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# CITY OF CONCORD

*New Hampshire's Main Street™*  
***Community Development Department***

## REPORT TO THE MAYOR AND CITY COUNCIL

**FROM:** Beth Fenstermacher, Assistant City Planner  
**DATE:** March 22, 2019  
**SUBJECT:** Ordinance amending the Code of Ordinances, Title III, Building and Housing Codes; Chapter 28-2, Zoning Districts and Allowable Uses, Article 28-4, Development Design Standards, Article 28-5, Supplemental Standards and Glossary.

### Background

In July 2018, the City Council adopted a community-wide commitment of 100% renewable energy by 2030 for electricity and 2050 for thermal energy and transportation. Concord's Energy and Environment Advisory Committee (CEEC) is currently working on a strategic plan to meet this commitment, and identified a need to revise the Zoning Ordinance and Site Plan Regulations to provide clarity in the solar development process.

In August 2018, CEEC submitted an outline of proposed ordinance revisions to the Community Development Department. Staff and members of CEEC met on several occasions to review and revise the proposed amendments. Two public information sessions were held in September 2018 to provide information about the proposed revisions and to solicit feedback from the public.

Staff drafted the amendments to the existing Zoning Ordinance utilizing the CEEC proposal, the Model Solar Ordinance prepared by the NH Sustainable Energy Association (NHSEA) and NH Municipal Association (NHMA), and by researching existing ordinances from several municipalities in NH and the northeast region. Staff also met with the NHDES Alteration of Terrain (AoT) Bureau to discuss their solar development guidelines for large scale solar developments. The draft being presented represents a compromise between the CEEC proposal, the Master Plan vision for the City of Concord, and the various stakeholders.

The Conservation Commission reviewed the proposed amendment at their January 9, 2019 meeting. The Commission recognizes climate change is a leading concern of our time, and the Commission supports the goal of eliminating reliance of fossil fuels. However, the Conservation Commission feels that the City should not compromise the goals of the Open Space Plan and

Master Plan as the protection of natural and scenic resources is a fundamental part of Concord’s character.

The Planning Board held a public hearing on February 20, 2019, and heard testimony from the CEEC and Conservation Commission as well as several members of the public. Following review from the Legal Department, ministerial edits have been made to the ordinance.

**Discussion**

The proposed amendments allow solar collections systems as a principal use by Conditional Use Permit (CUP) in all districts except the following Performance Districts: Opportunity Corridor (OCP), Civic (CVP), and Central Business (CBP). Solar collection systems will be allowed by right as an accessory use (for on-site consumption) in all districts. Supplemental standards to guide the development are also proposed. Staff has drafted proposed revisions to the Site Plan Regulations as additional guidance for the developer as well as providing review guidelines for the Planning Board. The regulations provide low-impact development recommendations for the protection of natural resources, creation of pollinator habitat, reduced impacts to farmland and important farmland soils, and encourage co-location of agriculture. A copy of the draft is attached; the Planning Board will be reviewing the proposal at a future meeting.

The proposed amendment exempts “solar collection systems: from the Maximum Lot Coverage calculation, and instead proposes a solar land coverage calculation which utilizes the perimeter of the development (otherwise referred to as the “occupied area”) towards calculations, instead of individual components. This calculation is not based on impervious surface, but instead focuses on the area that is fully occupied by the solar land use. While Staff has not found another municipality that utilizes the same method of calculating solar land coverage, we feel that this innovative method is the best way to provide predictability in what the City and property abutters can expect to see when the land is developed with solar. Further, NHDES AoT Bureau utilizes a similar method of determining the area of solar development disturbance for permitting purposes; therefore, staff does not feel that this methodology is unprecedented. See below figures which show how the solar land coverage area will be calculated. Please note that the 9’ and 25’ dimensions are for illustration purposes only and are based on a typical design, these numbers may change based on project-specific conditions. There is no intent to regulate the distance between the panels.

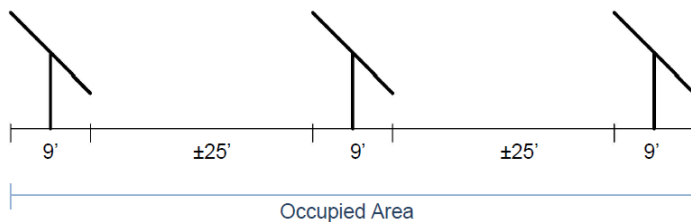


Figure 1. Cross section of standard occupied area determining Solar Land Coverage, includes the approximate 9’ panel section and the approximately 25’ grass strip between panels.

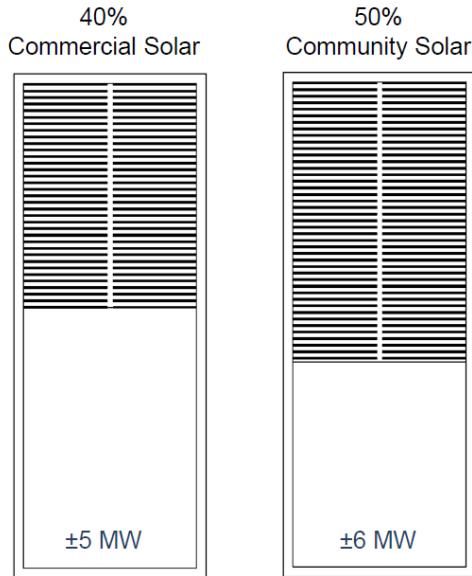


Figure 2. Plan view of Solar Land Coverage, shows a 60 acre parcel in the RO District with setbacks

The maximum solar land coverage for any parcel under the proposed ordinance shall not exceed 25 acres, with the exception of the Industrial District where 50 acres is allowed. Standard setbacks will apply with the exception of the RO and RM Districts where a 50’ minimum setback is proposed for front, rear, and side yards.

Both CEEC and the Conservation Commission have expressed support for the proposed revisions and recognize that it is a fair compromise for achieving goals of multiple stakeholders in the City. However, it is worth noting that each committee provided feedback that is not reflected in the submitted amendment. CEEC asserts that the area between the solar panels should not be counted towards the calculation since the ±25’ grass strip between panels will not be developed. In addition, CEEC recommend that the maximum solar land coverage should be increased to 50 acres. Conservation Commission members recommended that a 100’ buffer is more reasonable than the 50’ proposed in the ordinance.

At their March 20, 2019, meeting the Planning Board voted unanimously to recommend that City Council amend the Zoning Ordinance as submitted.

**Analysis of Impacts**

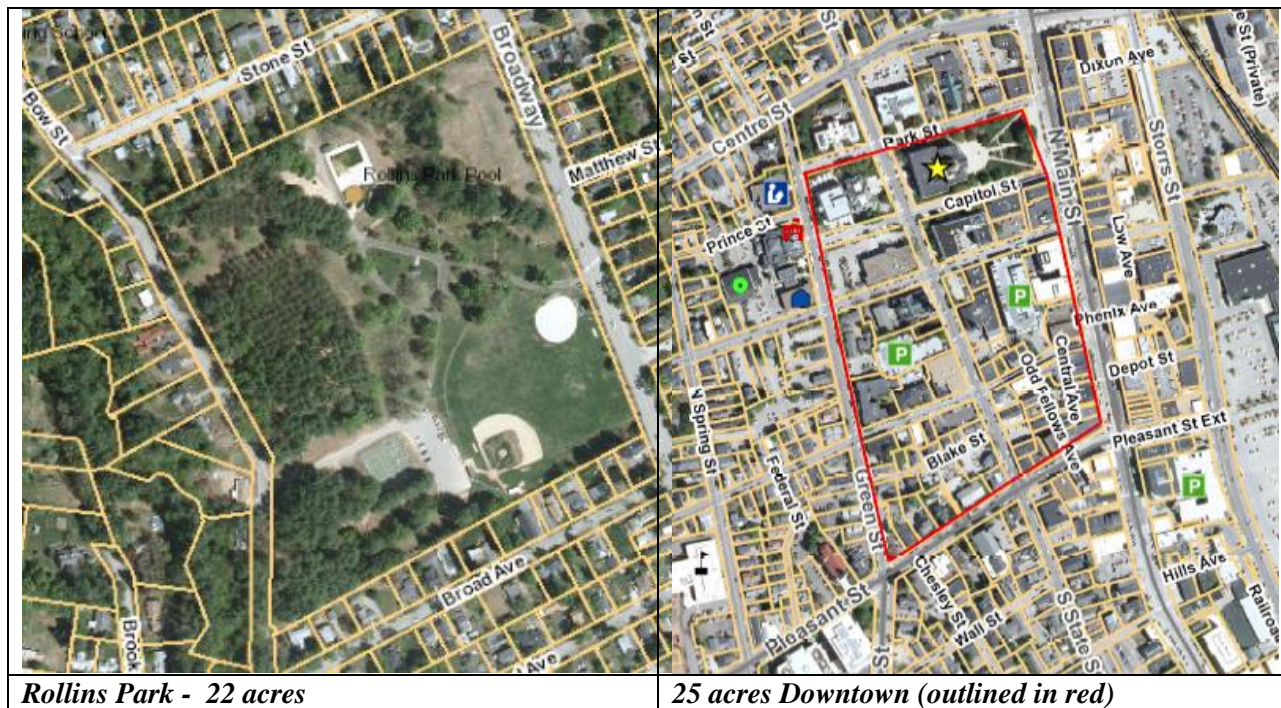
The changes would allow land owners and solar developers to have more clarity when proposing solar development in the City. By permitting the uses through a CUP, the Planning Board can review the proposed development to ensure it is compatible with adjacent properties and appropriate for the location to protect the public health, safety, welfare and character of the community.

The proposed zoning approach expands opportunities for community solar development, which will help the City meet the 100% renewable energy goals. In some respects, however, the

proposed ordinance extends beyond those goals. For example, by allowing solar collection systems as a principal use in the open space residential (RO) and medium density residential (RM) districts, the use of residential property for a commercial use may be expanded in these districts. Under current net-metering laws, any solar development over 1 MW will be exporting energy to communities outside of Concord and not contributing to meet the City’s 100% renewable energy goals.

The solar land coverage for commercial solar developments in the RO and RM districts is limited to 40%. By limiting coverage in the residential districts, the goal is to incentivize brownfield and building-mounted solar development over greenfield (or, undeveloped open space) development. This goal is intended to help protect natural resources, minimize clear cutting, and minimize visual impacts, especially in the rural residential districts.

In order to provide some understanding of the scale of what is proposed, below are images of known, developed areas within the City that encompass approximately 25 acres.



The current Master Plan supports small scale solar (1 MW) and with the current net-metering laws, larger systems will not help the City meet its renewable energy goals. Staff recommends that any community desire for larger scale, commercial solar collection systems be addressed during the Master Plan update process in the next couple of years. If it is the desire of the community, the ordinance can be amended at that time. We further recognize that these ordinance amendments will be revised in the future as laws around solar development, as well as technology, change.

No change is anticipated regarding existing accessory solar development except that the amendments will clarify where accessory development is allowed.

**Recommendation**

Amend the Zoning Ordinance as follows:

Title IV, Zoning Code; Chapter 28, Zoning Ordinance, Section 28-2-4(j) Table of Principal Use; Section 28-2-4(k) Table of Accessory Use; Section 28-4-1(e) Dimensional Standards, Maximum Lot Coverage; Section 28-4-5, Development of Attached and Multi-family Dwellings; Section 28-4-6, Manufactured Housing Parks and Subdivisions; Section 28-4-7, Cluster Development; Section 28-5-32, Accessory Buildings and Facilities; adding Section 28-5-53, Solar Collection Systems; and Glossary.

A draft ordinance that implements the proposed amendment is attached.