



## CHELSEA PLANNING COMMISSION WORK SESSION Agenda

December 5, 2023

7:00 PM

Chelsea City Council Chambers

311 S. Main Street

*Remote option available for members of the public; commissioners must attend in person.*

### Agenda:

1. Call to Order
2. Draft Solar Ordinance
3. Adjournment

### **Zoom Information:**

When: Dec 5, 2023 07:00 PM Eastern Time (US and Canada)

Topic: Planning Commission - December 5, 2023 at 7:00 p.m.

Please click the link below to join the webinar:

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Persons requiring reasonable accommodations due to disabilities in order that the meeting is accessible to them are requested to notify the Chelsea Planning Commission of such disability no later than five business days prior to the date of the meeting.

**Item 2**  
**Proposed Zoning Ordinance**  
**Amendment:**  
**Solar**



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**MEMORANDUM**

**TO:** City of Chelsea Planning Commission  
**FROM:** Paul Montagno, AICP  
Michelle Marin  
**DATE:** December 1, 2023  
**RE:** Draft Solar Ordinance

Per discussions at previous Planning Commission meetings, we have drafted a Solar Ordinance for your consideration. We intend for this draft ordinance to be used to initiate discussions of where and how solar energy systems will be sited, designed, and zoned in Chelsea.

In our research of similarly situated southeast Michigan communities as well as pertinent legislation, we have identified what we believe are major discussion points. The language of the draft ordinance has been designed to address the identified topics and incorporate practices from other similar ordinances but may need to be amended based on your feedback.

Discussion topics

1. Zoning districts
2. Accessory or primary use
3. Dimensional regulations
4. Solar access provision
5. Exemptions

**ZONING DISTRICTS**

Solar panels are currently utilized throughout the City. The technology of solar energy systems is constantly evolving such that even apartment dwellers can generate solar energy. Due to the urgent need for renewable energy investment and the flexibility in solar energy system applications, we recommend permitting building-mounted solar energy systems in any zoning district. Ground-mounted solar energy systems are most appropriate for larger properties, and as such we recommend restricting their siting to industrial and office districts.

**ACCESSORY OR PERMITTED USE**

Permitting solar energy systems as a permitted use allows them to be the principal use of a lot. They are then subject to additional national regulations, including fencing, which may conflict with other design guidelines and regulations within the respective zoning district. We recommend that solar energy systems be allowed only as an accessory use to limit solar energy systems to an appropriate scale while still encouraging their siting across Chelsea. Visualizations of the different scales of solar energy systems are attached.

### **DIMENSIONAL REGULATIONS**

Together with the zoning district regulations, dimensional regulations can encourage co-locating solar energy systems with other land uses. Allowing relaxed lot coverage regulations for ground-mounted solar energy systems that are above required parking lots or impervious surfaces ensures that the solar ordinance complements stormwater management goals.

We recommend allowing roof-mounted solar to project five (5) feet beyond that highest roof point while still complying with the maximum building height of the respective zoning district to minimize the impact of the solar panels on neighborhood character.

The maximum building height in all zoning districts is forty (40) feet. We recommend maintaining this regulation for ground-mounted solar energy systems to encourage their siting, especially over parking lots. Enacting a shorter maximum height requirement might address the visual impact criticism that ground-mounted solar can receive, but we believe that holding ground-mounted solar energy systems to the same dimensional standards as a building, including the required setbacks, is most appropriate to support the City's sustainability goals.

### **SOLAR ACCESS**

Without solar access, solar energy systems are useless. To ensure that a property owner's investment in renewable energy is respected, we recommend a solar access requirement that prevents the construction of new buildings or the planting of plants that will block solar access to the solar energy system once installed.

### **EXEMPTIONS**

For administrative streamlining, we recommend exempting single-device solar energy installations 6 sq.ft. or smaller from zoning compliance requirements, provided that the device on which it is installed is not subject to zoning compliance approval. Similarly, we recommend exempting the repair and replacement of solar energy systems from zoning compliance approval.


We look forward to discussing this draft ordinance at the work session on December 5, 2023.

Sincerely,







**CARLISLE/WORTMAN ASSOC., INC**

Paul Montagno, AICP  
Principal



**CARLISLE/WORTMAN ASSOC., INC.**

Michelle Marin  
Community Planner

Solar Energy System Type	Natural	Rural	Urban	General Urban
Accessory Roof Mounted				
Accessory Ground Mounted				
Principal Use (Small)				
Principal Use (Large)				

Source: *UM Graham Sustainability Institute and MSU Extension*

## **Article [X] Solar Energy Systems**

### **1. Intent.**

The City of Chelsea promotes the effective and efficient use of solar energy systems. To protect public health, safety, and welfare, it is in the interest of the City to regulate the siting, design, and installation of solar energy systems so that they are compatible with the subject and neighboring land uses.

### **2. Definitions.**

- (a) *Solar energy system*: A solar photovoltaic cell, panel, or array that converts solar energy to usable thermal, mechanical, chemical, or electrical energy.
- (b) *Ground-mounted solar energy system*: A freestanding solar energy system that is not attached to and is separate from any building on the same parcel on which the solar energy system is located.
- (c) *Building-mounted solar energy system*: A solar energy system that is attached to a building on a parcel as the principal method of physical support.

### **3. Permit required.**

Solar energy system installation requires a zoning compliance permit, approved by the Community Development Department. Solar energy systems proposed as part of a site plan must be indicated on the site plan.

### **4. Exemptions.**

The following instances are exempt from review by the Community Development Department.

- (a) The installation of a solar energy system to power a single device or specific piece of equipment such as a lawn ornament, lights, weather station, clock, well pump, or other similar device, provided that the solar energy system is no larger than six (6) square feet and the device itself is not subject to zoning compliance approval.
- (b) The repair or replacement of an existing approved solar system does not result in an expansion of the solar energy system coverage area.

### **5. Standards for solar energy systems.**

The following requirements apply to all solar energy systems.

- (a) The exterior surfaces of solar energy systems shall be generally neutral in color and substantially non-reflective in light.
- (b) Solar energy systems shall be repaired or replaced within three (3) years of becoming nonfunctional.
- (c) Solar energy systems shall be installed, maintained, and used only in accordance with the manufacturer's directions. Upon request, a copy of such directions shall be submitted to the Building Official prior to installation. The Building Official may inspect the completed installation to verify compliance with the manufacturer's directions.
- (d) All solar energy systems shall comply with the City construction code, the electrical code, and other applicable building and construction codes.

**Building-mounted solar energy system requirements.**

- (a) Building-mounted solar energy systems are permitted as an accessory use in any zoning district and are subject to the regulations set forth in this Article.
- (b) Building-mounted solar energy systems shall be incidental and subordinate to a use on the same parcel.
- (c) Building-mounted solar energy systems that are mounted on the roof of a building shall not project more than five (5) feet above the highest point of the roof.
- (d) Building-mounted solar energy systems that are mounted on a wall shall not project above the highest point of the roof.
- (e) Building-mounted solar energy systems shall not exceed the maximum building height requirements for the respective zoning district.
- (f) Building-mounted solar energy systems shall not project horizontally beyond the eaves of the roof.
- (g) Building-mounted solar energy systems shall not be mounted on a building wall that is parallel to an adjacent public right-of-way.
- (h) Building-mounted solar energy systems that are mounted on a building wall shall not project into the required setback of the respective zoning district.
- (i) Solar energy systems mounted on the roof of a building shall be only of such weight as can safely be supported by the roof and the weight of snow and/or ice that they collect. Proof thereof, in the form of certification by a professional engineer or other qualified person, shall be submitted to the Building Official prior to installation; such certification shall be subject to the Building Official's approval.
- (j) Building-mounted solar energy systems shall be permanently and safely attached to the building or structure. Proof of the safety and reliability of the means of such attachment shall be submitted to the Building Official prior to installation; such proof shall be subject to the Building Official's approval.

**Ground-mounted solar energy system requirements.**

- (a) Ground-mounted solar energy systems are a permitted accessory use in the LI – Light Industrial, GI – General Industrial, O-1 Office, MI – Medial Institutional, and PF – Public Facilities zoning districts.
- (b) Ground-mounted solar energy systems shall be located in the rear yard or side yard, not within any required setbacks unless permitted by the Planning Commission as a deviation in its approval of the site plan and provided it does not project into more than one required setback area.
- (c) Ground-mounted solar energy systems shall not exceed forty (40) feet in height, measured from the ground at the base of the equipment.
- (d) The area of the ground-mounted solar energy system shall not exceed fifty (50%) percent of the square footage of the ground floor area of the primary building of the property unless it is sited over required parking in which case there is no maximum lot coverage for the ground-mounted solar energy system.
- (e) Ground-mounted solar energy systems shall not count towards the maximum square footage of accessory structures allowed on site or maximum impervious surface area limits if the ground under the solar energy system is pervious.

- (f) If the ground under the ground-mounted solar energy system is impervious, the total area of ground-mounted solar energy systems shall be included in the calculation of the maximum permitted lot coverage requirement for the parcel of land.

## **6. Solar Access Requirements.**

When a solar energy system is installed on a property, all new accessory structures or vegetation on an adjacent lot shall not be located so as to block the solar collector's access to solar energy. These solar access requirements apply to any structure erected on or vegetation planted in abutting properties after the installation of the solar energy system. The portion of a solar energy system that is protected is the portion that

- (a) Is located so as not to be shaded between the hours of 10:00 a.m. and 3:00 p.m. by a hypothetical twelve (12) foot tall obstruction located on the lot line; and
- (b) Has an area not greater than one-half (0.5) of the heated floor area of the structure, or the largest of the structures, to be served.