## AGENDA

**THURSDAY, JUNE 1, 2017**

<table>
<thead>
<tr>
<th>Item</th>
<th>Topic/Action</th>
<th>Person/Agency</th>
<th>Time (Approx)</th>
</tr>
</thead>
<tbody>
<tr>
<td>I.</td>
<td>WELCOME/AGENDA ADJUSTMENTS</td>
<td>Chair</td>
<td>7:30</td>
</tr>
<tr>
<td>II.</td>
<td>JOINT REVIEW ITEMS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A) Casa Concept Plan, Merritt Mill Road</td>
<td>Staff/Applicant</td>
<td>7:35</td>
</tr>
<tr>
<td></td>
<td>B) LUO Text Amendments relating to Solar Arrays</td>
<td>Staff</td>
<td>7:50</td>
</tr>
<tr>
<td>III.</td>
<td>APPROVAL OF MINUTES</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A) May 18, 2017 Meeting Minutes</td>
<td>Chair/Planning Board</td>
<td>8:05</td>
</tr>
<tr>
<td>IV.</td>
<td>OTHER MATTERS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>A) Casa Concept Plan, Merritt Mill Road</td>
<td>Chair/Planning Board</td>
<td>8:10</td>
</tr>
<tr>
<td></td>
<td>B) LUO Text Amendments relating to Solar Arrays</td>
<td>Chair/Planning Board</td>
<td>8:35</td>
</tr>
<tr>
<td></td>
<td>C) LUO Text &amp; Map Amendments relating to WM-3</td>
<td>Chair/Planning Board</td>
<td>9:00</td>
</tr>
<tr>
<td>V.</td>
<td>ADJOURNMENT</td>
<td>Chair</td>
<td>9:30</td>
</tr>
</tbody>
</table>

Materials (PDF copies to be distributed separately via email):

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**PUBLIC COMMENT AT PLANNING BOARD MEETINGS**

If members of the public wish to address the Planning Board, a time will be provided during the meeting. Speakers may address the Board only after being recognized by the Chair and only from the podium, subject to a three-minute time limit.

**PLEASE NOTE:** If you are unable to attend this meeting, please email or call 918-7325 to inform staff. Thank you!
The solution to homelessness is housing.

www.casanc.org
the solution to homelessness is housing

- Building communities
- Maintaining properties
- Supporting tenants
CASA History and Capacity

- Local non-profit
- Celebrating 25 years
- Currently own and manage 400+ apartments in Wake, Durham, Orange
- Serve households in need
  - People with disabilities
  - Veterans
  - Seniors on fixed incomes
  - Households struggling with homelessness
  - Workers with modest incomes looking for reasonable rent
Geer Street Apartments, Durham
Robertson Hill Apartments, Raleigh
Hull’s Landing, Raleigh
Salisbury Apartments, Raleigh
Denson Apartments for Veterans Phase I, Durham
Denson Apartments for Veterans Phase II, Durham
Merritt Mill West Concept Plan

- Total units: 36
  - Proposed unit mix: 36 1-bedroom, 1-bath

- Lot size: 2.04 acres (17.6 units/acre density)

- Highlights of the development
  - Permanent affordability
  - Fantastic location
  - High-quality design
  - Low-maintenance materials and landscaping long-term
  - Hands-on property management
PURPOSE

The purpose of this item is to consider text amendments to the Land Use Ordinance that would add new provisions relating to roof and ground mounted solar arrays. The Board of Aldermen has set a public hearing date for June 27, 2017 and has requested advisory board review prior to the public hearing.

INFORMATION

In the summer of 2016, staff from Orange County and Chapel Hill reached out to Carrboro to share information about the SolSmart program, and to invite the Town to collaborate and seek designation. (Information about SolSmart may be found at: http://www.gosparc.org/.)

As part of its participation, the Town has undergone an intensive review of the Land Use Ordinance with recommendations to make the LUO more solar friendly, and taken other steps under the SolSmart categories of permitting, inspections, solar rights, community engagement, and market development and finance. The completion of this level of work has earned the Town Bronze status in the SolSmart program. (Press release announcing the Town’s achievement may be found at http://www.townofcarrboro.org/CivicAlerts.aspx?AID=679) The adoption of LUO amendments may promote the Town to Silver or Gold status.

A draft ordinance (Attachment B) has been prepared which establishes new definitions for building and ground mounted solar arrays and assigns permitting requirements on the basis of size and intensity. The amendment, as currently drafted, would also allow small-scale solar arrays and solar hot water heaters as accessory uses in all zoning districts.

A public hearing has been set for June 27, 2017. The Board of Aldermen must receive public comment before adopting amendments to the LUO; Orange County and Planning Board review are needed. The Board referred the item to the Appearance Commission, the Environmental
Advisory Board and the Economic Sustainability Commission, as well as the subject matter of the proposed amendment falls within their relevant areas of expertise. A recommendation template is provided to facilitate drafting comments (Attachment A).

RECOMMENDATION

Staff recommends that advisory boards review the draft ordinance and adopt a recommendation pertaining to the proposed LUO amendment for inclusion in the public hearing materials for June 27th.
Land Use Ordinance Text Amendment Relating to Solar Arrays

Motion was made by ____________ and seconded by ____________ that the ____________ recommends that the Board of Aldermen ____________ the draft ordinance.

VOTE:
AYES: ( )
ABSENT/EXCUSED: ( )
NOES: ( )
ABSTENTIONS: ( )

Associated Findings

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

Motion was made by ____________ and seconded by ____________ that the ____________ of the Town of Carrboro finds the proposed text amendment, _____ consistent with the goals and objectives of Carrboro Vision2020 to promote energy conservation and alternative and renewable energy, including passive and active solar.

Furthermore, the ________________ of the Town of Carrboro finds that the proposed text amendment is reasonable and in the public interest because it clarifies existing requirements and provides for the installation of small roof and ground mounted arrays as an accessory use subject to specific criteria.

VOTE:
AYES: ( )
ABSENT/EXCUSED: ( )
NOES: ( )
ABSTENTIONS: ( )

____________________________________________
(Chair)      (Date)
AN ORDINANCE AMENDING TOWN OF CARRBORO LAND USE ORDINANCE
PROVISIONS RELATED TO SOLAR ARRAYS

*Draft 5-1-2017*

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

   Section 1. Section 15-15 (Definitions) of the Carrboro Land Use Ordinance is amended by adding new subsections (113 through 117), as shown below, and renumbering the subsequent subsections accordingly.

(113) SOLAR ARRAY – A photovoltaic cell, module, panel or array that is accessory to the principal use of a property and is designed solely for the purpose of reducing or meeting on-site energy needs. Roof mounted or building integrated arrays must be on a permitted structure, or one that is exempt on the basis of its size. Roof mounted arrays may be no more than 2000 square feet in size. Ground mounted arrays may be no greater than: 500 square feet in R-2 and R-3 districts; 1000 square feet in R-7.5, R-10, and R-S.I.R districts; 2000 square feet in R-15 and R-20 districts; and 5000 square feet in other districts. In addition, ground mounted arrays may be no greater than 50% of the size of the building footprint of the primary structure. Solar water heating panels may also be accessory to the principal use of a property subject to the criteria described above.

(114) SOLAR ARRAY FACILITY – LEVEL 1
Level 1 roof mounted or building integrated arrays must be on a permitted structure. Level 1 ground mounted arrays may be no greater than 50% of the size of the building footprint of the primary structure. In addition, Level 1 roof mounted arrays may not be more than 10000 square feet and Level 1 ground mounted arrays must be no more than: 2000 square feet in R-10 and R-S.I.R; 3000 square feet in R-15 and R-20; and 10000 square feet in other districts.

(115) SOLAR ARRAY FACILITY – LEVEL 2
A Level 2 facility has a solar array (roof-mounted/building integrated or ground mounted) that does not qualify as an accessory or Level 1 facility and is not more than 1 acre.

(116) SOLAR ARRAY FACILITY – LEVEL 3
A Level 3 facility has a solar array greater than 1 acre.

(117) SOLAR WATER HEATER
A solar water heater is a system that uses a solar thermal collector to heat water. A solar water heater may also be accessory to the principal use of a property subject to the criteria described under “solar array” above.

<table>
<thead>
<tr>
<th>Use Classification</th>
<th>Solar Array</th>
<th>Zoning Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.501</td>
<td>Level 1</td>
<td>Z, S, C</td>
</tr>
<tr>
<td>17.502</td>
<td>Level 2</td>
<td>S, C</td>
</tr>
<tr>
<td>17.503</td>
<td>Level 3</td>
<td>C</td>
</tr>
</tbody>
</table>

Section 3. Section 15-150 (Accessory Uses) is amended by adding a new subsection (d), as shown below, and renumbering the subsequent subsections (d), (e) and (f), to (e), (f) and (g):

(d) Without limiting the generality of subsections (a) and (b), the following activities are regarded as accessory to residential and commercial principal uses so long as they satisfy the general criteria set forth above.

1. Solar Arrays, and solar water heaters, providing energy for the principal use on the property, in any zoning district.
2. The applicant must be able to demonstrate ownership of the subject property or permission by the owner to install the solar device.
3. The applicant must prepare and submit a site plan or sketch plan showing the following:
   a. Installation of the array(s) shall not negatively affect compliance, or any condition of compliance of an existing land use permit or building permit.
   b. The panels are designed, positioned, and oriented such that concentrated solar radiation or glare shall not be directed onto nearby properties or road rights-of-way, or shall otherwise create a safety hazard.
   c. All on-site utility lines shall be placed underground.
   d. The top of any roof mounted devices, located on the principal structure or any accessory structure, shall not exceed the maximum building height for the district in accordance with Section 15-185.
   e. Ground mounted systems shall not exceed a maximum height of 15 feet from finished grade to the top of the device.
      1. The installation of the solar device and associated mechanical equipment shall not affect tree screening or buffer requirements outlined in Article XIX.
      2. Mechanical equipment, including batteries or other similar storage devices, shall be located within the required building setbacks as provided for in Section 15-184, and shall be shielded to avoid damage.
      3. All solar devices and mechanical equipment, including batteries or other similar storage devices, shall be located outside of the designated open.
Section 4. Article XI (Supplementary Use Regulations) is amended by adding a new Section 15-175.11 to read as follows:

Section 15-175.11 Solar Arrays

(a) In addition to other applicable provisions of this chapter, use classifications 17.501 (Solar Array Level 1 Facility) and 17.502 (Solar Array Level 2 Facility) shall be subject to the following requirements:

(1) Installation of the array(s) shall (i) not negatively affect compliance, or any condition of compliance of an existing land use permit or building permit, or (ii) approval shall be subject to the modification of the subject permit.

(2) The panels are designed, positioned, and oriented such that concentrated solar radiation or glare shall not be directed onto nearby properties or road rights-of-way, or shall otherwise create a safety hazard.

(3) All on-site utility and transmission lines shall, to the extent feasible, be placed underground.

(4) A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.

(5) The height of the array and supporting structures shall not exceed the height requirements of the underlying zoning district where the property is located as described in Section 15-185.

(6) Mechanical equipment, including batteries or other similar storage devices, shall be located within the required building setbacks as provided for in Section 15-184, and shall be shielded to avoid damage.

(7) All mechanical equipment, including any structure for batteries or storage cells, shall be completely enclosed by a minimum eight (8) foot high fence with a self-locking gate, and provided with a Type A-Screen.

(8) All solar devices and mechanical equipment, including batteries or other similar storage devices, shall be located outside of the designated open space, well/septic system areas as identified by Orange County Environmental Health, utility easements, water quality buffers as identified in Section 15-269.5 and Special Flood Hazard Areas.

(9) The facility shall have sufficient parking on site to accommodate the number of vehicles likely to be present on a regular basis.

(10) The applicant shall submit proof of liability insurance covering bodily injury and property damage demonstrating a minimum coverage limit of $500,000.00 per occurrence.

(b) In addition to other applicable provisions of this chapter, use classifications 17.503 (Solar Array Level 3 Facility) shall be subject to all of the requirements of use classifications 17.501 and 17.502 above as well as the following requirements:
(1) A soils report denoting the types of soil on the property including detail on the compaction necessary to support the proposed development.

(2) Demonstration of compliance with the decommissioning protocol, described below in paragraphs (a. through f) should the device become damaged, or removed from service.

a. The owner/operator of the facility is required to notify the Town Planning Director in writing 60 days prior to the planned cessation or abandonment of the facility for any reason. This notice shall provide the exact date when the use of the facility will cease.

b. Documentation shall be provided indicating that the public utility purchasing the power has been made aware of the decision.

c. The facility shall be removed within 12 months from the date the applicant ceases use of the facility.

d. Once the infrastructure is removed the property, the owner shall obtain the necessary Erosion Control permits to re-stabilize the property. The time frame for completion shall be determined by the Orange County Erosion Control Officer.

e. The owner shall provide financial security in form and amount acceptable to the County to secure the expense of dismantling and removing said structures.

f. Upon removal of the facility, the Planning Department shall cause a notice to be recorded with the Orange County Registrar of Deeds office indicating that the Conditional Use Permit has been revoked.

Section 5. All provisions of any Town Ordinance in conflict with this Ordinance are repealed.

Section 6. This Ordinance shall become effective upon adoption.
TRANSMITTAL   PLANNING DEPARTMENT

DELIVERED VIA: ☑ HAND ☐ MAIL ☐ FAX ☑ EMAIL

To: Patricia McGuire, Planning Director
    Christina Moon, Planning Administrator
    Marty Roupe, Zoning Administrator
    Advisory Boards

From: Randy Dodd, Environmental Planner

Date: May 25, 2017

Subject: Overview of Town Participation in the DOE SolSmart Program

Summary
This memo is being prepared to provide an overview of the Town’s participation in the SolSmart program. Town staff have worked with the SolSmart program and Chapel Hill and Orange County staff to pursue designation as a SolSmart community. Bronze level designation was awarded on April 29, 2017. If the Town amends the Land Use Ordinance (LUO) to address SolSmart criteria, the Town will be in position to receive Gold level designation.

Information
In the summer of 2016, Chapel Hill and Orange County staff invited Carrboro staff to look into participation in the SolSmart program, a new national recognition and no-cost technical assistance effort to help local governments take key steps to address local barriers to solar energy and foster the growth of mature local solar markets. SolSmart is funded and administered under the U.S. Department of Energy SunShot and Solar Powering America by Recognizing Communities (SPARC) initiatives. The program primarily seeks to address “solar soft costs,” or business process or administrative costs that can increase the time and money it takes to install a solar energy system — costs which are then passed on to solar customers. Local government procedures such as permitting, planning, and zoning are the source of some soft costs. The view of SolSmart is that local governments are in a unique position to reduce these and other soft costs and take action to promote the use of solar locally. The program is intended to provide high-profile, national recognition for communities that have made it cheaper and easier for solar customers to invest in solar energy. In addition, achieving designation sends a signal to solar companies that a community is “open for solar business”. To date, 58 communities have received designation, with Carrboro, Chapel Hill, and Orange County being the only North Carolina communities.
A key element of the program is the opportunity for participating communities to apply to host a SolSmart Advisor – fully-funded, experienced staff, recruited to help communities achieve designation. Advisors evaluate existing local government programs and processes and apply industry-leading best practices to keep the community moving toward designation. SolSmart advisors are being chosen to assist 30 communities through engagements lasting up to six months, with advisors receiving stipends. In 2016, the three local jurisdictions jointly applied for an advisor and at the start of 2017, SolSmart chose the North Carolina Clean Energy Technology Center (NCCETC) to serve as the advisor to Orange County, Chapel Hill, and Carrboro, with the work period ending in mid-July.

SolSmart participation and movement towards designation is based on accumulating points under six separate categories. Prerequisites exist for different levels of designation. As part of the initial intake to the program, Carrboro was able to receive credit for 150 points and significant progress towards not only bronze but higher levels of designation. Examples of activities that received credit include: the Carrboro Solarize program, establishment of the Climate and Energy Task Force, completion of the Community Climate Action Plan, installation of the solar array at the Town Commons, documented efficiencies with permitting of photovoltaics, and the ordinance section limiting HOA restrictions on solar. The Town completed several additional steps in the spring of 2017 to achieve the necessary prerequisite credits for bronze designation. The LUO currently has limited provisions directly addressing solar installations; the inclusion of provisions that explicitly allow solar as an accessory use are needed as a prerequisite to silver level designation. It is likely, but at the SolSmart programs discretion, that the proposed ordinance changes will satisfy this prerequisite and improve the Town’s chance to qualify for gold level designation because of other credits that have been achieved.

A summary of the crediting for the Town’s participation in the program is provided in the following appendix.

**Recommendation**

It is recommended that this memo be included in Joint Review materials for June 1, 2017.
## Appendix: Summary of Carrboro Participation in SolSmart

<table>
<thead>
<tr>
<th>Credit Type</th>
<th>Points</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronze Prerequisites*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online checklist detailing permitting process for PV (P-1)</td>
<td>Permitting</td>
<td>P</td>
</tr>
<tr>
<td>Require no more than one application form for a residential rooftop solar PV project (P-4)</td>
<td>Permitting</td>
<td>5</td>
</tr>
<tr>
<td>Demonstrate that permit fees reflect national best practices (P-5b)</td>
<td>Permitting</td>
<td>5</td>
</tr>
<tr>
<td>Review permitting process for efficiency; reduce processing time to 10 days or less (P-6)</td>
<td>Permitting</td>
<td>10</td>
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<tr>
<td>Review solar provisions in LUO (PZD-1)</td>
<td>Planning/Zoning/Development</td>
<td>P</td>
</tr>
<tr>
<td>Draft proposed LUO changes (PZD-1a)</td>
<td>Planning/Zoning/Development</td>
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<tr>
<td>Integrate solar and/or shared solar into relevant local plans (PZD-5)</td>
<td>Planning/Zoning/Development</td>
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<tr>
<td>Provide an online handout with overview of what development regulations allow (PZD-11)</td>
<td>Planning/Zoning/Development</td>
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<tr>
<td>Silver Prerequisites*</td>
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<td>Implement ordinance adjustments identified through the LUO review (PZD-2)**</td>
<td>Planning/Zoning/Development</td>
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<tr>
<td>Provide cross-training of inspection and permitting staff on solar PV (I-1)</td>
<td>Inspections</td>
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<tr>
<td>Gold Prerequisites*</td>
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<tr>
<td>Provide a permitting pathway for small PV systems turn-around of no more than 3 days (P-2)</td>
<td>Permitting</td>
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<tr>
<td>Other Credits*</td>
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<tr>
<td>Review solar permit fees (P-5a)</td>
<td>Permitting</td>
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<tr>
<td>Adopt a standard solar PV permit form aligned with best practices (P-7)</td>
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<tr>
<td>Train fire and safety staff on best practices (P-9)</td>
<td>Permitting</td>
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<tr>
<td>Solicit procedural recommendations from the solar installer community (P-10)</td>
<td>Permitting</td>
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<tr>
<td>Make permit data accessible to other departments (P-12)</td>
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<tr>
<td>Require no more than 2 inspections for accessory-use solar PV (I-2)</td>
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<tr>
<td>Complete inspections promptly (I-5)</td>
<td>Inspections</td>
<td>10</td>
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<tr>
<td>Conduct review of state policies on property/solar system owner’s rights to install solar and right to sunlight on property. Make this information available (SR-1)</td>
<td>Solar Rights</td>
<td>5</td>
</tr>
<tr>
<td>Provide consumer protection resources to help with solar PV purchasing decisions (SR-2)</td>
<td>Solar Rights</td>
<td>5</td>
</tr>
<tr>
<td>Engage homeowners associations to discourage restrictive PV requirements (SR-5a)</td>
<td>Solar Rights</td>
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</tr>
<tr>
<td>Convene an active task force or solar working group (CE-1)</td>
<td>Community Engagement</td>
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</tr>
<tr>
<td>Create a solar landing page on local government’s website (CE-2)</td>
<td>Community Engagement</td>
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</tr>
<tr>
<td>Support or host a community-group purchase program (CE-4a)</td>
<td>Community Engagement</td>
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<tr>
<td>Host a solar workshop explaining solar PV opportunities and policies (CE-5a)</td>
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<tr>
<td>Establish partnership with nonprofit (CE-5c)</td>
<td>Community Engagement</td>
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<tr>
<td>Encourage community solar projects or solar PV projects on community facilities (CE-5d)</td>
<td>Community Engagement</td>
<td>5</td>
</tr>
<tr>
<td>Engage community robust discussion around climate, energy, or sustainability plans (CE-5e)</td>
<td>Community Engagement</td>
<td>5</td>
</tr>
<tr>
<td>Provide resources on active installers and/or local incentives for solar (MDF-1)</td>
<td>Market Development &amp; Finance</td>
<td>5</td>
</tr>
<tr>
<td>Complete feasibility analyses of solar installations on public facilities (MDF-4)</td>
<td>Market Development &amp; Finance</td>
<td>10</td>
</tr>
<tr>
<td>Install solar capacity on local facilities (MDF-5)</td>
<td>Market Development &amp; Finance</td>
<td>20</td>
</tr>
</tbody>
</table>

*: Specific credits needed for bronze are indicated. Silver & gold designation require points beyond prerequisites (100 for silver, 200 for gold).

P: This credit is required for SolSmart participation, and accrues no points.
Supplemental Information
Proposed Land Use Ordinance Update for Solar Electricity Installations

Why are these changes being proposed? If Carrboro is seeking to be recognized as a solar friendly community, why is more regulation of solar installations needed?

An absence of specific provisions in land use/zoning regulations relating to solar installations can create a sense of uncertainty as to what is permitted. According to the National Renewable Energy Laboratory, many communities indicate that they allow solar installations even though there is no mention of solar in their zoning code. In these instances, the communities without clear land use categories, including definitions and permitting requirements, may find that both the city and the solar energy system owner are vulnerable, for example, if a resident opposes a neighbor’s installation or sues the city for allowing a land use that is not defined nor explicitly allowed in their local land use laws. According to the American Planning Association, “a conspicuous silence on the part of local policies, plans, and regulations on the topic of solar energy use constitutes a significant barrier to adoption and implementation of these technologies.”

Allowing small rooftop and ground mounted solar installations as accessory uses may streamline the process, as small-scale PV systems would not necessarily need a land permit prior to obtaining a building permit. Details regarding permitting requirements for larger systems similarly would help both applicants and the Town consider future installations. The Town’s new provisions are designed to clarify solar PV permitting processes and submittal requirements.

In addition, the solar PV market is growing, and is expected to continue to accelerate. These provisions therefore are proactive in the sense of anticipating this growth and avoiding conflicts before they arise, and providing clear thresholds for when zoning, special use, and conditional use permits are required.

The four different categories of solar arrays (accessory use and Levels 1-3) are based on their size/area. How does the area relate to the amount of electricity that can be generated?

As estimated by NC Clean Energy Technology Center staff, with current technology (assuming a 250 watt panel is 18 square feet (sf)), 1 kW of electricity can be generated from a 72 sf roof mounted array. Large ground mounted arrays can end up using up more total area per kW since they can have more void space. It is generally estimated that a 5 kW array (or just over

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350 sf) is a sufficient size to generate the annual onsite electricity use for an average single family residence.\textsuperscript{2}

**In practice, what percentage of the solar installations in Carrboro will require a land use permit? For example, how many of the solar arrays that have already been installed in Carrboro would have needed to get a permit if these ordinance provisions had been in place?**

Assuming a continuation of the same general pattern of most PV systems being small residential systems (primarily rooftop) and based on the previous question, a small percentage will need a land use permit. Staff have not yet identified a current solar installation in Carrboro that would not fit the requirements for being allowable as an accessory use. As examples, the largest residential system in Carrboro currently is about 20 kW (ground mount) on a large lot and uses roughly 1/10 of an acre. The largest commercial system currently is a rooftop 27 kW system. Therefore, the Level 1 and higher systems requiring permits will only be seen to the degree that Carrboro property owners choose to start installing larger solar arrays, or arrays of the size of the current larger systems on smaller lots.

**Where can I see a map of the solar installations that have already occurred in Carrboro?**

As of early 2017, there about 80 PV installations in Carrboro. Almost all of these are relatively small rooftop systems, with 95% being residential.

**What exactly has Carrboro done to be recognized as a bronze level SolSmart community?**

Carrboro has achieved credits towards designation in six separate categories and for about 30 different actions, as described in a separate memorandum.

**How close is Carrboro to receiving a silver or gold level SolSmart designation?**

Because of actions for which Carrboro has already received credit, Carrboro appears to be in position to receive both silver and gold level designation if Land Use Ordinance updates are adopted. Ultimately, designation for silver or gold will be at the SolSmart program’s discretion.

**What communities have received a SolSmart designation?**

As of May, 2017 there are 58 communities in the US that have received SolSmart designation. The list of designees can be seen at [http://www.gosparc.org/solsmart-designees/](http://www.gosparc.org/solsmart-designees/)

**What provisions are currently in the Land Use Ordinance for photovoltaics?**

The following LUO sections have relevant provisions for future photovoltaic installations.

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\textsuperscript{2} Note that over time solar panels have become more efficient. In other words, the electricity generated per unit area of collection has increased, and it is anticipated that this trend will continue over time.
Section 15-83.3: Covenants May Not Prohibit Devices that Generate or Conserve Energy.....

This section limits the ability of residential homeowner’s associations to prohibit solar installations under State legislative authority granted to Carrboro. It specifically allows the Town to hold final plat approval for a subdivision if the “the covenants or restrictions prohibit….. the orderly installation of solar collectors…..” It was passed in 2011, and applies to all subsequent (but not to previously approved) subdivisions.

Sections 15-141.3 and 15-141.4: Conditional Use and Conditional Zoning Districts

Specific solar performance measures are included and can be considered in the establishment of new conditional use and conditional zoning districts.

Section 15-185: Building Height Limitations

This section includes language that may be relevant to rooftop installation for buildings approaching height limitations, and that may limit the total roof area that can be covered by a solar array (15-185(d)).

Section 15-319(b): Modifications to Canopy Coverage Standards

This section allows for relaxation of tree canopy requirements to encourage solar installations.

The Town of Carrboro’s Land Use Ordinance (LUO) does not currently include detailed provisions for PV arrays. There are no restrictions or special provisions for: the types and sizes of solar PV permitted or definitions for PV arrays; no specific provisions for PV under permissible or accessory uses; and no PV supplementary use regulations.

Other Information

The policy document Vision 2020 does include policy guidance that encourages solar PV. Specific recommendations include:

2.44 Solar power..... should be incorporated into the Town infrastructure.

2.45 The Town should be known as a practitioner of climate change mitigation and adaptation practices.

5.51 .... The Town’s own alternative and renewable energy targets should include passive and active solar.............

5.55 The Town should encourage and promote efficient generation of renewable energy..... whether through public private partnerships.... or by supporting residential initiatives......

A Community Climate Action Plan that provides recommendations in support of PV was completed in early 2017.
PLANNING BOARD

AGENDA ITEM ABSTRACT

MEETING DATE: June 1, 2017

TITLE: Land Use Ordinance Text and Map Amendments Relating to the WM-3 Zoning District

DEPARTMENT: Planning

ATTACHMENTS:
A. Recommendation Template Text Amendment
B. Draft LUO Ordinance--Text Amendment
C. Recommendation Template Map Amendment
D. Draft LUO Ordinance--Map Amendment
E. LUO Section 15-137

PUBLIC HEARING: YES ___ NO X_

FOR INFORMATION CONTACT:
Christina Moon – 918-7325
Patricia McGuire -- 918-7327

PURPOSE

The purpose of this item is to consider text and map amendments to the Land Use Ordinance relating to the Watershed Manufacturing District (WM-3). The Board of Aldermen has requested Planning Board review prior to the public hearing.

INFORMATION

Recognizing the development challenges associated with the split jurisdiction and split zoning of a handful of properties located along the north side of NC Hwy 54 West, the Board of Aldermen submitted a request to Orange County to extend the Town’s extraterritorial jurisdiction boundary (ETJ) slightly further north to include the entirety of five parcels: 600, 610, 626 and 630 NC Hwy 54 West and 1306 Hatch Road. A public hearing for the Board of Aldermen to consider the matter has been set for June 13th. The Board of County Commissioners is scheduled to consider the matter on June 20th. Additional information relating to the request for ETJ expansion may be found in the Board of Aldermen’s agenda materials from May 9th (at the following link: https://carrboro.legistar.com/MeetingDetail.aspx?ID=532851&GUID=2576DED7-6A55-4E8A-8C6F-219ACDBC6003&Options=&Search=).

Contingent upon Orange County’s approval, the Town would initiate its zoning authority to zone the approximately 2.9 acres of land (currently in Orange County) to Watershed Manufacturing (WM-3) such that the entirety of each of the five lots, along with a short section of land used as the driveway for Camelia Forest Nursery, the 22.83-acre parcel located at 620 NC Hwy West, would be classified WM-3.

The language in Section 15-137(2)(b) of the Land Use Ordinance that describes the WM-3 District appears to limit any expansion of the zone, preventing new lots from being zoned to WM-3 and any existing WM-3 lots from being rezoned to include a larger amount of land area. After researching historical files on the establishment of the district, it seems likely that the original intent of the rezoning that assigned parcels to the WM-3 zoning category was to include
the parcels in their entirety and that over time, as mapping technology changed from hand colored zoning maps to GIS generated maps, the northern boundary line was inadvertently shifted. With that in mind, a draft text amendment to the LUO has been prepared to reflect the intent of the original 1983 rezoning to WM-3 (Attachment B). The related draft map amendment would rezone the Orange County portions of the parcels to WM-3 (Attachment D).

A public hearing has been set for June 13, 2017. The Board of Aldermen must receive public comment before adopting amendments to the LUO. Orange County and Planning Board review are also needed.

**RECOMMENDATION**

Staff recommends that the Planning Board reviews the draft LUO ordinance and adopt a recommendation pertaining to the proposed LUO text and map amendments for inclusion in the materials for both public hearings scheduled for June 13th.
TOWN OF CARRBORO
Planning Board
301 West Main Street, Carrboro, North Carolina 27510

RECOMMENDATION

JUNE 1, 2017

Land Use Ordinance Text Amendment Relating to the WM-3 Zoning District

Motion was made by ____________ and seconded by ____________ that the ____________ recommends that the Board of Aldermen ____________ the draft ordinance.

VOTE:
AYES: ( )
ABSENT/EXCUSED: ( )
NOES: ( )
ABSTENTIONS: ( )

Associated Findings

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

Motion was made by ____________ and seconded by ____________ that the ____________ of the Town of Carrboro finds the proposed text amendment _____ is consistent with the description and intent of the watershed industrial zoning district put forth in the 1982 Carrboro Water Quality Task Force Report and Recommendations, which formulated the basis for the WM-3 District, and Carrboro Vision2020 provisions relating to balanced and controlled growth in the watershed and peripheral areas..

The ____________ furthermore finds that the above described amendment is reasonable and in the public interest because it clarifies the language in the LUO relating to the WM-3 District and allows for the reasonable development of property zoned WM-3 in accordance with the Town’s zoning requirements.

VOTE:
AYES:
ABSENT/EXCUSED:
NOES:
ABSTENTIONS:

____________________________________  __________________________________
(Chair)                                (Date)
AN ORDINANCE AMENDING TOWN OF CARRBORO LAND USE ORDINANCE
PROVISIONS RELATING TO THE WM-3 ZONING DISTRICT

*Draft 4-28-2017*

Section 1. Subparagraph (b) of the Town of Carrboro Land Use Ordinance Section 15-137 Manufacturing Districts Established, is amended to read as follows:

(b) There is also established a watershed light industrial (WM-3) zoning district. The purpose of this district is to allow areas within the University Lake Watershed that have been zoned M-1 prior to the effective date of this subdivision to continue to be used and developed for light industrial and related purposes, subject to certain restrictions designed to protect the watershed. Consistent with the purpose of this zone, this district shall be confined to that area zoned M-1 on the effective date of this subsection (12/7/1983); this area shall not be expanded and no new WM-3 areas shall be designated. For the purposes of this section, changes to make WM-3 zoning uniform on lots that were depicted as entirely within the M-1 zoning at the time of its establishment, but that were later depicted as being bisected by the zoning boundary, will not be considered an expansion of the district or the creation of new WM-3 areas.

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

Section 3. This Ordinance shall become effective upon adoption.
LAND USE MAP AMENDMENT – REZONING PORTIONS OF SIX PARCELS CONSISTING OF APPROXIMATELY 2.9 ACRES OF PROPERTY TO WATERSHED MANUFACTURING (WM-3)

Motion was made by ____________ and seconded by ____________ that the ____________ recommends that the Board of Aldermen, contingent upon the Orange County Board of Commissioners extension of the Town’s ETJ, approve/reject the draft ordinance amending the zoning classification for approximately 2.9 acres of property located along the north side of NC Hwy 54 West. The six parcels are more specifically know as: 600 NC 54 West (PIN 9769-31-7655), 610 NC 54 West (PIN 9769-31-5687), 620 NC 54 West, (PIN 9769-32-3307), 626 NC 54 West (PIN 9769-21-9629), 630 NC 54 West (PIN 9769-21-7639) and 1306 Hatch Road (PIN 9769-31-9894).

VOTE:
AYES: ( )
ABSENT/EXCUSED: ( )
NOES: ( )
ABSTENTIONS: ( )

Associated Findings

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

Motion was made by ____________ and seconded by ____________ that the ____________ of the Town of Carrboro finds the proposed map amendment _____ is consistent with the original intent of assigning these parcels to the WM-3 Zoning District category in 1983, as put forth by the 1982 Carrboro Water Quality Task Force Report and Recommendations.
The ____________ furthermore finds that the above described amendment is reasonable and in the public interest because it allows for the reasonable development of property in accordance with the Town’s zoning requirements.

**VOTE:**
AYES:
ABSENT/EXCUSED:
NOES:
ABSTENTIONS:

____________________________________
(Chair)     (Date)
AN ORDINANCE AMENDING THE CARRBORO ZONING MAP TO ZONE APPROXIMATELY 2.9 ACRES OF LAND ON NC HIGHWAY 54 WEST KNOWN AS PORTIONS OF 630, 626, 620, 610, 600 NC 54 WEST AND 1306 HATCH ROAD TO WM-3

**DRAFT 4-28-2017**

THE BOARD OF ALDERMEN OF THE TOWN OF CARRBORO ORDAINS:

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

Portions of six lots in the Chapel Hill Township known in the Orange County Land Records system as:

<table>
<thead>
<tr>
<th>Parcel identification number</th>
<th>Property address</th>
</tr>
</thead>
<tbody>
<tr>
<td>9769-21-7639</td>
<td>630 NC 54 West</td>
</tr>
<tr>
<td>9769-21-9629</td>
<td>626 NC 54 West</td>
</tr>
<tr>
<td>9769-32-3307</td>
<td>620 NC 54 West</td>
</tr>
<tr>
<td>9769-31-5687</td>
<td>610 NC 54 West</td>
</tr>
<tr>
<td>9769-31-7655</td>
<td>600 NC 54 West</td>
</tr>
<tr>
<td>9769-31-9894</td>
<td>1306 Hatch Road</td>
</tr>
</tbody>
</table>

and being the area that is called out on the accompanying map, Exhibit A, as “Rezoning Exhibit to WM-3” is hereby zoned WM-3 (Watershed Manufacturing).

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

SECTION 3. This ordinance shall become effective upon adoption.

The foregoing ordinance having been submitted to a vote, received the following vote and was duly adopted, this the _____ day of _________ 2017.

AYES:  
NOES:  
ABSENT OR EXCUSED:
ARTICLE IX

ZONING DISTRICTS AND ZONING MAP

PART I. ZONING DISTRICTS

Section 15-137 Manufacturing Districts Established (AMENDED 6/22/82; 2/4/86).

(a) The M-1 and M-2 districts are hereby created to accomplish the purposes and serve the objectives set forth in this subsection. Part of Article XI contains performance standards that place limitations on the characteristics of uses located in the districts created by this section.

(1) **M-1 Light Manufacturing.** This zone is designed to accommodate a limited range of industrial activities and a wide range of commercial uses including wholesaling, storage, mail-order, auto related, and office and retail in conjunction with industrial or wholesaling uses. Permitted industrial uses include enterprises engaged in manufacturing, processing, creating, repairing, renovating, painting, cleaning and assembly where all operations are contained inside a fully enclosed building. The performance standards for the M-1 zone located in Part I of Article XI are more restrictive than those in the M-2 district.

(2) **M-2 General Manufacturing.** This district is designed to accommodate the widest range of industrial uses. Business operations may be conducted within and outside a fully enclosed building. The performance standards for this zone are less restrictive than those in the M-1 district.

(b) There is also established a watershed light industrial (WM-3) zoning district. The purpose of this district is to allow areas within the University Lake Watershed that have been zoned M-1 prior to the effective date of this subdivision to continue to be used and developed for light industrial and related purposes, subject to certain restrictions designed to protect the watershed. Consistent with the purpose of this zone, this district shall be confined to that area zoned M-1 on the effective date of this subsection; this area shall not be expanded and no new WM-3 areas shall be designated. (AMENDED 12/7/83)

(c) There is also established a Planned Industrial Development (PID) zoning district. The purpose of this district is to provide for the possibility of well planned and tightly controlled industrial development in areas that are suitable for such development but that are not deemed appropriate for M-1 or M-2 zoning because of the less restricted types of development that may occur in such zones. (AMENDED 6/22/82; 12/7/83)

(1) No area less than twenty contiguous acres may be zoned as a Planned Industrial Development district, and then only upon a request submitted by
or on behalf of the owner or owners of all the property intended to be covered by such zone.

(2) As indicated in the Table of Permissible Uses (Section 15-146) a planned industrial development (use classification 30.000) is the only permissible use in a PID zone.

(3) Subject to subdivision (2) of this subsection, and consistent with the restrictions contained in the definition of a planned industrial development [see Subdivision 15-15(60)], land within a PID zone may be used in a manner that would be permissible if the land were zoned M-1, except that (i) the only permissible uses are those described in the 2.130 and 4.100 classifications and (ii) the performance standards (Article XI, Part I) applicable to 4.100 uses in business zones shall govern uses in a planned industrial development.
THURSDAY, MAY 18, 2017

I. AGENDA ADJUSTMENTS
There were no agenda adjustments.

II. APPROVAL OF MINUTES
May 4, 2017
It was noted that the minutes need to reflect that Hunt was absent at the May 4th meeting, particularly on all voting sections of the recommendations. Hunt moved to approve the minutes with the corrections; Rosser seconded the motion. VOTE: AYES (11), Adamson, Tiemann, Poulton, Whittemore, Hunt, Clinton, Foushee, Pendergrass, Rosser, Rivera, Gaylord-Miles; NOES (0); ABSENT/EXCUSED (0). The May 4, 2017 Planning Board minutes were approved.

III. OTHER MATTERS
A) Concept Plan Review for 716 Homestead Road AIS (SUP)
Planning Board previously had a presentation for this project and reviewed the comments on the concept plan and SUP for the first phase. Adamson summarized the notes and said that they are voting on the five (5) lots, proposed as part of the second phase.

It was noted by quite a few that it is hard to accept this project as a separate development. Also it was suggested that one lot be sold so a low income home can be built.

Members discussed what comments they want to make to include requesting a possible low income home and an exploration of using shared driveways.
Clinton made a motion to submit the Planning Board’s comments, as discussed; Whittemore seconded the motion. **VOTE:** AYES (10), Adamson, Tiemann, Poulton, Whittemore, Hunt, Clinton, Pendergrass, Rosser, Rivera, Gaylord-Miles; NOES (1) Foushee; ABSENT/EXCUSED (0).

**IV. OTHER**
Planning Board discussed the subject of Tiny Homes and if they affect zoning. Moon said that the Board held a work session discussion on the use of Tiny Homes both mobile units (classified as RVs) and stick built on foundations. A student is going to be working with the Planning Department this summer to do an analysis regarding the use of smaller accessory homes such as Tiny Homes, and the potential effect on density, setbacks etc.

Pendergrass announced that he will be moving to Hillsborough and this was his last meeting. He praised the Planning Board for their knowledge and said he had learned a lot whilst serving on this board.

**V. ADJOURNMENT**
Clinton motioned to adjourn the meeting; Poulton seconded the motion. The May 18, 2017 Planning Board meeting adjourned at 8:25 pm.