AGENDA
HAYES TOWNSHIP, CHARLEVOIX COUNTY
PLANNING COMMISSION
Special Meeting
January 28, 2025 7:00 pm
Hayes Township Hall
9195 Major Douglas Sloan Road
Charlevoix, Michigan 49720
ZOOM
https://us02web.zoom.us/j/83601481092?pwd=bTRvd01yc2NtSHY5MXkrZDUxVDMrZz09

Meeting ID: 836 0148 1092
Passcode: 068828

+1 312 626 6799 US (Chicago)

1. Call To Order
2. Pledge of Allegiance
3. Review and Approval of Agenda
4. Declaration of Conflict of Interest, if any
5. Public Comment
6. New Business
    - Legal review feedback workable renewable energy ordinances drafts
    - Site plan review - 6670 Peaceful Valley Lane
7. Old Business
8. Set/Confirm Public Hearing Dates
9. Set/Confirm Date of Next Regular PC Meeting- February 18, 2025
10. Public Comment
11. Planning Commission and Staff Comment
12. Adjournment

Public Comment at Meetings of the Hayes Township Planning Commission

The Hayes Township Planning Commission values public input and offers an opportunity for the public to comment at its meetings. This affords the Planning Commission the opportunity to hear your views and remarks. If you speak, you should not expect to engage the Planning Commission members or any staff in discussion or debate.

Planning Commission Members will not respond to comments made during the Public Comment unless it becomes necessary to ask a clarifying question, correct a factual error, or to provide specific factual information.

Questions about Township matters are best directed to individual Board members or Township staff (Planner, Zoning Administrator, or Assessor) between meetings. Contact information is available on the township website at: hayestownshipmi.gov.

The availability of public comment is recognized by the Michigan Open Meetings Act. The Act provides that rules may be adopted for orderly comment from the public. To that end, the following rules have been established by the Planning Commission:

1. A person who wishes to speak during Public Comment will sign in and signify that they would like to speak on the form.
2. The person will begin by stating their name, spelling it out if requested.
3. The person addresses the Chairperson, or other person chairing the meeting, on behalf of the entire Planning Commission. Public comment is NOT to be addressed to individual Planning Commission members, to any township staff present, or to other members of the audience.
4. For the first Public Comment period, there is a three (3) minute time allotment for each speaker. The time limit may be extended by the Chairperson or majority of the Planning Commission members present. If a speaker uses less than three (3) minutes, they may not use the remaining time at that Public Comment. A speaker may speak only once at Public Comment. There is no provision for another audience member to 'donate' their three (3) minutes to another speaker. For the second Public Comment session speakers are limited to two (2) minute each.
5. A speaker will be out of order if the speaker disrupts the meeting, fails to be germane, speaks longer than the allotted time, uses vulgarities or makes a personal attack on a Planning Commission member or Township employee that is unrelated to the performance of that person's duties.
6. If a speaker is called out of order, that speaker will not be able to speak again at the same meeting except by special leave of the Planning Commission. If the speaker continues to disrupt the meeting or is disorderly, law enforcement will be called to remove the speaker.
7. The Chairperson, or other person chairing the meeting, will have the discretion to permit members to speak at times other than the times reserved for Public Comment.

_HAYES TOWNSHIP

COUNTY OF Charlevoix, STATE OF MICHIGAN

ORDINANCE NO. 6.2

ADOPTED: _____

EFFECTIVE: _____

SAMPLE BATTERY ENERGY STORAGE SYSTEM ORDINANCE

This Ordinance is to establish minimum requirements and regulations for the construction, erection, placement, location, maintenance, modification, operation, and decommissioning of Battery Energy Storage Systems in the Township in a manner that promotes economic development and ensures the protection of health, safety, and welfare while also avoiding adverse impacts to important areas such as agricultural lands, residential areas, endangered species habitats, conservation lands, and other sensitive lands.

_HAYES TOWNSHIP, CHARLEVOIX COUNTY

ORDAINS:

SECTION I
DEFINITIONS ADDED TO SECTION XX

The following definitions shall be added to ~~Section XX~~ Article 2.02 of the Township Zoning Ordinance, and shall be inserted into said Zoning Ordinance so that all definitions are in alphabetical order:

Battery Energy Storage System: One or more devices, assembled together, capable of storing energy in order to supply electrical energy at a future time, not to include a stand-alone 12-volt car battery, an electric motor vehicle, or small store-bought batteries designed and used purely for household electronic items.

Battery Energy Storage System, On-Site: a Battery Energy Storage System that is an accessory use that is intended to primarily serve the needs of the consumer on-site.

Battery Energy Storage System, Small Off-Site: A Battery Energy Storage System that is a principal use (or co-located with a second principal use) and that is designed and built to connect into the distribution or transmission grid with a nameplate capacity less than 50 megawatts.

Battery Energy Storage System, Large Off-Site: A Battery Energy Storage System (BESS) that is a principal use (or co-located with a second principal use) and that is designed and built to connect to the transmission grid with a nameplate capacity of 50 megawatts or more.

Non-Participating Property: Any property that is adjacent to a participating property, but is not part of the battery storage project.

Participating Property: A battery energy storage system host property or any real property that is the subject of an agreement that provides for the payment of monetary compensation to the landowner from the system owner (or affiliate) regardless of whether any part of a system is constructed on the property.

SECTION II
ADD A NEW SECTION XX, TITLED "OFF-SITE BATTERY ENERGY STORAGE SYSTEM REGULATIONS"

A new Section ~~XX~~, 6.2 titled "Off-Site Battery Energy Storage Systems" is hereby added to the Township Zoning Ordinance to read as follows:

Section ~~XX~~ 6.2 Off-Site Battery Energy Storage Systems.

The following requirements shall apply to all off-site battery energy storage systems:

1. Site Selection. In the "AG" Agricultural Preservation District ("Agricultural"), this land use shall not unreasonably diminish farmland, including, but not limited to, prime farmland and, to the extent that evidence of such farmland is available in the evidentiary record, farmland dedicated to the cultivation of specialty crops.

2. Battery Energy Storage Systems, Small Off-Site shall be allowed as a special land use in the following zoning districts:

   A. Agricultural
   B. Industrial
   C. Rural Residential when co-located with a Principal Use Solar Energy System Special Land Use
   D. Commercial C1 and C2

3. Battery Energy Storage Systems, Large Off-Site shall be allowed as a special land use in the following zoning districts:

   A. Agricultural
   B. Industrial
   C. Rural Residential when co-located with a Principal Use Solar Energy System Special Land Use
   D. Commercial C1 and C2

4. The following minimum setbacks shall be required. Setbacks are measured from the nearest facility structure to the nearest point on the associated item:

   A. 100 feet from any property line of a non-participating property

B. 300 feet from the nearest point on the outer wall of a dwelling on nonparticipating property

C. 50 feet measured from the nearest edge of a public road right-of-way.(Todd, a question was raised on the distance for setbacks over concern regarding the potential of battery explosions. We need to find an expert opinion on this issue.)

ok I will look. MTA may be able to help.

5. Height. The height of battery energy storage system structures, except for electric distribution and transmission poles, shall not exceed a height of twenty (20) feet as measured from the natural grade of the property beneath the structure. Stacking of battery storage system components is prohibited.

6. Fencing. The system shall be completely enclosed with fencing in compliance with the latest version of the National Electrical Safety Code or any applicable successor standard approved by the Michigan Public Service Commission.

7. Sound. The system may not generate a maximum sound in excess of 55 average hourly decibels as measured at the property line of an adjacent non-participating property. Decibel modeling shall use the A- weighted scale designed by the American National Standards Institute. The Planning Commission may require the applicant to provide a sound study as part of the special land use review process

8. Lighting. The system must implement dark sky-friendly lighting solutions.(should we reference sec 3.20 lighting?)

Yes. →

9. Impacts of Battery Energy Storage System, Small Off-Site and Battery Energy Storage System, Large Off-Site.

A. The following requirements shall apply to the entire system, or to designated components of the system, as indicated:

i. Safety Signage. The system shall post signs in compliance with NFPA 70/70E or any applicable successor code in place at the time of application for approval. Additionally, signage shall be provided per NFPA 855 7.4.4, or any applicable successor code in place at the time of application for approval, including information on the system type and technology, special hazards, fire suppression system and 24-hour emergency contact information, including reach-back phone number. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

ii. Other Signage: Additional signage may be permitted or required by the Planning Commission as is necessary to ensure the safe operation of the system.

iii. The facility shall comply with NFPA 855 "Standard for the Installation of Stationary Energy Storage Systems", or any applicable successor standard adopted by the Michigan Public Service Commission.

B. The Planning Commission shall require reasonable measures to minimize visual impacts by preserving existing natural vegetation, requiring new vegetative screening or other appropriate measures. The Planning Commission shall determine such visual screening measures as may be required, if any, on a site- specific basis pursuant to the standards for special land use approval as specified in Articles _3.24__ and ___ and/or the standards for site plan approval as specified in Article _5_ of this Ordinance, as most applicable to the circumstances. In making this determination the Planning Commission is specifically authorized to consider whether additional visual screening measures are appropriate where a system is proposed to be located on property adjacent to a residential use and/or a residential district zoning classification. All screening/landscaping shall be properly maintained throughout the life of the project including replacement of any dead landscaping within six months.

OR: See

C. If the system includes an access drive(s) for maintenance purposes, the surface of the access drive(s) shall be permeable (unless on brownfield land or on an already paved surface at the time of application for approval, such as a parking lot or former building foundation.)

D. Except as otherwise depicted on and subject to approval of the Planning Commission, the area within which the system is located shall not be paved with asphalt/concrete or any other surface material that is impermeable to water other than for slab foundations for structures and equipment. This shall not apply to a system located on brownfield land or on an existing paved area such as a former building slab or in an unused parking area when adequate parking remains for all other uses on the site.

E. All surface water runoff created by construction and operation of the project shall be effectively managed on-site.

10. Installation and Operational Safety. The system shall comply with all of the following requirements:

A. The system shall be designed and constructed for interconnection to a Michigan Public Service Commission or Midcontinent Independent System Operator regulated utility electrical power grid and shall be operated with such interconnection.

B. The system and all foundation elements shall comply with all applicable building and electrical code requirements, and any applicable federal/state

regulations. The manufacturer's engineer or another qualified engineer shall provide written certification that the design, installation (including foundations), and interconnection is compliant with the manufacturer and industry standards, all applicable local construction and electrical codes, and any applicable federal/state regulations.

C. Other than transmission or distribution lines for interconnection to the electric power grid, all electrical wiring shall be buried underground; except where the manufacturer's engineer or a qualified engineer employed by the utility that owns/operates the electrical power grid to which the system shall be interconnected certifies an underground wiring installation is not permitted by an applicable code and/or applicable federal/state regulation, with attached complete documentation supporting any such certification.

D. The system shall be designed, located, and maintained so as to comply with all applicable codes and regulations.

11. Public Safety: The Emergency Response Plan and Fire Response Plan shall provide reasonable protection of the public health, welfare and safety including but not limited to an emergency shutdown procedure, safety plans to include electrical, fire, smoke, and hazardous materials release, emergency response protocols and identification of typical hazards related to, electrical, fire, smoke and hazardous materials pertinent to the facility. Upon request, all systems shall provide first responder training at the site.

12. Repair and Augmentation. In addition to repairing or replacing facility components to maintain the system, the facility may at any time be augmented without the need to submit a new site plan so long as the augmentation is within the same footprint (e.g., same dedicated use building or on footings/foundations in the same location) as the original permit. If there is a change in the battery chemistry, an updated Hazard Mitigation Analysis and Emergency Operation Plan shall be provided. When a facility is anticipated to be augmented over its lifetime by adding additional components, the applicant should apply for the final/augmented site arrangement. A proposal to increase the size the project footprint shall be considered a new application, subject to the ordinance standards at the time of the request.

13. Decommissioning and Removal.

A decommissioning plan, including a decommissioning agreement acceptable to the Township Attorney, is required at the time of application and shall be in recordable form.

A. The decommission plan shall include:

i. The anticipated manner in which the project will be decommissioned, including a description of which above-grade and below-grade

improvements will be removed, retained (e.g., access drive, fencing), or restored for viable reuse of the property consistent with the zoning district. Pursuant to this requirement, the decommissioning plan shall be required to include that any structures up to forty-eight (48) inches below-grade shall be removed for disposal.

ii. The projected decommissioning costs shall reflect the actual cost of decommissioning the project. Salvage value shall not be included in the cost to decommission the project.

iii. Prior to any construction, the method of ensuring that funds will be available for site decommissioning and stabilization (in the form of surety bond or cash deposit).

B. A review of the amount of the surety bond, based on inflation, and current removal costs shall be completed every 2 years, for the life of the project, and approved by the Planning Commission. A Principal-Use Solar Energy System owner may at any time:

i. Proceed with the decommissioning plan approved by the Planning Commission, and remove the system as indicated in the most recent approved plan; or

ii. Amend the decommissioning plan with Planning Commission approval and proceed according to the revised plan.

C. Decommissioning of a Principal-Use Solar Energy System must commence when the soil is dry to prevent soil compaction and must be complete within 18 months after abandonment. A SES that has not produced electrical energy for 12 consecutive months shall prompt an abandonment hearing.

i. Restoration shall include bringing soil and topography of the land to their pre-development composition to ensure permitted uses upon restoration. Soil tests shall be required as part of the decommissioning plan both before development and prior to the decommissioning.

14. Special Land Use Permit and Site Plan Application Requirements. Applications for special land use permit approval shall comply with Articles V__ and _VI_ of this Ordinance. A formal application for site plan approval for this land use shall comply with Section _9.02__ of this Ordinance. An incomplete application will not be accepted. Each such application shall also be subject to the following additional submission requirements:

A. The complete name, address, and telephone number of the applicant.

B. The planned date for the start of construction and the expected duration of construction.

C. A description of the system, including a site plan as described in Section 224 of the Clean and Renewable Energy Waste Reduction Act, 2008 PA 295, MCL 460.1224. The following items must be shown on the site plan:

i. A map of all properties upon which any component of a facility or ancillary feature would be located, and all properties within one thousand (1,000) feet. This should indicate the location of all existing structures and shall identify such structures as occupied or vacant.

ii. Lot lines and required setbacks shown and dimensioned including horizontal and vertical elevation drawings that show the location and height of the Battery Energy Storage System on the land and dimensions of the Battery Energy Storage System.

iii. Size and location of existing and proposed water utilities, including any proposed connections to public, or private community sewer or water supply systems.

iv. A map of any existing overhead and underground major facilities for electric, gas, telecommunications transmission within the facility and surrounding area

v. The location and size of all surface water drainage facilities, including source, volume expected, route, and course to final destination.

vi. A map depicting the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, and the projected sound isolines along with the modeled sound isolines including the statutory limit

D. A description of the expected use of the system.

E. Expected public benefits of the proposed system.

F. The expected direct impacts of the proposed system on the environment and natural resources and how the applicant intends to address and mitigate these impacts.

G. Information on the effects of the proposed system on public health and safety.

H. A description of the portion of the community where the system will be located.

I. A statement and reasonable evidence that the proposed system will not commence commercial operation until it complies with applicable state and federal environmental laws, including, but not limited to, the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.

J. Evidence of consultation, before submission of the application, with the Department of Environment, Great Lakes, and Energy and other relevant state and federal agencies before submitting the application, including, but not limited to, the Department of Natural Resources and the Department of Agriculture and Rural Development.

K. The Soil and Economic Survey Report under Section 60303 of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.60303, for the county where the proposed system will be located.

L. Interconnection queue information for the applicable regional transmission organization.

M. If the proposed site of the system is undeveloped land, a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen.

N. If the system is reasonably expected to have an impact on television signals, microwave signals, agricultural global position systems, military defense radar, radio reception, or weather and doppler radio, a plan to minimize and mitigate that impact. Information in the plan concerning military defense radar is exempt from disclosure under the Freedom of Information Act, 1976 PA 442, MCL 15.231 to 15.246, and shall not be disclosed by the commission or the electric provider or independent power producer except pursuant to court order.

O. A stormwater assessment and a plan to minimize, mitigate, and repair any drainage impacts at the expense of the applicant. The applicant shall make reasonable efforts to consult with the county drain commissioner before submitting the application and shall include evidence of those efforts in its application.

P. A fire response plan and an emergency response plan.

i. The fire response plan (FRP) shall include:

1. Evidence of consultation or a good faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department representatives is not possible, provide evidence of consultation or a good faith effort to consult with the State Fire Marshal or other local emergency manager.

2. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.

3. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.

4. A commitment to review and update the FRP with fire departments, first responders, and county emergency managers at least once every three (3) years.

5. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.

6. Other information the applicants finds relevant.

ii. The emergency response plan (ERP) shall include:

1. Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, etc.

2. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate fire response plan);

3. Emergency response measures by contingency;

4. Evacuation control measures by contingency;

5. Community notification procedures by contingency;

6. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles;

7. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years;

8. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity; and

9. Other information the applicants finds relevant.

Q. A report detailing the sound modeling results along with mitigation plans to ensure that sound emitted from the system will remain below the statutory limit throughout the operational life of the system.

R. Any other information regarding compliance with the requirements herein.

15. Waiver. Because of the ever-changing technical capabilities of battery storage infrastructure and of new technology in general, the Township Planning Commission shall have the authority to review and consider alternatives in both the dimensional and physical requirements contained in this ordinance as part of the special land use review process, and other requirements.

16. Building Permit. Prior to issuance of a Building Permit, the following information shall be provided.

A. Equipment specification sheets.

B. Identification and contact information for the installer(s) of the proposed system.

C. Augmentation Plan.

D. Approved Decommissioning Plan and Decommissioning Agreement.

E. Life expectancy of the system components including the anticipated schedule for battery replacement to maintain megawatts over the system's lifetime.

F. Hazard Mitigation Analysis.

G. Operation and Maintenance Manual.

H. Identification and contact information for the installer of the system.

I. Electrical schematic plan for the system, including disconnect devices.

J. An Approved FRP and ERP.

K. An executed Community Host Agreement in the amount of $__TBD by BOT_____ per megawatt.

L. Proof of financial guarantee for decommissioning.

16. Transfers. No transfer in ownership of the SES shall occur prior to providing 60 days' notice to the Township and upon Township approval verifying that the new

owner agrees to carry out the terms of the special land use and site plan approval.

SECTION IV
ADD A NEW SECTION ~~XX~~ 6.2.1, TITLED "ON-SITE BATTERY ENERGY STORAGE SYSTEM REGULATIONS"

A new Section ~~XX~~ 6.2.1, entitled "On-Site Battery Energy Storage Systems" is added to the Township Zoning Ordinance to read as follows:

Section ~~XX~~ On-Site Battery Energy Storage Systems.

1. On-Site Battery Energy Storage Systems shall be allowed as a permitted use in all zoning districts, subject to the provisions of this Zoning Ordinance. (should we edit this to match A, C1, C2, I and RR as previously stated)

2. A building permit shall be required for all on-site battery energy storage systems.

3. On-Site battery energy storage with an aggregate energy capacity of more than 1 megawatt are subject to additional regulations in the applicable fire code, and required documentation shall be submitted along with the building/electrical permit applications.

4. Coverage. Lot coverage shall not exceed the otherwise permissible percentage of lot coverage for buildings in the applicable district, as specified in Article XX.

5. Setbacks. All battery energy storage system structures and related structural apparatus not physically attached to a building shall satisfy the setback requirements in the applicable district, as specified in Article XX or the specific Section for such district, as applicable.

SECTION V
AMEND SECTIONS ~~XX~~ AND ~~XX~~ CONCERNING RESIDENTIAL DISTRICTS

Sections 4.04 ~~and 4.12~~ of the Township Zoning Ordinance ~~are~~ is amended to add the following use as a permitted use in the RR~~-1 Low Density~~ Rural Residential District, ~~the R-2 Medium Density Residential District, and the R-3 High Density Residential District respectively:~~

- On-Site Battery Energy Storage System.

SECTION VI
AMEND SECTION ~~XX~~ 4.12 CONCERNING INDUSTRIAL DISTRICTS

Section ~~XX~~ 4.03 of the Township Zoning Ordinance is amended to add the following use as a permitted use in the I-R Restricted Industrial Zoning District:

- On-Site Battery Energy Storage System.

SECTION VII
AMEND SECTIONS ~~XX~~ 4.10AND ~~XX~~ 4.11 CONCERNING COMMERCIAL DISTRICTS

Sections XX and XX of the Township Zoning Ordinance are amended to add the following use as a permitted use in the C-2 ~~Bay~~ General Commercial Zoning District and the C-1 Neighborhood Commercial ~~Overlay~~ District respectively:

- On-Site Battery Energy Storage System.

SECTION VIII
AMEND SECTION ~~XX~~ 4..03 CONCERNING THE AGRICULTURAL DISTRICT

Section ~~XX~~ 4.03 of the Township Zoning Ordinance is amended to add the following use as a permitted use in the A~~G~~ Agricultural ~~Preservation~~ Zoning District:

- On-Site Battery Energy Storage System.

SECTION ~~IV~~ IX
AMEND SECTION XX CONCERNING THE AGRICULTURAL DISTRICT

Section ~~XX~~ 4.03 of the Township Zoning Ordinance is amended to add the following use as a special land use in the AG Agricultural ~~Preservation~~ Zoning District:

- Battery Energy Storage System, Large Off-Site.
- Battery Energy Storage System, Small Off-Site.

SECTION X
AMEND SECTION ~~XX~~ 4.12 CONCERNING THE INDUSTRIAL DISTRICT

Section ~~XX~~ 4.12 of the Township Zoning Ordinance is amended to add the following use as a special land use in the I-R ~~Restricted~~ Industrial Zoning District:

- Battery Energy Storage System, Large Off-Site.
- Battery Energy Storage System, Small Off-Site.

SECTION XI
AMEND SECTION ~~XX~~ 4.04 CONCERNING THE RURAL RESIDENTIAL DISTRICT

Section ~~XX~~. 4.04 of the Township Zoning Ordinance is amended to add the following use as

a special land use in the Rural Residential Zoning District:

- Battery Energy Storage System, Large Off-Site when co-located with a Principal Use Solar Energy System Special Land Use.
- Battery Energy Storage System, Small Off-Site when co-located with a Principal Use Solar Energy System Special Land Use.

SECTION XII
SEVERABILITY

The provisions of this ordinance are hereby declared to be severable and if any clause, sentence, word, section or provision is hereafter declared void or unenforceable for any reason by a court of competent jurisdiction, it shall not affect the remainder of such ordinance which shall continue in full force and effect.

SECTION XIII
REPEALER AND EFFECTIVE DATE

All ordinances or parts of ordinances in conflict herewith are hereby repealed. This ordinance shall take effect 8 days after publication, after adoption, as required by law.
~~(Todd please check this langaige for the correct and consistent form)~~

Clerk_____
Township_____

ii. An identification of contingencies that would constitute a safety or security emergency (fire emergencies are to be addressed in a separate fire response plan);

iii. Emergency response measures by contingency;

iv. Evacuation control measures by contingency;

v. Community notification procedures by contingency;

vi. An identification of potential approach and departure routes to and from the facility site for police, fire, ambulance, and other emergency vehicles;

vii. A commitment to review and update the ERP with fire departments, first responders, and county emergency managers at least once every three (3) years;

viii. An analysis of whether plans to be implemented in response to an emergency can be fulfilled by existing local emergency response capacity, and identification of any specific equipment or training deficiencies in local emergency response capacity; and

ix. Other information the applicants finds relevant.

Q. A report detailing the sound modeling results along with mitigation plans to ensure that sound emitted from the facilities will remain below the statutory limit throughout the operational life of the facilities.

R. Any other information regarding compliance with the requirements herein.

May want to say Comply with this + 3.16, whichever is more restrictive.

3. **Fencing:** A large principal-use SES shall be secured with perimeter fencing to restrict unauthorized access. Perimeter fencing shall be seven (7) feet in height. All access doors to principal-use SES and related components and structures shall be locked to prevent entry by unauthorized persons. Fencing is not subject to setbacks as a component of the principal-use SES. The Planning Commission may require wildlife-friendly fencing with openings that allow wildlife to traverse over or through a fenced area or Knox boxes and keys for emergency personnel access. (Todd please see 3.16, fencing in our current ordinance. This may not be an issue as we are dealing with SUP criteria here.)

5. **Screening/Landscaping:** The Planning Commission shall require reasonable measures to minimize visual impacts by preserving existing natural vegetation, requiring new vegetative screening or other appropriate measures. The Planning Commission shall determine such visual screening measures as may be required on a site- specific basis pursuant to the standards for Special ~~Exceptions~~ Use Permits ~~(or "Special land use")~~ approval as specified in ~~Section~~ Article 6, the landscaping and screening standards of Section

3.24_and/or the standards for site plan approval as specified in Section 5.03.5 of this Ordinance, as most applicable to the circumstances. In making this determination the Planning Commission is specifically authorized to consider whether additional visual screening measures are appropriate where a system is proposed to be located on property adjacent to a residential use and/or a residential district zoning classification. All screening/landscaping shall be properly maintained throughout the life of the project including replacement of any dead landscaping within six months.

6. **Ground Cover:** A large principal-use SES shall include the installation of ground cover vegetation maintained for the duration of operation until the site is decommissioned. The applicant shall include a ground cover vegetation establishment and management plan as part of the site plan. Vegetation establishment must include invasive plant species (and noxious weed if local regulation applies) control. The following standards apply:

A. Ground cover at sites not enrolled in PA 116 shall be accomplished through a Dual Use, as defined in this ordinance.

B. Project sites that are included in a brownfield plan adopted under the Brownfield Redevelopment Financing Act, PA 381 of 1996, as amended, that contain impervious surface at the time of construction or soils that cannot be disturbed, are exempt from ground cover requirements.

7. **Lot Coverage:** A large principal-use SES shall not count towards the maximum lot coverage or impervious surface standards for the district.

8. **Land Clearing:** Land disturbance or clearing shall be limited to what is minimally necessary for the installation and operation of the system and to ensure sufficient all-season access to the solar resource given the topography of the land. Topsoil disturbed during site preparation (grading) on the property shall be retained on site.

9. **Environmental Impact**: The Planning Commission shall review potential impacts on wildlife, water, and other environmental factors present on the site and may impose additional requirements to preserve and protect endangered species or prevent negative impacts to adjacent parcels, including but not limited to requirements of EGLE and/or US Fish and Wildlife Service. All surface water runoff shall be effectively managed on-site.

10. **Access Drives:** New access drives within the SES shall be designed to minimize the extent of soil disturbance, water runoff, and soil compaction on the premises. The use of geotextile fabrics and gravel placed on the surface of the existing soil for the construction of temporary drives during the construction of the SES is permitted, provided that the geotextile fabrics and gravel are removed once the SES is in operation or completion of construction whichever occurs first.

11. **Wiring:** SES wiring (including communication lines) shall be buried underground where practicable. Any above-ground wiring within the footprint of the SES shall be installed in accordance with all applicable codes and regulations.

12. **Lighting:** Principal-use SES lighting shall be limited to inverter locations only. Light fixtures shall have downlit shielding and be placed to keep light on-site and glare away from adjacent properties, bodies of water, and adjacent roadways. Flashing or intermittent lights are prohibited. (should we reference sec. 3.20 lighting?) Dark- Sky lighting

13. **Glare**: All solar energy system location/tilt components shall be designed, maintained and operated to avoid glare and reflection of sunlight and other artificial lighting which may affect adjacent properties, navigation by air, water, and roadway. Solar energy system designs shall comply with all Federal Aviation Administration siting requirements.

14. **Public Safety:** The ERP and FRP shall provide reasonable protection of the public health, welfare and safety including but not limited to an emergency shutdown procedure in place and safety plans to include electrical, fire, smoke, and hazardous materials release, emergency response protocols and identification of typical hazards related to, electrical, fire, smoke and hazardous materials pertinent to the facility. Upon request, all principal-use SES facilities shall provide first responder training at the site.

15. **Signage:** An area up to 120 square feet may be used for signage at the project site. Any signage shall meet the setback, illumination, and materials/ construction requirements of the zoning district for the project site. (we need to be able to decide if more than 120 is needed given the unique characteristics of a proposed site, if 120 is a cumulative limit)

5. 16. **Sound:** The sound pressure level of a large principal-use SES and all ancillary solar equipment shall not exceed 55 dBA (Leq (1-hour)) at the property line of an adjoining non-participating lot. The site plan shall include modeled sound isolines extending from the sound source to the property lines to demonstrate compliance with this standard. Decibel modeling shall use the A- weighted scale designed by the American National Standards Institute. The Planning Commission may require the applicant to provide a sound study as part of the special land use review process. (note: format changed when I cut/pasted from battery storage ordinance

17. **Repowering:** In addition to repairing or replacing SES components to maintain the system, a principal-use SES may at any time be repowered, without the need to apply for a new special land use permit, by reconfiguring, renovating, or replacing the SES to increase the power rating within the existing project footprint. A proposal to change the project footprint of an existing SES shall be considered a new application, subject to the site plan application requirements and review procedure contained in the Township Zoning Ordinance and in effect at the time of the request. Legal services and other studies resulting from an application to modify an SES will be reimbursed to the Township by the SES owner in compliance with established escrow policy to alter the footprint of the SES.

18. **Decommissioning:** A decommissioning plan is required at the time of application. An approved decommissioning plan shall be put into a recordable decommissioning agreement acceptable to the township attorney.

A. The decommission plan shall include:

___Hayes_____ TOWNSHIP

COUNTY OF Charlevoix, STATE OF MICHIGAN

ORDINANCE NO. __6.1___

ADOPTED: ____tbd_____

EFFECTIVE: ___tbd_____

SAMPLE - AN ORDINANCE TO AMEND THE ___Hayes TOWNSHIP ZONING ORDINANCE TO PROVIDE ZONING REGULATIONS FOR SOLAR ENERGY SYSTEMS WITHIN THE TOWNSHIP.

____Hayes_ TOWNSHIP, ___Charlevoix__COUNTY, MICHIGAN, ORDAINS:

SECTION 1: AMENDMENT TO ~~SECTION~~ Article 2 OF THE TOWNSHIP ZONING ORDINANCE.

Section 2.02 of the _Hayes Township Zoning Ordinance is hereby amended to add new definitions, in alphabetical order, related to solar energy systems to read as follows:

Accessory System: A solar energy system that is an accessory to the primary use of a property, such as a residence or a commercial building, and that provides electricity intended for use by a primary structure located on the same parcel as the SES. Accessory systems can range in size and configuration. They typically range from being small enough to power an exterior light fixture to being large enough to power electricity for multiple buildings, for instance livestock or equipment barns. Accessory systems can be affixed to the roof or wall of a building or can be freestanding, ground-mounted structures.

Accessory Ground-Mounted Solar Energy System: A ground-mounted Accessory System.

Building-Integrated Solar Energy System: A solar energy system that is an integral part of a primary or accessory building or structure (rather than a separate mechanical device), replacing or substituting for an architectural or structural component of the building or structure. Building-integrated systems include, but are not limited to, photovoltaic or hot water solar energy systems that are contained within roofing materials, windows, skylights, and awnings.

Dual Use: A solar energy system that employs one or more of the following land management and conservation practices throughout the project site:

- **Pollinator Habitat:** Solar sites designed to meet a score of 76 or more on the Michigan Pollinator Habitat Planning Scorecard for Solar Sites.

- **Conservation Cover:** Solar sites designed in consultation with conservation organizations that focus on restoring native plants, grasses, and prairie with the aim of protecting specific species (e.g., bird habitat) or providing specific ecosystem services (e.g., carbon sequestration, soil health).

- **Forage:** Solar sites that incorporate rotational livestock grazing and forage production as part of an overall vegetative maintenance plan.

- **Agrivoltaics:** Solar sites that combine raising crops for food, fiber, or fuel, and generating electricity within the project area to maximize land use.

Ground-Mounted Solar Energy System: A solar energy system mounted on support posts, like a rack or pole, that are attached to or rest on the ground.

Invasive Plant: Non-native (or alien) to the ecosystem under consideration and whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

Kilowatt (KW): A unit of electrical power equal to one thousand (1,000) watts.

Maximum Tilt: The maximum angle of a solar array (i.e., most vertical position) for capturing solar radiation as compared to the horizon line.

Megawatt (MW): A unit of electrical power equal to one million (1,000,000) watts.

Minimum Tilt: The minimal angle of a solar array (i.e., most horizontal position) for capturing solar radiation as compared to the horizon line.

Nameplate Capacity: means the designed full-load sustained generating output of a solar energy system. Nameplate capacity shall be determined by reference to the sustained output of a solar energy system even if components of the system are located on different lots, whether contiguous or noncontiguous.

Non-Participating Lot(s): One or more lots for which there is not a signed lease or easement for development of a principal-use SES associated with the applicant project.

Participating Lot(s): One or more lots under a signed lease or easement for development of a principal-use SES associated with the applicant project.

Photovoltaic (PV) System: A semiconductor material that generates electricity from sunlight.

Principal-Use Solar Energy System: A ground-mounted solar energy system that captures and converts solar energy into electricity, for the purpose of sale or for use in locations other than solely the solar energy system property, and with a nameplate capacity of 50 megawatts or more. A principal-use solar energy system may be located on more than 1 parcel of property, including noncontiguous parcels, but shares a single point of interconnection to the grid. Principal-use solar energy systems with a nameplate capacity

of less than 50 megawatts are not permitted. (does this mean a multi parcel project would need a network to a single point for connection to grid?

Repowering: Reconfiguring, renovating, or replacing an SES to maintain or increase the power rating of the SES within the existing project footprint.

Roof-Mounted Solar Energy System: A solar energy system mounted on racking that is attached to or ballasted on the roof of a building or structure.

Solar Array: A photovoltaic panel or collection of panels and/or collectors in a solar energy system that collects solar radiation.

Solar Carport: A solar energy system of any size that is installed on a structure that is accessory to a parking area, and which may include electric vehicle supply equipment or energy storage facilities. Solar panels affixed on the roof of an existing carport structure are considered a Roof-Mounted SES.

Solar Energy System (SES): A photovoltaic system for generating electricity, including all above and below ground equipment or components required for the system to operate properly and to be secured to a roof surface, the ground or building integrated. This includes any necessary operations and maintenance building(s), but does not include any temporary construction offices, substation(s) or other transmission facilities between the SES and the point of interconnection to the electric grid.

Wildlife-Friendly Fencing: A fencing system with openings that allow wildlife to traverse over or through a fenced area.

SECTION 2: AMENDMENT TO SECTION VII ~~"SUPPLEMENTARY REGULATIONS"~~ Supplimental Site Development Standards TO ADD NEW SECTION __~~VII~~ TO PROVIDE GENERAL SOLAR ZONING REQUIREMENTS

~~Section~~ _VII ~~"Supplementary Regulations"~~Supplimental Site Development Standards of the _Hayes Township Zoning Ordinance is hereby amended by adding a Section 7.01.22 titled "Solar Energy Systems General Provisions" to read as follows:

GENERAL PROVISONS

Roof-Mounted SES, Accessory Ground-Mounted SES, and Building-Integrated SES are a permitted use by right in all zoning districts where structures of any sort are allowed, and shall meet the following requirements:

A. ROOF-MOUNTED SES

1. **Height:** Roof-Mounted SES shall not exceed 1 foot above the finished roof and are exempt from any rooftop equipment or mechanical system screening.

2. **Application:** All SES applications must include site plan. Applications for Roof-Mounted SES must include horizontal and vertical elevation drawings that show the location and height of the SES on the building and dimensions of the SES.

B. ACCESSORY GROUND-MOUNTED SES

1. **Height:** Ground-Mounted SES shall not exceed 16 feet measured from the ground to the top of the system when oriented at maximum tilt.

2. **Setbacks:** A Ground-Mounted SES must comply with the zoning districts setbacks for structures. Setback distance is measured from the property line to the closest point of the SES at minimum tilt.

3. **Lot Coverage:** The area of the solar array shall not exceed the lot coverage restrictions for accessory structures within the zoning district.

4. **Visibility (Residential):** A Ground-Mounted SES in residential districts shall be located in the side or rear yard to minimize visual impacts from the right-of-way(s).

5. **Application:** All SES applications must include a site plan. Applications for Ground Mounted SES must include drawings that show the location of the system on the property, height, tilt features (if applicable), the primary structure, accessory structures, and setbacks to property lines. Accessory use applications that meet the ordinance requirements shall be granted administrative approval.

C. BUILDING-INTEGRATED SES

1. Building-Integrated SES are subject only to zoning regulations applicable to the structure or building and not subject to accessory ground or roof-mounted SES permits.

Article VII

SECTION 3: AMENDMENT TO ~~SECTION 7~~ OF THE Hayes TOWNSHIP ZONING ORDINANCE TO ADD A NEW SUBSECTION ___ TO PROVIDE STANDARDS FOR PRINCIPAL-USE SOLAR ENERGY SYSTEMS AS A SPECIAL ~~EXCEPTION~~ USE Permit

Section 7.01.22 "Standards Required of Special ~~Exception~~ Use Permits" of the _HayesTownship Zoning Ordinance is hereby amended by adding a subsection ____ titled "Principal-Use SES" to read as follows:

Subsection ___ PRINCIPAL-USE SES:

A principal-use SES is a special exception use in the "A-Agriculture", Commercial , Industrial and Rural Residential zoning districts specifically and ~~is~~ are not permitted in any other zoning districts. For the protection of agricultural uses in the Township, the aggregate amount of land to be used by all principal-use SES allowed within the Township shall be no more than 1,000 acres. An individual principal-use SES shall meet all the following requirements:

1. **Height:** Total height for a large principal-use SES shall not exceed the maximum height of 16 feet when measured from the ground to the top of the system when oriented at maximum tilt. However, other structures aside from the solar panel shall not exceed twenty-five (25) feet measured from the ground to the highest point of the structure.

2. **Setbacks:** Setback distance shall be measured from the property line or road right-of-way to the closest point of the solar array at minimum tilt or any other SES components and as follows:

A. One hundred (100) feet from any property line of a non-participating lot.

B. One hundred (100) feet from any public or private right-of-way or easement.

C. Three hundred (300) feet from any existing non-participating dwelling unit. (Todd thoughts on this issue please) Concerning future rights of the non-participating property owner to build on their property. This refers to the question if a solar system is in place and the adjacent nonparticipating owner decides to build closer than 300' from the solar system does it cause a problem for the solar facility?

NO. "Existing" Covers Tr.

D. A principal-use SES is not subject to property line setbacks for common property lines of two or more participating lots, except that road right-of-way setbacks shall apply.

E. One hundred (100) feet from a stream, river, pond, lake, wetland, drain, or lands located within a 100-year floodplain as identified by the Federal Emergency Management Agency.

3. **Application:** All Principal-Use Solar Energy System applications also require site plan review. In addition to the application general requirements for special land use and site plan review the following must also be included:

A. The complete name, address, and telephone number of the applicant.

B. The planned date for the start of construction and the expected duration of construction.

C. A description of the energy facility, including a site plan as described in Section 224 of the Clean and Renewable Energy Waste Reduction Act, 2008 PA 295, MCL 460.1224. The following items must be shown on the site plan:

1. A map of all properties upon which any component of a facility or ancillary feature would be located, and all properties within one thousand (1,000) feet. This should indicate the location of all existing structures and shall identify such structures as occupied or vacant.

2. Lot lines and required setbacks shown and dimensioned including horizontal and vertical elevation drawings that show the location and height of the Solar Energy System on the land and dimensions of the Solar Energy System

3. Size and location of existing and proposed water utilities, including any proposed connections to public, or private community sewer or water supply systems.

4. A map of any existing overhead and underground major facilities for electric, gas, telecommunications transmission within the facility and surrounding area
5. The location and size of all surface water drainage facilities, including source, volume expected, route, and course to final destination.
6. A map depicting the proposed facilities, adjacent properties, all structures within participating and adjacent properties, property lines, and the projected sound isolines along with the modeled sound isolines including the statutory limit

D. A description of the expected use of the energy facility.

E. Expected public benefits of the proposed energy facility.

F. The expected direct impacts of the proposed energy facility on the environment and natural resources and how the applicant intends to address and mitigate these impacts.

G. Information on the effects of the proposed energy facility on public health and safety.

H. A description of the portion of the community where the energy facility will be located.

I. A statement and reasonable evidence that the proposed energy facility will not commence commercial operation until it complies with applicable state and federal environmental laws, including, but not limited to, the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.101 to 324.90106.

J. Evidence of consultation, before submission of the application, with the Department of Environment, Great Lakes, and Energy and other relevant state and federal agencies before submitting the application, including, but not limited to, the Department of Natural Resources and the Department of Agriculture and Rural Development.

K. The Soil and Economic Survey Report under Section 60303 of the Natural Resources and Environmental Protection Act, 1994 PA 451, MCL 324.60303, for the county where the proposed energy facility will be located.

L. Interconnection queue information for the applicable regional transmission organization.

M. If the proposed site of the energy facility is undeveloped land, a description of feasible alternative developed locations, including, but not limited to, vacant industrial property and brownfields, and an explanation of why they were not chosen.

N. If the energy facility is reasonably expected to have an impact on television signals, microwave signals, agricultural global position systems, military defense radar,

radio reception, or weather and doppler radio, a plan to minimize and mitigate that impact. Information in the plan concerning military defense radar is exempt from disclosure under the Freedom of Information Act, 1976 PA 442, MCL 15.231 to 15.246, and shall not be disclosed by the commission or the electric provider or independent power producer except pursuant to court order.

O. A stormwater assessment and a plan to minimize, mitigate, and repair any drainage impacts at the expense of the applicant. The applicant shall make reasonable efforts to consult with the county drain commissioner before submitting the application and shall include evidence of those efforts in its application.

P. A fire response plan and an emergency response plan.

1. The fire response plan (FRP) shall include:

   i. Evidence of consultation or a good faith effort to consult with local fire department representatives to ensure that the FRP is in alignment with acceptable operating procedures, capabilities, resources, etc. If consultation with local fire department representatives is not possible, provide evidence of consultation or a good faith effort to consult with the State Fire Marshal or other local emergency manager.

   ii. A description of all on-site equipment and systems to be provided to prevent or handle fire emergencies.

   iii. A description of all contingency plans to be implemented in response to the occurrence of a fire emergency.

   iv. A commitment to review and update the FRP with fire departments, first responders, and county emergency managers at least once every three (3) years.

   v. An analysis of whether plans to be implemented in response to a fire emergency can be fulfilled by existing local emergency response capacity. The analysis should include identification of any specific equipment or training deficiencies in local emergency response capacity and recommendations for measures to mitigate deficiencies.

   vi. Other information the applicants finds relevant.

2. The emergency response plan (ERP) shall include:

   i. Evidence of consultation or a good faith effort to consult with local first responders and county emergency managers to ensure that the ERP is in alignment with acceptable operating procedures, capabilities, resources, etc.

1. The anticipated manner in which the project will be decommissioned, including a description of which above-grade and below-grade improvements will be removed, retained (e.g., access drive, fencing), or restored for viable reuse of the property consistent with the zoning district. Pursuant to this requirement, the decommissioning plan shall be required to include that any structures up to forty-eight (48) inches below-grade shall be removed for disposal.

2. The projected decommissioning costs shall reflect the actual cost of decommissioning the project. Salvage value shall not be included in the cost to decommission the project.

3. The method of ensuring that funds will be available for site decommissioning and stabilization (in the form of surety bond or cash deposit).

B. A review of the amount of the surety bond, based on inflation, and current removal costs shall be completed every 4 years, for the life of the project, and approved by the Planning Commission. A SES owner may at any time:

1. Proceed with the decommissioning plan approved by the Planning Commission, and remove the system as indicated in the most recent approved plan; or

2. Amend the decommissioning plan with Planning Commission approval and proceed according to the revised plan.

C. Decommissioning of a SES must commence when the soil is dry to prevent soil compaction and must be complete within 18 months after abandonment. A SES that has not produced electrical energy for 12 consecutive months shall prompt an abandonment hearing.

1. Restoration shall include bringing soil and topography of the land to their pre-development composition to ensure permitted uses upon restoration. Soil tests shall be required as part of the decommissioning plan both before development and prior to the decommissioning.

19. Transfers. No transfer in ownership of the SES shall occur prior to providing 60 days' notice to the Township and upon Township approval verifying that the new owner agrees to carry out the terms of the special land use and site plan approval.

SECTION 4. AMENDMENT TO SECTION ___ "SUPPLEMENTARY REGULATIONS" TO ADD NEW SECTION ___ TO FOR A HOST COMMUNITY AGREEMENT.

Section __ "Supplementary Regulations" of the _____ Township Zoning Ordinance is hereby amended by adding a Section ___ titled "HOST COMMUNITY AGREEMENT" to read as follows: **NOT SURE WHERE THIS GOES AND THIS IS A B.O.T. POLICY I THINK)**

A principal-use SES special exception use permit holder shall enter into a host community agreement with the Township within 90 days after issuance of the permit. The host community agreement shall require that, upon commencement of any operation, the energy facility owner must pay the Township $_____ per megawatt of nameplate capacity located within the Township. The payment shall be used as determined by the Township for police, fire, public safety, or other infrastructure, or for other projects as agreed to by the Township and the permit holder within said 90 days.

SECTION 5. AMENDMENT TO SECTION _____ PARAGRAPH a. "Fee"

Section ____ paragraph a. "Fee" is hereby amended to read as follows: **TBD BY B.O.T.**

a. By resolution, the Township may establish an application fee and escrow policy to cover the Township's reasonable costs of review and processing of the site plan, including but not limited to staff, attorney, engineer, planning, environmental, or other professional costs.

SECTION 6. SEVERABILITY OF INVALID PROVISIONS.

If any section, paragraph, clause, or provision of this Ordinance shall be held invalid, its invalidity shall not affect any other provisions of this Ordinance that can be given effect without the invalid section, paragraph, clause, or provision, and for this purpose, the sections, paragraphs, clauses, and provisions of this Ordinance are hereby declared to be severable.

SECTION 7. REPEAL.

All other ordinances, resolutions, orders, or parts of ordinances herewith in effect that are in conflict with this ordinance are hereby repealed only to the extent necessary to give this Ordinance full force and effect. (Tood is this consistent with our nderstanding of how to deal with conflicting sections?)

46.

SECTION 8. EFFECTIVE DATE.

Pursuant to Section 401 of the Michigan Zoning Enabling Act (MCL 125.3401), this Ordinance shall take effect eight (8) days after publication of this Ordinance, or a summary of the regulatory effect thereof, which publication shall occur in a newspaper of general circulation in the Township within fifteen (15) days after adoption.

This Ordinance is hereby declared to have been passed and adopted by _____ Township, County of _____, State of Michigan, at a regularly scheduled meeting thereof duly called and held on this ____ day of _____, 2024.

_____ Clerk
Township of _____

Hayes Township Zoning Permit Application
9195 Major Douglas Sloan Rd.
Charlevoix, MI 49720
(231)547-6961

Zone District: R-1 Permit Number:_____ Fee: $600 Date: 11-26-24

GENERAL INFORMATION

Property Owner Name(s) Steve + Melissa DeWitt

Mailing Address 10620 Stonewall Crossing

Telephone 616-836-2193 Cell: Same EMAIL: Stedew@requestFoods.com

PROPERTY INFORMATION

Property Tax ID Number(s)15-007-~~041~~ 014-001-40

Property Address 6670 Peaceful Valley Rd

Contractor Northern View Homes Contractor Contact Information 231-373-4765 mpassino@northernview.co

PROPOSED USE OF PROPERTY

Type of Improvement(s)(describe) Demo Old House / Build new House + Garage

New Construction X Reconstruction___ Addition___ Sign___ Other_____

Dimensions of Proposed Structure House 144 x 60 HEIGHT 30'

PROPOSED ZONING PERMIT

Special Use___ Type of Special Use_____ Rezone_____ Land Division/Split Involved?_____

N28DEG01'44"E 59.99 FT TH N74DEG07'49"E 34.56 FT TH N 15DEG52'11"W 35.91 FT TH N15DEG36"E 230. 89 FT TO POB BEING PT GOV LOT 3 SEC 1-33-7 95SP 0794 FRM 001-014-30

Charlevoix, MI 49720
(R-1) Low Density Residential District

SITE PLAN

SCALE 1" = 20'

SQUARE FOOTAGE CALCS FOR IMPERVIOUS COVERAGES:

TOTAL SQUARE FOOTAGE = 162,970.36 SF

15 Percent Impervious coverage allowed = 24,445.55 SF

House = 6,623 SF
Drive/Parking = 3,918 SF
Front Walk = 291 SF
Fire Pit Patio = 200 SF
Walk from porch to steps = 30 SF
Walk to Lake = 120 SF
Existing Steps = 125 SF
New Steps = 22 SF
Hot Tub Patio = 205 SF
Walk Out Apron = 54 SF
Utility Apron = 215 SF
Shed = 200 SF
Tennis Courts = 5,416 SF
Peaceful Valley Road = 2,217 SF
Easement Road = 1,753 SF
23,790 SF
TOTAL IMPERVIOUS COVERAGE

SHORELINE PROTECTION STRIP PLANTINGS

- Michigan Sunset, Bush Honeysuckle @ 30' oc
- Creeping Juniper @ 60' oc
- Blackeyed Susan @ 24" oc
- Leatherleaf Wood Ferns and Bunchberry @ 30' oc
- Ivory Sedge seed

DATE: 8/9/24, 8-13-24, 8/14/24, 8/15/24, 8/19/24, 8/20/24, 8/21/24, 8-23-24, 8-25-24, 8-26-24, 8-27-24, 8-30-24, 12-1-24, 12-2-24, 1-8-25, 1-16-25

Common Ground Landscapes
Maureen Parker, Landscape Architect