ORDINANCE NO. 2504

AN ORDINANCE OF THE CITY OF SOUTH BELOIT AMENDING VARIOUS PROVISIONS OF THE CITY'S ZONING CODE REGARDING SOLAR ENERGY

WHEREAS, the City of South Beloit, Illinois ("City"), has enacted Municipal Code Regulations (the "Code") for the purpose of improving and protecting the public health, safety, comfort, convenience and general welfare of the people; and

WHEREAS, Chapter 118 of the Code regulates Zoning; and

WHEREAS, the City desires to amend various provisions of Chapter 118 to provide for solar energy regulations; and

WHEREAS, the City duly held and conducted a Zoning Board of Appeals hearing on February 19, 2020 to consider text amendments to the City Zoning Code to regulate solar energy within the City as set forth herein; and

WHEREAS, the Zoning Board of Appeals recommended to approve said text amendments; and

WHEREAS, the City has determined it is in the best interest of the City and its citizens to make such amendments.

NOW THEREFORE, be it ordained by the Mayor and City Council of the City of South Beloit, Illinois as follows:

- 1. The above recitals are incorporated herein and made a part hereof.
- 2. That Section 118-03 of the City Zoning Code regarding "Definitions" is hereby amended to include the following definitions (additions shown as underlined and bolded and deletions as strikethroughs):

"REFLECTOR Any device designed or intended to reflect the sun's rays to a solar collector or designed to concentrate the sun's rays on a solar collector.

SOLAR CELL Any device designed or intended to produce electricity directly from the energy of sunlight, without moving parts.

SOLAR COLLECTOR Any device designed or intended to collect energy from the sun and use that energy to heat air, gas or liquid to be transmitted through pipes or ducts for heating and energy purposes. A window letting sunlight directly into a room to be heated is not a solar collector.

SOLAR COMPONENT Any solar collector, solar engine, reflector, pipe, duct or other component of a system using solar collectors or solar engines.

SOLAR ENERGY ENGINE Any device designed or intended to produce motion from heat generated by sunlight; such motion may be turning a wheel, pulley or gear, or by moving a shaft back and forth. The motion may be produced by a sterling engine, a steam engine, or any mechanical device using heat and light from the sun.

SOLAR PANEL A solar collector in the shape of a panel, regardless of the thickness of the panel.

WIND LOAD Pressure of wind against any object of structure, such as a solar collector."

3. That Chapter 118 of the City Code of Ordinances entitled "Zoning" is hereby amended to create a new Article XVIII to be entitled "Solar Energy" and which new Article shall read as follows (additions shown as underlined and bolded and deletions as strikethroughs):

"Article XVIII: Solar Energy

Section 118-1001. Purpose and Applicability.

It is the intent and purpose of this Article to provide regulations regarding the installation, construction and operation of solar energy, including, but not limited to, solar farms and building mounted solar reflectors, cells, collectors, and panels within the City of South Beloit.

Section 118-1002. Permitted Use.

All building-mounted solar energy reflectors, cells, collectors and panels shall be permitted uses in the Urban Transitional (UT), Rural Residential (RR), One-Family Residential (R1), Two-Family Residential (R2), Multi-Family Residential (RM), Commercial Retail (CR), Commercial General (CG), Commercial Traffic (CT), Light Industrial (IL), and Heavy Industrial (IH) zoning districts subject to the provisions of Section 118-1003.

Non-building mounted solar collectors for export of energy for use by an electrical utility (i.e. solar farms) shall be permitted by special use permit only in the Heavy Industrial zoning district and subject to the provisions of Article X of this Chapter 118.

Section 118-1003. Requirements.

(a) Any solar collectors shall be installed either on the roof of the principal structure or accessory structure or shall be otherwise incorporated into and made an integral part of the main building itself. The maximum height and set-back regulations of the zoning district in which it is proposed shall be observed.

- (b) No solar collector, solar engine or accessories, pipes or ducts for any solar collector or shall be installed on any roof having a slope of less than one percent (one-eighth of an inch per foot or 1 centimeter per meter).
- (c) Installations on low sloped roofs shall comply with the following requirements:
- (1) Clearances: All collectors, reflectors, engines, pipes ducts or other components shall have sufficient clearance between the roof and the installation to permit roof repairs to be made and to permit circulation of air to avoid constant dampness, considering the configuration and location of the solar components and the roof. A space of 2 feet or 61 centimeters shall be adequate clearance in all instances, provided that a smaller space shall be permitted if it can be demonstrated that all normal repairs and resurfacings of the roof may be made under the proposed clearances. The clearances required herein shall not apply to vertical pipes installed through the roof surface or installed outside of the outside walls to provide access to solar components.
- (2) Load Capacity: No solar component shall be installed on any roof unless the roof has sufficient capacity to hold the weight of the roof, the weight of the solar components and the anticipated snow load. Load requirements must meet the City of South Beloit's adopted building codes with amendments. The weight of fluid to be used in any panels, pipes or other components will be included in the calculations of load. In determining the anticipated snow load, the effect of the solar components on causing drifting shall be considered. If the rated capacity of the roof structure is at least one and one- half times the weight of the roof components, the solar components and the anticipated snow load, the roof structure shall be deemed to have sufficient load capacity.
- (3) Protection from drifting or sliding snow: On any installation where solar collectors, solar engines and reflectors may cause snow drift on a roof, provisions shall be made by snow fences, chutes or other barriers to prevent snowdrifts from accumulating on the roof. Wherever a solar collector, or other solar component may cause snow to slide, the part of the roof where the snow may accumulate as a result of sliding shall have sufficient capacity to hold the weight of the snow anticipated to accumulate because of sliding. Wherever the location and slope of a solar collector or other solar component may cause snow to slide onto any doorway, sidewalk or other place used by pedestrian traffic, protection in the form of chutes, awnings or other devices shall be provided to prevent any snow from sliding onto any such doorway, sidewalk or other place.
- (4) Roof penetration: Whenever any pipe, duct or other solar component penetrates the surface of a roof, the roof shall be protected from leaks in the manner provided for any stack, pipe, or conduit penetrating the roof surface.

- (5) Roof preparation: Before any solar component is installed, the roof shall be inspected for any repairs and maintenance work needed shall be done to put the roof in leak proof condition.
- (d) All of the requirements for installations on low sloped roofs shall apply to installations on roofs other than low sloped roofs, except that in lieu of clearance from the roof, a solar panel may be attached flush to the roof. Such solar panel may be an integral part of the roof, providing a waterproof cover, with a waterproof seal between the panel and the rest of the roof. If such panel is not made an integral part of the roof but is attached flush with the roof, the top and sides of the panel shall be sealed where they meet the roof surface or shingles, to prevent water from getting under the panel.
- (e) Any roof over three stories above the ground shall be provided with a means of access other than an outside ladder against an outside wall. No solar components shall be installed in a location so as to interfere with walkways on the roof.
- (f) Each solar component which may contain any liquid or gas shall be designed and constructed to prevent the leakage of any liquid or gas under any combination of temperature and pressure possible either during use or when the system is not in use.
- (g) Each solar collector, solar panel and solar engine shall be securely anchored to withstand the maximum wind pressure anticipated, considering the effects, if any, of the solar components in channeling wind, and without considering the weight of any liquid in the components.
- (h) Each solar collector, reflector, solar engine and all solar components shall be inspected at least once every two years. Such inspections shall be at the owner's expense, and may be made by any qualified person selected by the owner. The inspection shall include looking for any evidence of dampness on the roof due to shading, lack of air circulation or leaks, and shall include examining the structural parts securing all components. The Zoning Officer may request a certified report of such inspection to be provided by the owner/applicant. If such request is required by the Zoning Officer shall be in writing and provided by the owner/applicant within 30 days.
- (i) Nothing in this ordinance shall be interpreted as prohibiting any innovative design.

 Any design not specifically permitted by this ordinance may be installed, upon a showing that the proposed system of solar components will achieve the safety objectives and structural objectives of the previsions of this ordinance.
- (i) Nothing herein contained nor any permit issued hereunder, shall be constructed to restrict or limit the use and development of any adjoining or other premises."
- 4. If any provision of this Ordinance or application thereof to any person or circumstances is ruled unconstitutional or otherwise invalid, such invalidity shall not affect other provisions

or applications of this Ordinance that can be given effect without the invalid application or provision, and each invalid provision or invalid application of this Ordinance is severable.

- 5. All other ordinances of the City shall remain in effect as previously enacted except that those ordinances, or parts thereof, in conflict are hereby repealed to the extent of such conflict.
- 6. This Ordinance shall be in full force and effect from after its passage, approval, and publication in pamphlet form as provided by law.

PASSED UPON MOTION BY Morse
SECONDED BY <u>Hedrington</u>
BY ROLL CALL VOTE THIS 16th DAY OF March, 2020
AS FOLLOWS:
voting "AYE": Duffy, Fitzgerald, Hedrington, Morse, Rehl
VOTING "NAY":
ABSENT, ABSTAIN, OTHER
APPROVED March 16, 2020

ATTEST:

Gracy L. Fatrick