLY, SUCH, III MANAGUE DATE: 11/14/13 OMARLY, SUCH, III MANAGUE DATE: 11/12/13

Page #2 of 3 Updated 11-8-11

Land Use Permit Application Form

### Carrboro Shopping Center I, LLC PO Box 1983 Athens, GA 30603

October 8, 2013

Mr. Jeff Kleaveland, Plans Reviewer Carrboro Town Hall, 301 W. Main St. (3rd Floor) Carrboro, NC 27510

RE: Wells Fargo ATM

Dear Jeff:

The parking spaces affected by the proposed installation of the Wells Fargo ATM are located along the main drive into Carrboro Plaza and are the spaces furthest from the building. Neither customers nor tenants use these spaces; typically, they are empty.

Sinc

Thomas W. Scott, III Manager

	Gas Station			HIGHWAY
		Proposed Location	57'_	Electrical Location
Existing Parking Parking		Existing Parking		
* Securîty vauît * WELLS 122 Lafayetle Avenue Laurei, Maryiand 20707 Phone 3017776.2577 Fax 301/776.1273	Carrboro 104 Highway 54 Carrboro, NC 27510	New ATM ATM # Site Plan	Revised 04/29/2014 Walk-up	Scale: 1" = 50'-0" 04/18/2013 Page: 1 of 7













NORTH CAROLINA ORANGE COUNTY BOCK 426 MAR 102 . rah Williamson

### Attachment "D"

THE TOWN On UNINDURU

UL 2 1983

#### CONDITIONAL USE PERMIT GRANTED

On the date(s) listed below, the Board of Aldermen of the Town of Carrboro met and held a public hearing to consider the following application.

Applicant R.S. Lloyd

Property Location Southwest corner of Highway 54 and 54 Bypass Street Address

Tax Map 108 Block -- Lot 35 (Partial); Tax Map 114, Lot 30

Proposed Use of Property Construction of a shopping center with an ABC Store Meeting Date(s) February 22, 1983

Having heard all the evidence and argument presented at the hearing, the Board finds that the application is complete, that the application complies with all of the applicable requirements of the Carrboro Land Use Code for the development proposed, and that therefore the application to make use of the above described property for the purpose indicated is hereby approved, subject to all applicable provisions of the Land Use Code and the following conditions:

- 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.
- 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.
- 3) That any future access to the property, as shown on the approved site plan, be restricted to internal drive access only. Therefore, driveways for this development will be limited to five(5) driveways shown on the modified site plan dated 2/22/83.
- 4) That if there shall be any stormwater discharge into the University Lake Watershed, the developer shall be required to provide the necessary grading to stop such discharge.
- 5) That bus access be provided for the public transportation system as well as places for bus stops and turn outs at routes and locations to be chosen by mutual agreement by the owner and the Town of Carrboro.
- 6) That when the N.C. Department of Transportation constructs the Highway 54/54 Bypass intersection realignment, the developer shall, by the completion of such construction, open future entrance #2, install the concrete island shown at entrance #1, and install pavement markings at entrance #1 to indicate clearly that entrance #1 shall

entrance #1 to indicate clearly that entrance #1 shall thereafter allow only right turn in and right turn out traffic. If this permit authorizes development on a tract of land in excess of one acre, nothing authorized by the permit may be done until the property owner properly executes and returns to the Town of Carrboro the attached acknowledgment of the issuance of this permit so that the town may have it recorded in the Orange County Registry.

PIN: 9778-19-3698 Assigned by: 7.108.35 CLR.0

PIN: 9778-18-10301

Assigned by: 7.114..30 C.L.R.O. oyn

RECEIVED

1703 JUL 15 AM 9 51 GRANGE CTY. LANG HELSING

	BOOK 42D PAGE 193
in yı abovu Con A	to here and the undersigned being all of the property owners of the property owners of the property accept this Conditional Use Permit, together with all its tions, as budding upon them and their successors in interest.
ALLES	The TOWN OF CARRBORD TOWN CLERK (SEAL) BY Kind A Kunter
and S of th Town each the s that that and by	I, <u>Rachel E: Alford (Graham</u> ), a Notary Public in and for said County tate, do hereby certify that <u>Richard F. Hurler</u> , Town Manager e Town of Carrboro, and <u>Sarah C. Williamson</u> , Town Clerk for the of Carrboro, personally came before me this day and being by me duly sworn says for himself that he/she knows the corporate seal of the Town of Carrboro and that eal affixed to the foregoing instrument is the corporate seal of the Town of Carrboro and that <u>Sarah C. Williamson</u> , Town Manager of said Town of Carrboro and names thereto; that the corporate seal of the Town of Carrboro subscribed y virtue of a resolution of the Roard of Alderson of Carrboro was affixed thereto,
act ar I යියිදා	IN WITNESS THEREOF, I have hereunto set my Hand and Notarial Seal this the day of March $19_{83}$ .
My Com	mission Expires:
	11/20/84
	- Rovin Llovd
acknow acknow all of them ar	,, owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon nd their successors in interest.
acknow acknow all of them a	, <u>Roy S. Lloyd</u> , owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon nd their successors in interest.
acknow acknow all of them au NORTH C	Roy S. Lloyd, owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon nd their successors in interest. Owner CAROLINA GCOUNTY
Acknow acknow all of them an NORTH ( Orang County, persona foregoi	Roy S. Lloyd, owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon ind their successors in interest.          Owner       Image: Conditional Use Permit.
ACKNOW ACKNOW All of them an NORTH ( Orang I, County, persona foregoi WI	, <u>Roy S. Lloyd</u> , owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon nd their successors in interest. Owner CAROLINA CAROLINA COUNTY do hereby certify that <u>Roy S. Hoyd</u> , a Notary Public in and for said State and owners, a Notary Public in and for said State and owners, owners, Notary Public TNESS my Hand and Notarial Seal, this the <u>5</u> day of <u>Jul</u> , <u>1979</u>
Acknow acknow all of them an NORTH ( Orang I, County, persona foregoi WI My Comm 3	New S. Lloyd, owners, do hereby ledge receipt of this Conditional Use Permit. The undersigned owners do further ledge that no work may be done pursuant to this permit except in accordance with its conditions and requirements and that this restriction shall be binding upon nd their successors in interest.          Owner       Image: Country of the state of the s
Acknow acknow all of them an NORTH ( Orang I, County, persona foregoi WI My Comm 3	Roy S. Lloyd       , owners, do hereby         ledge receipt of this Conditional Use Permit. The undersigned owners do further         ledge that no work may be done pursuant to this permit except in accordance with         its conditions and requirements and that this restriction shall be binding upon         nd their successors in interest.         Owner         Owner         Owner         CAROLINA         COUNTY         A notary Public in and for said State and owners, owner
Acknow acknow all of them an NORTH ( Orang I, County, persona foregoi WI My Comm 3	Roy S. Lloyd       , owners, do hereby         ledge receipt of this Conditional Use Permit. The undersigned owners do further         ledge that no work may be done pursuant to this permit except in accordance with         its conditions and requirements and that this restriction shall be binding upon         nd their successors in interest.         Owner         Owner         Owner         CAROLINA         COUNTY         Arryline S. Stuck         , a Notary Public in and for said State and         , do hereby certify that         Roy S. Lloyd         , do hereby certify that         Roy S. Lloyd         , a Notary Public in and for said State and         , do hereby certify that         Roy S. Lloyd         , do hereby certify that         Roy S. Lloyd         , a Notary Public in and for said State and         , do hereby certify that         , dotary Public



## Agenda Item Abstract

## File Number: 14-0167

## Agenda Date: Version: 1

**ol:** Board of Aldermen

Status: Draft In C Ie Type: Abstract