



CHEBOYGAN COUNTY PLANNING COMMISSION

870 SOUTH MAIN ST. ■ PO Box 70 ■ CHEBOYGAN, MI 49721
PHONE: (231)627-8489 ■ FAX: (231)627-3646

**CHEBOYGAN COUNTY PLANNING COMMISSION MEETING & PUBLIC HEARING
WEDNESDAY, OCTOBER 17, 2018 AT 7:00 PM
ROOM 135 – COMMISSIONERS ROOM
CHEBOYGAN COUNTY BUILDING, 870 S. MAIN ST., CHEBOYGAN, MI 49721**

AGENDA

CALL TO ORDER

PLEDGE OF ALLEGIANCE

ROLL CALL

APPROVAL OF AGENDA

APPROVAL OF MINUTES

PUBLIC HEARING AND ACTION ON REQUESTS

UNFINISHED BUSINESS

- 1.) Continued discussion regarding the County's Capital Improvement Plan.
- 2.) Continued discussion regarding the draft Amendment to the Zoning Ordinance relative to Motor Vehicle and Fuel Sales Uses.
- 3.) Continued discussion regarding the draft Amendment to the Zoning Ordinance relative To Solar Energy Systems.

NEW BUSINESS

STAFF REPORT

PLANNING COMMISSION COMMENTS

PUBLIC COMMENTS

ADJOURN



CHEBOYGAN COUNTY PLANNING COMMISSION

870 SOUTH MAIN ST., ROOM 103 ■ PO BOX 70 ■ CHEBOYGAN, MI 49721
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CHEBOYGAN COUNTY PLANNING COMMISSION MEETING & PUBLIC HEARING WEDNESDAY, OCTOBER 3, 2018 AT 7:00 PM ROOM 135 – COMMISSIONER'S ROOM – CHEBOYGAN COUNTY BUILDING

PRESENT: Bartlett, Freese, Kavanaugh, Borowicz, Croft, Ostwald, Jazdyk, Churchill, Lyon
ABSENT: None
STAFF: Michael Turisk
GUESTS: Eric Boyd, Carl Muscott, Cal Gouine, John F. Brown, Marcia Rocheleau, Karen Johnson, Louis Vassilakos, Russell Crawford, Cheryl Crawford, Gary C. Painter, Rae Bontekoe, John Moore, Sharon Churchill, Steven Vohs, Chuck Maziasz, Mary Athearn, Gary Radcliffe, Rose Radcliffe, Bruce Athearn

The meeting was called to order by Chairperson Croft at 7:00pm.

PLEDGE OF ALLEGIANCE

Chairperson Croft led the Pledge of Allegiance.

APPROVAL OF AGENDA

The meeting agenda was presented. **Motion** by Mr. Borowicz seconded by Mr. Churchill, to approve the agenda as presented. Motion carried unanimously.

APPROVAL OF MINUTES

Motion by Mr. Kavanaugh, seconded by Mr. Freese, to rescind the September 5, 2018 minutes. Motion carried unanimously.

The September 5, 2018 Planning Commission minutes were presented. **Motion** by Mr. Kavanaugh, seconded by Mr. Freese, to approve the meeting minutes as revised. Motion carried unanimously.

The September 19, 2018 Planning Commission minutes were presented. **Motion** by Mr. Borowicz, seconded by Mr. Kavanaugh, to approve the meeting minutes as presented. Motion carried unanimously.

PUBLIC HEARING AND ACTION ON REQUESTS

Rae Bontekoe – The applicant is seeking a one year extension of an approved Special Use for an Events Venue for a property zoned Agriculture and Forestry Management (M-AF). Per Section 18.12., an approved special use permit shall expire one year following approval by the Planning Commission, unless substantial construction has begun pursuant to the permit prior to the expiration, or the property owner applies to the Planning Commission for an extension prior to the expiration of the Special Use permit. The subject property is located at 8739 Brudy Rd., Ellis Township, Section 18, Parcel 210-018-400-002-01.

Mr. Turisk reviewed the background information contained in the staff report.

Ms. Bontekoe stated that she had not been able to obtain a contractor to perform the work required to date, and that the project remains as previously approved.

Ms. Croft asked for public comments. There were no public comments. Public comment closed.

Motion by Mr. Freese, seconded by Mr. Kavanaugh, to find that due to unforeseen difficulties beyond the control of the property owner have prevented completion of the project and that standards and requirements for its completion have not changed any that a one year extension of the special use permit be granted. Motion carried unanimously.

Steven Vohs – A request for site plan review approval for an accessory storage structure for an existing retail business in a Commercial Development (D-CM) zoning district, per Section 6.2.19. The property is located at 3927 S. Straits Hwy., Tuscarora Twp., section 24, Parcel #161-024-400-573-00.

Mr. Turisk reviewed the background information contained in the staff report.

Mr. Freese stated that of the three waivers requested:

1. The area is basically flat and that therefore topography could be waived.
2. Utilities are shown on the drawing and therefore a waiver is not required.
3. Elevation drawings are required.

Mr. Vohs provided, as an exhibit, a drawing to show building elevations.

Motion by Mr. Freese, seconded by Mr. Kavanaugh, to waive the topography requirement. Motion carried unanimously.

Ms. Croft asked for public comments. There were no public comments. Public comment closed.

The Planning Commission reviewed and approved the General Finding and the Specific Findings of Fact Under Section 20.10. **Motion** by Mr. Freese, seconded by Mr. Kavanaugh, to approve the site plan review based on the General Findings and the Specific Findings of Fact Under Section 20.10 subject to Department of Building Safety. Motion carried unanimously.

David McDade - The applicant requests approval of a Special Use application for a bar/restaurant for a property largely within a Lake and Stream Protection (P-LS) zoning district with a portion zoned Commercial Development (D-CM), per Sections 10.3.14. and 6.2.3., respectively. The subject property is located at 3249 Gratiot St., adjacent to the Indian River in Tuscarora Township, Section 19, Parcel 162-019-100-032-00.

Mr. Turisk reviewed the background information contained in the staff report.

Mr. Kavanaugh requested information concerning whether Gratiot was a minor residential street which was addressed by the Zoning Board of Appeals, a copy of their findings which had been provided to the Planning Commission. Mr. Freese stated that in the regulation. He stated that the Zoning Board of Appeals had come up with a definition of "minor residential street" to be utilized in the future and that when applied to Gratiot Street it was determined that Gratiot Street was not a minor residential street. He further stated that this was all contained in the September 26, 2018 minutes of the Zoning Board of Appeals. A pertinent portion of which had been provided to the Planning Commission. Mr. Freese further explained the consequences of the designation of a road as a "minor residential street" and recommended that the sentence containing this term be deleted from section 18.7.f.

Mr. Freese stated that he felt that additional screening was required along the north property line from the end of the line of screening along the west side of the parking area eastward at least halfway to the river in order to provide the screening required of the parking area and the loading area. Mr. Freese stated that an additional parking space was required to meet the standards based on the seating capacity and the number of staff proposed. Mr. McDade stated that the number of staff should have been given as 4 rather than 8 since there will be 4 per shift and that this would reduce the number of parking spaces required.

Mr. Bartlett questioned what the outside entertainment would entail. Mr. McDade stated that the entertainment would not be loud, as would be the case with full amplification bands, but would be small scale and quieter such as Mike Ridley and would only occur during daylight hours from 10:00am to 10:00pm during the summer season when there is activity on the river.

Mr. Bartlett asked whether the outdoor recreational activities would be artificially lighted. Mr. McDade stated that they would only be for daylight use.

Mr. Freese questioned whether the hours of operation are 10:00am to 10:00pm or 10:00am to 11:00pm. Mr. McDade indicated that their hours would be daylight hours from 10:00am to 10:00pm. Mr. Freese asked whether they were officially indicating the hours would be from 10:00am to 10:00pm. Mr. McDade stated yes, that was their business plan.

Mr. Freese asked what their proposed entertainment days of operation would be. Mr. McDade stated that outside entertainment would end by 8:00pm on Fridays, Saturdays, and Sundays during the months that they are open with additional days on holiday weekends.

Mr. Kavanaugh asked what types of games would be available. Mr. McDade stated that soft games without any safety hazard such as horseshoes would be utilized.

Ms. Lyon asked what the surface of the parking lot would be. Mr. McDade stated it would be gravel in order to limit water runoff.

Mr. Jazdyk asked whether take-out food service would be provided. Mr. McDade stated that that was what was planned.

Ms. Croft asked for public comments. Mr. Muscott stated that he didn't want to see hours of operation unreasonably limited. He stated that this was proposed to be a family oriented business and strict hours of operation could prove detrimental. Mr. Muscott stated that one of the proposed restrictions was that no customer parking was to be allowed on Gratiot Street and that only the Cheboygan County Road Commission could limit on street parking.

Mary and Bruce Athearn stated that they own the property bordering the applicant's property on the north side and that the fill that was placed on the east side had caused runoff on to their property. They in turn had to add fill on their parcel along the river to alleviate the problem which had resulted in the runoff causing problems for the property on the south side of the applicant's property. Mr. Athearn stated that he was not happy to be looking out his front door to a view of a restaurant/bar all summer long and questioned whether he would have to endure people trespassing on his property to retrieve volley balls from the recreational facilities proposed to be located next to his property. Mrs. Athearn complained about the noise potential and about the lack of screening.

Mr. Radcliff questioned whether the boat slips on the parcel would have to be vacated when the restaurant closed or whether they could be used for partying after hours. Mr. Radcliff also stated that he felt customers would park along Gratiot creating a safety hazard at that turn of the road.

Public comment closed.

Board held discussion. Mr. Freese questioned the use of the boat slips and whether they would be rented or allowed to be used for parking overnight. Mr. McDade stated that the slips would only be allowed for customers to dock during business hours and that they would be cleared by closed of business.

Mr. Freese asked whether Mr. McDade would be amenable to placing a double row of pines along the north property line to screen the Athearn's property. Mr. McDade stated he would be amenable to that.

Mr. Kavanaugh asked whether the recreational area could be moved to the south side of the parcel. Mr. McDade stated that this was agreeable.

Mr. McDade stated that he was agreeable and that, when they were regrading for construction, that they would try to alleviate the drainage to the north.

Ms. Croft asked for any changes to the General Findings. Mr. Kavanaugh stated that the materials from the Zoning Board of Appeals concerning the minor residential street and the emails from Mr. Turisk to the Road Commission should be added to the General Findings. Mr. Freese added that this should be the actual minutes of the September 26, 2018 Zoning Board of Appeals meeting. Mr. Kavanaugh amended his addition to the General Findings to read the actual minutes of the Zoning Board of Appeals meeting.

Motion by Mr. Freese, seconded by Mr. Churchill, to approve the special use permit subject to the amended General Findings and the Findings of Fact under Section 18.7 subject to the following conditions:

1. The applicant shall install screening to obscure the loading zone from public streets per the requirements of Section 17.4.8.i. Screening shall be repaired and maintained as needed. Additional screening in the form of a double row of Austrian Pines shall be planted along an east/west line along the north property boundary to screen the home north from the parking lot and the restaurant in accordance with Section 17.18.
2. All outdoor lighting fixtures shall be fully shielded to minimize light trespass.
3. Submittal of building permit and soil and sedimentation pollution control permit applications prior to construction.
4. Compliance with all applicable District Health Department requirements.
5. Off street parking on the parcel along Gratiot Street shall be prohibited.
6. Accessible parking spaces to meet the provisions of the Americans with Disabilities Act of 1990 (ADA) standards shall be provided.
7. Any future expansions shall require submittal and approval of a Special Use amendment application per the standards set forth in Section 18.11.

8. Hours of operation shall be limited to 10:00am to 10:00pm during the period May 1st through October 31st.
9. A revised site plan shall be submitted showing screening required by condition 1 (above).
10. Construction shall be in compliance with Department of Building Safety requirements.
11. Outdoor entertainment shall be limited to the hours of 10:00am to 8:00pm on Fridays, Saturdays and Sundays with the exception that they may be extended for additional days to cover holidays on extended holiday weekends.
12. Recreational activity areas shall be relocated to the south side of the restaurant building and their location shown on the revised site plan.
13. All DNR and DEQ requirements shall be met.
14. Boat slips shall be limited to use by patrons of the restaurant and shall be vacated by 10:00pm with a rope placed across the mouth of the slips to prevent their use after hours.
15. Discussion to be held between applicant and homeowners to the north at the time site is graded.

Motion carried unanimously.

UNFINISHED BUSINESS

Continued discussion regarding the County's Capital Improvement Plan.

Mr. Turisk introduced material on the Capital Improvement Plan. Mr. Vassilakos, Chairman of the Airport Authority, and Mr. Painter presented handout material on airport projects. Mr. Painter stated the terminal building is in dire need of renovation. He explained the funding of the projects that being 90% Federal, 5% State and 5% local. The source and use of funds was explained. It was explained that Federal funding establishes Federal ownership of the facility and if the airport ceased to operate, the City and the County would have to repay the Federal funds which had been provided. Airport operations were explained. Mr. Jazdyk questioned if the airport provides value commensurate with the cost. Discussion held on the value of services provided. It was also pointed out that the Straits Regional Ride is based out of the airport facility.

Mr. Lawson provided information on County projects covered on the Capital Improvement Plan. He provided information on the relocation of the fuel dispensing facility at the Marina. Mr. Jazdyk asked why gas is being sold at the Marina. Mr. Lawson explained that the Marina is part of the Harbor of Refuge System on the Great Lakes and that the gas sales is a large part of the revenue for the operation of the facility. Mr. Lawson provided information on the operation of the Marina. Mr. Jazdyk asked why the Marina is providing services which might be better provided by private firms.

Mr. Freese gave a status on the Solar Ordinance.

NEW BUSINESS

Mr. Kavanaugh stated the planning training was very worthwhile.

Mr. Freese made comments concerning the Zoning Board of Appeals findings on "minor residential streets" and said this sentence should be deleted from the regulation.

Discussion was held on several minor amendments that should be completed which has previously been agreed upon by the Planning Commission.

STAFF REPORT

Mr. Turisk went over information on amendments in progress and the priorities on them.

PLANNING COMMISSION COMMENTS

No comments.

PUBLIC COMMENTS

Mr. Muscott stated that he feels the priority should be continued to be concentrated on the solar ordinance.

ADJOURN

Motion by Mr. Kavanaugh to adjourn. Motion carried. Meeting was adjourned at 9:11pm.

Charles Freese
Planning Commission Secretary



CHEBOYGAN COUNTY COMMUNITY DEVELOPMENT DEPARTMENT

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To: Planning Commissioners

From: Michael Turisk, Planning Director

Re: 2019 Capital Improvements Program

Date: October 11, 2018

Per the Planning Commission's direction, Jeff Lawson (County Administrator) and Gary Painter (Cheboygan County Airport) provided details regarding specific ongoing and upcoming capital improvement expenditures as noted in the Capital Improvement Program-related materials provided to you previously. At your regular upcoming meeting on October 17, the Planning Commission is afforded opportunity for additional discussion and to formally schedule the CIP for a future public hearing.

CHEBOYGAN COUNTY



CAPITAL IMPROVEMENT PROGRAM 2019 - 2025

Approved by the Planning Commission on _____

Approved by the Board of Commissioners on _____

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Introduction

The Michigan Planning Enabling Act (Act 33, 2008) requires local municipalities that have adopted a master plan to annually prepare a Capital Improvement Program, a planning tool that can coordinate community planning, financial capacity and physical development. A Capital Improvement Program may be considered a blueprint for planning capital improvement expenditures, and seek, in part, to improve quality of life and achieve a community's long-term goals. The Act provides that the Capital Improvements Program show those public structures and improvements in general order of their priority that in the judgment of the Planning Commission will be needed or desirable and can be undertaken within the ensuing 6-year period.

The inclusion of a project in a Capital Improvement Program will not require any public entity or County department to fund or complete the project. This report has been prepared and projected on a one-time cash basis that lists the potential project and its estimated cost as provided by various agencies and departments. This cash method of reporting may suggest a substantial one-time cost for many improvements. Not considered are such factors as debt amortization or shared expenses such as grants or other sources of financial aid.

The projects listed in this report should be identified or prioritized as needed or desirable by the Planning Commission and determine that they do not conflict with the adopted Master Plan.

Definition

Capital Improvements for the purposes of this Capital Improvement Program shall be defined as additions to County assets which are the result of construction or purchase of land, buildings or facilities or renovations of the same, with an estimated useful life of five (5) years or more and exceed an estimated cost of \$15,000.00.

Procedure

- a) The staff of the Planning and Zoning Department gathers project information from agencies and departments within the County for inclusion in the CIP.
- b) The proposed projects are reviewed by the Planning Commission.
- c) Agency and department representatives may provide reports to the Planning Commission by request.
- d) Staff will present the draft CIP to the Planning Commission for review. The Planning Commission will elect which projects should be included in the CIP and place identified projects in order of priority.
- e) The Planning Commission will hold a public meeting on the draft CIP and may make changes to the draft CIP accordingly.
- f) The Planning Commission will forward the final draft CIP, along with a recommendation, to the County Board of Commissioners.
- g) The County Board of Commissioners will approve, modify or reject with rationale, the CIP.
- h) The Planning Commission will annually update the CIP by employing the aforementioned procedure.

Project Prioritizing

Projects are presented in a general order of priority in consideration of factors listed in the following categories:

a) Needed (essential; should do):

- Addresses an objective of the Master Plan.
- Satisfies a legal obligation.
- Corrects a condition dangerous to public health and safety.
- Reduces future operating and maintenance costs.
- Leverages local, state or federal funds.
- Prevents irreparable damage to a valuable public facility.
- Stimulates economic growth and private investment.

b) Desirable (important; could do):

- Provides a new or expanded level of service.
- Provides a facility improvement that would enhance efficiency or use with minimal or no increase in operating costs.
- Enhances cultural or natural resources.

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Project Descriptions

Needed Project Category

DRAFT

Project Description

Project Title: Fuel Tank and Fuel Dock Replacement and Upgrade

Agency: Cheboygan County Marina

Project Type: Facility Replacement

Project Description: Existing fuel dock and fuel tank was constructed and installed in 1988. A new wood dock is proposed to replace the existing dock. Replacement of the existing fuel storage tank is also proposed.

Year(s) of Project: 2019-2020

Estimated Cost: \$800,000

Planning Commission Priority Category: Needed

Project Description

Project Title: County Building Security Windows and Doors

Agency: County Building Maintenance Department

Project Type: Facility Maintenance

Project Description: Replacement of interior windows and doors to increase security

Year(s) of Project: 2019

Estimated Cost: \$100,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: County Building Trim Panel/Window Replacement

Agency: Cheboygan County

Project Type: Facility Maintenance

Project Description: Replacement of panels and windows of County Building

Year(s) of Project: 2021 contingent on funding

Estimated Cost: \$550,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: County Building Elevator Replacement

Agency: County Building Maintenance Department

Project Type: Facility Maintenance

Project Description: Replacement of elevator

Year(s) of Project: 2020 contingent on funding

Estimated Cost: \$250,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: County Building Court Room, Treasurer's Office Remodel and Indigent Defense Meeting Rooms

Agency: Cheboygan County

Project Type: Facility Maintenance

Project Description: Renovation of Probate Court Room, replace carpet and modify walls in Treasurer's Office. Construct meeting rooms for public defenders to meet with clients to conform to new indigent defense standards.

Year(s) of Project: 2019

Estimated Cost: \$100,000

Planning Commission Priority Category: Needed

Project Description

Project Title: County Building Parking Lot Seal Coating

Agency: Cheboygan County

Project Type: Facility Maintenance

Project Description: The current paved parking area needs to be seal coated and striped.

Year(s) of Project: 2020

Estimated Cost: \$50,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: Fuel Tank Replacement

Agency: Cheboygan County

Project Type: Facility Replacement

Project Description: Replace fuel tank and pump at County Building

Year(s) of Project: 2023

Estimated Cost: \$280,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: County Building Drive

Agency: Cheboygan County

Project Type: Road Reconstruction

Project Description: Reconstruct County Building drive

Year(s) of Project: 2020

Estimated Cost: \$200,000

Planning Commission Priority Category: Needed

Project Description

Project Title: Sand Road Senior Center Central Air Conditioning Upgrade

Agency: Cheboygan County Council on Aging

Project Type: Facility Improvement

Project Description: The current central air conditioning system at the Sand Road Senior Center is using R-22 refrigerant and requires upgrading of the furnace and outdoor condensing units A-coil to 410A refrigerant. The EPA requires new units to be 410A.

Year(s) of Project: 2019

Estimated Cost: \$35,000

Planning Commission Priority Category: Needed

Project Description

Project Title: Sand Road Senior Center Parking lot seal coating and paving

Agency: Cheboygan County Council on Aging

Project Type: Facility Maintenance

Project Description: The current paved parking area needs to be seal coated and striped. Additionally, the area in front of the small garage has no paving and is soft and difficult to plow. Repairs to cracked areas are also needed to prevent trips/falls from unsteady seniors and a parking lot drainage basin is needed.

Year(s) of Project: 2019

Estimated Cost: \$50,000

Planning Commission Priority Category: Needed

Project Description

Project Title: Wolverine Senior Center Parking lot resurfacing

Agency: Cheboygan County Council on Aging

Project Type: Facility Improvement

Project Description: The current paved parking area needs to be resurfaced and striped. Repairs to cracked areas are also needed to prevent trips/falls from unsteady seniors.

Year of Project: 2019

Estimated Cost: \$45,000

Planning Commission Priority Category: Needed

Project Description

Project Title: Terminal Ramp Rehabilitation

Agency: Cheboygan Airport Authority

Project Type: Facility maintenance

Project Description: This project entails the asphalt paved portion of the airport lying between the Terminal and the runway. The Terminal Ramp is used for reception of arriving flights, staging departing flights, parking, and fueling. Rehabilitation of this portion of the paved area of the airport has been identified as a priority as a result of a detailed review of all asphalt surfaces.

Year(s) of Project: 2022

Estimated Cost: \$635,000

Planning Commission Priority Category: Needed

Project Description

Project Title: County Building Energy Efficiency Upgrades

Agency: County Building Maintenance

Project Type: Facility Improvement

Project Description: Several energy efficiency upgrades are planned over a three year period. The upgrades include new energy efficient valves and fixtures in the restrooms, automatic light switches were practical throughout the building, energy efficient hot water heating systems, lighting and electrical upgrades. The upgrades will reduce energy costs which will pay for the cost of Improvement over time.

Year(s) of Project: 2019 to 2022

Estimated Cost: \$15,000 each year

Planning Commission Priority Category: Needed

Project Description

Project Title: Mann Road

Agency: Cheboygan County Road Commission

Project Type: Rehabilitation

Project Description: Pallister Road to M-33 (2.54 miles). Project scope includes bituminous base crush, shape and resurface, drainage corrections, ditching and restoration.

Year(s) of Project: 2019

Estimated Cost: \$923,648

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: South Straits Highway

Agency: Cheboygan County Road Commission

Project Type: Rehabilitation

Project Description: M-68 to Wildwood Road (2.28 miles). Project includes; base crushing, shaping and resurfacing, drainage corrections, gravel shoulders and restoration.

Year(s) of Project: 2019

Estimated Cost: \$850,000

Planning Commission Priority Category: Needed

DRAFT

Project Description

Project Title: Parke Road

Agency: Cheboygan County Road Commission

Project Type: Rehabilitation

Project Description: End of pavement to Reams Road (.30 miles). Project includes; base crushing, shaping and resurfacing, drainage corrections, gravel shoulders and restoration.

Year(s) of Project: 2019

Estimated Cost: \$100,000

Planning Commission Priority Category: Needed

Project Description

Project Title: Reams Road

Agency: Cheboygan County Road Commission

Project Type: Rehabilitation

Project Description: Parke Road to Pickerel Lake Road (1.3 miles) Project includes; base crushing, shaping and resurfacing, drainage corrections, gravel shoulders and restoration.

Year(s) of Project: 2019

Estimated Cost: \$460,000

Planning Commission Priority Category: Needed

Project Description

Desirable Project Category

DRAFT

Project Description

Project Title: Terminal Renovation and Expansion

Agency: Cheboygan Airport Authority

Project Type: Facility Addition and Maintenance

Project Description: The terminal renovation project is proposed to expand and upgrade the existing facility as well as incorporate maintenance items. Maintenance items include carpet, windows, heating and doors. The project also proposes to add office and meeting space as well as a pilot lounge area.

Year(s) of Project: 2020

Estimated Cost: \$240,000

Planning Commission Priority Category: Desirable

Cheboygan County Capital Improvements Program
Program Summary

DRAFT 9/12/2018

	2019	2020	2021	2022	2023	2024
Cheboygan County Airport						
Maintenance Building						
Terminal Renovation/Expansion		240,000				
Terminal Ramp Rehabilitation				635,000		
Department Total	0	240,000	0	635,000	0	0
Cheboygan Building Maintenance						
County Bldg. Energy Efficiency Upgrades	15,000	15,000	15,000	15,000		
County Bldg. Panel/Window Replacement	100,000		550,000			
County Bldg. Jail Expansion/Record Storage						
County Fuel Tank Replacement					280,000	
Department Total	115,000	15,000	565,000	15,000	0	0
Cheboygan Co. Rd. Commission						
South Straits Highway	850,000		700,000			
Mann Rd.	923,648					
Parke Rd.	100,000					
Reams Rd.	460,000					
South River Rd.		636,122	1,035,200			
E. Burt Lake Rd.		680,000				
VFW Rd.		520,000				
Bridge PM program		500,000				
Onaway Rd.		500,000				
Black River Rd.			300,000	1,200,000		
Levering Rd.				635,200		
Riggsville Rd.				800,000		
Topinabee Mail Route				400,000		
Afton Rd.				780,000		
Sealcoat Projects			700,000			
Department Total	2,333,648	2,836,122	2,735,200	3,815,200	0	0
Cheboygan County Marina						
Fuel Tank and Fuel Dock Replacement	800,000					
Department Total	800,000		0	0	0	0
Cheboygan County Council on Aging						
Sand Road Center Parking Lot Resurfacing	50,000	85,000				
Sand Road Center Air Conditioning Upgrade	35,000					
Wolverine Center Parking Lot Resurfacing	45,000					
Department Total	130,000	85,000	0	0	0	0
Capital Improvement Program Total	3,378,648	2,376,122	3,300,200	4,465,200	280,000	0

CHEBOYGAN COUNTY ZONING ORDINANCE
AMENDMENT #149

AN ORDINANCE TO AMEND CHEBOYGAN COUNTY ZONING ORDINANCE NO. 200 RELATIVE TO MOTOR VEHICLE MAINTENANCE AND FUEL SALES USES.

Section 1. Amendment of Section 2.2.

Section 2.2. of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add the following definitions in their appropriate alphabetical locations which shall read in their entirety as follows:

Car wash

A commercial establishment with facilities provided for cleaning, drying and waxing of motor vehicles.

Motor vehicle repair and sales facility

A commercial establishment for the repair of motor vehicles such as automobiles, boats, motorcycles, all-terrain vehicles, snowmobiles, motor homes, recreational vehicles, tractors and motor vehicle equipment such as farm equipment and trailers. This definition shall include the sale, installation and servicing of motor vehicles and motor vehicle equipment parts including engine rebuilding. This may include specialty services such as, and includes specialty services such as brake, muffler, tire service, to brakes, mufflers and tires, body and frame repair and collision repair services including vehicle painting.

Motor vehicle service station

A facility commercial establishment primarily operated and designed for the dispensing and sale of motor fuels, together with the sale of minor accessories and retail items. In addition, such a facility may provide minor motor vehicle servicing, minor repair and maintenance. Motor vehicle service station use does not include any of the following or similar activities: reconditioning of motor vehicles, collision services such as body and frame repair or overall painting of vehicles.

Retail sales establishment, small-scale convenience

A small-scale retail use (5,000 square feet or less) that may offers for sale motor vehicle fuels, beverages and food items for consumption off the premises, retail items and tangible consumer goods.

Section 2. Amendment of Section 2.2.

Section 2.2. of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to delete the following definition:

Gasoline service station.

Section 4.3. Amendment of Section 6.2.

Section 6.2. of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add Sections 6.2.34. and 6.2.35. which shall read in their entirety as follows:

6.2.35.4. Motor vehicle service station.

6.2.3 6.5. Retail sales establishment, small-scale convenience.

Section 5.4. Amendment of Sections 6.2.2., 6.3.4., 9.3.2., 9.3.8., 13.3.1., 13.3.5., 13A.3.2., 13A.3.5., 13C.3.2., 13C.3.7., 14.3.1. and 14.3.10. Sections 6.2.2., 6.3.4., 9.3.2., 9.3.8., 13.3.1., 13.3.5., 13A.3.2, 13A.3.5., 13C.3.2., 13C.3.7., 14.3.1. and 14.3.10. of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to read in their entirety as follows:

6.2.2. Car Wash.

6.3.4. Motor vehicle repair **and sales** facility.

9.3.2. Motor vehicle repair **and sales** facility.

9.3.8. Retail sales establishment, small-scale convenience.

13.3.1. Car wash.

13.3.5. Motor vehicle service station.

13A.3.~~9~~.2. Car wash.

13A.3.~~10~~.5. Motor vehicle repair **and sales** facility.

13C.3.2. Car wash.

13C.3.~~10~~.7. Motor vehicle repair **and sales** facility.

14.3.1. Motor vehicle repair **and sales** facility.

14.3.10. Retail sales establishment, small-scale convenience.

Section 7.5. Severability.

If any section, clause, or provision of this Ordinance is declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the validity of the remainder of the Ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

Section 8.6. Effective Date.

This Ordinance shall become effective eight (8) days after being published in a newspaper of general circulation within the County.

CHEBOYGAN COUNTY

By:

John B. Wallace

Its: Chairperson

By:

Karen L. Brewster

Its: Clerk

Notes

**Zoning Ordinance No. 200 Draft Amendment
Relative to Motor Vehicle & Fuel Sales Uses
October 17, 2018**

Under ARTICLE 6 – COMMERCIAL DEVELOPMENT DISTRICT (D-CM)

SECTION 6.2. PERMITTED USES

6.2.1. Any use permitted in the D-RS, Residential Development District. **(Rev. 05/23/15, Amendment #127)**

6.2.2. ~~Automobile, boat, equipment, and farm machinery sales, repair, rental and washing establishments.~~ Car wash. **(Rev. __/__/__, Amendment #149)**

6.2.3. Bar and Restaurant, Restaurant, carry out, Restaurant, drive in and Restaurant, fast food. **(Rev. 01/16/18, Amendment #144)**

6.2.4. Bed and Breakfast **(Rev. 10/25/09, Amendment #80)**

6.2.5. Arcades, bowling alleys or billiard parlors. **(Rev. 09/01/17, Amendment #140)**

6.2.6. Cabinet making shops.

6.2.7. Dance, music, voice studios.

6.2.8. Dress making, millinery, clothing stores.

6.2.9. Drive in eating establishments, fast food establishments, and restaurants. **(Rev. 04/12/07, Amendment #67)**

6.2.10. Farm product stands.

6.2.11. Funeral homes, undertaking establishments.

6.2.12. Hotels, motels.

6.2.13. Laboratories.

6.2.14. Nurseries for flowers and plants.

6.2.15. Offices.

6.2.16. Parking lots, buildings and garages.

6.2.17. Retail sales establishment, General

6.2.18. Retail sales establishment, Household

6.2.19. Retail sales establishment, Specialty

6.2.20. Retail lumber yards.

6.2.21. Rifle or pistol ranges when in completely enclosed buildings. **(Rev. 09/28/11, Amendment #92)**

6.2.22. Assembly, educational or social event facilities. **(Rev. 09/01/17, Amendment #140)**

6.2.23. Wholesale sales and storage when in completely enclosed buildings. **(Rev. 09/28/11, Amendment #92)**

6.2.24. Multiple family housing. **(Rev. 05/23/15, Amendment #127)**

6.2.25. Nurseries and day care centers for children. **(Rev. 05/23/15, Amendment #127)**

6.2.26. Adult Daycare Center, Assisted Living Center or Health Care Living Center. **(Rev. 09/01/17, Amendment #141)**

6.2.27. Boarding and lodging houses. **(Rev. 05/23/15, Amendment #127)**

6.2.28. Medical clinics and doctor's offices. **(Rev. 05/23/15, Amendment #127)**

6.2.29. Private storage buildings, subject to the requirements of Section 17.23. **Rev. 05/23/15, Amendment #127)**

6.2.30. Mobile food units, subject to requirements of Section 17.29. **(Rev. 02/25/17, Amendment #137)**

6.2.31. Health and fitness center. **(Rev. 01/16/18, Amendment #143)**

6.2.32. Personal service center. **(Rev. 01/16/18, Amendment #143)**

6.2.33. Pet grooming. **(Rev. 01/16/18, Amendment #143)**

6.2.34. Motor vehicle service station. **(Rev. __/__/__, Amendment #149)**

6.2.35. Retail sales establishment, small-scale convenience. **(Rev. __/__/__, Amendment #149)**

Notes

**Zoning Ordinance No. 200 Draft Amendment
Relative to Motor Vehicle & Fuel Sales Uses
October 17, 2018**

SECTION 6.3. USES REQUIRING SPECIAL LAND USE PERMITS

6.3.1. Bus Terminals.

6.3.2. Commercial cleaning plants, dry cleaning, laundry establishments.

6.3.3. Contractor's yards, equipment storage and materials handling operations.

6.3.4. ~~Gasoline service stations and garages.~~ Motor vehicle repair and sales facility. (Rev. __/__/__, Amendment #149)

6.3.5. Commercial kennels, pet shops, and veterinary hospitals, according to Section 17.16. (Rev. 11/22/09, Amendment #81)

6.3.6. Outdoor, drive-in theaters.

6.3.7. Outdoor commercial recreation activities.

6.3.8. Trailer and mobile home parks.

6.3.9. Manufacturing, production, processing and fabrication when the operational effects are determined to be no greater than the other uses permitted in this district with respect to noise, glare, radiation, vibration, smoke, odor and/or dust.

6.3.10. Junk yards, salvage yards and waste disposal sites.

6.3.11. Uses which are not expressly authorized in any zoning district, either by right or by special use permit, or uses which have not been previously authorized by the Planning Commission pursuant to this subsection or corresponding subsections. In other zoning districts may be allowed in this zoning district by special use permit if the Planning Commission determines that the proposed use is of the same general character as the other uses allowed in this zoning district, either by right or by special use permit, and the proposed use is in compliance with the applicable requirements of the Cheboygan County Comprehensive Plan for this zoning district. (Rev. 04/26/08, Amendment #75)

6.3.12. Public and private wind generation and anemometer towers. (Rev. 06/17/04, Amendment #31)

6.3.13 Child Caring Institutions, subject to the requirements of Section 17.24 (Rev. 04/28/10, Amendment #85)

6.3.14. Boat Storage (Rev. 08/26/10, Amendment #88)

6.3.15. Truck Terminals or Warehouses subject to the requirements of Section 17.26. (Rev. 03/28/12, Amendment #107)

6.3.16. Indoor Storage Facilities (Rev. 05/25/13, Amendment #116)

6.3.17. Planned Projects subject to provisions of Section 17.28 (Rev. 10/13/16, Amendment #136)

Notes

**Zoning Ordinance No. 200 Draft Amendment
Relative to Motor Vehicle & Fuel Sales Uses
October 17, 2018**

Under ARTICLE 9 – AGRICULTURE AND FORESTRY MANAGEMENT DISTRICT (M-AF)

SECTION 9.3. USES REQUIRING SPECIAL LAND USE PERMITS

9.3.1. See ARTICLE 17, SUPPLEMENTAL REGULATIONS for standards and conditions for special uses and ARTICLE 18, SPECIAL LAND USE (SLU) PERMIT PROCEDURES AND STANDARDS for instructions on applying for permits.

9.3.2. ~~Automobile repair and service and gasoline stations.~~ Motor vehicle repair and sales facility. (Rev. __/__/__, Amendment #149)

9.3.3. Assembly, educational or social event facilities. (Rev. 09/01/17, Amendment #140)

9.3.4. Public parks and recreational areas, playgrounds and campgrounds. (Rev. 09/01/17, Amendment #140)

9.3.5. Bar and Restaurant. (Rev. 01/16/18, Amendment #144)

9.3.6. Commercial Hunting and fishing cabins. (Rev. 04/28/00, Amendment #14)

9.3.7. Golf courses, country clubs and sportsmen's associations or clubs.

9.3.8. ~~Grocery and party stores.~~ Retail sales establishment, small scale convenience. (Rev. __/__/__, Amendment #149)

9.3.9. Resorts, resort hotels, recreation farms, vacation lodges, motor inns, motels and other tourist lodging facilities.

9.3.10. Slaughter houses and meat packing plants.

9.3.11. Travel trailer courts, tenting areas and general camping grounds.

9.3.12. Public airports and landing fields, with appurtenant facilities.

9.3.13. Non-essential public utility and service buildings.

9.3.14. Adult Daycare Center, Assisted Living Center or Health Care Living Center. (Rev. 09/01/17, Amendment #141)

9.3.15. Animal feedlots or piggeries.

9.3.16. Earth removal, quarrying, gravel processing, mining and related mineral extraction businesses.

9.3.17. Commercial kennels, pet shops, and veterinary hospitals according to Section 17.16. (Rev. 11/23/09, Amendment #81)

9.3.18. Junk yards, salvage yards and waste disposal sites. (Rev. 04/26/08, Amendment #75)

9.3.19. Commercial composting (Rev. 04/28/00, Amendment #14)

9.3.20. Contractor's Yards, provided all of the following requirements are met: (Rev. 12/24/03, Amendment #26)

9.3.20.1. Minimum 10 acre parcel.

9.3.20.2. Minimum 330' of road frontage / lot width.

9.3.20.3. Minimum Setbacks: 100' front; 75' side; 100' rear.

9.3.20.4. All related equipment and materials must be stored within an enclosed building, not to exceed 5,000 square feet, or screened from view from public or private roads and adjoining properties under different ownership behind a wooden fence or greenbelt.

9.3.20.5. Buildings and uses permitted herein shall only be approved for parcels occupied by the parcel owner and which shall contain the owner's primary residence.

9.3.21. Public and private wind generation and anemometer towers. (Rev. 06/17/04, Amendment #31)

9.3.22. Uses which are not expressly authorized in any zoning district, either by right or by special use permit, or uses which have not been previously authorized by the Planning Commission pursuant to this subsection or corresponding subsections in other zoning districts may be allowed in this zoning district by special use permit if the Planning Commission determines that the proposed use is of the same general character as the other uses allowed in this zoning district, either by right or by special use permit, and the proposed use is in compliance with the applicable requirements of the Cheboygan County Comprehensive Plan for this zoning district. (Rev. 04/26/08, Amendment #75)

9.3.23 Child Caring Institutions, subject to the requirements of Section 17.24. (Rev. 04/28/10, Amendment #85)

Notes

**Zoning Ordinance No. 200 Draft Amendment
Relative to Motor Vehicle & Fuel Sales Uses
October 17, 2018**

SECTION 9.3. USES REQUIRING SPECIAL LAND USE PERMITS (cont.)

9.3.24 Indoor Storage Facilities, subject to requirements of section 17.27.1. (Rev.05/25/13, Amendment #116)

9.3.25. Planned Projects subject to provisions of Section 17.28. (Rev.05/25/13, Amendment #116)

Under ARTICLE 13 – VILLAGE CENTER (D-VC)

SECTION 13.3. USES REQUIRING SPECIAL LAND USE PERMITS

13.3.1 ~~Automobile repair and washing establishments.~~ Car wash. (Rev. __/__/__, Amendment #149)

13.3.2 Bus terminals.

13.3.3 Dry cleaning and laundry establishments.

13.3.4 Assembly, educational or social event facilities. (Rev. 09/01/17, Amendment #140)

13.3.5 ~~Gasoline service stations and garages.~~ 13.3.11. Motor vehicle service station. (Rev. __/__/__, Amendment #149)

13.3.6 Hotels and motels.

13.3.7 Multiple-family housing.

13.3.8 Outdoor recreation activities.

13.3.9 Veterinary hospitals.

13.3.10 Uses which are not expressly authorized in any zoning district, either by right or by special use permit, or uses which have not been previously authorized by the Planning Commission pursuant to this subsection or corresponding subsections in other zoning districts may be allowed in this zoning district by special use permit if the Planning Commission determines that the proposed use is of the same general character as the other uses allowed in this zoning district, either by right or by special use permit, and the proposed use is in compliance with the applicable requirements of the Cheboygan County Comprehensive Plan for this zoning district. (Rev. 04/26/08, Amendment #75)

Under ARTICLE 13A – VILLAGE CENTER INDIAN RIVER DISTRICT (VC-IR)

SECTION 13A.3. USES REQUIRING SPECIAL LAND USE PERMITS

13A.3.1. Assisted Living Facility or Adult Daycare Center (Rev. 09/01/17, Amendment #141)

13A.3.2. ~~Automobile repair and washing establishments.~~ Car wash. (Rev. __/__/__, Amendment #149)

13A.3.3. Dry cleaning and laundry establishments

13A.3.4. Assembly, educational or social event facilities. (Rev. 09/01/17, Amendment #140)

13A.3.5. ~~Gasoline service stations and garages.~~ Motor vehicle repair and sales facility. (Rev. __/__/__, Amendment #149)

13A.3.6. Outdoor recreation activities

13A.3.7. Veterinary hospitals

13A.3.8. Visitor Center

Under ARTICLE 13C VILLAGE CENTER TOPINABEE DISTRICT (VC-T)

SECTION 13C.3 USES REQUIRING SPECIAL LAND USE PERMITS

13C.3.1. Assisted Living Facility or Adult Daycare Center (Rev. 09/01/17, Amendment #141)

Notes

**Zoning Ordinance No. 200 Draft Amendment
Relative to Motor Vehicle & Fuel Sales Uses
October 17, 2018**

SECTION 13C.3 USES REQUIRING SPECIAL LAND USE PERMITS (cont.)

13C.3.2. ~~Automobile repair and washing establishments.~~ Car wash. (Rev. __/__/__, Amendment #149)

13C.3.3. Bed and Breakfasts

13C.3.4. Day Care Centers

13C.3.5. Dry cleaning and laundry establishments

13C.3.6. Assembly, educational or social event facilities. (Rev. 09/01/17, Amendment #140)

SECTION 13C.3 USES REQUIRING SPECIAL LAND USE PERMITS (cont.)

13C.3.7. ~~Gasoline service stations and garages.~~ Motor vehicle repair and sales facility. (Rev. __/__/__, Amendment #149)

13C.3.8. Outdoor recreation activities

13C.3.9. Veterinary hospitals

Under ARTICLE 14 RURAL CHARACTER /COUNTRY LIVING DISTRICT (D-RC)

SECTION 14.3. USES REQUIRING SPECIAL LAND USE PERMITS

14.3.1. ~~Automobile repair businesses.~~ Motor vehicle repair and sales facility. (Rev. __/__/__, Amendment #149)

14.3.2. Bed & Breakfasts.

14.3.3. Cemeteries.

14.3.4. Commercial greenhouses and nurseries.

14.3.5. Public parks and recreational areas and playgrounds. (Rev. 09/01/17, Amendment #140)

14.3.6. Day care centers.

14.3.7. Assembly, educational or social event facilities. (Rev. 09/01/17, Amendment #140)

14.3.8. ~~Gas stations.~~ Reserved for future use.

14.3.9. Golf courses, country clubs and sportsmen's associations or clubs.

14.3.10. ~~Grocery and party stores.~~ Retail sales establishment, small-scale convenience. (Rev. __/__/__, Amendment #149)

14.3.11. Multiple family housing.

14.3.12. Non-essential public utility and service buildings.

14.3.13. Adult Daycare center, Assisted Living Center or Health Care Living Center. (Rev. 09/01/17, Amendment #141)

14.3.14. Reserved for future use. (Rev. 09/01/17, Amendment #140)

14.3.15. Public greenhouses and nurseries.

14.3.16. Offices (Rev. 09/28/11, Amendment #92)

14.3.17. Veterinary hospitals.

14.3.18. Uses which are not expressly authorized in any zoning district, either by right or by special use permit, or uses which have not been previously authorized by the Planning Commission pursuant to this subsection or corresponding subsections in other zoning districts may be allowed in this zoning district by special use permit if the Planning Commission determines that the proposed use is of the same general character as the other uses allowed in this zoning district, either by right or by special use permit, and the proposed use is in compliance with the applicable requirements of the Cheboygan County Comprehensive Plan for this zoning district. (Rev. 04/26/08, Amendment #75)

14.3.19. Planned projects subject to provisions of Section 17.28. (Rev. 10/13/16, Amendment #136)

CHEBOYGAN COUNTY
ZONING ORDINANCE AMENDMENT # _____

AN ORDINANCE TO AMEND THE CHEBOYGAN COUNTY ZONING ORDINANCE NO. 200
RELATIVE TO SOLAR ENERGY SYSTEMS

THE COUNTY OF CHEBOYGAN, STATE OF MICHIGAN ORDAINS:

Section 1. Amendment of Section 2.2.

Section 2.2 of the Cheboygan County Ordinance 200 is hereby amended to add the following definitions in their appropriate alphabetical locations which shall read in their entirety as follows:

Electrical Storage System: A system for storage of electrical energy (usually battery) for release and use at times of little or no solar energy generation when utilized in connection with a SES-PV System.

Generation Station Step Up Transformer Facility: A security fenced compound including transformers, switching gear and all associated equipment necessary to accept low voltage, AC Current accumulated by inverters located within a level 3 solar energy facility and step the voltage up to 138KV, 230KV or 345KV for high voltage transmission.

Level 3 SES-PV Facility Perimeter: The boundary of the leased parcel(s) or any portion thereof upon which any solar panels, fencing, screening, equipment, support buildings, electrical storage system or service drives are located. The facility may be one contiguous unit or several non-contiguous parcels connected by an easement(s).

Solar Integrated System: Any solar energy system directly or indirectly connected to the commercial energy grid for the wholesale or retail sale of electric energy or on site self consumption.

Solar Power Inverter: A device that converts DC current captured by the solar panels into AC current.

Net Metering: A policy whereby utility customers with small-scale renewable power sources, including solar, receive credit from their utility provider for electricity generated in excess of their needs.

Solar Off Grid System: Any [solar energy generation](#) system that functions as a stand-alone system without a connection to the grid [such as a battery, thermal hot water or fly wheel system and which may be utilized in connection with an energy storage system.](#)

Photovoltaic (PV): A method of generating electrical power by converting solar radiation (sunlight) into direct current electricity using semiconductor, solar panels, inverters and transformers.

Solar Energy System (SES-PV): All components and subsystems necessary to convert incident solar radiation into electric energy for immediate use on-site or for wholesale or retail sales off-site. Electrical storage systems may be integrated with these systems. PV Solar ~~E~~energy ~~S~~ystems are classified as follows:

1. Level 1 ~~PV-SESSES-PV~~ System – Any building mounted ~~SES-PVPV-SES~~ System used to produce electrical energy primarily for on-site use in accordance with Section ~~1~~7.30.6.A.
2. Level 2 ~~SES-PVPV-SES~~ System – Any ground mounted ~~SES-PVPV-SES~~ System used to produce electrical energy for use primarily on site in accordance with Section ~~1~~7.30.6.B.
3. Level 3 ~~SES-PVPV-SES~~ System – Any ground mounted ~~SES-PVPV-SES~~ System used to produce

electrical energy for wholesale distribution and use off site in accordance with Section 17.30.6.C.

Solar Farm: A Llevel 3 SES-PV System, including the land upon which it is located, generating electricity for wholesale distribution off-site through a generation station step-up transformer station to high voltage transmission lines. A facility of this type is large-scale, typically -measuring ~~in the~~ hundreds of acres.

Section 2. Amendment of Sections 4.2, 6.2, 7.2, 8.2, 9.2, 10.2, 11.23, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2 and 14.2

Sections 4.2, 6.2, 7.2, 8.2, 9.2, 10.2, 11.3-6, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2 and 14.2 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 4.2.4, 6.2.34, 7.2.2, 8.2.2, 9.2.10, 10.2.5, 11.3.6, 12.2.6, 13.2.11, 13A.2.13, 13B.2.8, 13C.2.12, 13D.2.5, 13E.2.4, 14.2.13, which shall read in their entirety as follows:

- 4.2.4 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 6.2.34 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 7.2.2 Level 1 SES-PV Systems in accordance with Section 17.30.6.A
- 8.2.2 Level 1 SES-PV Systems in accordance with Section 17.30.6.A
- 9.2.10 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 10.2.5 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 11.3.6 Level 1 SES-PV Systems in accordance with Section 17.30.6.A
- 12.2.6 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13.2.11 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13A.2.13 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13B.2.8 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13C.2.12 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13D.2.5 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 13E.2.4 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~
- 14.2.13 Level 1 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6A6.A~~

Section 3. Amendment of Sections 4.2, 6.2, 7.2., 8.2, 9.2, 10.2, 11.3, -12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2 and 14.2

Sections 4.2, 6.2, 7.2, 8.2, 9.2, 10.2, 11.3, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2 and 14.2 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 4.2.5, 6.2.35, 7.2.3, 8.2.3, 9.2.17, 10.2.6, 11.3.7, 12.2.7, 13.2.16, 13A.2.20, 13B.2.14, 13C.2.17, 13D.2.16, 13E.2.5, 14.2.14 which shall read in their entirety as follows:

- 4.2.5 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 6.2.35 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 7.2.3 Level 2 SES-PV Systems in accordance with Section 17.30.6.B
- 8.2.3 Level 2 SES-PV Systems in accordance with Section 17.30.6.B
- 9.2.17 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 10.2.6 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 11.3.7 Level 2 SES-PV Systems in accordance with Section 17.30.6.B
- 12.2.7 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13.2.16 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13A.2.20 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13B.2.14 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13C.2.17 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13D.2.16 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 13E.2.5 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~
- 14.2.14 Level 2 SES-PV Systems in ~~Accordance~~accordance with Section 17.30.~~6B6.B~~

Section 4. Amendment of Sections 6.3, 7.3, 8.3, 9.3, 10.3

Sections 6.3, 7.3, 8.3, 9.3 and 10.3 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 6.3.18, 7.3.19, 8.3.18, 9.3.26, 10.3.3 which shall read in their entirety as follows:

- 6.3.18 Level 3 SES-PV Systems in ~~Accordance~~ accordance with Section 17.30.6.C
- 7.3.19 Level 3 SES-PV Systems in ~~Accordance~~ accordance with Section 17.30.6.C
- 8.3.18 Level 3 SES-PV Systems in ~~Accordance~~ accordance with Section 17.30.6.C
- 9.3.26 Level 3 SES-PV Systems in ~~Accordance~~ accordance with Section 17.30.6.C
- 10.3.3 Level 3 SES-PV Systems in ~~Accordance~~ accordance with Section 17.30.6.C

~~Section 5 Amendment of Article 11~~

~~Article 11 of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add the following Section 11.10 which shall read in its entirety as follows:~~

~~Section 11.10—Solar Photovoltaic Energy Systems (SES-PV): Level 1 SES-PV and Level 2 SES-PV systems shall be permitted in Natural Rivers Protection District (P-NR) in accordance with the following:~~

- ~~11.10.1—Level 1 SES-PV systems shall be permitted on existing buildings and on any new buildings permitted in accordance with sections 11.3, 11.4, 11.8 and 17.30.6A.~~
- ~~11.10.2—Level 2 SES-PV systems shall be permitted as accessory structures to any building or accessory structure permitted in accordance with sections 11.3, 11.4, 11.8 and 17.30.6B.~~

~~Section 6 Amendment of Section 12.2.6~~

~~Section 12.2 of Cheboygan County Ordinance No. 200 is hereby amended to add new Section 12.2.6 and 12.2.7 which shall read in their entirety as follows:~~

- ~~12.2.6—Level 1 SES-PV Systems in accordance with Section 17.30.6A are permitted on any building subject to Cheboygan County Zoning Ordinance No. 200.~~
- ~~12.2.7—Level 2 SES-PV Systems in accordance with Section 17.30.6B but only when accessory to any existing or new building except here permitted by state law.~~

Section 75. Amendment of Article 17.

Article 17 of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add ~~a~~ Ssection 17.30, which shall read in its entirety as follows: SECTION 17.30 SOLAR ENERGY SYSTEMS – PHOTOVOLTAIC (SES-PV)

17.30.1 PURPOSE:

The purpose of this Ssection is to promote the development of renewable energy resources in Cheboygan County. This Ssection will address Solar Energy Systems – Photovoltaic (SES-PV) ~~Systems~~ for a range of applications from strictly on-site utilization to wholesale distribution off-site and will provide guidance on the planning, design, construction, operation and subsequent decommissioning of facilities at the end of their economic life. The Ssection is to promote economic development, protect the health, safety and welfare of the citizens and prevent adverse impacts on the agricultural, water, recreational, scenic and wildlife resources of the county while furthering the State of Michigan’s renewable energy goals.

17.30.2 GENERAL PROVISIONS APPLICABLE TO ALL SOLAR ENERGY SYSTEMS:

1. Code Compliance: Any SES-PV Systems shall meet or exceed any standards and regulations of the International Fire Code, the National Electric Safety Code and any other regulations of the state and federal government with the authority to regulate solar energy systems that are in effect the time the approval for the SES-PV System is granted.

2. ~~Inspection: The County shall have the right, upon issuing the required permit for a SES-PV System, to inspect the premises on which a solar collection system is located at all reasonable hours.~~
32. Fire Safety: All SES-PV Systems shall meet the requirements of the ~~international~~ International Fire Code as amended.
43. County Review: Identify emergency and normal shutdown procedures, potential hazards to adjacent properties, public roadways and to the general public that may be created.

17.30.3 APPLICATION REQUIREMENTS:

In addition to ~~the~~ application requirements of Article 18 and Article 20 of this ~~O~~ Ordinance, an application for a site plan review and/or special use permit for a SES-PV System shall be required to furnish all of the following information unless expressly indicated otherwise:

1. Level 1 SES-PV Systems shall require a site plan review for any electrical storage system associated with the Level ~~2-1~~ 2-1 SES-PV System to include the type, size and location of all components in addition to the requirements of Section 20.10.
2. Level 2 SES-PV Systems shall require the following:
 - a. ~~A s~~Site plan review for any Level 2 SES-PV ~~S~~system that includes panels in the solar array larger than 1,333 sq. ft. ~~which~~ shall include the following information ~~a~~ in addition to the requirements of Section 20.10:
 - 1) The size, height, length, and location of the solar arrays, parcel boundaries and setback lines and location of all buildings on site.
 - 2) ~~A breakdown of the anticipated uses of the power generated over and above 20 kw, e.g. farm buildings 25 kw, sawmill 25 kw, irrigation pumps 10 kw, etc.~~
 - 32) ~~Information on the height, length and angle of panels in the solar collection array.~~
 - 43) The type, size, location and engineering specifications for any energy storage system proposed to be part of the Level 2 SES-PV System.
 - b. In addition to a site plan review, a special use permit shall be a requirement if the area to be covered by solar panels and supporting equipment covers more than 0.765 acres (33,325 sq. ft.). Additional information is to include a description of all land/timber clearing ~~that is~~ proposed, the percentage of private farm land ~~that is~~ to be used and access or service roads to be developed in addition to ~~the~~ requirements of Section 18.7.
3. Level 3 SES-PV Systems shall require a special use permit in accordance with Section 18.77 and a site plan review. The following information shall be required in addition to that required in Section 18.7:
 - a. Project description and rationale: identify the ~~Level 3 SES-PV-PV F~~ Level 3 SES-PV-PV Facility perimeter of the project development area, ~~proposed type of system,~~ size, rated power output, performance, safety and noise characteristics of the individual components of the system, including inverters and transformers system including the transmission line/grid connection ~~for the project~~. Identify the project construction timeframe, project life, potential development phases and potential future expansions.
 - b. Visual impacts: Graphically demonstrate the visual impact of the project using digital and/or photo ~~graphics~~ graphics renditions ~~of the project~~ with consideration given to setbacks and proposed landscaping.
 - c. Waste: Identify any solid or hazardous waste generated by the project and provide a disposal plan for such waste.
 - d. Lighting: Provide a plan showing all lighting within the facility. All lighting shall be in compliance with the standards of ~~S~~ Sections 3.7.1 and 20.10h.
 - e. Transportation Plan: Provide a proposed access plan to be utilized during construction and operational phases. The plan must show proposed project service road ingress and egress locations to adjacent roadways and the layout of the facility service road system. Due to infrequent access following construction, it is not required to provide for paved curbs and gutters on access drives unless required by the State Department of Transportation or County Road Commission.

- f. Public Safety: Identify emergency and normal shutdown procedures, potential hazards to adjacent properties, public roadways and to the general public that may be created.
- g. Engineering and Installation:- Detailed engineering drawings shall be provided to include standard drawings of the structural components of the solar farm and any electrical storage system in support of the Level 3 SES-PV System, including base and footings along with engineering data and calculations to demonstrate compliance with the applicable structural design provisions of ~~the building code current~~ at the time of building permit ~~submittal of the request for a building permit.~~ Drawings and ~~E~~engineering calculations shall be certified by a registered engineer licensed to practice in the State of Michigan.
- h. Drainage and Soil Erosion:
 - 1) Show how panels shall be positioned to allow water runoff without channeling it in such a way as to cause erosion.
 - 2) Show how ~~the~~ vegetative cover will be provided and maintained under and around the solar panels.
 - 3) Show how the solar panels array will allow vegetative growth under and between panels.
- i. Impervious Surface/Stormwater:

If more than 8,000 square feet of impervious surface will be located on the site, the application shall include a drainage plan prepared by a registered civil engineer showing how stormwater runoff from hardstand areas will be managed and demonstrating that run off from the site will not exceed the agricultural runoff rate or otherwise cause undue flooding. If detergents will be used to clean solar panels, details on the type of detergent, frequency and quantity of use, and how stormwater quality protection measures shall be met. Any necessary permits from outside agencies for off-site discharge shall be provided. Solar panels are not considered an impervious surface.
- j. Safety access

A security access plan shall be proposed and reviewed/approved for Level 3 SES-PV Systems ~~solar farms~~. Knox boxes and keys shall be provided for any locked entrances for emergency personnel access to any locked fenced portions of the facility.
- k. County review

Because of the ever-changing technical capabilities of photovoltaic solar panels and of new technology in general, the County Planning Commission will have the authority to review and consider alternatives in both the dimensional and physical requirements contained in this section as part of the special land use review process.
- l. Telecommunications Infrastructure:

Identify any electromagnetic fields which are generated that will interfere with electronic communication devices located outside the perimeter of the facility.
- m. Final Decommissioning and Reclamation Plan: A decommissioning and reclamation plan shall be developed and furnished to the Zoning Administrator describing actions to be taken at the end of the Level 3 SES-PV System's useful life or in the event of abandonment and termination of the project. The information shall include a description of how the following conditions shall be met:
 - 1) Removal of all non-utility owned equipment, including conduit buried at less than 3 ft. in depth, structures, fencing, roads, and foundations. The owner of the leased parcel, however, may request in writing that graveled areas, and developed access roads, fences, vegetative screening and berms remain in place.
 - 2) Restoration of the property to its original condition prior to construction of the Level 3 SES-PV System subject to reasonable fair wear and tear. The owner of the leased parcel, however, may request the renewed ground surface not to be revegetated due to plans for agricultural planting.
 - 3) Development of a time frame for completion of decommissioning activities, not to exceed 90 days.

- 4) Furnishing a description and copy of any memorandum of lease or any other agreement with landowner regarding decommissioning.
- 5) Providing a list of names, addresses and telephone numbers of persons or parties responsible for designating the contractor(s) responsible for actual decommissioning work.
- 6) Providing a plan and schedule for updating this decommissioning plan every 5 (five) years.
- 7) Public Safety: Identify emergency and normal shutdown procedures, potential hazard to adjacent properties, public roadways, and to the general public that may be created.

17.30.4 APPLICATION REVIEWED BY ZONING ADMINISTRATOR

1. The Zoning Administrator shall review the application and information submitted under Section 17.30.3 of this Ordinance to determine if all required information was supplied. If the Zoning Administrator determines that ~~the application is deficient all required information was not supplied, he or she shall send a~~ written notification ~~shall be sent~~ to the Applicant ~~of the deficiencies~~. The application for the Level 3 SES-PV System shall not proceed until all required information has been ~~supplied~~ provided.
2. Once all ~~the~~ required information is submitted, the Zoning Administrator shall forward the application to the Planning Commission for its review under the procedures of this section 17.30.3 and 18.5.

17.30.5 PUBLIC HEARING COMMENTS

Following receipt of a complete application for a Level 3 SES-PV System, the Planning Commission shall hold at least one (1) public hearing. Notice of the public hearing shall be ~~given~~ provided per the requirements as required by Section 18.5 of this Ordinance.

17.30.6 STANDARDS AND CONDITIONS

17.30.6.A Level 1 Solar Photovoltaic Energy Systems (SES-PV)

All Level ~~1~~ SES-PV Systems shall comply with all of the following requirements:

1. Permitted Districts: Level 1 SES-PV systems shall be permitted uses in all zoning districts.
2. A Level 1 SES-PV System can be placed on any building.
- ~~3. Level 1 SES-PV should be sized small enough that they do not exceed the customer's electrical needs on an annual basis and may be either on grid or off grid subject to the following requirements:~~
 - ~~a. Level 1 SES-PV Systems shall be in compliance with requirements of the electrical utility providing the net metering interconnection. Any system for which a permit is requested, in excess of 20 kw or 1333 sq. ft. of solar collection surface, shall provide a breakdown of the anticipated usage over 20 kw, for example 50 kw for manufacturing, 20 kw for agricultural buildings, 10 kw for irrigation pump etc.~~
 - ~~4.3. Off grid systems are not limited by kw or size of solar collection surface, however if tied to any storage system such as battery, a complete site plan including type, size, and location of the storage system shall be furnished with the permit application. A Level 1 PV-SES System should be sized small enough that it does not exceed the customer's electrical needs on an annual basis, and can either be connected or not connected to the electrical grid operated by a commercial public utility provider.~~
- ~~5.4.~~ Setbacks: Level 1 SES-PV systems shall meet ~~setback~~ setbacks requirements of the zoning district in which the building on which they are mounted is located.
- ~~6.5.~~ Height Restrictions: Except for buildings with a flat roof, the placement of a Level 1 SES-PV System shall not exceed the height limitations of the building on which the system is placed. A Level 1 SES-PV System that is installed on a building with a flat rook shall not be higher than ten (10) feet above the flat roof.

See diagrams at Enclosure 1.

17.30.6.B Level 2 Solar Photovoltaic Energy Systems (SES-PV)

Any ground-mounted photovoltaic system accessory to the primary or secondary use of any principal or accessory buildings on the parcel or combination of contiguous parcels under the same ownership or control and producing electric power primarily for the use of the owner or tenant shall comply with all of the following requirements:-

1. ~~Except as provided in Section 17.30.2.b., Permitted districts:-~~ Level 2 SES-PV ~~Ss~~ systems shall be permitted uses in all zoning districts.
2. Location and placement:
 - a. A Level 2 SES-PV System(s) may be located on any lot or lot of record ~~within the zoning district that permits these systems~~ to service each building on that lot or lot of record.
 - b. A Level 2 SES-PV System(s), however, shall not be placed between the front lot line and the principal structure on the lot or lot of record.
3. A Level 2 PV-SESSES-PV System should be sized small enough that it does not exceed the customer's electrical needs on an annual basis, and can either be connected or not connected to the electrical grid operated by a commercial public utility provider.
- ~~3. On grid versus off grid Level 2 SES-PV systems:- Level 2 SES-PV photovoltaic systems may be either on grid or off grid with the following restrictions:~~
 - ~~a. On grid net metered Level 2 SES-PV systems should be sized small enough that they do not exceed the customer's electrical need on an annual basis and shall be in compliance with requirements of the electrical utility providing the net metering interconnection.~~
 - ~~b. Any system for which a permit is requested in excess of 20 kw or 1333 sq. ft. of solar collection surface shall require a site plan review in accordance with Section 17.30.3 and Section 20.~~
4. Setbacks: Level 2 SES-PV System shall comply with all setback requirements of the zoning district in which located.
5. Height Restriction: A Level 2 SES-PV System shall not exceed 16 feet in height when oriented at maximum tilt and as measured from the grade at the base of the system structures.
6. Maximum lot coverage:
 - a. Level 2 SES-PV ~~net metered~~ systems on parcels of less than 2 acres shall be limited to 50% of the area within the setback boundaries of the parcel after subtracting the areas covered by any buildings on the parcel.
 - b. Level 2 SES-PV ~~net metered~~ systems on parcels of 2 acres or more with more than 1,333 sq. ft. of solar collection surface shall require a site plan review in accordance with section 18.7 and 17.30.3.2 and if the solar array covers more than 0.763 acres (33,325 sq. ft.) setbacks shall be as follows:
 - 1) 100 feet from any dwelling not owned by the owner of the proposed SES-PV System. This setback may be waived upon the written request of the owner of the dwelling.
 - 2) 50 feet from any adjacent parcel boundary not abutting a public road or private road.
 - 3) 80 feet from any public or private road.
 - 4) 500 feet from any major body of water as listed in section 10.1.2.
 - 5) 40 feet from any perennial stream, other than those listed in section 10.1.2, shown as part of the P-LS zoning district.

17.30.6.C. Level 3 Photovoltaic Solar Energy System (SES-PV)

All Level 3 SES-PV Systems and associated electricity storage facility shall comply with the following requirements:

1. Level 3 (SES-PV) systems shall be allowed in the D-CM, D-LI, D-GI, M-AF and P-LS zoning districts.
2. Setbacks: All Level 3 SES-PV Systems shall meet the following setback requirements:
 - a. All photovoltaic solar panels along with their supporting structures, inverters and supporting buildings and equipment (excluding fencing, vegetative screening, berms, roads, underground cables and generator system step up transformer facility) shall comply with the following setbacks:

- 1) 100 feet from any dwelling. This setback may be waived if requested by the owner of the dwelling to be screened.
 - 2) 50 feet from any [project Level 3 SES-PV Facility](#) perimeter not abutting a private or public road unless requested to be waved by the property owner of the parcel to be screened.
 - 3) 80 feet from any public or private road underground cables, however, are exempt from this setback requirement if necessary for road crossings.
 - 4) 500 feet from any major body of water as listed in section 10.1.2.
 - 5) 40 feet from any perennial stream, other than those listed in section 10.1.2, shown as part of the P-LS zoning district. Underground cables may, however, be allowed if permitted by the DEQ and Army Corps of Engineers.
- b. Screening and fencing setbacks:
- 1) Fencing shall be no closer than one (1) foot from any property line, public road right of way, utility or driveway easement or the established [Level 3 SES-PV Facility](#) perimeter ~~of the leases parcel or group of contiguous parcels, or portions thereof, and forming the level 3 SES-PV facility.~~
 - 2) In the event a property line lies within the road right of way, setbacks shall be measured from the edge of the road right of way.
 - 3) All tree plantings utilized for screening shall have setback of seven (7) feet from any property line, public or private road right of way, utility or driveway easement or the [Level 3 SES-PV Facility](#) perimeter ~~of the parcel or group of contiguous parcels leased and forming the level 3 SES-PV facility.~~
 - 4) The seven (7) foot setback shall be measured at the time of planting from the center of the trunk of trees used for screening.
 - 5) Buried electrical cables on an easement used to connect noncontiguous parcels of the SES-PV facility, although an integral part of the facility, shall not require screening regardless of their proximity to any dwelling.
 - 6) All tree plantings and /or berms utilized for screening opposite a dwelling shall extend 100 ft. in either direction from a point on the [Level 3 SES-PV](#) facility perimeter directly opposite the midpoint of the opposing dwelling.
 - 7) At road [or driveway](#) intersections, vegetative screening and/or berms or fences shall be established or maintained [in a manner](#) which [does not](#) obstruct the view of vehicular traffic in any direction. All right of way intersections shall be provided and maintained with a clear unobstructed vision corner extending not less than 20 feet from all right of way line intersections along said right of way line in the form of a triangle.
- c. The generator system step up transformer facility and any electricity storage facility shall meet the following setbacks:
- 1) 500 feet from any dwelling.
 - 2) 250 feet from any public or private road abutting the [Level 3 SES-PV Facility](#) perimeter of or bisecting the project.
 - 3) 500 feet from ordinary high water mark of any body of water listed in Section 10.1.2.
3. Noise: No level 3 SES-PV facility noise which, when measured at the Level 3 SES-PV Facility perimeter shall exceed 60 dBA. This requirement does not apply during periods of initial construction, routine equipment maintenance repair or replacement nor at the time of final decommissioning and reclamation.
 4. Landscaping: Level 3 SES-PV facilities abutting a public or private road or property line of an adjacent parcel shall comply with the following requirements:
 - a. Evergreen coniferous trees and or berms shall be the only acceptable means of screening wherever screening is required. Fencing is considered a security measure and cannot be considered as adequate screening for a Level 3 SES-PV System.
 - b. Screening shall be required along any public or private road right of way and opposite any dwelling on the same or adjacent parcels unless the owner of the dwelling to be screened requests in writing otherwise.

- c. Trees utilized as screening shall be chosen from coniferous tree species.
- d. Minimum height at time of planting requirements for trees utilized for screening are as follows:
 - 1) Trees planted opposite a dwelling shall be a minimum of eight (8) feet tall at time of planting. The tree height may be reduced by one foot for each one foot in the height of the berm on which it is planted, i.e., the total of the berm and tree height must be a minimum of eight (8) feet in height. The tree height at the time of planting shall not be allowed to be reduced below four (4) feet in height regardless of the berm height (see figure 2).
 - 2) Trees planted for screening along a road right of way not opposite a dwelling as in a) above shall have a minimum height at the time of planting of five (5) feet.
 - 3) Trees shall be maintained in good condition for the life of the project.
- 5. Electrical interconnections: All electrical interconnections or distribution lines shall comply with all applicable codes and standards for commercial large scale electrical utilities. Only existing above ground transmission lines as well as above ground transmission lines from the project generation station step up transformer facility to the point of interconnection with the high voltage transmission lines are permitted above ground. All other electrical interconnections shall be buried.
- 6. Height Restriction: Level 3 SES-PV solar collection panels with their support structures shall not exceed 20 feet in height when oriented at maximum tilt. All other structures except those within the generation station step up transformer facility and associated transmission towers shall be limited to thirty five (35) feet. Equipment within the generation station step up transformer station shall be exempt from height restrictions.
- 7. Performance Guarantees: In connection with the approval of a Level 3 SES-PV System the Planning Commission shall require the owner of the SES-PV System to furnish the County with a performance guarantee in the form of a cash deposit, certified check, irrevocable letter of credit or surety bond acceptable to the County in an amount equal to the estimated costs associated with removal of the Level 3 SES-PV facility. Including all solar panels, supporting structures, inverters, transformers and all associated equipment in accordance with the decommissioning plan in Section 17.30.3.3.m and restoration to the site to a useable condition.
- 8. Final Reclamation: Any Level 3 SES-PV System that is not operated for a continuous period of twelve (12) months that shall be considered abandoned. That owner of any Level 3 SES-PV System that is abandoned as provided herein or that is no longer voluntarily operated by the owner shall be removed from the property within ninety (90) days of receipt of the notice from the Zoning Administrator of such abandonment or within ninety (90) days of the end of the operation under the terms and conditions of this subsection. Except as provided herein, the owner the Level 3 SES-PV System shall remove the Level 3 Level 3 SES-PV System, including all structures, equipment, components, and subsystems from the property, except underground cables buried at a depth greater than three (3) feet. Landscaping berms and trees, service roads and fencing, however, if requested by the property owner of the property on which the Level 3 SES-PV System is located, shall be permitted to remain. The owner of the property may also request the ground surface not to be revegetated if agricultural planting is anticipated. If the owner of the property on which the Level 3 SES-PV System is located obtains zoning approval for a Level 2 SES-PV System on the same property that incorporates a portion of the Level 3 SES-PV System, then that portion of the Level 3 SES-PV System that is incorporated into the approved Level 2 SES-PV System may remain on the property as part of the approved Level 2 SES-PV System and the landscaping berms and trees allowed to remain, the owner of the Level 3 SES-PV System shall restore the property to its original condition prior to the construction of the Level 3 SES-PV System, subject to reasonable wear and tear. Failure to remove the Level 3 SES-PV System within the ninety (90) day period provided in this subsection shall be grounds for the County to remove the Level 3 SES-PV System as provided herein at the expense of the owner of the Level 3 SES-PV System.

Section 6. Amendment of ~~Section~~Article 21.

~~Section~~Article 21 of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add a new Section 21.12 which shall read in its entirety as follows:

21.12 Duty to Inspect; Administrative Search Warrant

It shall be the duty of the Zoning Administrator, or other official designated by the County Board of Commissioners, to inspect land, buildings and/or structures to determine violations of or compliance with this Ordinance. The Zoning Administrator, or other official designated by the County Board of Commissioners, shall exercise this right of inspection by consent of the person having the right to possession of the land, building and/or structure or any part thereof, or by administrative search warrant issued by a court of competent jurisdiction.

Section 7. Severability

If any section, clause, or provision of this Ordinance is declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the validity of the remainder of the Ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

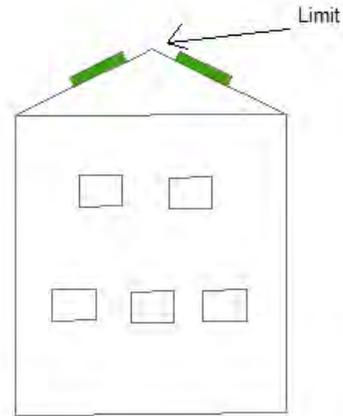
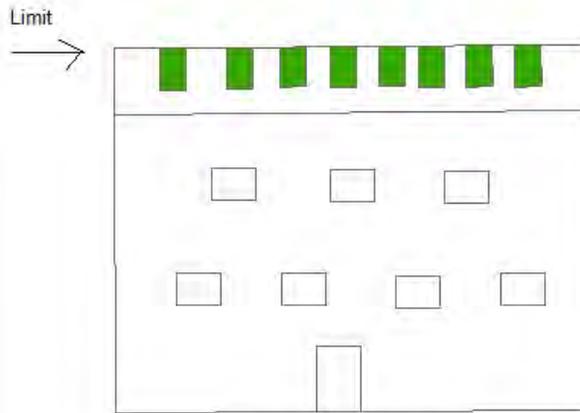
Section 8. Effective Date

This Ordinance shall become effective eight (8) days after being published in a newspaper of general circulation within the County.

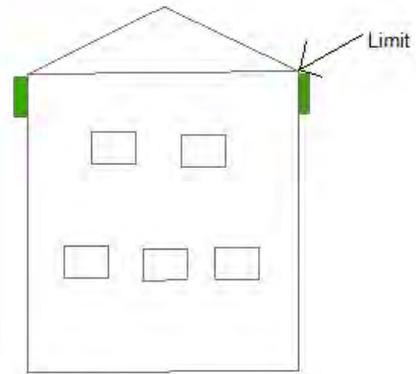
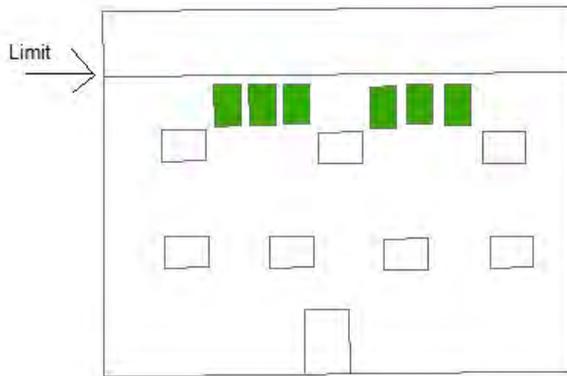
CHEBOYGAN COUNTY

By: _____
John B. Wallace
Its: Chairperson

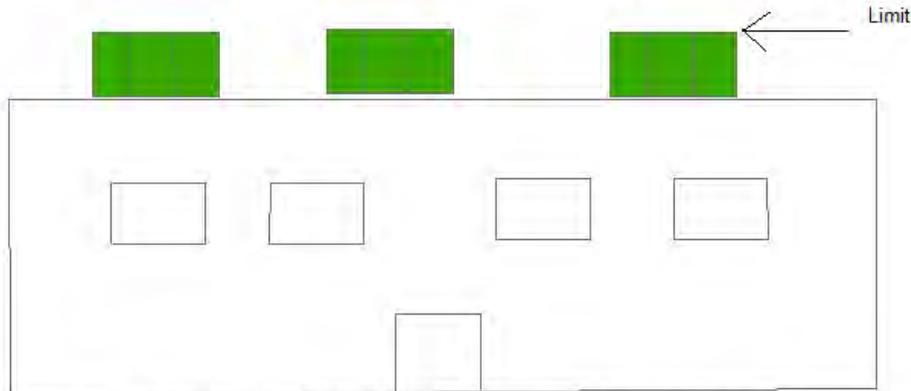
By: _____
Karen L. Brewster
Its: Clerk



Roof mount not to exceed height of roof peak.

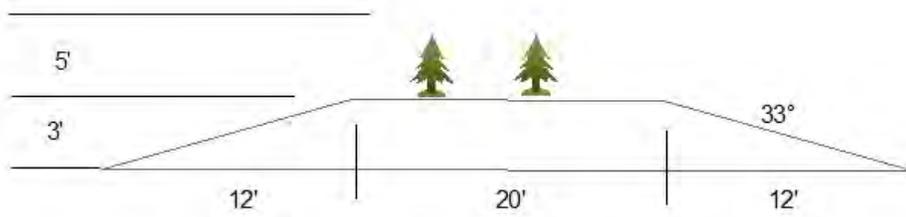


Wall mount not to exceed wall height.

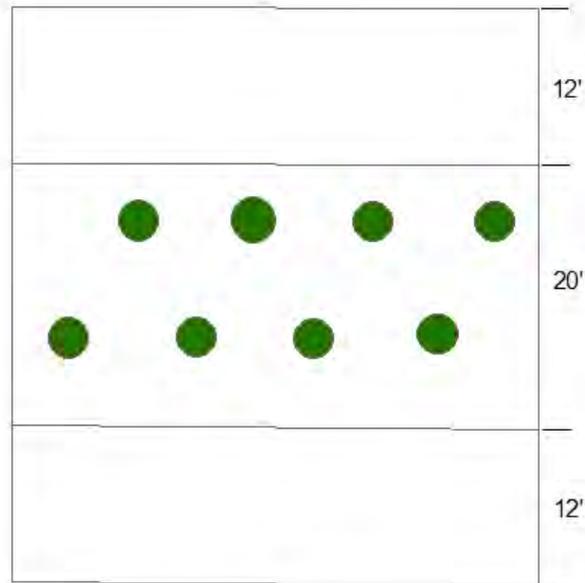


Flat Roof Mount not to exceed 10 feet above the roof or 35' above ground level, whichever is less.

Enclosure 1



Cross Section View



Top View

Enclosure 2

Data To Be Considered
This is not to be part of the regulation.

1. 15 Watts/sf = expected output currently for PV
2. 1 acre = 43560sf or approximately 208.71 feet x 208.71 feet
3. 43560 sf / acre x 15 watts/sf = 653,400 watts/acre
4. A solar farm of 300 - 400 acres would produce approximately 196 - 261 MW.
5. 20 kW is a manufacturing standard for non-commercial systems. This equates to 1,333sf of solar collection surface (36.3' x 36.3')
6. 40 kW requires a 51.6 feet x 51.6 feet square of solar panel surface
7. 500 kW requires 33325sf or .765 acres of solar panel surface
8. Maximum solar efficiency output is 1000 watts per square meter at the equator at high noon.
9. Net Metering in Michigan Solar Integrated System
 - a. Net metering in Michigan allows installation of up to 20 kW of off-site electrical generation to continuously roll over any excess generation to the next month. Participation is limited to .75% of utilities peak demand of the prior year.
 - b. The net metering program ends June 1st, 2018. Continuation of the program, if it happens, may discount excess power which is fed back into the utility system to some wholesale rate toward the owner's bill.
 - c. Net metering sizing " the project must be sized small enough so that it is no larger than what is needed to meet a customer's energy needs "page 20 in Becoming A Solar Ready Community
10. It is anticipated that electric car batteries will be repurposed into systems for electrical storage in the future.
11. Current car batteries have a storage capacity of 60-160kv and it is anticipated they will have a capacity of 200kv in the near future.
12. Bodies of water listed in 10.1.2:

Black River (Lower)
Cheboygan River
Indian River
Sturgeon River
Black Lake
Burt Lake
Devereaux Lake
Douglas Lake
Echo Lake
Munro Lake

Mullett Lake
Kleber Pond
Lake Huron
Lake Rondo
Lancaster Lake
Lance Lake
Long Lake
Paradise Lake
Reswell Lake
Roberts Lake

Silver Lake (Koehler Township)
Silver Lake (Wilmot Township)
Tower Pond
Twin Lakes
Vincent Lake
Wildwood Lake
Woldan Pond

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Peter R. Wendling

Nicole E. Essad
James G. Young, *Of Counsel*

MEMORANDUM

TO: Michael Turisk, Director **VIA EMAIL**
Cheboygan County Planning and Zoning

FROM: Bryan E. Graham BEG

DATE: October 11, 2018

SUBJECT: Review of second revised zoning ordinance amendment concerning solar arrays

I have now had the opportunity to review the second revised zoning ordinance amendment concerning solar arrays. The following are my comments concerning this revised amendment.

1. Concerning the definition of "Off Grid System," this term is not used in the amendment itself. If the term is not used, then there is no need to define it. As a result, this definition should be deleted. The prior references to "off grid" have been deleted from the revised draft.
2. Concerning the revised definitions of various levels of a SES-PV System, the section references in these new definitions are still incorrect. The sections should be 17.30.6.A; 17.30.6.B; and 17.30.6.C and not 7.30.6.A, 7.30.6.B, and 7.30.6.C. In other words, the 7s should be 17s.
3. Concerning Section 2 of the amendatory ordinance, there needs to be a new subsection 11.4.5 added to allow Level 1 systems on industrial and commercial buildings in the Natural Rivers Protection District.
4. Concerning Section 3 of the amendatory ordinance, it is incorrect to add a new subsection 12.2.7, unless there is a subsection 12.2.6 that is not in my copy of the zoning ordinance. Rather, the new subsection should be 12.2.6.
5. Concerning Section 17.30.2, the subsections need to be renumbered, since subsection 2 was deleted.

6. Concerning Section 17.30.3.1, the reference to a Level 2 system in line 2 should be a reference to a Level 1 system.
7. Concerning Section 17.30.3.2.a, the current language states that a site plan review is required for any Level 2 system “larger than 1.333 sq. ft.” I believe what is intended is the following: “. . . system that contains panels in the solar collection array larger than 1.333 sq. ft.” If I am correct, then this change should be made. If I am not correct, then I have questions concerning the meaning of the current language. I have now found in Section 17.30.6.B.5.b the reference to a system with “more 1,333 sq. ft. of solar collection surface . . .” This leads me to believe that the reference to “1.333” should be to “1,333.” In other words, the decimal point should be a comma. If my latter thoughts are correct, then Section 17.30.3.2.a should be rewritten as follows: “. . . larger than 1,333 sq. ft. of solar collection surface shall include . . .”
8. Concerning Section 17.30.3.3.j, the current language uses the phrase “level 3 solar farms.” For consistency, it is my recommendation that the phrase be changed to “Level 3 SES-PV System.”
9. Concerning Section 17.30.3.3.m, the word “Systems” in line 3 should be changed to “System’s.” This is merely a typo.
10. Concerning Section 17.30.6.A, the reference to Level 1 appears to use a Roman Numeral I, as opposed to the Arabic Numeral 1. Again, this is merely a typo.
11. Concerning Section 17.30.6.B, the introductory portion of this subsection is not a grammatical sentence. To be consistent with subsections A and C, the following phrase should be added at the end of the provision: “. . . shall comply with all of the following requirements:” In the alternative, this provision can simply state the following: “All Level 2 SES-PV Systems, whether a principle or accessory use on the parcel, shall comply with all of the following requirements:”
12. Concerning Section 17.30.6.B.1, this subsection must be rewritten as follows: “Except as provided in Section 17.30.3.2.b, Level 2 SES-PV Systems . . .” The subsection cited in the revised language requires a special use permit.
13. Concerning Section 17.30.6.B, there is a subsection addressing the size requirement (top of page 7 in my draft). First, this subsection does not have a subsection number assigned to it. Second, I believe the reference should be to a Level 2 system. If I am correct, the remaining subsections will need to be renumbered.
14. Concerning Section 17.30.6.B.5.b the word “than” should be inserted after the word “more” in line 1 of the subsection.

15. Concerning Section 17.30.6.C.2.a, this provision is not a grammatical sentence. Therefore, the following phrase should be added at the end of the provision: “. . . shall comply with the following setbacks:”
16. Concerning Section 6 of the amendatory ordinance, the heading and introductory portion of this section must be rewritten as follows:

Section 6. Amendment of Article 21.

Article 21 of the . . .

If you would like to discuss any of my comments, please do not hesitate to contact me.

BEG

cc: Jeffery B. Lawson, Administrator (via email)

MEMORANDUM

TO: BRYAN GRAHAM
FROM: CHUCK FREESE
DATE: OCTOBER 9, 2018
SUBJECT: SOLAR ORDINANCE REVIEW

In accordance with our telephone conversation on 10/03/18, the following corrections have been made. The items are keyed to those of your memo of 09/17/18:

1. The words "solar power" have been deleted from the definition.
2. The word "solar" has been deleted from the definition.
3. The definition of "solar farm" remains unchanged.
4. Section 17.30.6A, 17.30.6B and 17.30.6C are renumbered. The original designation "SES-PV System" remains as we agreed throughout the amendment.
5. The word "Accordance" is no longer capital.
6. Section 2, 3, and 4 are renumbered properly.
7. Section 5 and 6 are deleted with their inclusion in Sections 2 and 3.
8. Section 7 is renumbered as Section 5 which designates Section 17.30 as "Section 17.30. SOLAR ENERGY SYSTEM PHOTOVOLTAIC (SES-PV)".
9. All zoning districts are included.
10. Section 17.30.6.A.3 and 17.30.6.B.3 have been revised with the substitution of the paragraph you suggested.
11. Paragraph 17.30.2.2 has been deleted and your Section 21.12 "Duty To Inspect; Administrative Search Warrant" is added to Section 21 of the Ordinance.
12. The term "Level 3 SES-PV Facility Perimeter" has been added wherever the term "Facility Perimeter" is used in this section.
13. Section 17.30.6.C.2.b.1 remains unchanged as agreed.
14. Section 17.30.6.C.3 remains unchanged as agreed.
15. "Section 6 Severability" and "Section 7 Effective Date" have been added.

Your concerns about fencing and screening at driveway entrances has been addressed by adding "Driveway Intersections" to clear vision at intersections provision of section 17.30.6.C.2.b.7.

Attached as enclosure 1 is the revised amendment with these changes included and indicated in red.

If there are any further questions, please contact me at (231)525-8910 or Mike Turisk at the Planning and Zoning Office.

Chuck Freese

1 enclosure

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MEMORANDUM

TO: Michael Turisk, Director **VIA EMAIL**
Cheboygan County Planning and Zoning

FROM: Bryan E. Graham BEG

DATE: September 17, 2018

SUBJECT: Review of revised zoning ordinance amendment concerning solar arrays

I have now had the opportunity to review the revised zoning ordinance amendment concerning solar arrays. The following are my comments concerning this revised amendment.

1. Concerning the definition of "Solar Power Inverter," this term is not used in the amendment itself. If the term is not used, then there is no need to define it. As a result, this definition should be deleted.
2. Concerning the definition of "Solar Off Grid System," this term is not used in the amendment itself. If the term is not used, then there is no need to define it. As a result, this definition should be deleted.
3. Concerning the new definition of "Solar Farm," the use of this definition in the amendment is merely a synonym for the term "Level 3 PV-SES System." Unless there is a need for different terminology with different meanings, it is my recommendation that the definition of "Solar Farm" be deleted and that where the term is currently used in the amendments the term Level 3 PV-SES System be used.
4. Concerning the revised definitions of various levels of a PV-SES System, section is these new definitions are incorrect. The sections should be 17.30.6.A; 17.30.6.B; and 17.30.6.C. Also, while the definitions are now "PV-SES System," those emotions will not change in the body of the amendment.
5. Concerning Sections 2, 3, and 4 of the amendatory ordinance, the word "Accordance" used throughout these sections should not be capitalized.

6. Concerning Sections 2, 3, and 4 of the amendatory ordinance, the reference to the various sections should be in the format "17.30.6.A."
7. Section 6 of the amendatory ordinance the reference to "Section 12.2.6" in the heading must be changed to Section 12.2."
8. Concerning Section 7 of the amendatory ordinance, the name of the new Section 17.30 should be rewritten as follows, which would be consistent with other section names:

SECTION 17.30. PHOTOVOLTAIC SOLAR ENERGY SYSTEM (PV-SES)

9. Concerning Section 17.30.6.A.1, if this subsection is to remain, must be absolutely certain that all zoning districts are listed in the beginning sections of the amendatory ordinance where the Level I systems will be permitted.
10. Concerning Section 17.30.6.A.3, it is still my opinion that these regulations are too complex. It is, therefore, my recommendation that this subsection the agreement as follows:

A Level 1 PV-SES System should be sized small enough that it does not exceed the customer's electrical needs on an annual basis, and can either be connected or not connected to the electrical grid operated by a commercial public utility provider.

11. Concerning the inspection provisions, it continues to be my recommendation that these inspection provisions not be included in the solar section, but to be added to the zoning ordinance in Article 21 as a new Section 21.12, and should read as follows:

Section 21.12. Duty to Inspect; Administrative Search Warrant.

It shall be the duty of the Zoning Administrator, or other official designated by the County Board of Commissioners, to inspect land, buildings and/or structures to determine violations of or compliance with this Ordinance. The Zoning Administrator, or other official designated by the County Board of Commissioners, shall exercise this right of inspection by consent of the person having the right to possession of the land, building and/or structure or any part thereof, or by administrative search warrant issued by a court of competent jurisdiction.

12. Concerning Section 17.30.6.C.2.a.2), if the language is going to use the phrase "project perimeter," then that term should be defined. Otherwise, the language can state that the setback is measured from the boundary of the property leased for the solar development.

CHEBOYGAN COUNTY
ZONING ORDINANCE AMENDMENT # _____

AN ORDINANCE TO AMEND THE CHEBOYGAN COUNTY ZONING ORDINANCE NO. 200
RELATIVE TO SOLAR ENERGY SYSTEMS

THE COUNTY OF CHEBOYGAN, STATE OF MICHIGAN ORDAINS:

Section 1. Amendment of Section 2.2.

Section 2.2 of the Cheboygan County Ordinance 200 is hereby amended to add the following definitions in their appropriate alphabetical locations ~~which~~ that shall read in their entirety as follows:

~~**Electrical Storage System:**~~ **Electrical Energy Storage:** A system for storage of electrical energy (usually battery) for release and use at times of little or no solar energy generation when utilized in connection with a ~~SES-PV~~ Photovoltaic System.

~~**Generation Station-Step-Up Transformer Facility:**~~ A security fenced compound including transformers, switching gear and all associated equipment necessary to accept low voltage, *Alternating Current* ~~accumulated~~ converted by inverters ~~located~~ within a level 3 solar energy facility and ~~step~~ increase the voltage ~~up~~ to 138KV, 230KV or 345KV for high voltage transmission.

Level 3 PV-S Facility Perimeter: The boundary of the ~~leased~~ parcel(s) ~~or any portion thereof~~ upon which any solar panels, fencing, screening, equipment, support buildings, electrical storage system or service drives are located. The facility may be one contiguous unit or several non-contiguous parcels connected by an easement(s).

Solar Integrated System: A ~~ny~~ solar energy system ~~directly or indirectly~~ connected to the commercial energy grid for the wholesale or retail sale of electric energy or *for* on-site self consumption.

Solar Power Inverter: A device that converts ~~DC~~ *direct* current ~~captured~~ produced by the solar panels into ~~AC~~ *alternating* current.

Net Metering: A policy whereby utility customers with small-scale renewable power sources, including solar, receive credit from their utility provider for electricity generated in excess of their needs.

Solar Off Grid System: ~~Any~~ A Photovoltaic System that functions as a stand-alone system ~~without a connection to the grid such as a storing energy in a battery bank or other energy storage system ; thermal hot water or fly wheel system.~~

Photovoltaic (PV): A method of generating electrical power by converting solar radiation (sunlight) into direct current electricity using semiconductor solar panels. ~~inverters and transformers.~~ *(PV's produce direct current-inverters/transformers convert the DC to AC)*

~~**Solar Energy System (SES-PV):**~~ **Photovoltaic System (PV-S)** All components and subsystems necessary to convert ~~incident~~ solar radiation into electric energy for immediate use on-site or for wholesale or retail sales off-site. ~~Electrical storage systems~~ *Electrical Energy Storage* systems may be integrated with these systems. Photovoltaic Systems are classified as follows:

1. Level 1 PV-S – Any building *or ground* mounted Photovoltaic System used to produce electrical energy primarily for on-site use in accordance with Section 7.30.6A.
2. Level 2 PV-S – Any ground mounted Photovoltaic System used to produce electrical energy for use primarily on site in accordance with Section 7.30.6B.

3. Level 3 PV-S – Any ground mounted Photovoltaic System used to produce electrical energy for wholesale distribution and use off site in accordance with Section 7.30.6C.

Solar Farm: A Level 3 Photovoltaic System, including the land upon which it is located, generating electricity for wholesale distribution off site through a ~~generation station step up transformer station~~ *Generation Step-Up Transformer Facility* to high voltage transmission lines. A facility of this type is ~~large scale measuring in the~~ typically hundreds of acres.

Section 2. Amendment of Sections 4.2, 6.2, 9.2, 10.2, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2_ and 14.2

Section 4.2, 6.2, 9.2, 10.2, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2_ and 14.2 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 4.2.4, 6.2.34, 9.2.10, 10.2.5, 12.2.6, 13.2.11, 13A.2.13, 13B.2.8, 13C.2.12, 13D.2.5, 13E.2.4, 14.2.13, which shall read in their entirety as follows:

4.2.4	Level 1 PV-S Systems in Accordance with Section 17.30.6A
6.2.34	Level 1 PV-S Systems in Accordance with Section 17.30.6A
9.2.10	Level 1 PV-S Systems in Accordance with Section 17.30.6A
10.2.5	Level 1 PV-S Systems in Accordance with Section 17.30.6A
12.2.6	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13.2.11	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13A.2.13	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13B.2.8	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13C.2.12	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13D.2.5	Level 1 PV-S Systems in Accordance with Section 17.30.6A
13E.2.4	Level 1 PV-S Systems in Accordance with Section 17.30.6A
14.2.13	Level 1 PV-S Systems in Accordance with Section 17.30.6A

Section 3. Amendment of Sections 4.2, 6.2, 9.2, 10.2, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2_ and 14.2

Section 4.2, 6.2, 9.2, 10.2, 12.2, 13.2, 13A.2, 13B.2, 13C.2, 13D.2, 13E.2_ and 14.2 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 4.2.5, 6.2.35, 9.2.17, 10.2.6, 12.2.7, 13.2.16, 13A.2.20, 13B.2.14, 13C.2.17, 13D.2.16, 13E.2.5, 14.2.14 which shall read in their entirety as follows:

4.2.5	Level 2 PV-S Systems in Accordance with Section 17.30.6B
6.2.35	Level 2 PV-S Systems in Accordance with Section 17.30.6B
9.2.17	Level 2 PV-S Systems in Accordance with Section 17.30.6B
10.2.6	Level 2 PV-S Systems in Accordance with Section 17.30.6B
12.2.7	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13.2.16	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13A.2.20	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13B.2.14	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13C.2.17	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13D.2.16	Level 2 PV-S Systems in Accordance with Section 17.30.6B
13E.2.5	Level 2 PV-S Systems in Accordance with Section 17.30.6B
14.2.14	Level 2 PV-S Systems in Accordance with Section 17.30.6B

Section 4. Amendment of Sections 6.3, 7.3, 8.3, 9.3, 10.3

Sections 6.3, 7.3, 8.3, 9.3 and 10.3 of the Cheboygan County Zoning Ordinance No. 200 are hereby amended to add new subsections 6.3.18, 7.3.19, 8.3.18, 9.3.26, 10.3.3 which shall read in their entirety as follows:

6.3.18	Level 3 PV-S Systems in Accordance with Section 17.30.6C
7.3.19	Level 3 PV-S Systems in Accordance with Section 17.30.6C
8.3.18	Level 3 PV-S Systems in Accordance with Section 17.30.6C
9.3.26	Level 3 PV-S Systems in Accordance with Section 17.30.6C

Section 5 Amendment of Article 11

Article 11 of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add the following Section 11.10 which shall read in its entirety as follows:

Section 11.10 Solar Photovoltaic Energy Systems (PV-S): Level 1 PV-S and Level 2 PV-S systems shall be permitted in Natural Rivers Protection District (P-NR) in accordance with the following:

- 11.10.1 Level 1 PV-S systems shall be permitted on existing buildings and on any new buildings permitted in accordance with sections 11.3, 11.4, 11.8 and 17.30.6A.
- 11.10.2 Level 2 PV-S systems shall be permitted as accessory structures to any building or accessory structure permitted in accordance with sections 11.3, 11.4, 11.8 and 17.30.6B.

Section 6 Amendment of Section 12.2.6

Section 12.2 of Cheboygan County Ordinance No. 200 is hereby amended to add new Section 12.2.6 and 12.2.7 which shall read in their entirety as follows:

- 12.2.6 Level 1 PV-S Systems in accordance with Section 17.30.6A are permitted on any building subject to Cheboygan County Zoning Ordinance No. 200.
- 12.2.7 Level 2 PV-S Systems in accordance with Section 17.30.6B but only when accessory to any existing or new building except here permitted by state law. **Unclear ????**

Section 7 Amendment of Article 17.

Article 17 of the Cheboygan County Zoning Ordinance No. 200 is hereby amended to add a section 17.30, which shall read in its entirety as follows: Section 17.30 Solar Energy Systems – Photovoltaic System ~~(SES-PV)~~(PV-S)

17.30.1 PURPOSE:

~~The purpose of this section is to promote~~ *To promote* the development of renewable energy resources in Cheboygan County and the State of Michigan's renewable energy goals while protecting the health, safety and welfare of the citizens and prevent adverse impacts on the agricultural, water, recreational, scenic and wildlife resources of the county. ~~while furthering the State of Michigan's renewable energy goals.~~

This section ~~will address Solar Energy Systems~~ *addresses a range of applications* of Photovoltaic ~~(SES-PV)~~ Systems (PV-S) ~~for a range of applications~~ from ~~strictly~~ on site utilization to ~~wholesale distribution~~ off site *grid inter-tied distribution* and will provide guidance on the planning, design, construction, operation and subsequent decommissioning of facilities at the end of ~~their economic~~ the project's service life. ~~The section is to promote economic development, protect the health, safety and welfare of the citizens and prevent adverse impacts on the agricultural, water, recreational, scenic and wildlife resources of the county while furthering the State of Michigan's renewable energy goals.~~

17.30.1 PURPOSE: *(Proposed final edit)*

To promote the development of renewable energy resources in Cheboygan County and the State of Michigan's renewable energy goals, protect the health, safety and welfare of the citizens, and prevent adverse impacts to the agricultural, water, recreational, scenic and wildlife resources of the county.

This section addresses a range of applications of Photovoltaic Systems (PV-S) from on site utilization to off-site grid inter-tied distribution. It provides guidance on the planning, design, construction, operation and subsequent decommissioning of facilities at the end of the project's service life.

17.30.2 GENERAL PROVISIONS APPLICABLE TO ALL SOLAR ENERGY SYSTEMS

1. ~~Code Compliance: Any SES-PV~~ Photovoltaic Systems (PV-S) shall meet ~~or exceed any~~ the standards and regulations of the International Fire Code, the National Electric Safety Code and ~~any~~ other

applicable codes and regulations of the state and federal government ~~with the authority to regulate solar energy systems~~ that are in effect at the time the approval for the ~~SES-PV System Photovoltaic Systems (PV-S)~~ is granted.

2. ~~Inspection: The County shall have the right, upon issuing the required permit for a SES-PV System, to inspect the premises on which a solar collection system is located at all reasonable hours. (An unreasonable violation of private property rights. Pass code initial inspections, there is no further reason to inspect the premises)~~
3. ~~Fire Safety: All SES-PV Systems shall meet the requirements of the international fire code as amended. (Already stated in Paragraph 1)~~
4. ~~County Review: Identify emergency and normal shutdown procedures, potential hazards to adjacent properties, public roadways and to the general public that may be created. (Should this be applicable to solar farms-ONLY??)~~

17.30.3 APPLICATION REQUIREMENTS: In addition to application requirements of Article 18 and Article 20 of this ordinance an application for a site plan review and/or special use permit for a ~~SES-PV Photovoltaic System PV-S~~ shall be required to furnish all of the following information unless ~~expressly~~ indicated otherwise:

1. Level 1 PV-S Systems shall require a site plan review for any electrical storage system associated with the Level 2 PV-S System to include the type, size and location of all components in addition to the requirements of Section 20.10. ~~(Unclear-mix of Level 1 and Level 2 terminology? What is the intent?)~~
2. Level 2 SES-PV Systems shall require the following:
 - a. A site plan review for any Level 2 PV-S system larger than 1,333 sq. ft. ~~(arbitrary number for area?)~~ which shall include the following information ~~an~~ in addition to the requirements of Section 20.10:
 - 1) The size, height, length, and location of the solar arrays, parcel boundaries and setback lines and location of all buildings on site.
 - 2) ~~A breakdown of the anticipated uses of the power generated over and above 20 kw, e.g. farm buildings 25 kw, sawmill 25 kw, irrigation pumps 10 kw, etc. (Exceeds authority of planning laws-this is regulating energy use-not land use)~~
 - 3) Information on the height, length and angle of panels in the solar collection array.
 - 4) The type, size, location and engineering specifications for any energy storage system proposed to be part of the Level 2 PV-S System.
 - b. In addition to a site plan review a special use permit shall be a requirement if the area to be covered by solar panels and supporting equipment covers more than 0.765 acres (33,325 sq. ft.). ~~(What is the rationale for this arbitrary area limitation?) Additional information is to include a description of all land/timber clearing that is proposed, the percentage of private farm land that is to be used and access or service roads to be developed in addition to requirements of Section 18.7. (These conditions are not imposed on other developments. Why prejudice solar projects?)~~
3. Level 3 PV-S Systems shall require a special use permit in accordance with Section 18.7 and a site plan review. The following information shall be required in addition to that required in Section 18.7:
 - a. ~~Project description and rationale: (Ordinance #200 does not seek a rationale for other developments. What is the rationale for building a Meijer?)~~ Identify the perimeter of the project development area, proposed type of system, size, rated power output, performance, safety and noise characteristics of the system including the transmission line/grid connection for the project.
 - b. Identify the project construction timeframe, project life, potential development phases and potential future expansions.
 - c. ~~Visual impacts: Graphically~~ Demonstrate the visual impact of the project using photos ~~and realistic~~ renditions of the project ~~with consideration given to showing setbacks and proposed screening and landscaping.~~
 - d. ~~Waste: Identify any solid or hazardous waste generated by the project and provide a disposal plan for such waste. (Needed? Rationale?)~~

- e. ~~Lighting:~~ Provide a plan showing all lighting within the facility. All lighting shall be in compliance with the standards of sections 3.7.1 and 20.10h.
- f. ~~Transportation Plan:~~ Provide a proposed access plan to be utilized during construction and operational phases. The plan must show proposed project service road ingress and egress locations to adjacent roadways and the layout of the facility service road system. Due to infrequent access following construction, it is not required to provide for paved curbs and gutters on access drives unless required by ~~the State Department of Transportation~~ MDOT or County Road Commission.
- g. ~~Public Safety:~~ Identify emergency and normal shutdown procedures, potential hazards to adjacent properties, public roadways and to the general public that may be created.
- h. ~~Engineering and Installation:~~ Detailed engineering drawings shall be provided to include ~~standard~~ drawings of the structural components of the solar farm and any electrical storage system in support of the Level 3 PV-S System, including base and footings along with engineering data and calculations to demonstrate compliance with the structural design provisions of the building code current at the time of submittal of the request for a building permit. Drawings and engineering calculations shall be certified by a registered engineer licensed to practice in the State of Michigan.
- h. ~~Drainage and Soil Erosion~~
 - 1) ~~Provide topographic survey of existing elevations and natural drainage and any proposed elevation changes and/or drainage alterations with calculations in the project area.~~
 - 2) Show how panels shall be positioned to allow water runoff without channeling it in such a way as to cause erosion.
 - 3) ~~———— Show how the vegetative cover will be provided and maintained under and around the panels. (Repeated in #4)~~
 - 4) Show how the panels array will allow vegetative growth under and between panels.
- i. ~~Impervious Surface/Stormwater~~
If more than 8,000 square feet (~~Reason for arbitrary number?~~) of impervious surface, *roads, concrete or paved areas*, will be located on the site, the application shall include a drainage plan prepared by a registered civil engineer showing how stormwater runoff from ~~hardstand~~ *hard-surfaced* areas will be managed and demonstrating that run off from the site will not exceed the ~~agricultural~~ natural runoff rate or otherwise cause undue flooding. Solar panels are not considered an impervious surface.
- j. ~~If detergents will be used to clean solar panels, details on the type of detergent~~ Material Safety Data Sheets (MSDA) to be supplied for all products used on site. ~~frequency and quantity of use, and how stormwater quality protection measures shall be met. Any necessary permits from outside agencies for off-site discharge shall be provided. Not clear what the stormwater protection measures are? Define or delete the need for outside agency (what agency?) permits for off-site discharge?~~
- k. ~~Safety access~~
A security access plan shall be ~~proposed and reviewed/~~approved for Level 3 solar farms. ~~Knox (Trade name use) Lock boxes and keys shall be provided for any locked entrances-~~for emergency personnel access to any locked *and* fenced portions of the facility.
- l. ~~County review~~
~~Because of the ever-changing technical capabilities of~~ With future improvements in photovoltaic solar panels and ~~of new technology in general,~~ the County Planning Commission will have the authority to review and consider alternatives in both the dimensional and physical requirements contained in this section as part of the special land use review process.
- m. ~~Telecommunications Infrastructure:~~
Identify any electromagnetic fields which are generated that ~~will~~ *may* interfere with electronic communication devices located outside the perimeter of the facility.
- n. ~~Final Decommissioning and Reclamation Plan:~~ A decommissioning and reclamation plan shall be developed and furnished to the ~~Zoning Administrator~~ *Planning Commission* describing actions

to be taken at the end of the Level 3 PV-S Systems useful life or in the event of abandonment and termination of the project. *(Too serious to trust to staff-needs Planning Commission over-sight.)*

The information ~~shall include a description of~~ *must address* how the following conditions shall be met:

- 1) Removal of all ~~non-utility-owned~~ equipment, including conduit buried at less than 3 ft. in depth, structures, fencing, roads, and foundations. The owner of the leased parcel, ~~however,~~ may request in writing that graveled areas, and developed access roads, fences, vegetative screening and berms remain in place.
- 2) Restoration of the property to its original condition prior to *the* construction of the Level 3 PV-S System. ~~subject to reasonable fair wear and tear~~ The owner of the leased parcel, ~~however,~~ may request the ~~renewed~~ ground surface not ~~to~~ be revegetated due to plans for agricultural planting.
- 3) Development of a time frame for completion of decommissioning activities, not to exceed 90 days. *(Too short of an arbitrary period? The removal of equipment might be a small-scale salvage/material recycling operation.)*
- 4) Furnishing a description and copy of any memorandum of lease or any other agreement with landowner regarding decommissioning.
- 5) Providing a list of names, addresses and telephone numbers of persons or parties responsible for designating the contractor(s) responsible for actual decommissioning work.
- 6) Providing a plan and schedule for updating this decommissioning plan every 5 years. *(Suggest 3 year or less to avoid County "forgetting" to update)*
- 7) Identify emergency and normal shutdown procedures, potential hazard to adjacent properties, public roadways, and to the general public that may be created.

17.30.4 APPLICATION REVIEWED BY ZONING ADMINISTRATOR

1. The zoning administrator shall review the application and information submitted under Section 17.30.3 of this Ordinance to determine ~~if all required~~ *the sufficiency* of information ~~was~~ supplied. If the zoning administrator determines that ~~all required~~ *insufficient* information was ~~not~~ supplied, ~~he or she~~ *the Zoning Administrator* shall send written notification to the Applicant of the deficiencies. ~~The~~ *An* application for ~~the~~ *a* Level 3 Solar Farm shall not proceed until all required information has been supplied.
2. ~~Once all required information is~~ *When a sufficient application has been submitted,* the zoning administrator shall forward the application to the Planning Commission for its review under the procedures of this section 17.30.3 and 18.5.

17.30.5 PUBLIC HEARING COMMENTS

~~Following receipt of a complete application for a Level 3 SES-PV System, the Planning Commission shall hold at least one (1) public hearing. Notice of the public hearing shall be given as required by Section 18.5 of this Ordinance.~~

Proposed Edit

Upon receipt of an application meeting the standards set down for a Level 3 PV-S Solar Farm, the Planning Commission shall give Notice of a Public Hearing and hold one or more public hearing(s) as required by Section 18.5 of this Ordinance.

17.30.6 STANDARDS AND CONDITIONS

A. Level 1 Photovoltaic Energy Systems (PV-S)

All Level I PV-S Systems shall comply with all of the following requirements:

1. Permitted Districts: Level 1 PV-S systems shall be permitted uses in all zoning districts.
2. A Level 1 PV-S System can be placed on any building subject to applicable fire, building, and electrical codes.
3. ~~Level 1 SES-PV should be sized small enough that they do not exceed the customers electrical needs on an annual basis and may be either on grid or off grid subject to the following requirements:~~

Level 1 PV-S Systems shall be in compliance with requirements of the electrical utility providing ~~the net metering~~ a utility grid interconnection. ~~Any system for which a permit is requested, in excess of 20 kw or 1333 sq. ft. of solar collection surface, shall provide a breakdown of the anticipated usage over 20 kw, for example 50 kw for manufacturing, 20 kw for agricultural buildings, 10 kw for irrigation pump etc.~~

- a. Off grid systems are not limited by *wattage* or size of solar collection surface. ~~however if tied to any storage system such as battery,~~ Off grid Level I PV-S systems shall submit a **complete** site plan including type, size, and location of the ~~storage system~~ *Electrical Energy Storage* system ~~shall be furnished~~ with the permit application.
4. ~~Setbacks:~~ Level 1 PV-S systems shall meet setbacks requirements of the zoning district in which the building on which they are mounted is located.
5. ~~Height Restrictions: Except for~~ On buildings with a flat roof, the placement of a Level 1 PV-S System shall not exceed the *zoning district* height limitations of the building on which the system is placed. A Level 1 PV-S System ~~that is~~ installed on a building with a flat roof shall not ~~be higher than~~ exceed ten (10) feet above the flat roof.

~~See diagrams at enclosure 1. (MRC 2015 (Michigan Residential Code 2015) effective February 8, 2016 regulates use and placement of solar shingles and panels.)~~

B. Level 2 Photovoltaic System (PV-S)

~~Any~~ Ground-mounted photovoltaic systems ~~accessory to the primary or secondary use of any~~ *servicing* principal or accessory buildings on the parcel or combination of contiguous parcels under the same ownership or control and producing electric power primarily for the use of the owner or tenant.

1. ~~Permitted districts:~~ Level 2 PV-S systems shall be permitted uses in all zoning districts.
2. Location and placement:
 - a. A Level 2 PV-S System(s) may be located on any ~~lot or lot of record~~ on any parcel within the zoning district that permits these systems to service each building on that ~~lot or lot of record~~ parcel.
 - b. A Level 2 PV-S System(s), ~~however,~~ shall not be placed between the front lot line and the principal structure on the lot or lot of record.
3. ~~On grid versus off grid Level 2 PV-S systems:~~ Level 2 PV-S photovoltaic systems may be either on grid or off grid with the following restrictions:
 - a. On grid ~~net~~ metered Level 2 PV-S systems should be sized small enough that they do not exceed the customer's electrical need on an annual basis and shall be in compliance with requirements of the electrical utility providing the ~~net~~ metering interconnection. ~~(This will probably be future regulated by utility company agreements. The terms and wording exceed any land use regulation. There is no net metering going forward. Delete this paragraph?)~~

FYI- In June 2018, Michigan's net metering program was ended (with those already enrolled getting a 10-year grandfather term). The new inflow/outflow system will require new customers to pay full price for all electricity going in and receiving a credit based on avoided cost to the utility for electricity going out to the grid. Each utility will have to set this price in its rate case which must be approved by the Michigan Public Service Commission. Bills were introduced into the state house within weeks to alter this system as favoring large utilities over solar owners. Co-op electrical providers are not covered by the same rules but some moved to alter their rates after the state board's ruling.
 - b. Any system for which a permit is requested in excess of ~~20 kw or~~ 1333 sq. ft. ~~(arbitrary size again)~~ of solar collection surface shall require a site plan review in accordance with Section 17.30.3 and Section 20.
4. ~~Setbacks:~~ Level 2 PV-S System shall comply with all setback requirements of the zoning district. ~~in which located.~~
5. ~~Height Restriction:~~ A Level 2 PV-S System shall not exceed 16 feet in height when oriented at maximum tilt and as measured from the *average* grade at the base of the system structures.
6. Maximum lot coverage:
 - a. Level 2 PV-S net metered systems on parcels of less than 2 acres shall be limited to 50% of the area within the setback boundaries of the parcel after subtracting the areas covered by any

buildings on the parcel. (On a 2 acre parcel (87,000 sq/ft) excluding setbacks and buildings might leave 50,000 sq/ft or 25,000 sq/ft available for solar panels. Is this the intent of this paragraph?)

- b. Level 2 PV-S net metered systems on parcels of 2 acres or more with more 1,333 sq. ft. of solar collection surface shall require a site plan review in accordance with section 18.7 and 17.30.3.2 and if the solar array covers more than 0.763 acres (33,325 sq. ft.) setbacks shall be as follows:
 - 1) 100 feet from any dwelling not owned by the owner of the proposed PV-S System. This setback may be waived upon the written request of the owner of the dwelling.
 - 2) 50 feet from any adjacent parcel boundary not abutting a public road or private road.
 - 3) 80 feet from any public or private road.
 - 4) 500 feet from any major body of water as listed in section 10.1.2.
 - 5) 40 feet from any perennial stream, other than those listed in section 10.1.2, shown as part of the P-LS zoning district.

C. Level 3 Photovoltaic System (PV-S)

All Level 3 PV-S Systems and associated electricity storage facility shall comply with the following requirements:

1. Level 3 PV-S systems shall be allowed in the D-CM, D-LI, D-GI, M-AF and P-LS zoning districts.
2. ~~Setbacks:~~ All Level 3 PV-S Systems shall meet the following setback requirements:
 - a. All photovoltaic solar panels along with their supporting structures, inverters and ~~supporting~~ ancillary buildings and equipment (excluding fencing, vegetative screening, berms, roads, underground cables) are subject to the following setbacks. ~~and generator system step up transformer facility?)- (Is Generation Step-Up Transformer Facility meant to be exempt from setbacks?)~~
 - 1) 100 feet from any dwelling. This setback may be waived if requested by the owner of the dwelling to be screened.
 - 2) 50 feet from any project perimeter not abutting a private or public road unless requested to be waved by the property owner of the parcel to be screened.
 - 3) 80 feet from any public or private road underground cables, however, are exempt from this setback requirement if necessary for road crossings.
 - 4) 500 feet from any major body of water as listed in section 10.1.2.
 - 5) 40 feet from any perennial stream, other than those listed in section 10.1.2, shown as part of the P-LS zoning district. Underground cables may, however, be allowed if permitted by the DEQ and Army Corps of Engineers.
 - b. Screening and fencing setbacks:
 - 1) Fencing shall be no closer than one (1) foot from any property line, public road right of way, utility or driveway easement or the established perimeter of the leased parcel or group of contiguous parcels, or portions thereof, ~~and forming~~ enclosing the level 3 PV-S facility.
 - 2) In the event a property line lies within the road right of way, setbacks shall be measured from the edge of the road right of way.
 - 3) All tree plantings utilized for screening shall have setback of seven (7) (~~arbitrary number-why 7 feet? Suggest more setback to allow 20 years of growth.~~) feet from any property line, public or private road right of way, utility or driveway easement or the perimeter of the parcel or group of contiguous parcels leased and forming the level 3 PV-S facility.
 - 4) See #3-The seven (7) foot setback shall be measured at the time of planting from the center of the trunk of trees used for screening.
 - 5) Buried electrical cables on an easement used to connect noncontiguous parcels of the PV-S facility, although an integral part of the facility, shall not require screening regardless of their proximity to any dwelling.
 - 6) All tree plantings and /or berms utilized for screening opposite a dwelling shall extend 100 ft. in either direction from a point on the facility perimeter directly opposite the midpoint of the opposing dwelling.
 - 7) ~~At road intersections, vegetative screening and/or berms or fences shall be established or maintained which do not obstruct the view of vehicular traffic in any direction. All right~~

~~of way intersections shall be provided and maintained with a clear unobstructed vision corner extending not less than 20 feet from all right of way line intersections along said right of way line in the form of a triangle.~~ Should comply with line of sight, existing 17.20.A & B standards

A. At the intersections of highways where grades are not separated, setback lines are hereby established across each sector between the intersecting highways. ~~(includes railroads.)~~ Such setback lines shall be straight lines connecting points on the intersecting highway right-of-way lines.

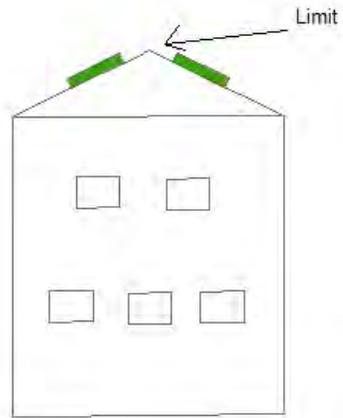
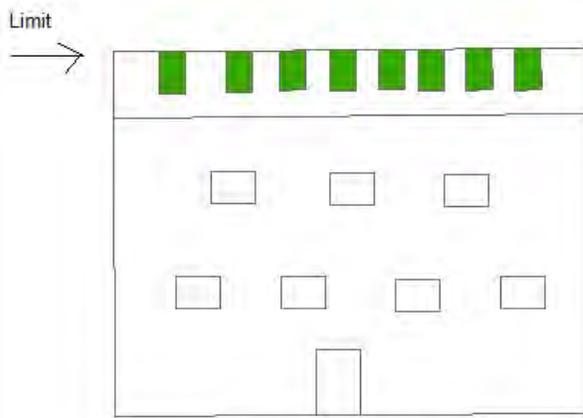
B. At the intersection of any Cheboygan County Primary or scenic-recreation road or any Michigan State trunkline highway with any other highway, said connection points shall be located one hundred (100) feet distant from the intersections of the highway right-of-way lines. At the intersection of any highway which is not included in either the Cheboygan County Primary or Michigan State trunkline system with any other such highway, said points shall be located fifty (50) feet distant from the intersection of the highway right-of-way lines

- c. The Generation-Step-Up Transformer Facility and any Electrical Energy Storage system shall meet the following setbacks:
 - 1) 500 feet from any dwelling.
 - 2) 250 feet from any public or private road abutting the perimeter of or bisecting the project.
(A 250 ft setback along a mile of road frontage is a loss of 30 acres of possibly productive ag land. Can crop production be encouraged within these sizable setbacks?)
 - 3) 500 feet from ordinary high water mark of any body of water listed in Section 10.1.2.
3. ~~No level 3 PV-S facility noise which,~~ Noise levels when measured at the Level 3 PV-S facility perimeter shall exceed 60 dBA. This requirement does not apply during periods of initial construction, routine equipment maintenance repair or replacement nor at the time of final decommissioning and reclamation.
4. ~~Landscaping:~~ Level 3 PV-S facilities abutting a public or private road or property line of an adjacent parcel shall comply with the following requirements:
 - a. Evergreen coniferous trees and/or a combination of trees and berms shall be the only acceptable means of screening wherever screening is required. Fencing is considered a security measure and cannot be considered as adequate screening for a Level 3 PV-S System.
 - b. Screening shall be required along any public or private road right of way and opposite any dwelling on the same or adjacent parcels unless the owner of the dwelling to be screened requests in writing otherwise.
 - c. Trees utilized as screening shall be chosen from *native* coniferous tree species.
 - d. Minimum height at time of planting requirements for trees utilized for screening are as follows:
 - 1) Trees planted opposite a dwelling shall be a minimum of eight (8) feet tall at time of planting. The tree height may be reduced by one foot for each one foot in the height of the berm on which it is planted, i.e., the total of the berm and tree height must be a minimum of eight (8) feet in height. The tree height at the time of planting shall not be allowed to be reduced below four (4) feet in height regardless of the berm height (see figure 2).
 - 2) Trees planted for screening along a road right of way not opposite a dwelling as in a) above shall have a minimum height at the time of planting of five (5) feet. *(Three different and mostly arbitrary sizes of trees?)*
 - 3) Trees shall be maintained in good condition for the life of the project.
5. ~~Electrical interconnections:~~ All electrical interconnections or distribution lines shall comply with all applicable codes and standards for commercial large scale electrical utilities. Only existing above ground transmission lines as well as above ground transmission lines from the ~~project generation station step-up transformer facility~~ *Generation-Step-Up Transformer Facility* to the point of interconnection with the high voltage transmission lines are permitted above ground. All other electrical interconnections shall be buried.
6. ~~Height Restriction:~~ Level 3 PV-S ~~solar collection~~ photovoltaic panels with their support structures shall not exceed 20 feet in height when oriented at maximum tilt. All other structures except those within the ~~generation station step-up transformer facility~~ *Generation-Step-Up Transformer Facility*

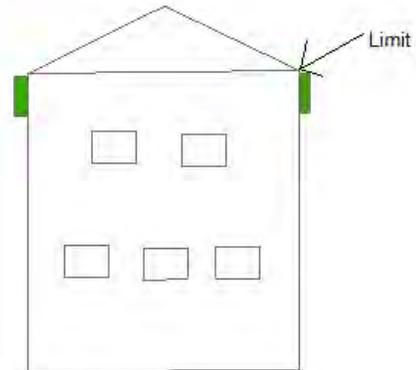
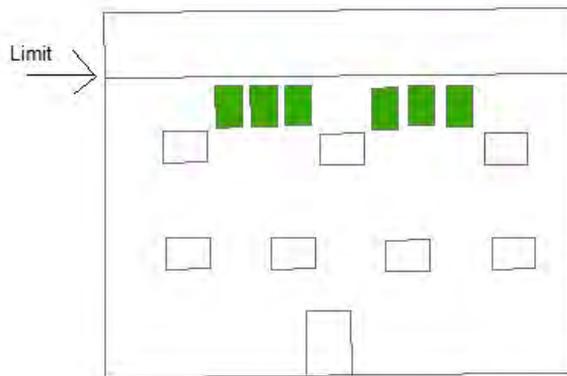
and associated transmission towers shall be limited to thirty five (35) feet. Equipment within the ~~generation station step up transformer station~~ *Generation-Step-Up Transformer Facility* shall be exempt from height restrictions.

7. ~~Performance Guarantees:~~ In connection with the approval of a Level 3 PV-S System the Planning Commission shall require the owner of the PV-S System to furnish the County with a performance guarantee in the form of a cash deposit, certified check, irrevocable letter of credit or surety bond acceptable to the County in an amount equal to the estimated costs associated with removal of the Level 3 PV-S facility. ~~Including~~ The removal is to included all photovoltaic panels, supporting structures, inverters, transformers and all associated equipment in accordance with the decommissioning plan in Section 17.30.3.3.m and restoration to the site to a useable condition.
8. Any Level 3 PV-S System that is not operated for a continuous period of twelve (12) months that shall be considered abandoned. ~~(Time period is possibly too short. Taxes would be due and payable even if equipment is moth-balled.)~~ That owner of any Level 3 PV-S System that is abandoned as provided herein or that is no longer voluntarily operated by the owner shall be removed from the property within ninety (90) days ~~(see earlier time comment)~~ of receipt of the notice from the Zoning Administrator of such abandonment or within ninety (90) days of the end of the operation under the terms and conditions of this subsection. Except as provided herein, the owner the Level 3 PV-S System shall remove ~~the Level 3 Level 3 PV-S System, including~~ all structures, equipment, components, and subsystems from the property, except underground cables buried at a depth greater than three (3) feet. Landscaping berms and trees, service roads and fencing, however, if requested by the ~~property~~ owner of the property on which the Level 3 PV-S System is located, shall be permitted to remain. The owner of the property may also request the ground surface not to be revegetated if agricultural planting is anticipated.

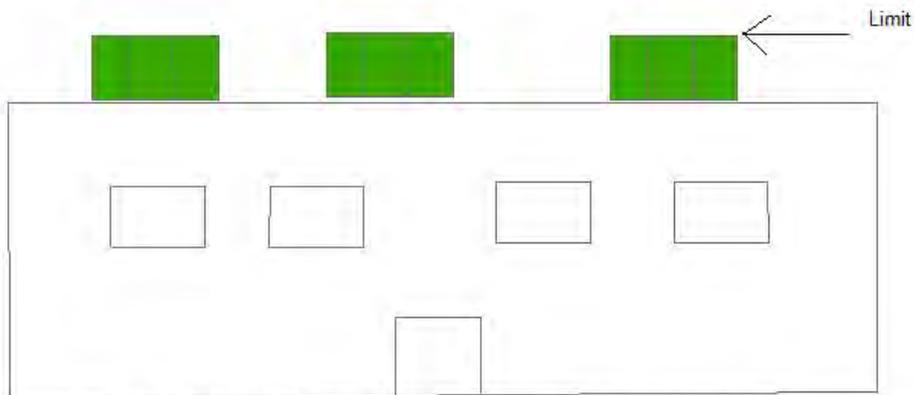
If the owner of the property on which the Level 3 PV-S System is located obtains zoning approval for a Level 2 PV-S System on the same property that incorporates a portion of the Level 3 PV-S System, then that portion of the Level 3 PV-S System that is incorporated into the approved Level 2 PV-S System may remain on the property as part of the approved Level 2 PV-S System and the landscaping berms and trees allowed to remain, the owner of the Level 3 PV-S System shall restore the property to its original condition prior to the construction of the Level 3 PV-S System, subject to reasonable wear and tear. Failure to remove the Level 3 PV-S System within the ninety (90) day period provided in this subsection shall be grounds for the County to remove the Level 3 PV-S System as provided herein at the expense of the owner of the Level 3 PV-S System. ~~(With a virtual zero chance this option will be used, this paragraph needs revision for clarity, or deletion.)~~



Roof mount not to exceed height of roof peak.

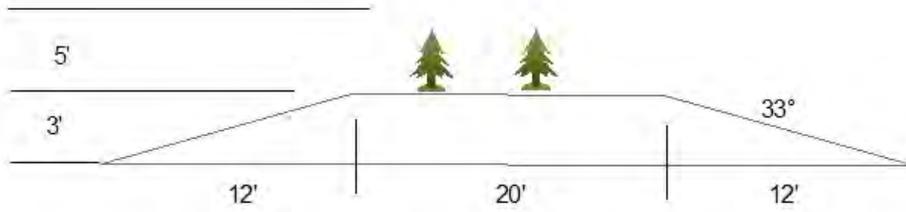


Wall mount not to exceed wall height.

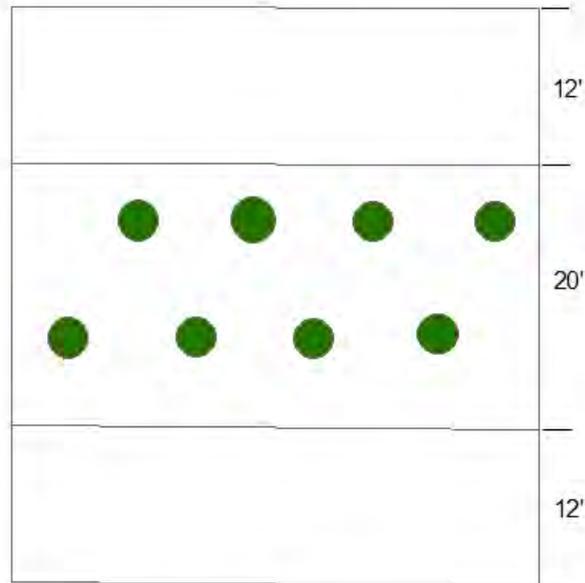


Flat Roof Mount not to exceed 10 feet above the roof or 35' above ground level, whichever is less.

Enclosure 1



Cross Section View



Top View

Enclosure 2

Data To Be Considered

This is not to be part of the regulation.

1. 15 Watts/sf = expected output currently for PV
2. 1 acre = 43560sf or approximately 208.71 feet x 208.71 feet

3. 43560 sf / acre x 15 watts/sf =653,400 watts/acre
4. A solar farm of 300 - 400 acres would produce approximately 196 - 261 MW.
5. 20 kW is a manufacturing standard for non-commercial systems. This equates to 1,333sf of solar collection surface (36.3' x 36.3')
6. 40 kW requires a 51.6 feet x 51.6 feet square of solar panel surface
7. 500 KW requires 33325sf or .765 acres of solar panel surface
8. Maximum solar efficiency output is 1000 watts per square meter at the equator at high noon.
9. Net Metering in Michigan Solar Integrated System
 - a. Net metering in Michigan allows installation of up to 20 kW of off-site electrical generation to continuously roll over any excess generation to the next month. Participation is limited to .75% of utilities peak demand of the prior year.
 - b. The net metering program ends June 1st, 2018. Continuation of the program, if it happens, may discount excess power which is fed back into the utility system to some wholesale rate toward the owner's bill.
 - c. Net metering sizing " the project must be sized small enough so that it is no larger than what is needed to meet a customer's energy needs "page 20 in Becoming A Solar Ready Community
10. It is anticipated that electric car batteries will be repurposed into systems for electrical storage in the future.
11. Current car batteries have a storage capacity of 60-160kv and it is anticipated they will have a capacity of 200kv in the near future.
12. Bodies of water listed in 10.1.2:

Black River (Lower)	Mullett Lake	Silver Lake (Koehler Township)
Cheboygan River	Kleber Pond	Silver Lake (Wilmot Township)
Indian River	Lake Huron	Tower Pond
Sturgeon River	Lake Rondo	Twin Lakes
Black Lake	Lancaster Lake	Vincent Lake
Burt Lake	Lance Lake	Wildwood Lake
Devereaux Lake	Long Lake	Woldan Pond
Douglas Lake	Paradise Lake	
Echo Lake	Reswell Lake	
Munro Lake	Roberts Lake	

13. Concerning Section 17.30.6.C.2.b.1), I still do not understand the rationale for the fence setback of 1 foot.
14. Concerning Section 17.30.6.C.3, I stand by my comments concerning noise regulations.
15. The amendatory ordinance must also contain the standard sections, which are the following:

Section 8. Severability.

If any section, clause, or provision of this Ordinance is declared unconstitutional or otherwise invalid by a court of competent jurisdiction, said declaration shall not affect the validity of the remainder of the Ordinance as a whole or any part thereof, other than the part so declared to be unconstitutional or invalid.

Section 9. Effective Date.

This Ordinance shall become effective eight (8) days after being published in a newspaper of general circulation within the County.

CHEBOYGAN COUNTY

By: _____
John B. Wallace

Its Chairperson

By: _____
Karen L. Brewster

Its: Clerk

If you would like to discuss any of my comments, please do not hesitate to contact me.

BEG

cc: Jeffery B. Lawson, Administrator (via email)