

CHARTER TOWNSHIP OF FLUSHING

6524 N. SEYMOUR ROAD

FLUSHING, MICHIGAN 48433

810-659-0800

FAX: 810-659-4212

PLANNING COMMISSION AGENDA

DATE: August 8, 2022

TIME: 7:00 P.M.

WEB ADDRESS <http://www.flushingtowship.com>

MEMBERS OF PLANNING COMMISSION

Chair – Vicki Bachakes

Ronald Voigt

Vice Chair – Christopher Czyzio

Craig Davis

Secretary – William Mills

Amy Bolin

Terry A. Peck – Board of Trustees Representative

Mandy Hemingway, Recording Secretary

I. CALL THE MEETING TO ORDER:

ROLL CALL

PLEDGE OF ALLEGIANCE TO THE AMERICAN FLAG

II. APPROVAL OF AGENDA:

III. APPROVAL OF PREVIOUS MINUTES:

July 11, 2022 Meeting

IV. PUBLIC COMMENTS FOR AGENDA ITEMS ONLY:

Each speaker limited to three minutes

V. UNFINISHED BUSINESS:

1. Discussion and possible motion regarding Zoning Ordinance Article 18, Special Use Permits Article: Section 20-1804 Requirements for Permitted Special Land Uses (OO) Commercial Solar Energy Collector System(b)(2) The total area of ground-mounted solar energy collections shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of 25 percent regardless of the residing zoning district.

VI. NEW BUSINESS:

None

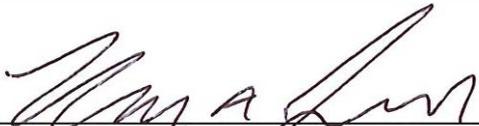
VII. PUBLIC COMMENTS:

Each speaker limited to three minutes

VIII. COMMISSION COMMENTS:

**IX. NEXT REGULAR SCHEDULED MEETING: *MONDAY, SEPTEMBER 12, 2022*
AT 7:00P.M.**

X. ADJOURNMENT



DENNIS JUDSON, Zoning Administrator

Charter Township of Flushing, August 8, 2022 plan agenda

DRAFT

**CHARTER TOWNSHIP OF FLUSHING
6524 N. SEYMOUR ROAD
FLUSHING, MICHIGAN 48433**

810-659-0800 FAX: 810-659-4212

MINUTES OF THE PLANNING COMMISSION MEETING

DATE: JULY 11, 2022 TIME: 7:00 P.M.

WEB ADDRESS <http://www.flushingtowship.com>

MEMBERS OF PLANNING COMMISSION

Chair – Vicki Bachakes	Ronald Voigt
Vice Chair -Christopher Czyzio	Craig Davis
Secretary - William Mills	Amy Bolin
Terry A. Peck, Board of Trustees Representative	
Mandy Hemingway, Recording Secretary	

This meeting was held at North Flushing Baptist Church at 7500 Mt. Morris Road, Flushing, MI 48433.

PRESENT: Vicki Bachakes, Christopher Czyzio, William Mills, Ronald Voigt, Craig Davis, Amy Bolin and Terry Peck

ABSENT: None

OTHERS PRESENT: Forty-nine (49) other individuals were present.

I. MEETING CALLED TO ORDER at 7:00 P.M. by Planning Commission Chairperson Bachakes with Roll Call and Pledge to the American Flag.

II. APPROVAL OF AGENDA:

COMMISSIONER PECK MOVED, supported by Commissioner Czyzio to approve the agenda with the amendment of correcting the next scheduled meeting to Monday, August 8, 2022.

THE MOTION CARRIED UNANIMOUSLY.

III. APPROVAL OF PREVIOUS MINUTES:

COMMISSIONER PECK MOVED, supported by Commissioner Bolin to approve the minutes of the June 13, 2022 meeting.

THE MOTION CARRIED UNANIMOUSLY.

IV. PUBLIC COMMENTS

OPEN FOR PUBLIC COMMENTS 7:02 P.M.

No comments were made.

CLOSED FOR PUBLIC COMMENTS 7:03 P.M.

V. UNFINISHED BUSINESS

None

VI. NEW BUSINESS

1. Motion to approve the Special Use Permit to place an Accessory Structure in the front yard at 7137 N. McKinley Road, Flushing, MI 48433, P.P. No. 08-10-400-010, pursuant to Article XVIII Special Use Permits, Sec. 20-1804 (A).

The applicants, Mr. and Mrs. Larry Crandell, were in attendance and gave a brief description of their request. After reviewing the application and support materials and a short discussion, the following motion was made.

COMMISSIONER PECK MOVED, supported by Commissioner Voigt to approve the request for a Special Use Permit to place an Accessory Structure in the front yard at 7137 N. McKinley Road, Flushing, MI 48433, P.P. No. 08-10-400-010, pursuant to Article XVIII Special Use Permits, Sec. 20-1804 (A).

ACTION ON THE MOTION

ROLL CALL VOTE:

AYES: Bachakes, Davis, Czyzio, Peck, Voigt, Bolin and Mills

NAYS: None

ABSENT: None

THE MOTION CARRIED UNANIMOUSLY.

2. Public Hearing pursuant to a petition circulated and signed by Flushing Township residents along with the direction of the Board of Trustees to consider a possible amendment to Zoning Ordinance Article 18, Special Use Permits Article: Section 20-1804 Requirements for Permitted Special Land Uses (OO) Commercial Solar Energy Collector System (b) (2) The total area of ground-mounted solar energy collections shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of 25 percent regardless of the residing zoning district.

PUBLIC HEARING OPENED AT 7:08 P.M.

At this time, Chairperson Bachakes introduced Jason Ball from Rowe Engineering, who briefly explained the Planning Commission's role of making a recommendation to the Township Board. He further explained that the Planning Commission could approve the petition as written, deny the petition, or approve the petition with changes.

Chairperson Bachakes asked the board of planning commissioners if any of them had a financial interest in the outcome of the solar ordinance.

Commissioner Mills stated he had a financial interest in the outcome of the solar ordinance and excused himself from the meeting at 7:15 P.M.

- Rex Wheeler of 11063 Easton Rd., New Lothrop, MI stated he would like to see no more than 10% coverage of a parcel including farmland from fence to fence of solar.
- Brook Terryah of 11191 Stanley Rd., Flushing, MI stated she would like the 25% language considered, setbacks to be considered further back, concerns about water, max coverage of the township for solar farms, consider the potential damage to the roads and hold solar company accountability for road repair, 500 ft setback, noise decibel limit.
- Beverly Storm of 11399 Coldwater Rd., Flushing, MI stated 25% should be 25% fence to fence; solar company seems "sneaky, coming in the backdoor"; needs clarification of ordinance.

- Douglas McDonald of 10322 W. Colwater Rd., Flushing, MI stated he is in agreement with Rex Wheeler, should maintain or change to the 10% rule rather than the 25%; the housing structure should not be a part of that, 10% should not include the house. Should take the advice of Rowe and follow the conciseness that they are offering.
- Rosalind Salbenblatt of 6023 Turner Rd., Flushing, MI stated she would like to see the definitions in the ordinance changed to include the wording of the petition and add any additional structures that may come into play later on; also agrees with Rex Wheeler, no more than 10% maximum lot coverage; has concerns about the impact on wildlife, the power grid, 60 ft buffer area, would like clarification, wetland soil concerns
- Loucyndra McDonald of 10322 W. Coldwater Rd., Flushing, MI stated she would like to see enacted the strictest rules as possible for solar farms, 10% sounds really good and as far back away from residents as possible. Agree with the impact on wildlife, taxes, water, selling homes, etc.
- Rick Bills of 5422 Duffield Rd., Flushing, MI stated solar farms should be spread out more, no township should bear the brunt of it all. Has seen solar farms that are built better; these were certainly not done by Ranger Power. Agrees with increased setbacks, such as 500 ft from residents is reasonable to keep something very industrial away from properties and further setbacks from the road forcing the solar farms more into the middle of these farmlands so it's less of an impact.
- Yvonee Ryan of 6240 Duffield Rd., Flushing, MI stated she does not want solar farms, they are not farms, they are a business; 10% max if you have to do anything, but do not want them at all. Going to have an adverse effect on property values. Very sad for our community.
- Eric Terbush of 5254 Duffield Rd., Flushing, MI stated he was one of the members of the petition for this community; the solar panels put in by Ranger Power on M-13 are already in disrepair, showing that Ranger Power is already not taking care of their equipment and it hasn't even been a year. Would like to see this ordinance as strict as possible. Reaffirm what the township has put in place. Setbacks, hunters have 450 ft rules, what does this mean for property owners? Go as strict as legally possible, limit this eyesore and keep our community the way it is currently.
- Gillian Peterson of 11186 Stanley Rd., Flushing, MI stated she has concerns of radiation produced from solar farms. Dirty energy, how are the residents

going to be protected? Has concerns about who is going to be monitoring that wells are not contaminated. Moved here for agricultural area, not to live in an industrial park. Reviewed Master Plan prior to moving. Risks for fire dept, wildlife, pets and children. Does not want this. Survived two transplants, did not expect to be burdened with the risk of solar farms. Please take careful consideration with this ordinance because it could ruin our community. Submitted a letter. Please take to heart.

- Alison Morrison of 5311 Duffield Rd., Flushing, MI stated she is very concerned about solar farms and the fact that a member of the planning commission has a vested interest. Asked commission to consider the voice of the people, can get more signatures. Appreciates the clarification and recommendations of Rowe Engineering, please take under strong advisement. Have a good long range plan.
- Mike Buzell of 5277 Worchester Swartz Creek, MI stated solar farms are being built because of climate crisis; this is about food production and food chain, may seem contradictory but he feels this would be saving the farmlands. Most of the fears are unjustified.
- Katelyn LaDuke 11426 Stanley Rd., Flushing, MI stated people work hard to make their homes a haven, enjoying wildlife, agriculture, peaceful surroundings. Nobody wants to live in a solar farm area. Solar is killing a dream. Limit it as best we can. Just don't want it to happen at all in our community.
- Christina Franklin of 11436 Stanley Rd., Flushing, MI stated she does not want solar farms, but the 25% or 10% sounds better. She will be inside an industrial prison at her home, surrounded by solar on 3 sides. Setbacks need to be more; the solar farms will affect property value adversely.
- Cathy Bills of 5422 Duffield Rd., Flushing, MI stated M-13 solar farms in Shiawassee County is appalling and she agrees with Rex Wheeler 10% max, zero would be great.
- Tim Ryan of 6240 Duffield Rd., Flushing, MI stated anything over 10% will push all the animals into the city and the farmers who are in between don't stand a chance. Agrees with 10% maximum coverage.
- Jennifer Steinley of 6069 Turner Rd., Flushing, MI stated solar will not support the charging of electric vehicles, should be stricter than 25% - lower if possible. Most of the farmers who own the farms do not live in this community, do not support this township at all.

- Francis Mead of 8252 Stanely Rd., Flushing, MI suggested putting woods all around the solar farms, thinks 25% is a little high. Need to pay attention to where food is going to be coming from. Will end up in landfills which are already at maximum capacity. Not against solar energy, but is against solar farms. 500 ft setbacks, resources are limited globally.
- Jennifer Smith of 11429 Stanely Rd., Flushing, MI stated she left an industrial area that was not taken care of or maintained and chose to come to this community for its rural area. Taking away future farmers, making an impact on our community. Would like to see 10% maximum considered and pushing setbacks as far away as possible from residential properties. There should be a stipulation that panels must be maintained or a fine will be imposed. Solar farms are ugly to look at. If they are not working, they should be removed at Ranger Power's expense.
- Greg Beckley of 6109 N. Duffield Rd., Flushing, MI stated he would like max coverage to be changed from 25% to 10%.
- Tom Theile of 10329 Coldwater Rd., Flushing, MI stated wildlife will essentially be gone. He does not want solar farm in his backyard. It should be contained and as far back as possible; 10% maximum sounds good.

PUBLIC HEARING CLOSED AT 7:51 P.M.

3. Discussion and possible motion regarding Zoning Ordinance Article 18, Special Use Permits Article: Section 20-1804 Requirements for Permitted Special Land Uses (OO) Commercial Solar Energy Collector System (b) (2) The total area of ground-mounted solar energy collections shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of 25 percent regardless of the residing zoning district.

At this time, Chairperson Bachakes deferred to Jason Ball of Rowe Engineering to discuss the suggested revisions as attached. The commissioners discussed changing setbacks, noise concerns, clarification of decommissioning plan, and maximum coverage limitations. After hearing the possible revisions and opinions from the Township attorney and a very lengthy discussion the following motion was made.

COMMISSIONER PECK MOVED, supported by Commissioner Voigt to move this item to Unfinished Business on the August 8, 2022 agenda.

ACTION ON THE MOTION

ROLL CALL VOTE:

AYES: Czyzio, Davis, Peck, Voigt, Bolin and Bachakes

NAYS: None

ABSENT: Mills

THE MOTION CARRIED.

Jason Ball from Rowe Engineering directed by the Planning Commission will construct a draft ordinance with the suggested revisions and possible options the Planning Commission have discussed for the next meeting.

VI. PUBLIC COMMENTS

OPEN FOR COMMENTS: 8:41 P.M.

Six comments were made.

CLOSED FOR COMMENTS: 8:51 P.M.

VII. COMMISSION COMMENTS

Commissioner Peck reported he was informed that Ranger Power was going to put more pressure on landowners to lease their property. If people are being bothered by Ranger Power, they should contact the police department; nobody should be harassed or bullied by this company to do something they do not want. Stated he had asked Ranger Power what happens to the equipment of solar farms if someone wants to get out of it down the road and he was told they were bonded by the state and would have to put it back to how it was before they started and that's not necessarily true. Wires left in ground, not what they said. Ranger Power should go back to Shiawassee County and take care of the mess they left there.

Chairperson Bachakes thanked the members of the planning commission for the great discussion and all the research that had been done prior to the meeting.

Commissioner Bolin thanked the public for their input.

**VIII. NEXT REGULAR SCHEDULED MEETING IS MONDAY,
AUGUST 8, 2022 AT 7:00 P.M.**

IX. ADJOURNMENT

With no further business, the meeting adjourned at 8:55 P.M.

VICKI BACHAKES, Chairperson

WILLIAM MILLS, Secretary

Date of Approval

Mandy Hemingway, Recording Secretary

Flushing Township
Solar Energy Zoning Ordinance Provisions
AMENDED MONTH, YEAR

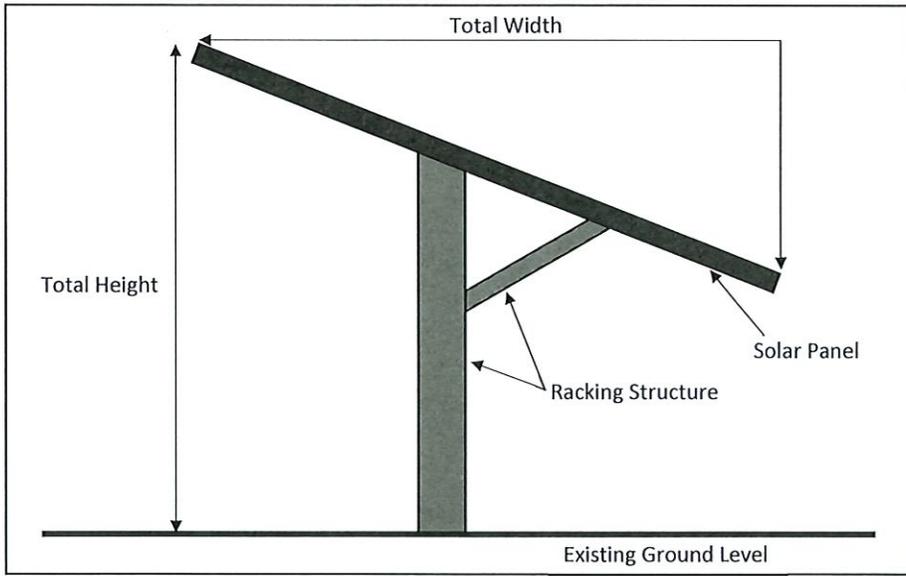
Article 2 DEFINITIONS

SOLAR ENERGY COLLECTOR: A device, structure, or part of a device or structure that transforms direct solar energy into thermal, chemical, or electrical energy and that contributes significantly to a structure's energy supply.

GROUND-MOUNTED-SOLAR ENERGY COLLECTOR, GROUND MOUNTED: A solar energy collector that is not attached to and is separate from any building on the parcel of land on which the solar energy collector is located (Figure 1).

ROOF-MOUNTED-SOLAR ENERGY COLLECTOR, ROOF-MOUNTED: A solar energy collector that is attached to a building's roof on the parcel of land including solar shingles.

Figure 1: Ground Mounted Solar Energy Collector Illustration



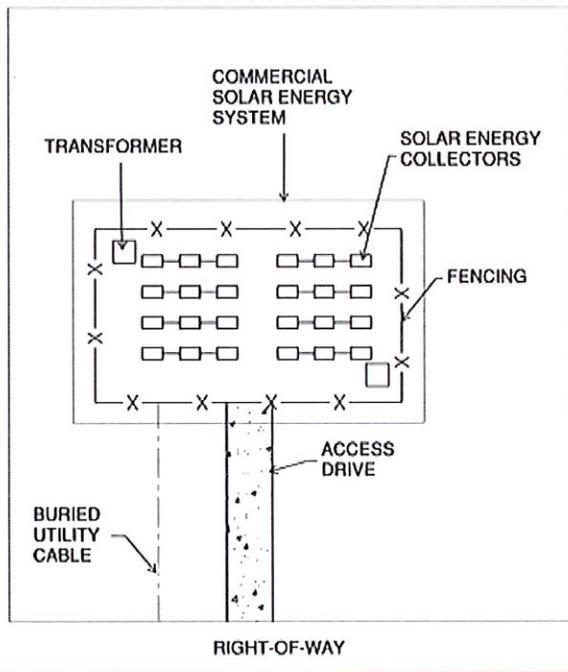
SOLAR ENERGY SYSTEM: One or more solar energy collectors or structural design features of a structure that relies upon sunshine as an energy source and is capable of collecting, distributing, and storing (if appropriate to the technology) the sun's radiant energy for a beneficial use.

COMMERCIAL SOLAR ENERGY SYSTEM, COMMERCIAL: A utility-scale facility of ground-mounted solar energy collectors with the primary purpose of wholesale or retail sales of generated electricity. Commonly referred to as solar farms. A commercial solar energy system includes the solar panels, roads, spacing for service, fencing, and any other structure, transformer, or devices of the like needed for solar production or operation of the system. See Figure 2.

Commented [JB1]: Do we want to include access roads outside of the fence in the calculation? This would be inconsistent with how lot coverage is defined.

Lot coverage means the part or percentage of the lot occupied by a building, including accessory buildings.

Figure 2: Commercial Solar Energy System Illustration



GROUND MOUNTED SOLAR ENERGY COLLECTOR: A solar energy collector that is not attached to and is separate from any building on the parcel of land on which the solar energy collector is located (Figure 1).

Draft #1

ON-SITE SOLAR ENERGY SYSTEM, ON-SITE: A solar energy system designed to help meet the electrical needs within the limits of the area encompassed by the tract area or parcel of record on which the activity is conducted. An on-site solar energy system may include ground-mounted, roof-mounted solar energy collectors, or a combination of the two. The majority of the electricity generated by an on-site solar energy system must remain on the site, and not be utilized for wholesale or retail sale.

RACKING: Racking is any structure or building material used in the mounting of a solar panel (Figure 1).

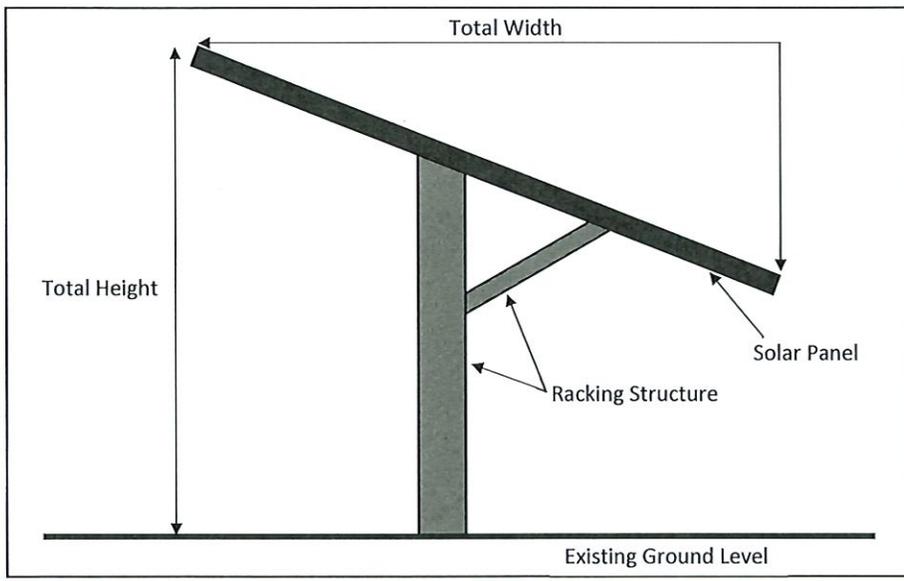


Figure 1

SOLAR COLLECTOR: A device or combination of devices, structure, or part of a device or structure that transforms direct solar energy into thermal, chemical, or electrical energy and that contributes significantly to a structure's energy supply.

SOLAR ENERGY: Radiant energy (direct, diffuse, and reflected) received from the sun.

SOLAR ENERGY SYSTEM: A solar collector or other device or structural design feature of a structure that relies upon sunshine as an energy source and is capable of collecting, distributing, and storing (if appropriate to the technology) the sun's radiant energy for a beneficial use.

Draft #1

SOLAR PANEL: A panel consisting of an array of solar cells used to generate electricity directly from sunlight.

~~SOLAR SHINGLES: A roofing product made by combining thin film solar technology (which converts sunlight to electricity) with a durable backing to provide a structural roof shingle comparable to traditional roofing shingles.~~

Article 4 SITE REGULATIONS

Section 20-419-420 ~~On-Site~~ Solar Energy System Regulation

(a) All Solar Energy Collectors

- (1) The installation of any solar panel (on-site or commercial) shall not negatively impact adjacent properties with additional or excessive storm-water runoff and/or drainage.
- (2) It shall be shown that all panels are adequately secured to the surface upon which they are mounted and that the mounting structure has the capability of supporting the panels.
- (3) All panels shall have tempered, non-reflective surfaces.
- (4) Solar energy ~~equipment collectors~~ shall be repaired, replaced, or removed within three months of becoming nonfunctional.
- (5) Each system shall conform to applicable industry standards including those of the American National Standards Institute (ANSI).
- (6) Solar energy collectors 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 inspector prior to installation. Building inspector approval is required.
- (7) Solar energy collectors and installation and uses shall comply with construction code, electrical code, and other state requirements.

(b) On-Site Roof-Mounted Solar Energy Collectors shall:

- (1) ~~Solar energy collectors shall be~~ such a weight to be safely supported by the building. Building inspector approval is required.
- (2) ~~Solar energy collectors shall be~~ considered part of the building and meet all the required building height and setback requirements.
- (3) ~~Solar energy collectors shall n~~ot project more than 2 feet above highest point of roof or exceed maximum building height limitations allowed in that zoning district.
- (4) ~~Solar energy collectors shall n~~ot be located within 3 feet of any peak, eave, or valley to maintain adequate accessibility.

(c) On-Site Ground-Mounted Solar Energy Collectors:

- (1) ~~Ground-mounted solar energy systems a~~Are only permitted in the side and rear yards, unless permitted in front yard by issuance of a discretionary special use permit pursuant to Section 20-1804(A) of the Ordinance.
- (2) ~~Ground-mounted solar energy systems may~~Shall not extend into the side-yard or rear setback when oriented at any designed tilt angle.
- (3) ~~Ground-mounted solar energy collectors s~~Shall not exceed 12 feet in height measured from the ground at the base of such equipment. The height of the ground-mounted solar energy collector shall be measured from ground level to the highest point of the solar panel.
- (4) ~~There s~~Shall be a minimum of 25 feet from all-natural features including water courses, wood lots, wetlands, and 100-year floodplains.
- (5) ~~The total area of ground-mounted solar energy collections s~~Shall be included in calculations to determine lot coverage and shall not exceed the maximum lot coverage permitted in the relevant zoning district.
- ~~(6) Shall be considered an accessory use in For the RU-1, RU-2, RU-4, RSA, C-1, C-2, C-3, M-1, and M-2 zoning districts, ground-mounted solar energy collectors if requesting at the total area of ground mounted solar energy collectors and other elements of the on-site solar energy system account for fifteen (15%) percent or less lot coverage of 15 percent of total lot coverage.~~
- ~~(7) _____ or less be considered an accessory use. A Shall require a Discretionary Special Use Permit may be considered if the total area of ground mounted solar energy collectors and other elements of the on-site solar energy system account for more than ground-mounted solar energy collectors requesting a lot coverage over fifteen (15%) percent of total lot coverage.~~
- ~~(7)(8) _____~~Ground-mounted solar energy collectors and other elements of an on-site solar energy system shall meet the requirements of Sec-tion 20-400 Accessory Structures.

Article 7 DISTRICT REGULATIONS
Section 20-701 Zoning District Uses

ZONING DISTRICT USES										
TYPE OF USES	DISTRICTS									
	RSA	RU-1	RU-2	RU-4	C-1	C-2	C-3	M-1	M-2	
ACCESSORY USES, STRUCTURES, AND BUILDINGS										
On-Site Roof-Mounted Solar Energy Collector	A	A	A	A	A	A	A	A	A	A
On-Site Ground-Mounted Solar Energy Collector (15 percent Lot Coverage or Less)	A	A	A	A	A	A	A	A	A	A
On-Site Ground-Mounted Solar Energy Collector (Over 15 percent of Lot Coverage)	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS
INDUSTRIAL AND RELATED USES										
Commercial Solar Energy Collector	DS								DS	DS

Article 18 SPECIAL USE PERMITS-ARTICLE
Section 20-1804 Requirements for Permitted Special Land Uses
(OO) Commercial Solar Energy ~~Collector~~-System

~~(a)~~ The commercial solar energy ~~collector~~-system must meet all requirements in ~~Section-~~
20-41920 (a) all solar energy collectors ~~and (b) roof-mounted solar energy collectors.~~

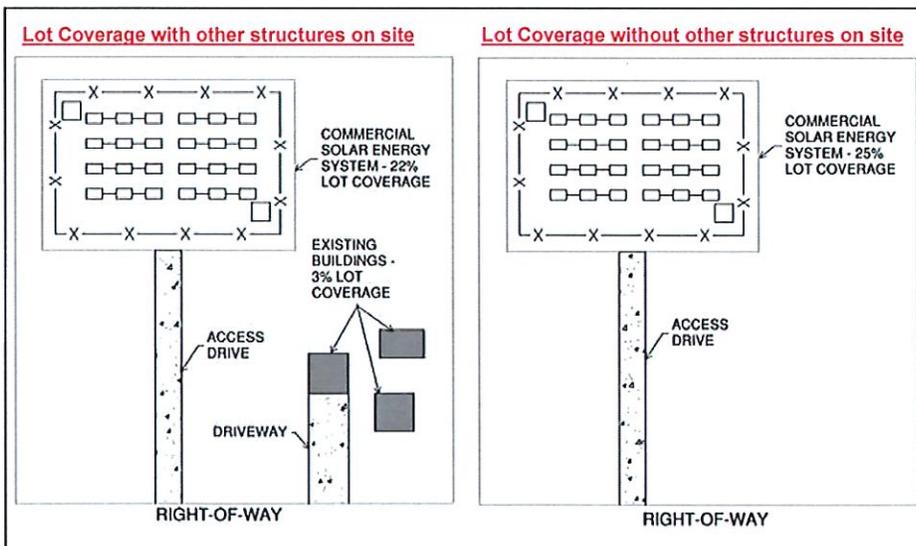
~~(a)~~~~(b)~~ All commercial solar energy ~~collector~~-systems ~~that are ground-mounted~~ shall follow the following requirements:

- (1) Ground-mounted solar energy collectors shall not exceed ~~twelve (12)~~ feet in height measured from the ground at the base of such equipment. The height of the ground-mounted solar energy collector shall be measured from ground level to the highest point of the solar panel.

~~The total area of ground-mounted solar energy collections shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of 25 percent regardless of the residing zoning district.~~

- (2) The total area of the commercial solar energy system shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of twenty-five (25%) percent regardless of the residing zoning district (See Figure 3).

Figure 3: Commercial Solar Energy Lot Coverage Illustration



~~(3)~~ Commercial solar energy systems must be located on Required to be on lots larger than 2 acres.

(4) Visual Buffer Requirements:

(i) Residential Property: ~~When Any a~~ commercial solar energy collector system ~~is adjacent to adjoining any a~~ residential ~~development use, the~~ system shall be set-back at least 100/200/500 feet from the property line and at least 200 feet from any dwelling unit. A landscaped visual buffer shall be provided within the setback area that obscures the commercial solar energy system from view.

(ii) Street Frontage: Commercial solar energy systems shall be set-back at least 60/100/200/500 feet from any road right-of-way. A landscaped visual buffer shall be provided within the setback area that obscures the commercial solar energy system from view.

(iii) Visual Buffer: ~~shall be provided with a buffer of at least 60 feet along the adjacent property line. A required landscaped visual~~ Such buffer shall be planted with evergreens and other suitable vegetation plantings that effectively screen the commercial solar energy system from view.

(iv) Setb-Back: Required set-back areas and visual buffers and shall not be used for ~~no any~~ other purposes.

~~(i) (v) A landscaped planting area of at least 60 feet shall also be provided along all street frontage. The Planning Commission may approve to substitute~~ substitution of vegetation the above described greenbelt for an obscuring fence, wall, and other protective barriers as long as it meets requirements in Section ~~20-408.~~

~~(ii) (v)~~ The planting of native ground covers ~~that~~ shall be maintained on site during the operation, until the site is decommissioned.

~~(4) (6)~~ The applicant shall P provide verification that adequate infrastructure exists to transport the electricity generated by the commercial solar energy system into the larger grid system.

(5)

~~(9)~~ Power and communication lines running between banks of solar energy collectors may be placed above ground, provided the lines are placed no higher than the top of the solar panels. ~~(7) Power and communication lines running between the banks of the solar panels may be placed above ground, provided the lines are placed no higher than top of the solar panels.~~

(6)

~~(5) (8)~~ Power and communication lines to electric substations or interconnections with buildings shall be buried underground.

~~(6) (7)~~ Exception for u The requirement for underground power and communication lines may be waived in the following circumstances.:

Commented [JB2]: We should clarify what the intent is for this provision.

- (i) Where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines.
- ~~(ii) (ii)~~ When required by the utility company.
- ~~(ii)~~
- ~~(iii) (iii)~~ Unless otherwise When granted a waiver determined by the Planning Commission during site plan review.
- ~~(iii)~~
- ~~(7) (10)~~ The installation of the ground-mounted solar energy collectors shall not disturb the existing topography.

(c) Decommissioning:

- (1) Any commercial solar energy system that is not operated or found to be inoperable due to disrepair for a continuous period of six (6) months shall be considered abandoned. If it is found abandoned, the Planning Commission, upon notice by the Zoning Administrator, shall provide written notice to the applicant/owner/operator of a hearing before the Planning Commission to hear evidence that the solar farm should not be decommissioned.
- (2) If a commercial solar energy system is repaired, a Licensed Professional Engineer (hired at the expense of the owner or operator) shall certify its safety prior to the resumption of operation.
- (3) Within ~~ninety (90)~~ days of the hearing where the Planning Commission has determined that a commercial solar energy system is abandoned or inoperable, the owner/operator shall obtain a permit from the township, and any other necessary entities to remove all structures and equipment, consistent with the approved decommissioning plan.
- (4) Failure to obtain necessary permits within the ~~ninety (90-)~~-day period provided in this subsection shall be grounds for the township to remove the commercial solar energy system at the Owner's expense, consistent with the decommissioning plan.
- (5) Decommissioning shall include removal of all equipment, including all materials above and below ground, and internal or perimeter access roads. The site shall be restored to a condition that reflects the character of the site prior to installation of the commercial solar energy system, including topography, vegetation, soils, drainage, and any unique environmental features.
- (6) The restoration shall include road repair and hazardous waste cleanup, if any, all re-grading, soil stabilization, and re-vegetation necessary to return the subject property to a stable condition consistent with conditions existing prior to establishment of the commercial solar energy system.
- (7) The restoration process shall comply with all state, county, or local erosion control, soil stabilization, and/or runoff requirements or ordinances and shall be

completed within one year. Extensions may be granted upon request to the Planning Commission prior to expiration of the one-year requirement for completed decommissioning.

(d) Decommissioning Plan:

(1) -Prior to site plan approval, a commercial solar energy system shall have a plan approved by the township for decommissioning the site that describes the expected duration of the project, how the improvements will be decommissioned, a Professional Engineer's estimated cost of decommissioning, and the financial resources necessary to accomplish decommissioning. The decommissioning plan shall address all applicable items in the previous subsection as well as the following.

(i) The financial resources for decommissioning shall be in the form of a bond or similar financial instrument with a replenishment obligation and shall be deposited by an agent acceptable to the township.

(ii) The financial resources for decommissioning shall be **one hundred twenty-five (125%)** percent of the estimated removal and restoration cost. The Planning Commission shall require independent verification of the adequacy of this amount from a Professional Engineer.

(iii) The **Planning Commission/building official/zoning administrator** shall annually review the amount deposited for removal, site restoration, and administration costs to ensure it is adequate for these purposes. If the Planning Commission determines that these amounts are not adequate, the township shall require the owner/operator to make additional deposits to increase the amount of the surety bond to cure such inadequacy.

(iv) If decommissioning is not completed by the applicant within one year of the end of project life, inoperability, or abandonment, the township shall have access to the financial resources for decommissioning for the expressed purpose of completing decommissioning. Funds may be used for administrative fees and costs associated with decommissioning.

(v) The township is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning.

(vi) The township is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the right to seek reimbursement from the applicant or applicant's successor for decommissioning costs in excess of the amount provided for in the decommissioning plan and to file a lien against any real estate owned by applicant or applicant's successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien.

Draft #1

~~decommissioning plan shall be required to ensure that facilities are properly removed after their useful life. Decommissioning of solar panels must occur in the event they are not in use for 90 days. The plan shall include provisions for removal of all structures, foundations, electrical equipment and internal or perimeter access roads, restoration of soil and vegetation, and a plan ensuring financial resources will be available to fully decommission the site. The applicant shall submit a financial guarantee in the form of a bond in favor of Flushing Township equal to 125 percent of the costs to meet the requirements of the decommissioning plan. The type of guarantee is subject to the Planning Commission's approval.~~

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Flushing Township
Solar Energy Zoning Ordinance Provisions
AMENDED MONTH, YEAR

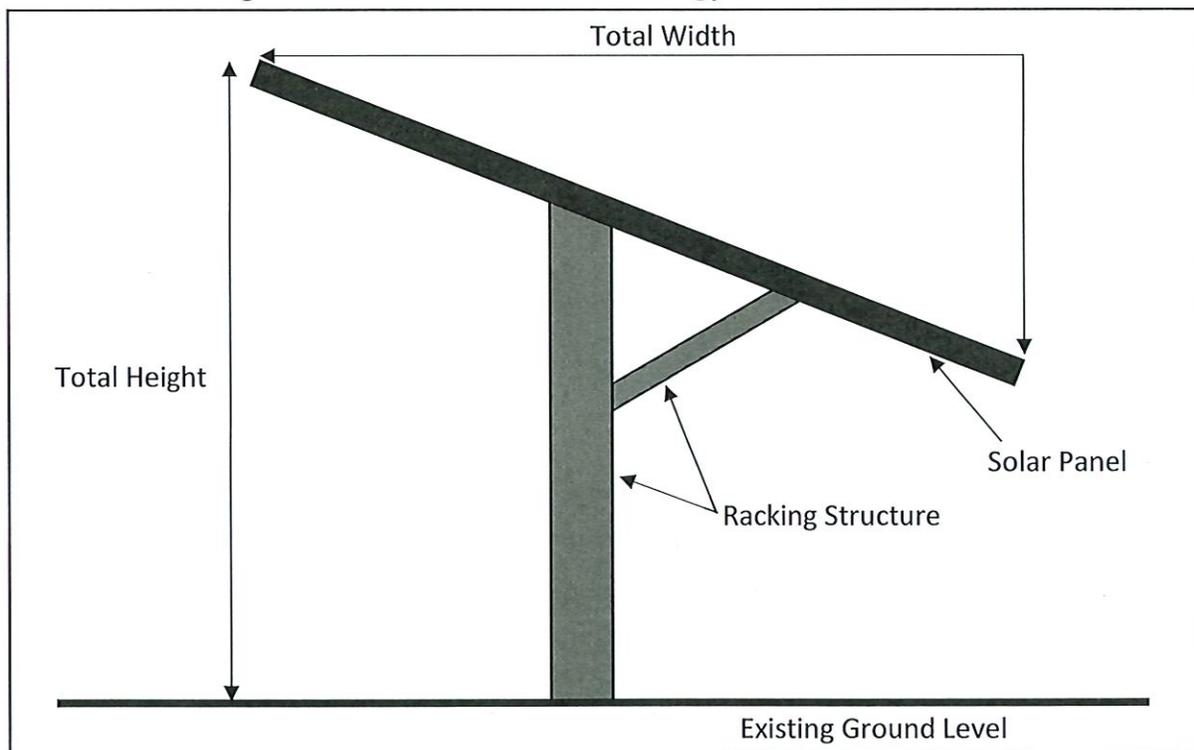
Article 2 DEFINITIONS

SOLAR ENERGY COLLECTOR: A device, structure, or part of a device or structure that transforms direct solar energy into thermal, chemical, or electrical energy and that contributes significantly to a structure’s energy supply.

SOLAR ENERGY COLLECTOR, GROUND MOUNTED: A solar energy collector that is not attached to and is separate from any building on the parcel of land on which the solar energy collector is located (Figure 1).

SOLAR ENERGY COLLECTOR, ROOF-MOUNTED: A solar energy collector that is attached to a building’s roof on the parcel of land including solar shingles.

Figure 1: Ground Mounted Solar Energy Collector Illustration

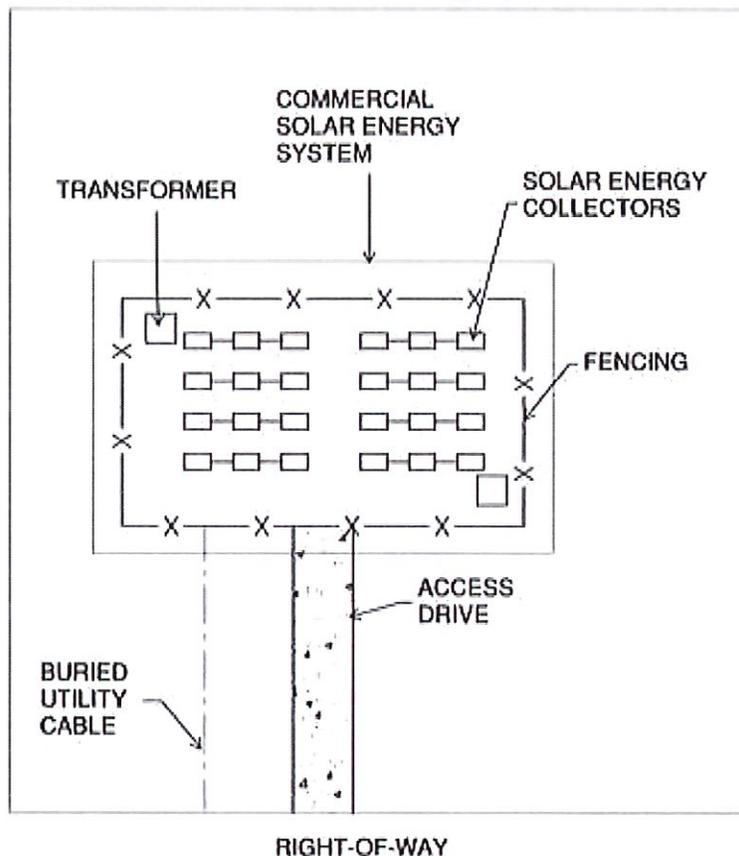


SOLAR ENERGY SYSTEM: One or more solar energy collectors or structural design features of a structure that relies upon sunshine as an energy source and is capable of collecting,

distributing, and storing (if appropriate to the technology) the sun's radiant energy for a beneficial use.

SOLAR ENERGY SYSTEM, COMMERCIAL: A utility-scale facility of ground-mounted solar energy collectors with the primary purpose of wholesale or retail sales of generated electricity, commonly referred to as solar farms. A commercial solar energy system includes the solar panels, roads, spacing for service, fencing, and any other structure, transformer, or devices of the like needed for solar production or operation of the system. See Figure 2.

Figure 2: Commercial Solar Energy System Illustration



SOLAR ENERGY SYSTEM, ON-SITE: A solar energy system designed to help meet the electrical needs within the limits of the area encompassed by the tract area or parcel of record on which the activity is conducted. An on-site solar energy system may include ground-mounted, roof-mounted solar energy collectors, or a combination of the two. The majority of the electricity generated by an on-site solar energy system must remain on the site, and not be utilized for wholesale or retail sale.

RACKING: Racking is any structure or building material used in the mounting of a solar panel.

SOLAR PANEL: A panel consisting of an array of solar cells used to generate electricity directly from sunlight.

Article 4 SITE REGULATIONS

Section 20-420 Solar Energy System Regulation

(a) All Solar Energy Collectors

- (1) The installation of any solar panel (on-site or commercial) shall not negatively impact adjacent properties with additional or excessive stormwater runoff and/or drainage.
- (2) It shall be shown that all panels are adequately secured to the surface upon which they are mounted and that the mounting structure has the capability of supporting the panels.
- (3) All panels shall have tempered, non-reflective surfaces.
- (4) Solar energy collectors shall be repaired, replaced, or removed within three months of becoming nonfunctional.
- (5) Each system shall conform to applicable industry standards including those of the American National Standards Institute (ANSI).
- (6) Solar energy collectors 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 inspector prior to installation. Building inspector approval is required.
- (7) Solar energy collectors and installation and uses shall comply with construction code, electrical code, and other state requirements.

(b) On-Site Roof-Mounted Solar Energy Collectors shall:

- (1) Be such a weight to be safely supported by the building. Building inspector approval is required.
- (2) Be considered part of the building and meet all the required building height and setback requirements.
- (3) Not project more than 2 feet above highest point of roof or exceed maximum building height limitations allowed in that zoning district.
- (4) Not be located within 3 feet of any peak, eave, or valley to maintain adequate accessibility.

(c) On-Site Ground-Mounted Solar Energy Collectors:

- (1) Are only permitted in the side and rear yards, unless permitted in front yard by issuance of a discretionary special use permit pursuant to Section 20-1804(A) of the Ordinance.
- (2) Shall not extend into the side yard or rear setback when oriented at any designed tilt angle.

- (3) Shall not exceed 12 feet in height measured from the ground at the base of such equipment. The height of the ground-mounted solar energy collector shall be measured from ground level to the highest point of the solar panel.
- (4) Shall be a minimum of 25 feet from all-natural features including water courses, wood lots, wetlands, and 100-year floodplains.
- (5) Shall be included in calculations to determine lot coverage and shall not exceed the maximum lot coverage permitted in the relevant zoning district.
- (6) Shall be considered an accessory use in the RU-1, RU-2, RU-4, RSA, C-1, C-2, C-3, M-1, and M-2 zoning districts if the total area of ground mounted solar energy collectors and other elements of the on-site solar energy system account for fifteen (15%) percent or less of total lot coverage.
- (7) Shall require a Discretionary Special Use Permit if the total area of ground mounted solar energy collectors and other elements of the on-site solar energy system account for more than fifteen (15%) percent of total lot coverage.
- (8) Ground-mounted solar energy collectors and other elements of an on-site solar energy system shall meet the requirements of Section 20-400 Accessory Structures.

Article 7 DISTRICT REGULATIONS
Section 20-701 Zoning District Uses

ZONING DISTRICT USES										
TYPE OF USES	DISTRICTS									
	RSA	RU-1	RU-2	RU-4	C-1	C-2	C-3	M-1	M-2	
ACCESSORY USES, STRUCTURES, AND BUILDINGS										
On-Site Roof-Mounted Solar Energy Collector	A	A	A	A	A	A	A	A	A	A
On-Site Ground-Mounted Solar Energy Collector (15 percent Lot Coverage or Less)	A	A	A	A	A	A	A	A	A	A
On-Site Ground-Mounted Solar Energy Collector (Over 15 percent of Lot Coverage)	DS	DS	DS	DS	DS	DS	DS	DS	DS	DS
INDUSTRIAL AND RELATED USES										
Commercial Solar Energy Collector	DS								DS	DS

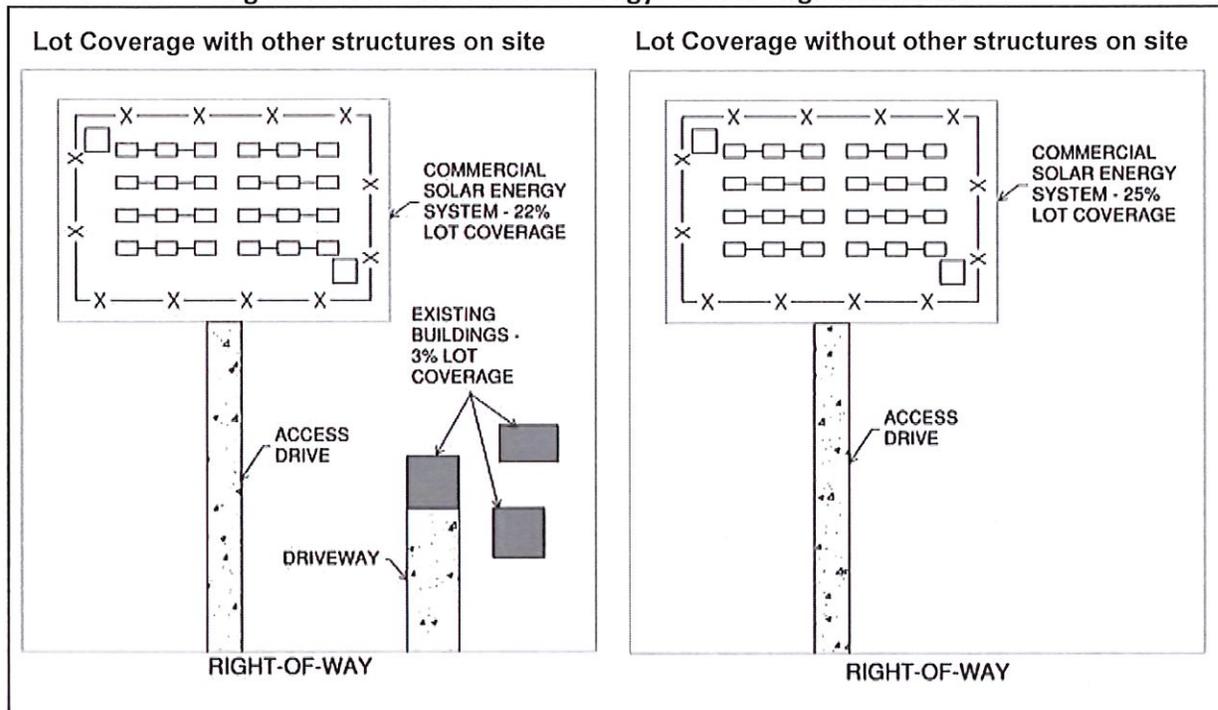
Article 18 SPECIAL USE PERMITS

Section 20-1804 Requirements for Permitted Special Land Uses

(OO) Commercial Solar Energy System

- (a) The commercial solar energy system must meet all requirements in Section 20-420 (a) all solar energy collectors.
- (b) All commercial solar energy systems shall follow the following requirements:
 - (1) Ground-mounted solar energy collectors shall not exceed 12 feet in height measured from the ground at the base of such equipment. The height of the ground-mounted solar energy collector shall be measured from ground level to the highest point of the solar panel.
 - (2) The total area of the commercial solar energy system shall be included in calculations to determine lot coverage and shall not exceed a maximum lot coverage of twenty-five (25%) percent regardless of the residing zoning district (Figure 3).

Figure 3: Commercial Solar Energy Lot Coverage Illustration



- (3) Commercial solar energy systems must be located on lots larger than 2 acres.
- (4) Visual Buffer Requirements:
 - (i) **Residential Property:** When a commercial solar energy system is adjacent to a residential use, the system shall be set back at least 100/200/500 feet from the property line and at least 200 feet from any dwelling unit. A landscaped visual buffer shall be provided within the setback area that obscures the commercial solar energy system from view.
 - (ii) **Street Frontage:** Commercial solar energy systems shall be setback at least 60/100/200/500 feet from any road right-of-way. A landscaped visual buffer shall be provided within the setback area that obscures the commercial solar energy system from view.
 - (iii) **Visual Buffer:** A required landscaped visual buffer shall be planted with evergreens and other suitable vegetation that effectively screen the commercial solar energy system from view.
 - (iv) **Setback:** Required setback areas and visual buffers shall not be used for any other purpose.
 - (v) The Planning Commission may approve substitution of vegetation for an obscuring fence, wall, and other protective barriers as long as it meets requirements in Section 20-408. The planting of native ground covers shall be maintained on site during the operation, until the site is decommissioned.
- (5) The applicant shall provide verification that adequate infrastructure exists to transport the electricity generated by the commercial solar energy system into the larger grid system.
- (6) Power and communication lines running between banks of solar energy collectors may be placed above ground, provided the lines are placed no higher than the top of the solar panels.
- (7) Power and communication lines to electric substations or interconnections with buildings shall be buried underground. The requirement for underground power and communication lines may be waived in the following circumstances:
 - (i) Where shallow bedrock, water courses, or other elements of the natural landscape interfere with the ability to bury lines.
 - (ii) When required by the utility company.
 - (iii) When granted a waiver by the Planning Commission during site plan review.

The installation of the ground-mounted solar energy collectors shall not disturb the existing topography.

(c) Decommissioning:

- (1) Any commercial solar energy system that is not operated or found to be inoperable due to disrepair for a continuous period of six (6) months shall be considered abandoned. If it is found abandoned, the Planning Commission, upon notice by the Zoning Administrator, shall provide written notice to the applicant/owner/operator of a hearing before the Planning Commission to hear evidence that the solar farm should not be decommissioned.
- (2) If a commercial solar energy system is repaired, a Licensed Professional Engineer (hired at the expense of the owner or operator) shall certify its safety prior to the resumption of operation.
- (3) Within 90 days of the hearing where the Planning Commission has determined that a commercial solar energy system is abandoned or inoperable, the owner/operator shall obtain a permit from the township, and any other necessary entities to remove all structures and equipment, consistent with the approved decommissioning plan.
- (4) Failure to obtain necessary permits within the 90-day period provided in this subsection shall be grounds for the township to remove the commercial solar energy system at the Owner's expense, consistent with the decommissioning plan.
- (5) Decommissioning shall include removal of all equipment, including all materials above and below ground, and internal or perimeter access roads. The site shall be restored to a condition that reflects the character of the site prior to installation of the commercial solar energy system including topography, vegetation, soils, drainage, and any unique environmental features.
- (6) The restoration shall include road repair and hazardous waste cleanup, if any, all re-grading, soil stabilization, and re-vegetation necessary to return the subject property to a stable condition consistent with conditions existing prior to establishment of the commercial solar energy system.
- (7) The restoration process shall comply with all state, county, or local erosion control, soil stabilization, and/or runoff requirements or ordinances and shall be completed within one year. Extensions may be granted upon request to the Planning Commission prior to expiration of the one-year requirement for completed decommissioning.

(d) Decommissioning Plan:

- (1) Prior to site plan approval, a commercial solar energy system shall have a plan approved by the township for decommissioning the site that describes the expected duration of the project, how the improvements will be decommissioned, a Professional Engineer's estimated cost of decommissioning, and the financial resources necessary to accomplish decommissioning. The

decommissioning plan shall address all applicable items in the previous subsection as well as the following.

- (i) The financial resources for decommissioning shall be in the form of a bond or similar financial instrument with a replenishment obligation and shall be deposited by an agent acceptable to the township.
- (ii) The financial resources for decommissioning shall be one hundred twenty-five (125%) percent of the estimated removal and restoration cost. The Planning Commission shall require independent verification of the adequacy of this amount from a Professional Engineer.
- (iii) The Planning Commission/building official/zoning administrator shall annually review the amount deposited for removal, site restoration, and administration costs to ensure it is adequate for these purposes. If the Planning Commission determines that these amounts are not adequate, the township shall require the owner/operator to make additional deposits to increase the amount of the surety bond to cure such inadequacy.
- (iv) If decommissioning is not completed by the applicant within one year of the end of project life, inoperability, or abandonment, the township shall have access to the financial resources for decommissioning for the expressed purpose of completing decommissioning. Funds may be used for administrative fees and costs associated with decommissioning.
- (v) The township is granted the right of entry onto the site, pursuant to reasonable notice, to effect or complete decommissioning.
- (vi) The township is granted the right to seek injunctive relief to effect or complete decommissioning, as well as the right to seek reimbursement from the applicant or applicant's successor for decommissioning costs in excess of the amount provided for in the decommissioning plan and to file a lien against any real estate owned by applicant or applicant's successor, or in which they have an interest, for the amount of the excess, and to take all steps allowed by law to enforce said lien.

Footnotes

- (a) For lots with municipal water and sewer
- (b) Minimum lot area shall be that necessary to meet required front, side and rear setbacks
- (c) When the lot line is adjacent to a single family residential zone
- (d) The height may be extended over 2.5 stories as long as it is within the firefighting capability of the township and is not a violation of other applicable township ordinances
- (e) See mobile home development provisions of the Site Regulation Article
- (f) 1 acre lots are permitted within an industrial park
- (g) At the discretion of the Planning Commission the minimum dimensions of the front and rear yard and the side yards may be adjusted so that the total of the front and rear yards is a minimum of 100 feet and the total of the side yards is a minimum of 100 feet, and provided any building or structure on the lot is located at a minimum of 30' from the road right of way and a minimum of 20' from the rear lot line and any property line abutting residential property. Any lot zoned C-1, as of the effective date of this ordinance, which does not meet the currently established minimum yard requirements may be used for any permitted C-1 use, provided the total of the front and rear yards equals at least 40% of the total lot depth, and the total of the side yards equals at least 40% of the lot width, and provided any building or structure on the lot is located at a minimum of 30' from the road right of way and a minimum of 20' from the rear lot line and any property line abutting residential property. The Planning Commission may, at its discretion require a buffer along any line abutting residential property.
- (h) At the discretion of the Planning Commission the minimum dimensions of the front and rear yard and the side yards may be adjusted so that the total of the front and rear yards is a minimum of 100 feet and the total of the side yards is a minimum of 100 feet, and provided any building or structure on the lot is located at a minimum of 30' from the road right of way and a minimum of 20' from the rear lot line and any property line abutting residential property. Any lot zoned C-2, as of the effective date of this ordinance, which does not meet the currently established minimum yard requirements may be used for any permitted C-2 use, provided the total of the front and rear yards equals at least 40% of the total lot depth, and the total of the side yards equals at least 40% of the lot width, and provided any building or structure on the lot is located at a minimum of 30' from the road right of way and a minimum of 20' from the rear lot line and any property line abutting residential property. The Planning Commission may, at its discretion require a buffer along any line abutting residential property.

Section 20-702 Table of District Regulations

Zoning District	Lot Area (Sq ft)	Lot Width (ft)	Lot Depth (ft)	Setbacks			Lot Coverage (%)	Maximum Building Height (Stories)
				Front (ft)	Side (ft)	Rear (ft)		
RSA	30,000 9,900 (a)	100 80 (a)	200	20	10	25	25	2.5
RU-1	20,000 9,900 (a)	100 80 (a)	N/A	20	10	25	30	2.5
RU-2	20,000 9,900 (a)	100 80 (a)	400	20	20	25	N/A	2.5
RU-2 (three family homes)	26,300 16,500 (a)	150 130 (a)	400	20	20	25	N/A	2.5
RU-2 (four family homes)	29,600 19,600 (a)	180 150 (a)	400	20	20	25	N/A	2.5
RU-2 (duplexes, lodging houses and tourist homes)	23,000 13,200 (a)	120 105 (a)	400	20	20	25	N/A	2.5
RU-2 (garden apartments or townhouses)	1 ac		400	40	40	40	N/A	2.5
RU-3	(b)	N/A	N/A	80	80	80	N/A	2.5 (d)
RU-4	15 ac	N/A	N/A	(e)	(e)	(e)	N/A	2.5
SR	N/A	N/A	N/A	80	80	80	N/A	2.5
C-1 (Amended 10/04/05)	22,500	150*	150*	50*(g)	50*(g)	50*(g)	N/A	2.5
C-2 (Amended 10/04/05)	22,500	150*	150*	50*(h)	50*(h)	50*(h)	N/A	2.5
C-3	5 ac	200	N/A	80	80	80	N/A	2.5
M-1	4 ac 1 ac (f)	N/A	N/A	80	80	80	N/A	2.5
M-2	4 ac 2 ac (f)	N/A	N/A	80	80	80	N/A	2.5