Town of Belgrade
Planning Board

Oct. 21, 2021 / 6 p.m.

Belgrade Town Office
990 Augusta Road
Belgrade, ME 04917

This meeting will be conducted in person.
The public may also view the meeting and participate online at
https://us02web.zoom.us/j/83033101494

A G E N D A

Call to order

1. **OLD BUSINESS**
   - **A. SHORELAND APPLICATION** – Applicant: Ryan Eldridge of Maine Cabin Masters. Owners: John & Janice Rooney. Location: 122 Snug Harbor Road (Great Pond), Map 41 Lot 1B. Purpose: Jack and level camp, and add full foundation. Will not increase footprint (non-conforming structure on a non-conforming lot).
   - **B.** Discussion and consideration of the **proposed subdivision ordinance timeline.**
2. **NEW BUSINESS**
   - A. Preliminary discussion of **ordinances related to solar, wind and telecommunications.**
3. **OLD BUSINESS**
   - A. Consideration of Oct. 7, 2021, Planning Board **minutes**.
4. **ADJOURN**

☑ Shoreland
Certified Contractor
Number #_____
☐ Non Shoreland

Town of Belgrade, Maine
APPLICATION FOR PERMIT

990 Augusta Road Belgrade Me 04917
207-495-2258

Application # 21-70
Map# 41 Lot# 1-B
Permit# 70

Date Logged 8/5/21 Date Rec'd by PB/CEO 17.76 25.00 $ Fee Paid $102.76 Receipt#_____

1. Applicant:
Name RYAN ELDRIDGE
Mailing Addr 89 CHETS MEADOW RD
State/Zip ME 04345 Phone# 207 215 5582

2. Owner (if other than applicant):
Name JOHN+JANICE ROONEY
Mailing Addr 39 LOON CALL BELGRADE
State/Zip ME 04917 Phone# 619 471 9716

3. Specific location of property 122 SNUG HARBOR ROAD Map# 41 Lot# 1B
Name of Lake/Pond/Stream (if applicable) GREAT POND

4. Current use of property (check all that apply)
✓ Residential/Recreational; _____Individual Private Campsite; _____Commercial; _____Industrial; _____ Other

5. Proposed construction or change in use: JACK + level, PUT ON FULL FOUNDATION; UPDATE INTERIOR, RE-CONFIGURE LAYOUT

6. Existing sewage disposal system type and capacity: CONCRETE 1000
Present number of bedrooms 3; Bedrooms to be added under this application 0
When did you purchase the property within Shoreland Zone? 1/19 (month/year) If after 11/6/18, attach copy of septic system inspection report documenting it is not malfunctioning.

7. Total lot area 19602; Lot area within the Shoreland Zone 19602

8. Square footage of unvegetated surface within shoreland zone including all structures, driveways, parking, walkways and patios. 2742

9. What is the total area of cleared openings of woody vegetation (Sqft) 7,000

10. Total number of structures on the lots 2. A site plan to-scale MUST accompany this application and be prepared in accordance with the requirements on the attached Instruction Sheet (Item #10 on the Instruction Sheet). All required attachments must accompany this application.

Present Structure Square Footage 921
Proposed Structure Square Footage 921
*Required only for structures within Shoreland Zone

I/We have obtained and understand the requirements of all Town of Belgrade Ordinance which apply to the proposed construction or change of use. The undersigned applies for a permit to build, alter or improve existing structure(s) or grounds as stated above on this application and portrayed on the attachments. The information provided is true and correct.

Signature: _____ Signature: _____

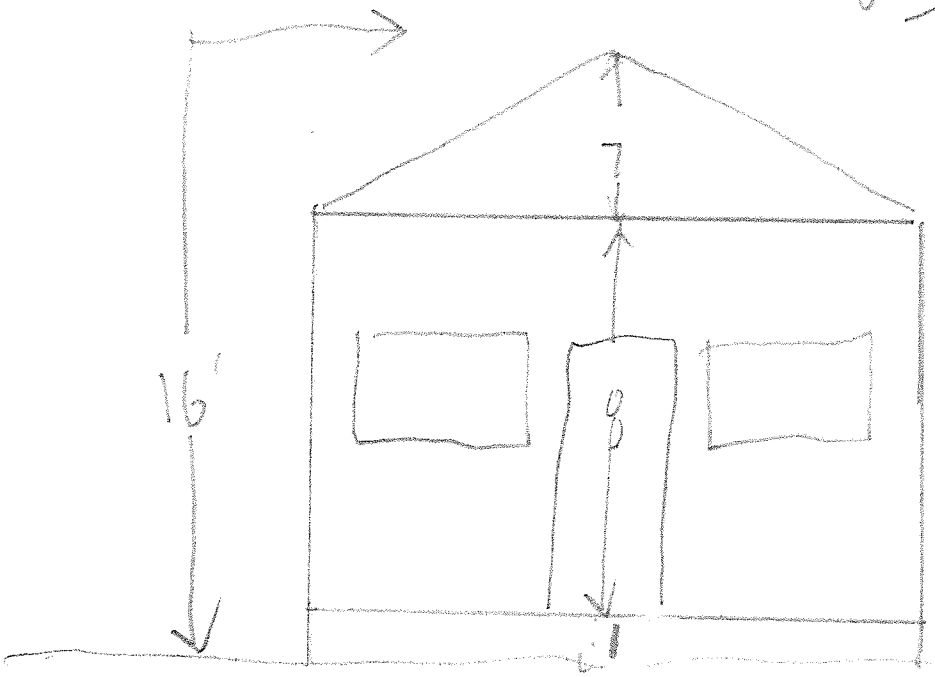
There may be additional Federal, State or local permits required depending on the nature of the project.

TOWN USE ONLY
DECISION: ____ APPROVE ____ DISAPPROVED
Conditions_____

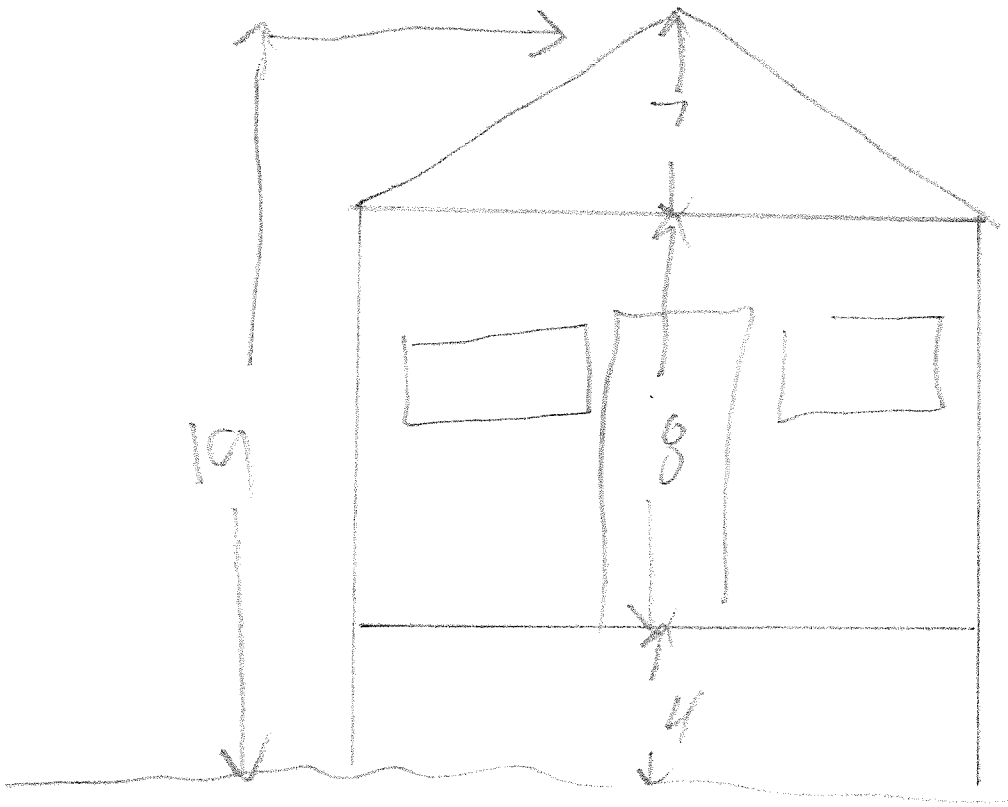
Date: _____ PB_____ CEO _____
Signatures:

WEST

DOONEY



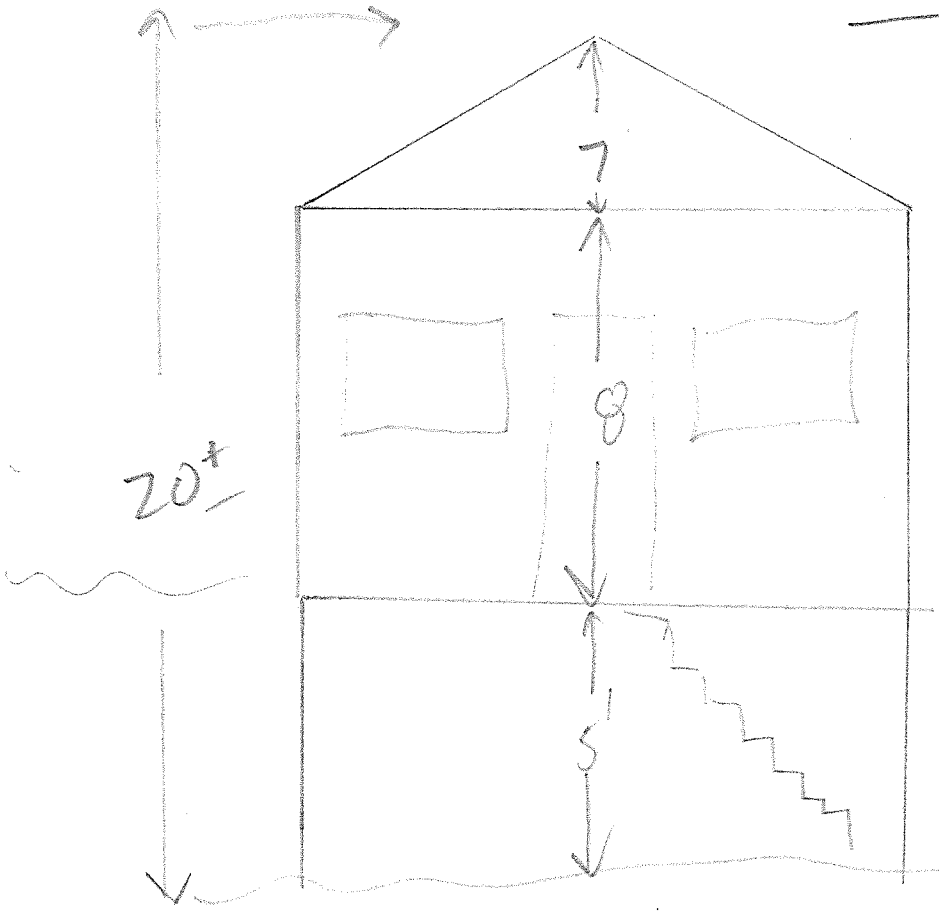
EXISTING



NEW

EAST

PROPERTY



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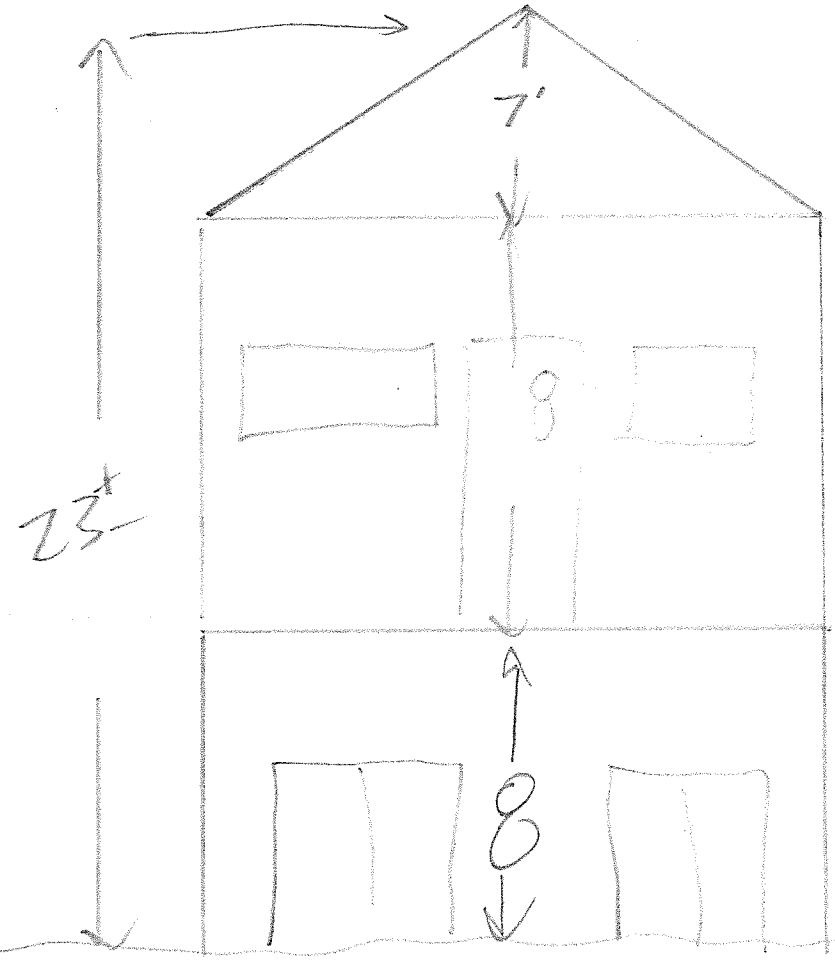
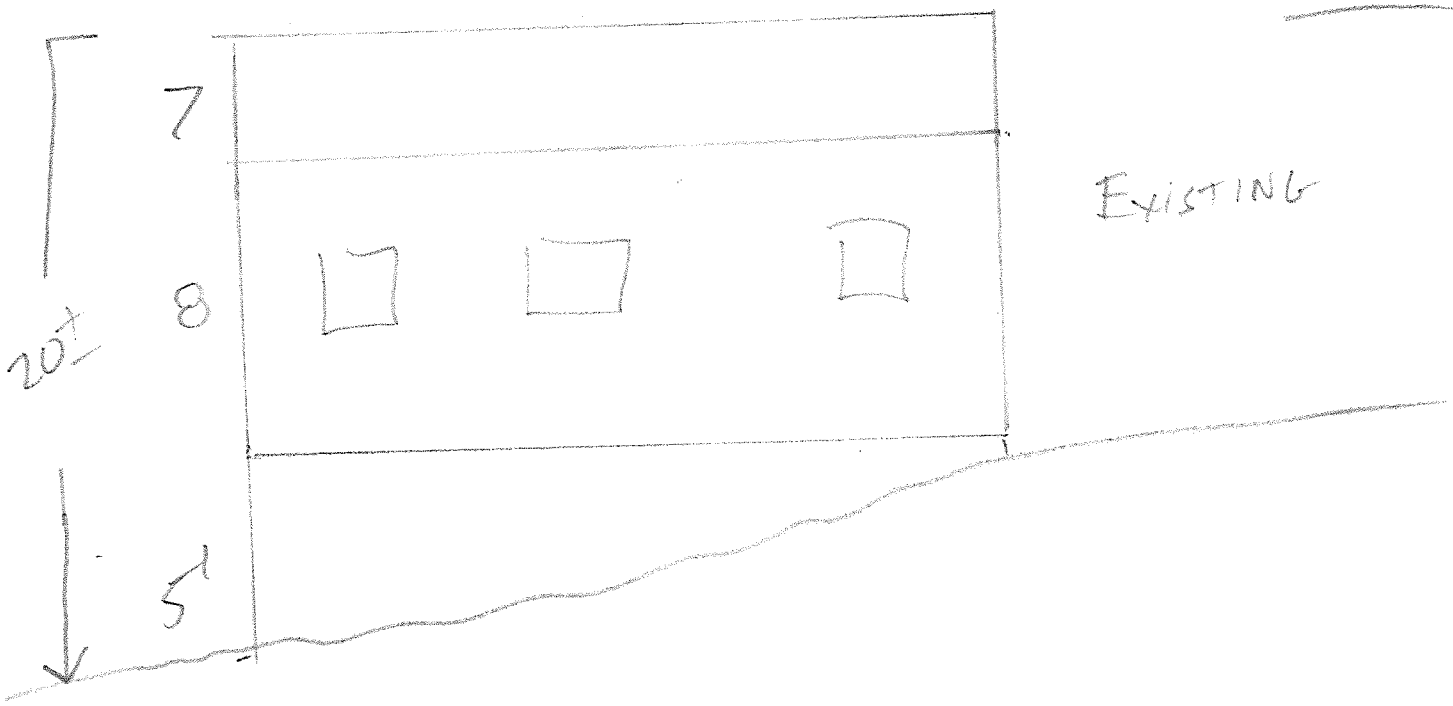
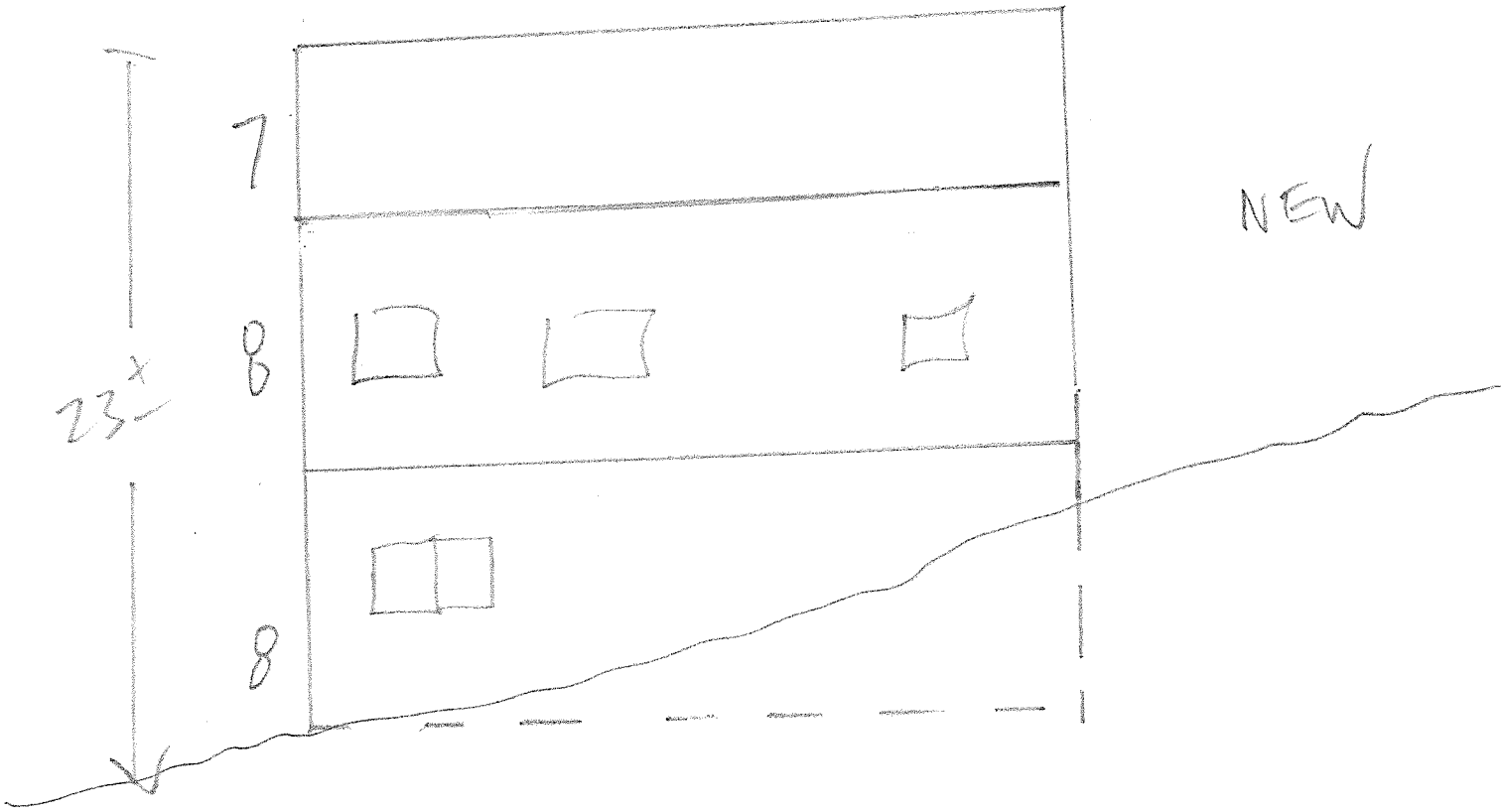


NEW

North / South

RUNEY





LOT TOTAL
19,602

CABIN

24x36 = 864 FT²

SHED

4.5x4.5 = 21 FT²

STAIRS FRONT

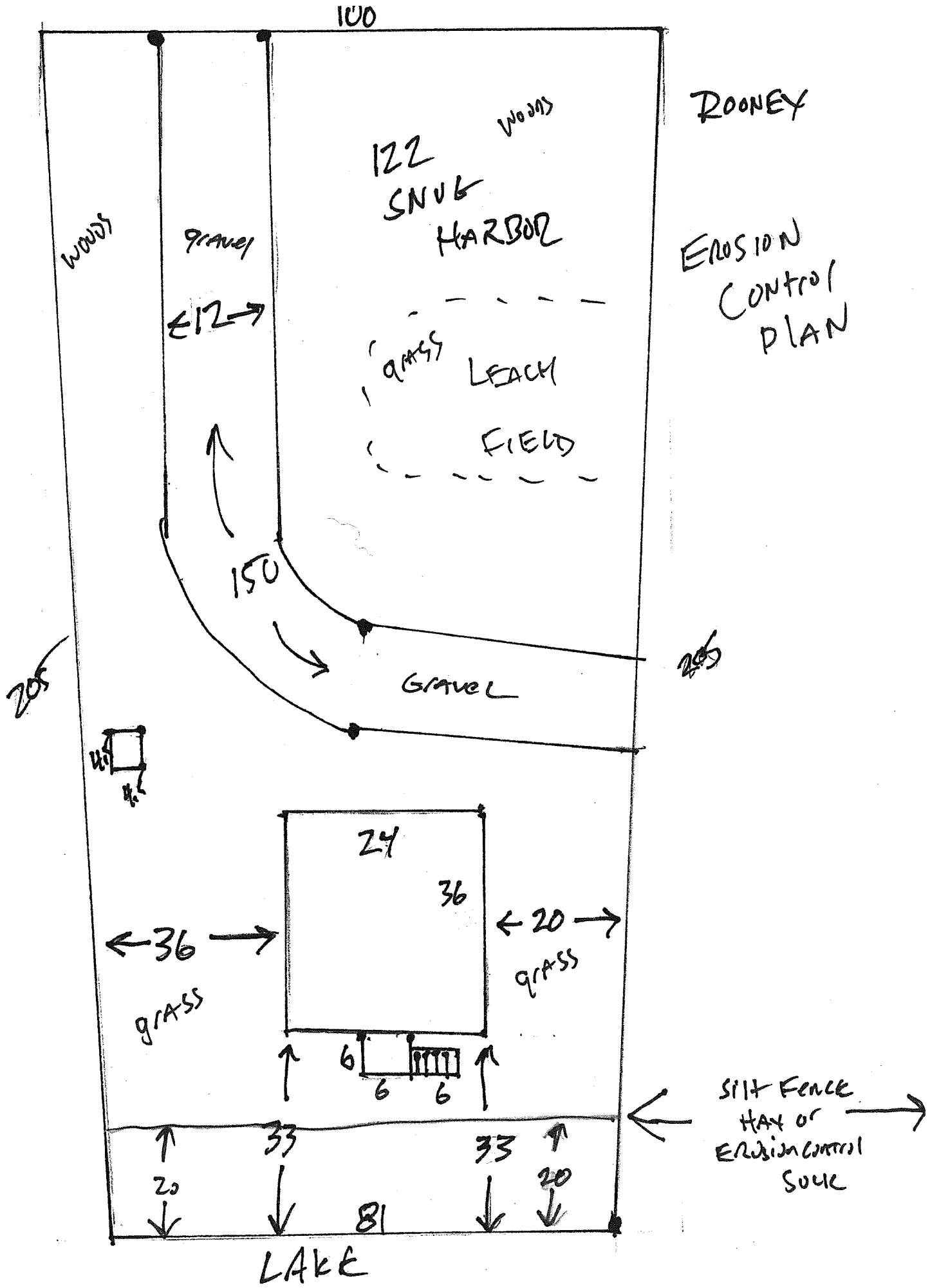
6x6 PLATFORM = 36 FT²

3.5x6 STAIRS = 21 FT²

DRIVEWAY

12' x 150' = 1800 FT²

TOTAL = 2742 FT²


100
ROONEY
WOODS
122
SNUG
HARBOR
WOODS
EROSION
CONTROL
PLAN
GRAVEL
12
GRASS
LEACH
FIELD
150
GRAVEL
205
205
4
4
24
36
36
GRASS
20
GRASS
6
6
6
SILT FENCE
HAY OR
EROSION CONTROL
SOCK
20
33
33
20
81
LAKE

Erosion Control
122 Snug Harbor

-silt fence will be installed before any equipment enters job site, not to be removed until job is complete and new grass has been established

-grass seed, hay/straw will be placed directly after soil is disturbed and all grading and landscaping has been finished.

August 3, 2021

To whom it may concern:

We, John and Janice Rooney, are seeking to repair and renovate our camp at 122 Snug Harbor Road, Belgrade, ME 04917. CRA CRA LLC, Kennebec Cabin Company, and Ryan Eldridge have our permission and are authorized to represent us through the permitting process.

Thank you,

John Rooney

Janice Rooney

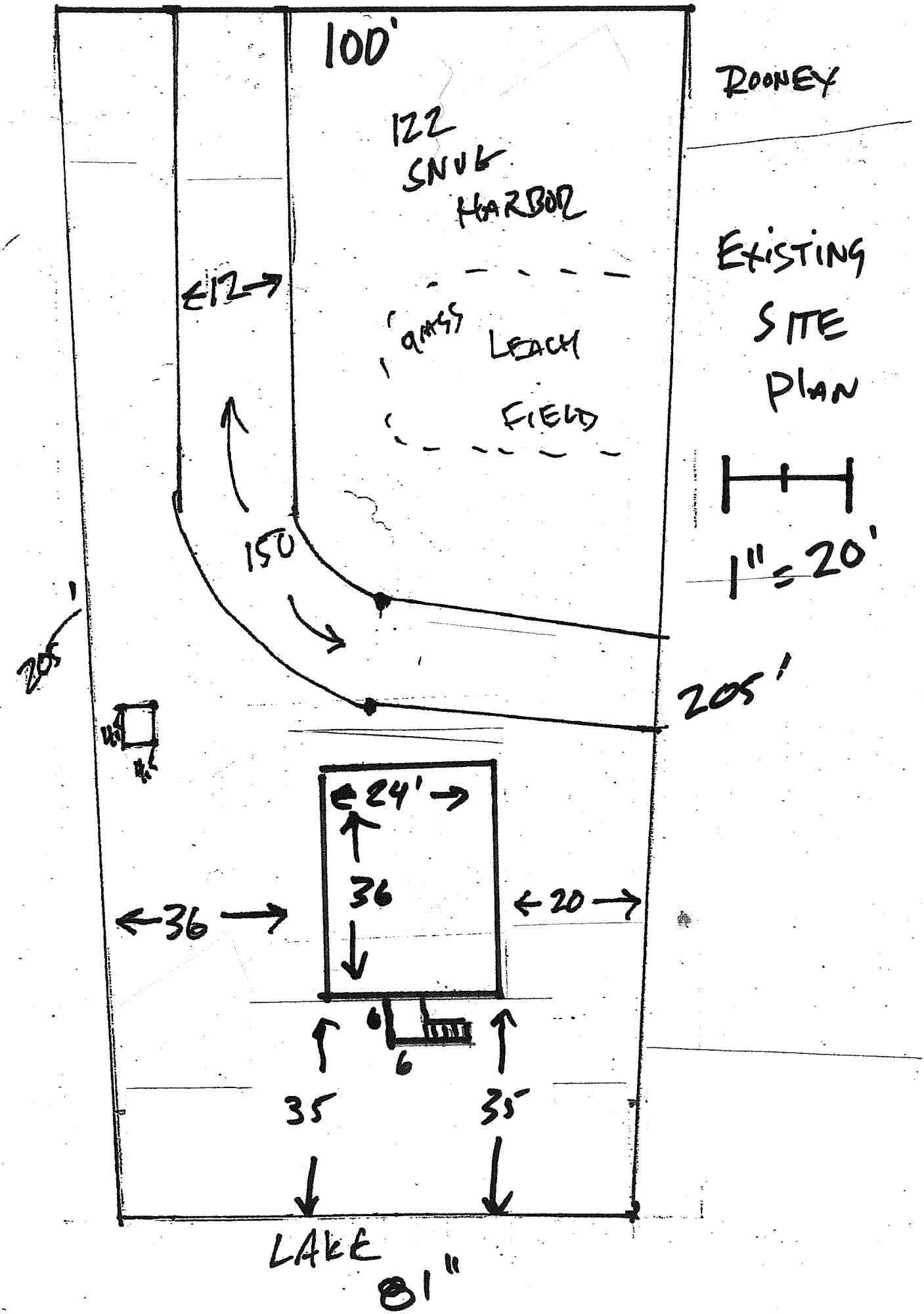
Ramsey

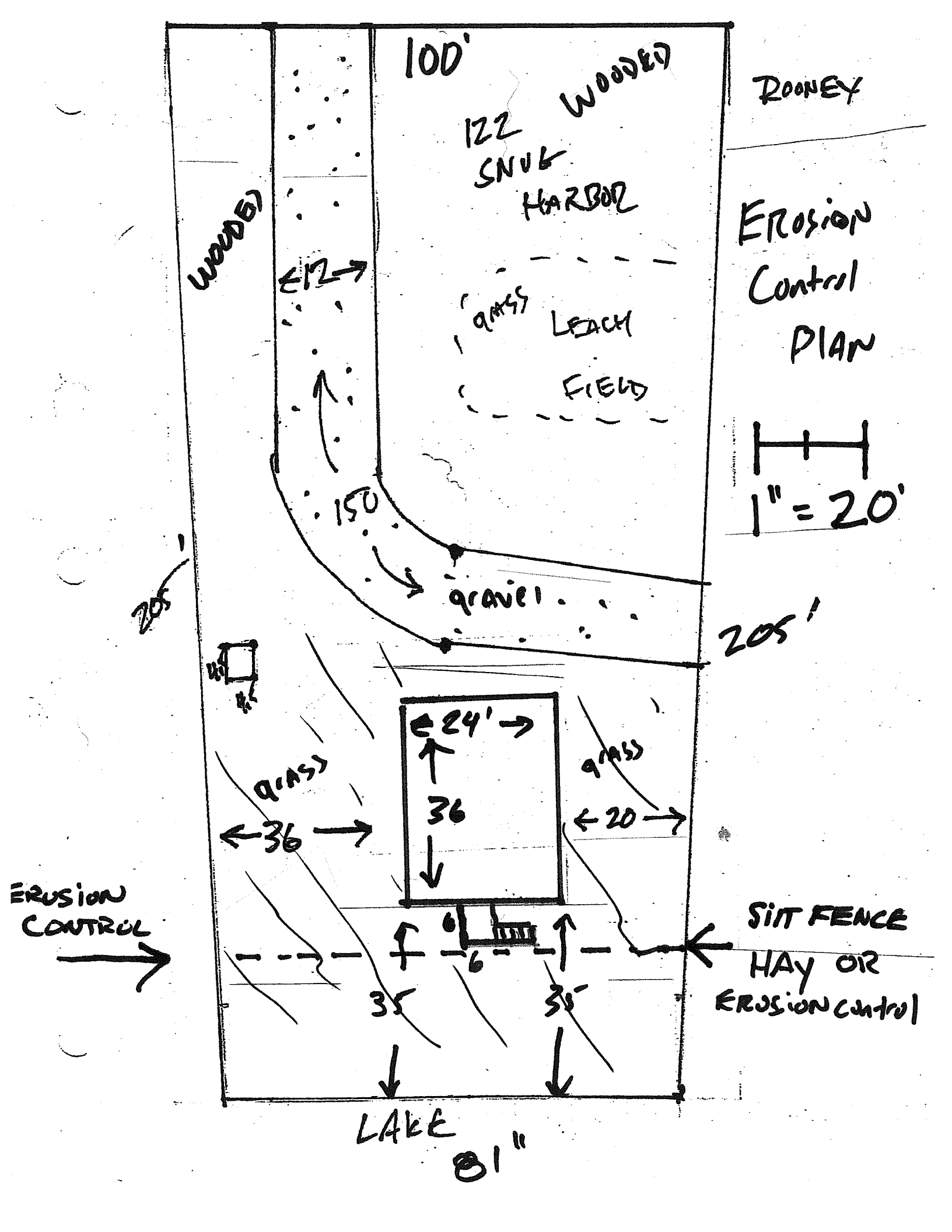
From: **Chip Rooney** chiprooney@gmail.com
Subject: Rooney pic 4
Date: August 12, 2021 at 10:59 AM
To: ryan eldridge ryan@mainecabinmasters.com

CR

From: **Chip Rooney** chiprooney@gmail.com
Subject: Rooney pic 1
Date: August 12, 2021 at 10:58 AM
To: ryan eldridge ryan@mainecabinmasters.com

CR


100'
ROONEY
122
SNUG
HARBOR
EXISTING
SITE
PLAN
17
GRASS
LEACH
FIELD
150
1" = 20'
205'
205'
24'
36
36
20
6
35
35
LAKE
81"


100'
WOODED
ROONEY
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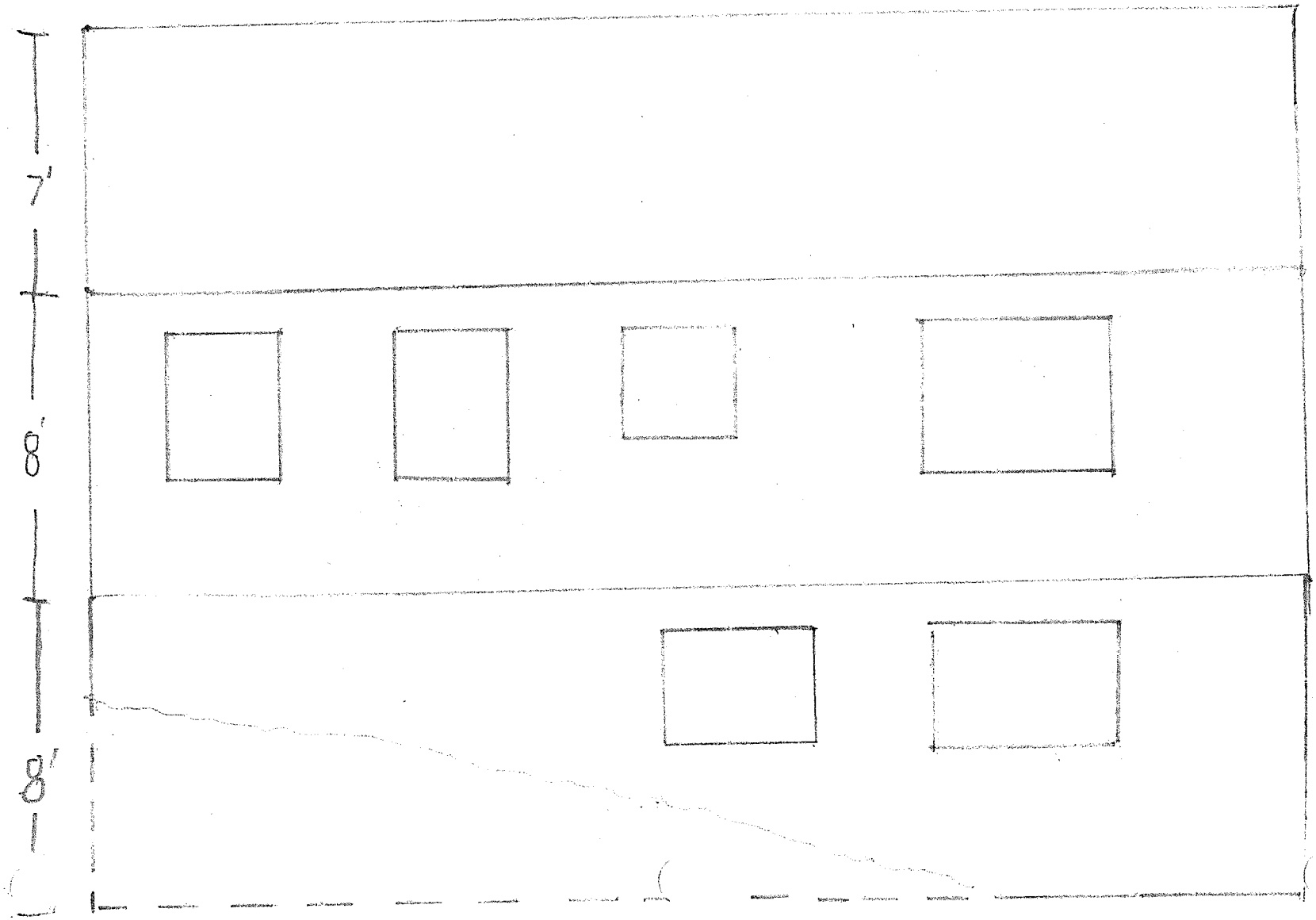
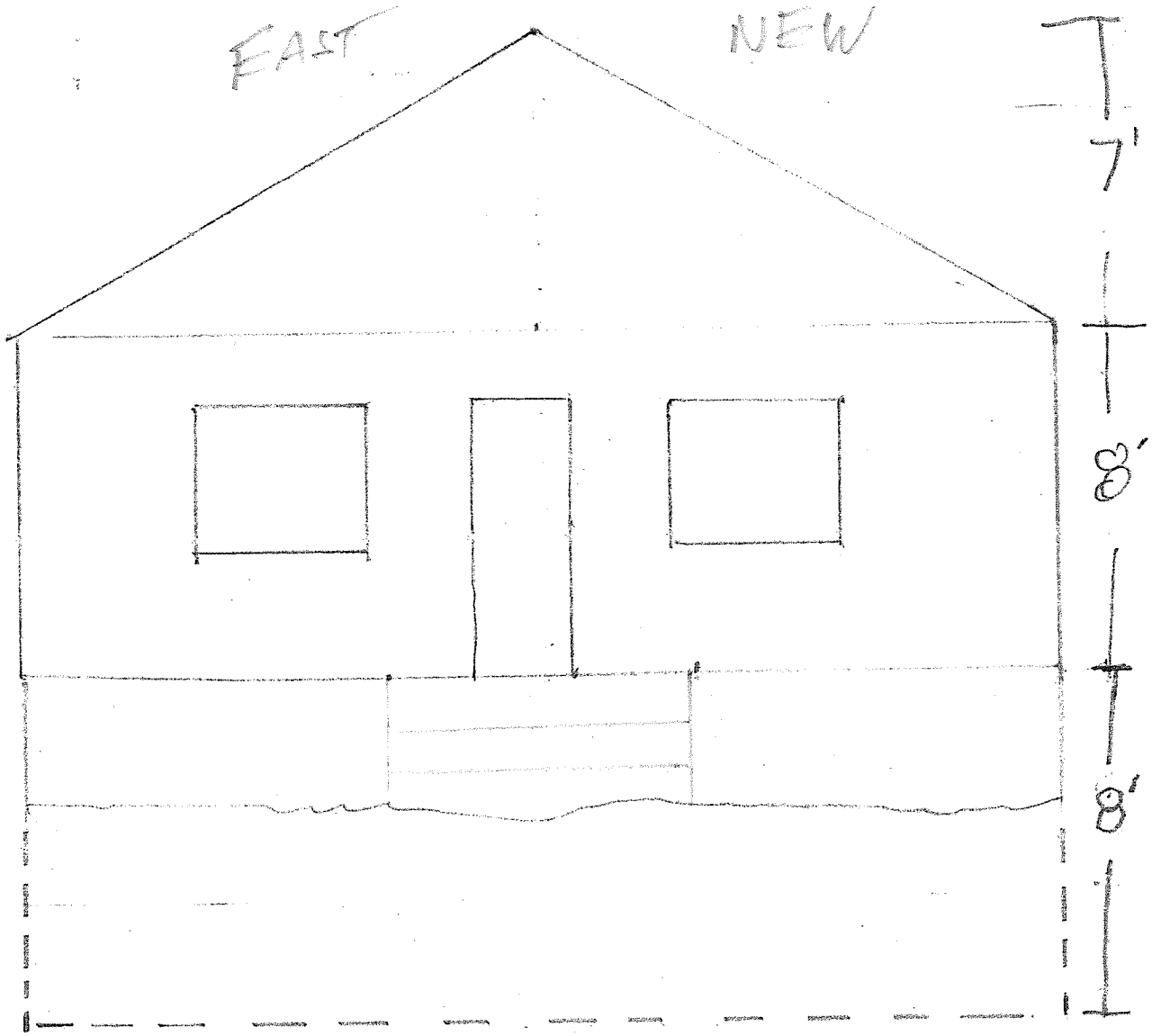
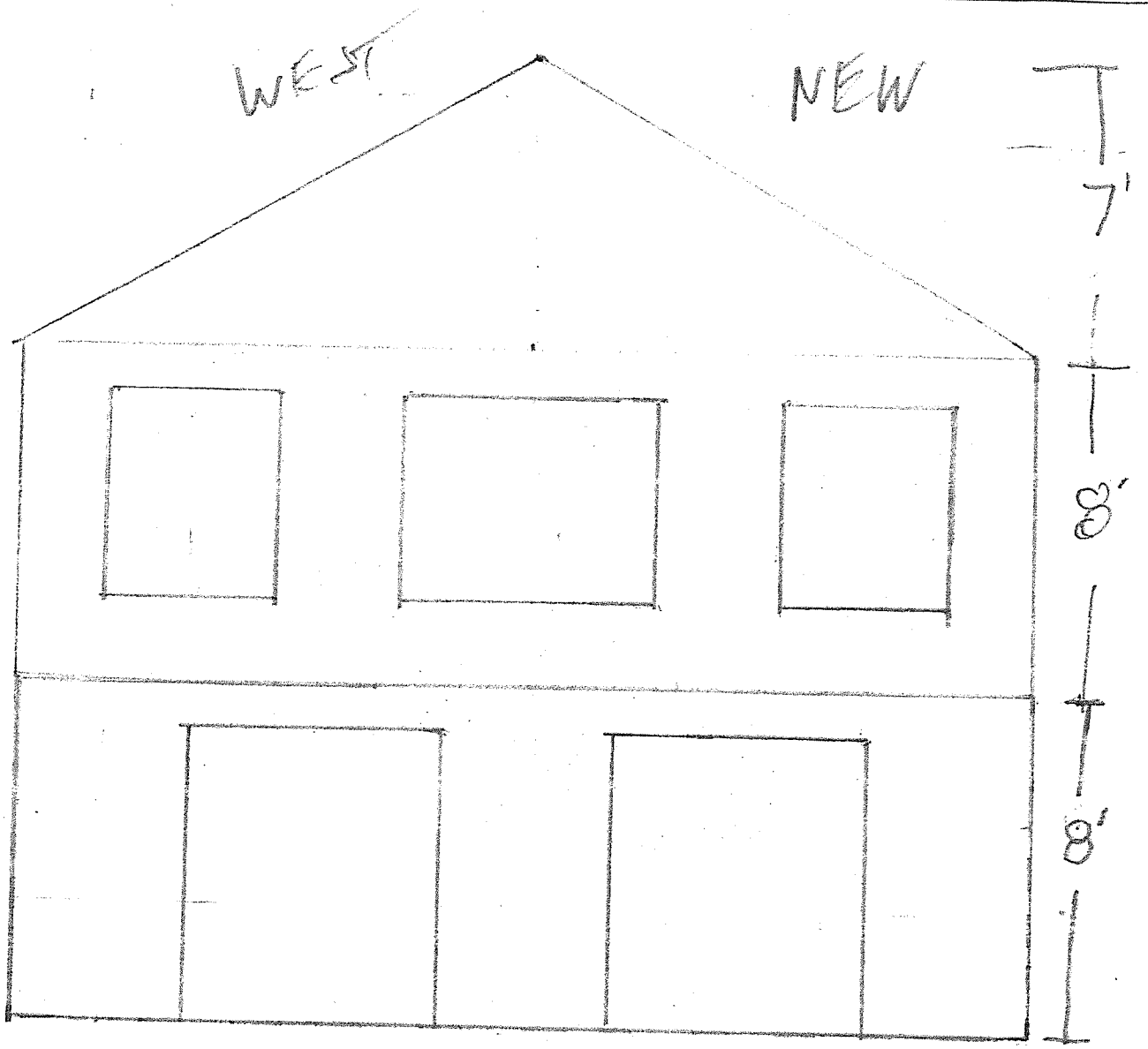
SNUG
HARBOR
WOODED
EROSION
CONTROL
PLAN
12
GRASS
LEACH
FIELD
1" = 20'
150
205'
205'
gravel
24'
36
GRASS
GRASS
36
20
EROSION
CONTROL
SILT FENCE
HAY OR
EROSION CONTROL
35'
35'
LAKE
81"

NORTH NEW



SOUTH VIEW


EAST
NEW
7'
8'
8'


WEST
NEW
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8'
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LOT TOTAL
19602

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DRIVEWAY
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TOTAL = 2742 FT²

Memo

To: Planning Board

From: Anthony Wilson, Town Manager

Date: Oct. 21, 2021

Re: Subdivision ordinance timeline

According to Town Clerk Mary Vogel, all referendum questions for the town meeting's secret ballot must be finalized by Jan. 19, 2022. We plan to submit the proposed subdivision ordinance to the town's attorney for a legal review on Jan. 1, when we anticipate a fixed-fee contract for legal services will be in effect. Our attorney has assured he can and will have the 96-page document reviewed prior to Jan. 19.

We recommend an informational meeting on the ordinance in November. That would give the Planning Board time to make any adjustments as a result of the public input it receives, and for staff to present those reworded sections to the Kennebec Valley Council of Governments for a planner's review.

The Planning Board is not required to engage in any legal public hearings. The subdivision ordinance would be included in a public hearing on secret ballot referendums that must be held no later than 30 days before the election date. In this case, that deadline would be Feb. 17, 2022. Absentee ballots would be available to voters Feb. 18, 2022.

Memo

To: Planning Board

From: Anthony Wilson, Town Manager

Date: Oct. 21, 2021

Re: Solar ordinances

Following this memo in your packet are:

- Readfield's solar ordinance
- Chelsea's solar ordinance
- A model solar ordinance from Maine Audubon/Grow Smart Maine
- A trio of ordinance templates from the Kennebec Valley Council of Governments regarding solar, wind and telecommunication ordinances.

Because the Commercial Development Review Ordinance contains provisions for wind and telecommunications infrastructure, KVCOG Planning Director Joel Greenwood suggested you may want to add the relevant sections on standards regarding those structures from the templates he provided. After you've had a chance to study these, he's willing to attend one of your November meetings.

TOWN OF READFIELD – SOLAR ORDINANCE

Adopted by Town Meeting June 8, 2021

Section 1. Title

This Ordinance shall be known and may be cited as the "Solar Ordinance".

Section 2. Purpose

The purpose of this ordinance is to establish a municipal review procedure and performance standards for Solar Energy Systems (SES), including those typically characterized as "solar farms". These standards are intended to:

a. Establish clear guidelines, standards and time frames for the Town to regulate Solar Energy Systems;

b. Permit the Town to fairly and responsibly protect public health, safety and welfare;

c. Minimize any potential adverse effect of solar development on surrounding land use;

d. Provide for the decommissioning/removal of panels and associated utility structures that are no longer being used for energy generation and transmission purposes; and

e. Support the goals and policies of the Comprehensive Plan, including orderly development, efficient use of infrastructure, and protection of natural, scenic, and agricultural resources.

Section 3. Applicability

Solar Energy Systems (SES) are subject to location and permitting requirements as set forth in the Readfield Land Use Table (Article 7, Section 5) of the Land Use Ordinance. A Solar Energy System approved for construction prior to the effective date of this Ordinance shall not be required to meet the terms and conditions of this Ordinance. Any physical modification to any existing SES, whether or not existing prior to the effective date of this Ordinance that expands or relocates the footprint of the SES, shall require approval under this Ordinance. Routine maintenance or replacements do not require a permit.

Infrastructure	V	VR	AD	R	RR	SR	RP	SP	CID	MH
Solar Energy System, Large-Scale	N	N	P	P	N	N	N	N	P	U
Solar Energy System, Medium-Scale	N	N	P	P	N	N	N	N	P	U
Solar Energy System, Small / Accessory-Scale – Ground Mounted	P	P	P	P	P	P	P	P	P	U
Solar Energy System, Small / Accessory-Scale – Roof Mounted	C	C	C	C	C	C	C	C	C	U

Section 4. Definitions

Solar Energy System (SES): a solar photovoltaic cell, module, or array, or solar hot air or water collector device, including all Solar Related Equipment, which relies upon solar radiation as an energy source for collection, inversion, storage, and distribution of solar energy for electricity generation or transfer of stored heat.

Solar Energy System, Ground-Mounted. A Solar Energy System that is structurally mounted to the ground and is not roof-mounted; may be of any size (small, medium, or largescale).

Solar Energy System, Roof-Mounted. A Solar Energy System that is mounted on the roof of a building or structure; may be of any size (small, medium, or large-scale).

Solar Energy System, Large-Scale. A Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 4 acres (174,240 square feet), and/or that generates a nameplate capacity of 1 MW or greater.

Solar Energy System, Medium-Scale. A Solar Energy System whose physical size based on total airspace projected over the ground is equal to or greater than 3,000 square feet but less than 4 acres (174,240 square feet), and/or that generates a nameplate capacity of 20 kW up to, but not including, 1 MW.

Solar Energy System, Small-Scale. Also known as an *Accessory-Scale System*. A Solar Energy System whose physical size based on total airspace projected over the ground is less than 3,000 square feet and/or that generates a nameplate capacity of less than 20 kW. Such a system may consist of one (1) or more freestanding ground, or roof mounted, solar arrays, or solar related equipment, and is intended to primarily reduce on-site consumption of utility power or fuels. Such a system generally occupies ~1,750 square feet of surface area or less (equivalent to a rated nameplate capacity of about 10 kW or less).

Kilowatt (kW): a unit for measuring power that is equivalent to 1,000 watts.

Megawatt (MW): a unit for measuring power that is equivalent to one million watts, or 1,000 kilowatts.

Megawatt Hour (MWh): A megawatt hour is equal to 1,000 Kilowatt hours (Kwh). It is equal to 1,000 kilowatts of electricity used continuously for one hour.

Rated Nameplate Capacity. The maximum rated output of electric power production of the photovoltaic system in watts of Direct Current (DC).

Solar Energy. Radiant energy (direct, diffuse and/or reflective) received from the sun.

Solar Array. A grouping of multiple solar modules with the purpose of harvesting solar energy.

Solar Farm. See *Solar Energy System*.

Solar Related Equipment. Items including a solar photovoltaic cell, module, or array, or solar hot air or water collector device panels, lines, pumps, batteries, mounting brackets, framing, fencing, foundations or other structures used or intended to be used for collection and management of solar energy.

Pure Tone. The simplest periodic sound: a constant sound created as a pressure disturbance that fluctuates sinusoidally as a fixed frequency.

Section 5. Application and Permit Fee.

A. Application Fee:

   a. Solar Energy System, Large-Scale. The Application Fee is $2,500.

   b. Solar Energy System, Medium-Scale. The Application Fee is $500.

   c. Solar Energy System, Small-Scale. The Application Fee is the standard building permit fee.

B. Permit Fee is $1.00 per kW with a minimum fee of $25.

Section 6. Specific Application Requirements

In addition to the requirements listed in Article 6 of the Town's Land Use Ordinance, an application for a Large or Medium Scaled Solar Energy System Permit must also include the following, at the cost of the applicant:

1) A description of the owner of the SES, the operator if different, and detail of qualifications and track record to run the facility;

2) If the operator will be leasing the land, a copy of the agreement (minus financial compensation) clearly outlining the relationship inclusive of the rights and responsibilities of the operator, landowner and any other responsible party with regard to the SES and the life of the agreement;

3) A description of how and to whom the energy produced will be sold;

4) A copy of the agreement and schematic details of the connection arrangement with the transmission system (most likely Central Maine Power), clearly indicating which party is responsible for various requirements and how they will be operated and maintained;

5) The layout, design and installation shall conform to applicable industry standards, such as those of the American National Standards (ANSI), Underwriters Laboratories (UL), the American Society for Testing and Materials (ASTM), Institute of Electrical and Electronics Engineers (IEEE), Solar Rating and Certification Corporation (SRCC), Electrical Testing Laboratory(ETL), Florida Solar Energy Center (FSEC) or other similar certifying organizations, and shall comply with local ordinances, and with all other applicable fire and life safety requirements. The manufacturer specifications for the key components of the system shall be submitted as part of the application.

6) A description of the panels to be installed, including make and model, and associated major system components;

7) A construction plan and timeline, identifying known contractors, site control and anticipated on-line date;

8) An operations and maintenance plan, including site control and the projected operating life of the system; Such a plan shall include measures for maintaining safe access to the installation, stormwater controls, as well as general procedures for operational maintenance of the installation. Additionally, such plans shall include efforts to promote beneficial flora and fauna (e.g. honeybees,

butterflies, etc.) as well as a commitment to not using pest-control substances (e.g. pesticides, herbicides, fungicides, and/or insecticides).

9) An emergency management plan for all anticipated hazards;

10) A stormwater management plan, certified by a licensed Maine engineer, that demonstrates stormwater from the SES will infiltrate into the ground beneath the SES at a rate equal to that of the infiltration rate prior to the placement of the system.

11) A background noise measurement for the site location as performed by a qualified professional.

12) Proof of financial capacity to construct and operate the proposed facility;

13) A decommissioning plan, including:

    a) A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if 10% or less permitted capacity of electricity is generated for a continuous period of twelve (12) months. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for a continuous period of 12 months, the project has not been abandoned and should not be decommissioned.

    b) A description of the work required to physically remove all Solar Energy System and Solar Related Components, including associated foundations, buildings, cabling, electrical components, and any other associated facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing and subject to Planning Board approval.

        i) At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Solar Energy System. Any changes to the approved decommissioning plan shall be subject to review and approval by the Planning Board.

    c) An estimate of the total cost of decommissioning value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: panel removal, panel foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.

    d) Demonstration in the form of a performance bond, surety bond, letter of credit, or other form of financial assurance as may be acceptable to the Planning Board that upon the end of the useful life of the Solar Energy System the Applicant will have the necessary financial assurance in place for 150% of the estimated total cost of decommissioning, subject to a review of such cost by the Code Enforcement Officer. The financial assurance shall include a provision granting the Town the ability to access the funds and property and perform the decommissioning if the facility is abandoned or the Applicant or subsequent responsible party fails to meet their

obligations after reasonable notice, to be defined in the agreement and approved by the Planning Board. For a Medium Scaled SES, the Applicant may propose securing the necessary financial assurance in phases, as long as the total required financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the Solar Energy System.

i) Note the applicant may apply to the Code Enforcement Officer for release of the guarantee at such time that it or its assignees remove the system and associated abandoned structures, and such completed removal is found to be satisfactory by the Planning Board.

Section 7. Standard for Approval

In addition to the Site Review standards and requirements included in Town's Land Use Ordinance, the following standards must also be met:

Large and Medium- Scaled Ground-Mounted Solar Energy Systems:

1. Lots - SES shall not exceed 20% coverage of a lot area. Lot coverage shall be calculated based on the total SES airspace projected over the ground. All SES should be designed and located to ensure solar and physical access without reliance on and/or interference to/from adjacent properties.

2. Legal Responsibilities - The Applicant must provide proof that it has authorization to construct, use and maintain the property and any access drive for the life of the project and including the decommissioning of the project. The roles and responsibilities of the system owner, operator, landowner and any other party involved in the project must be clear and meet the satisfaction of the Planning Board that the public interest is protected. The owner or operator of a Ground Mounted Solar Energy System shall build and maintain it in compliance with all relevant Federal, State and Local Laws, Regulations, and Ordinances.

3. Deed Registration – Any Large or Medium Scaled SES system shall be incorporated into the description of the real property in the lot/property deed and registered with the Kennebec County Registry of Deeds as a condition of Planning Board approval.

4. Setback - Structures within a SES shall be setback a minimum of 200 feet from all lot lines. Any solar photovoltaic cells or arrays shall be subject to a maximum height of 10 feet above the ground surface. Associated SES structures shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

5. Prohibited Locations – Components of a ground mounted SES shall not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

6. Utility Notification - No grid-intertied photovoltaic system shall be installed until evidence has been given to the Planning Board that the applicant has an agreement with the utility to accept the power. Off-grid systems are exempt from this requirement.

7. Fence - Ground Mounted Solar Energy Systems shall be protected by a perimeter fence. Such fences shall allow for small wildlife passage and movement.

8. Signage - A sign shall be required to identify the owner/operator and provide a 24-hour emergency contact phone number. Solar energy systems shall not be used for displaying any advertising. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the any fence surrounding the SES informing individuals of potential voltage hazards.

9. Screening - Lots on which Ground Mounted Solar Energy Systems are located shall utilize buffers / screening from roads and residences by plantings, berms, and natural topographical features. Ground mounted SES shall be screened from view to the greatest extent practical of any adjacent property that is residentially zoned or used for residential purposes, as well as any public way. The screen shall consist of a vegetative barrier which provide a visual screen. In lieu of a vegetative screen, a fence that provides visual screening, and meets requirements of the controlling ordinance, may be allowed only if a vegetative screen is deemed impractical by the Planning Board.

10. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

11. Noise – No noise generated by the SES or Solar Related Equipment shall be 10 decibels (dB) greater than the preconstruction / existing background level, nor generate a Pure Tone. The background noise limit will be based on background noise during the quietest period of the night, typically 3:00 am.

12. Lighting - Lighting shall be limited to that required for safety and operational purposes and shall be shielded from interference with abutting properties. Lighting of the SES shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution and shall otherwise comply with the provisions of Article 8, Section 15 of the Town of Readfield Land Use Ordinance. Other than required lighting, lighting shall not be used / visible between 9pm and 7am.

13. Impervious Assessment - The surface area of the arrays of a ground mounted SES, regardless of the mounted angle of any solar panels, may or may not be considered impervious contingent upon conformity with the stormwater management plan.

14. Utility Connections - Reasonable efforts, as determined by the Planning Board, shall be made to place all utility connections from the solar photovoltaic installation underground, depending on appropriate soil conditions, shape, and topography of the site and any requirements of the utility provider. Electrical transformers for utility interconnections may be above ground if required by the utility provider.

15. Emergency Services – SES owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Fire Chief. Upon request, the owner or operator shall

coordinate with local emergency services in developing an emergency response plan. A "3200 Series KNOX-BOX", or agreed equivalent, shall be provided and installed by the operator to be used to allow emergency service personnel continuous access. All means of shutting down the solar energy system shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

16. Maintenance Conditions - The SES owner or operator shall maintain the facility in good condition. Maintenance shall include, but not be limited to, painting, structural repairs, vegetative screening, fences, landscaping and plantings, and integrity of security measures. The SES must be properly maintained and be kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety or general welfare. Site access shall be maintained to a level acceptable to the fire chief for emergency response. The owner or operator shall be responsible for the cost of maintaining the SES and any access road(s), including regular plowing of snow to maintain road access.

17. Satisfaction with All Aspects of Capacity and Plans Submitted -- The Planning Board must find that the Applicant has the capacity to finance, safely operate and decommission the SES.

18. Removal - When any portion of a ground mounted SES is removed, any earth disturbance must be graded and re-seeded, unless authorized for another developed use.

19. Alternatives Assessment - As determined by the Planning Board, if a proposed ground-mounted SES does not meet the standards in this Ordinance, associated Town LUO standards, or goals and objectives as established in the Town's Comprehensive Plan, then other potential suitable alternative area(s), on the lot(s) included in the application, where a SES can meet the Town's standards, goals, and objectives needs to be evaluated by the applicant. Alternative lot areas should be evaluated against those same Ordinance standards, and Town goals and objectives.

20. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via visual consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

<u>Small-Scaled Ground-Mounted Solar Energy Systems:</u>

1. Lots - SES shall not exceed 10% coverage of a lot area. Lot coverage shall be calculated based on the total SES airspace projected over the ground. All SES should be designed and located to ensure solar and physical access without reliance on and/or interference to/from adjacent properties.

2. Setback - Structures within a SES shall be setback a minimum of 50 feet from the side and rear property lines and meet the front setback requirements for structures within the zoning district. Any solar photovoltaic cells or arrays shall be subject to a maximum height of 10 feet above the

ground surface. Associated SES structures shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

3. Prohibited Locations – Components of a ground mounted SES shall not be placed within any legal easement or right-of-way location, or be placed within any stormwater conveyance system, or in any other manner that would alter or impede stormwater runoff from collecting in a constructed stormwater conveyance system.

4. Signage - Solar energy systems shall not be used for displaying any advertising.

5. Screening - Lots on which Ground Mounted Solar Energy Systems are located shall utilize buffers / screening from roads and residences by plantings, berms, and natural topographical features. Ground mounted SES shall be screened from view of any adjacent property that is residentially zoned or used for residential purposes, as well as any public way. The screen shall consist of a vegetative barrier which provide a visual screen. In lieu of a vegetative screen, a fence that provides visual screening, and meets requirements of the controlling ordinance, may be allowed only if a vegetative screen is deemed impractical by the Planning Board.

6. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

7. Lighting - Lighting shall be limited to that required for safety and operational purposes and shall be shielded from interference with abutting properties. Lighting of the SES shall be directed downward and shall incorporate full cut-off fixtures to reduce light pollution and shall otherwise comply with the provisions of Article 8, Section 15 of the Town of Readfield Land Use Ordinance. Lighting shall not be used / visible between 9pm and 7am.

8. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via visual consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

<u>Roof Mounted Solar Energy Systems:</u>

1. The owner shall provide evidence certified by an appropriately licensed professional that the roof is capable of supporting the collateral load of the SES.

2. SES mounted on roofs of any building shall be subject to the maximum height regulations specified for principal and accessory buildings within the applicable zoning district.

3. Glare – All SES shall be situated to eliminate concentrated glare onto nearby structures or roadways.

4. For firefighter access, a minimum three (3) foot buffer zone is required from the ridge and one (1) edge of the roof or parapet.

5. Preservation of Town's Character - All reasonable efforts, as determined by the Planning Board, shall be made to ensure any SES is consistent with the character of the community via consistency with local neighborhood area, maintenance of scenic views, maintenance of open space land and farms, and the Town Comprehensive Plan, and associated Town planning documents.

Section 8. Decommissioning and Removal

1. Any Ground Mounted Solar Energy System that has reached the end of its useful life, ceases to generate power or has been abandoned shall be removed pursuant to a plan approved by the Planning Board during the application process. The landowner, or SES owner or operator shall physically remove the installation no more than 180 days after the date of discontinued operations. The owner or operator shall notify the Code Enforcement Officer by certified mail, return receipt requested, of the proposed date of the discontinued operations and plans for removal.

2. Decommissioning shall consist of:

    a. physical removal of all solar energy systems, structures, equipment, security barriers and transmission lines from the site;

    b. disposal of all solid and hazardous waste in accordance with Local, State and Federal waste disposal regulations; and

    c. stabilize or re-vegetation of the site as necessary to minimize erosion. The Code Enforcement Officer may allow the owner or operator to leave landscaping or designated below-grade foundations to minimize erosion and disruptions to vegetation.

3. Absent a notice of a proposed date of decommissioning or written notice of extenuating circumstances, a Ground Mounted Solar Energy System shall be considered abandoned when it fails to generate 10% or less permitted capacity of electricity for a continuous period of twelve (12) months without having first obtained the written consent of the Code Enforcement Officer. Determination of abandonment shall be made by the Code Enforcement Officer.

4. If the owner or operator of a Ground Mounted Solar Energy System fails to remove the installation in accordance with the requirements of this section within 180 days of abandonment or the proposed date of decommissioning, the Town of Readfield retains the right to use the performance guarantee and any and all legal or available means necessary to cause an abandoned, hazardous or decommissioned solar energy system to be removed.

Section 9. Modifications

1. Any physical modification to any existing SES, whether or not existing prior to the effective date of this Ordinance, shall require review and approval under this Ordinance.

2. Any modifications to a Medium to Large Scaled Ground-Mounted Solar Energy System made after issuance of the required town permit(s) shall require approval by the Planning Board.

3. Any modifications to a Small-Scaled Ground-Mounted Solar Energy System made after issuance of the required town permit(s) shall require approval by the Code Enforcement Officer.

4. Application fees for modifications shall be consistent with the overall size of the SES, not solely the modification.

5. Permit fees for modifications shall be based on the modified portion of the SES.

Section 10. Authority

1. This Ordinance is adopted pursuant to the enabling provisions of Article VIII, Part 2, Section 1 of the Maine Constitution, provisions of 30-A, M.R.S. § 3001, Ordinance Power, the provisions of 30-A, M.R.S. § 4352, Zoning, and the provisions of Title 30-A §4311 et seq. (Comprehensive Planning and Land Use Regulation, or "Growth Management" Act).

2. To the extent that any provision of this Ordinance is deemed invalid by a court of competent jurisdiction, such provision shall be removed from the Ordinance and the balance of the Ordinance shall remain valid.

Section 11. Effective Date and Duration

This Ordinance shall take effect on June 8, 2021 upon enactment by the Town of Readfield unless otherwise provided and shall remain in effect until it is amended or repealed.

Section 12. Enforcement Violations and Penalties

This Ordinance shall be enforced by the municipal officers or their designee. Violation of this Ordinance shall be subject to the enforcement and penalty provisions of 30-A, M.R.S. § 4452, Enforcement of Land Use Laws and Ordinances.

Adopted by Town Meeting June 8, 2021

Attested: _____
Sherene Gilman, Dep. Town Clerk

CHELSEA SOLAR ARRAY ORDINANCE

Section 1. Purpose

The purpose of this ordinance is to accomplish the following objectives with the least possible regulation.

1. To encourage the development of on-site energy production and consumption.

2. To protect the public health and safety.

3. To promote the general welfare of the community.

4. To conserve the environment, wildlife habitat, fisheries, and unique natural areas, and

5. To fit these systems harmoniously into the fabric of the community by providing standards for alternative energy systems and other types of arrays.

Section 2. Authority

1. The Chelsea Planning board is vested with the authority to review and approve, approve with conditions, or reject any application for Solar Energy Conversion Arrays (Arrays) as defined in this Ordinance. An array shall have been approved by the Planning Board before a building permit may be issued under the Building Permit and Occupancy Ordinance.

1. In the event the Planning Board requires expert opinions, advice, or testimony during the course of reviewing the application to determine the impact to surrounding properties or public safety implications, or to resolve any other issues regarding the proposal, it shall first use due diligence to obtain and utilize free services from governmental or non-profit sources.

2. Should the Planning Board not be unable to obtain and utilize free services, the Selectboard may authorize the hiring of independent third-party consultants to review array proposals in order to determine the impact to surrounding properties or public safety implications or resolve any other issues regarding the proposal. The Planning Board shall require the applicant to pay for such services after giving notice to the applicant of the name of the expert, the area of qualification of the expert, and the purpose for which the expert is required and the approximate cost of the expert.

3. The applicant shall be provided with an opportunity to meet with the Code Enforcement Officer to arrange a schedule for payment of the costs.

4. The applicant shall have the right to request a public hearing before the Appeals Board to determine if the experts, as noticed by the Planning Board, are necessary to a determination of any issue properly before the Planning Board, and if the approximate costs of the expert are reasonable. The applicant shall request the hearing within 10 days of receipt of the notice establishing the necessity and costs of any independent third-party consultant, or such time as is agreed to by the Planning Board and the applicant. It will be the applicant's burden to prove that the requested expert is unnecessary, or that the cost is not reasonable,

In addition to any other applicable provisions of this Ordinance, before granting a Solar Array Complex Plan approval, the Planning Board must find that the proposed plan will comply with such of the following standards as applicable.

Section 3. Exempt Arrays

The following arrays are exempt from this Ordinance:

1. Roof-mounted on any legally permitted residential or residential accessory structure.

2. Ground - or pole-mounted for private use, with a panel area less than 5,000 square feet.

3. Building integrated solar (i.e., shingle, hanging solar, canopy, etc...).

4. Repair or replacement of array components that do not enlarge the area of the existing array.

5. Commercial buildings utilizing solar energy for on-site operational purposes only.

Section 4. Solar Array Complex Plan Review

All non-exempt arrays must be approved by the Chelsea Planning Board through this Ordinance.

The following requirements must be included in a Solar Energy Conversion Array application:

1. All application materials required under the Building Permit Ordinance and any applicable fee established by the Board of Selectmen.

2. A site plan showing property lines, the location of any wetlands or flood zones, the location of proposed panels, equipment, fencing and access roads, and the location and setback of any roads or streets.

3. A submission showing results of four soil samples per acre from the site to establish a baseline for soil condition comparison upon decommissioning. The Town reserves the right to request additional samples for sites on or adjacent to former landfills or for sites where contamination is discovered during the soil testing process.

4. A decommissioning plan signed by the party responsible for decommissioning and the landowner (if different) whose minimum requirements meet the standards in Section 5 of this Ordinance. Such plan must be filed in the Kennebec County Registry of Deeds prior to the first operation of the array.

5. A Waste Stream Management Plan (WSMP) for the construction waste and debris at the site of the said Array, including but not limited to cardboard, wood, scrap metal, scrap wire, and clearing and grading wastes, from the construction site and the disposal site(s) of such waste. Information on the amount of material that is being recycled shall be included in the WSMP. The Code Enforcement Officer shall conduct a final inspection to ensure compliance with the approved plan.

Section 5. Guarantee For Removal

At the time of approval of a proposed array, and prior to initiating construction of any array within the Town of Chelsea, the applicant must guarantee the costs for the removal of the facility.

1. The amount of the guarantee shall be equal to 125% of the estimated removal cost, provided by the applicant and certified by a professional civil engineer licensed in Maine or a professional array construction company.

2. The owner of the facility shall provide the Planning Board with a revised removal cost estimate and structural evaluation prepared by a professional civil engineer licensed in Maine or a professional array construction company every five (5) years from the date of the Planning Board's approval of the Solar Array Complex plan.

3. If the cost has increased more than fifteen (15) percent, then the owner of the facility

shall provide additional security in the amount of the increase. The applicant may also request adjustments in the guarantee.

4. Types and Contents of Guarantee - One of the following performance guarantees chosen by the applicant shall be provided on approval of the application,

a. Interest-Bearing Escrow Account - A cash contribution equal to 125% of the estimated removal cost for the establishment of an escrow account shall be made by either a certified check made out to the Town, direct deposit into a savings account, or purchase of a certificate of deposit.

i. For any account opened by the applicant, the Town shall be named as owner or co-owner, and consent of the Town shall be required for withdrawal.

ii. Any interest earned on the escrow account shall be returned to the applicant unless the Town has found it necessary to draw on the account, in which case the interest earned shall be proportionately divided between the amount returned to the applicant and the amount withdrawn to complete the required work.

b. Performance Bond -

A performance bond shall detail the conditions of the bond, the method for release of the entire bond or portions of the bond to the Town, and the procedures for collection by the municipality. The bond documents shall specifically reference the array facility for which approval is sought.

C. Irrevocable Letter of Credit -

An irrevocable letter of credit from a bank or other lending institution shall indicate that funds have been set aside for the removal of the array facility and may not be used for any other project or loan. The letter of credit shall detail the procedures for collection by the municipality. The conditions and amount of the performance guarantee shall be determined by the Planning Board with the advice of the Town Selectmen, and/or Town Attorney, expenses paid for by the applicant.

Section 6. Decommissioning and Abandonment

1. The owner or operator of the facility, or the owner of the parcel if there is no separate owner or operator of the facility or if the owner/operator fails to do so, shall do the following as a minimum to decommission the project:

a. Remove all non-utility owned equipment, conduits, structures, fencing, and foundations to a depth of at least four feet below grade.

b. Submit the results of 4 soil samples per acre to compare to the original soil samples taken at the time of application. If there is any contamination or pollution in the soils it shall be the responsibility of the operator of the facility to restore the soils to its original state.

c. Revegetate any cleared areas with appropriate plantings that are native to the region according to an approved Solar Array Complex plan, unless requested in writing by the owner of the real estate to not revegetate due to plans for agricultural planting or other development subject to the Planning Board's approval.

d. Fill in all holes, depressions or divots resulting from the construction of the array.

2. All said removal and decommissioning shall occur within 12 months of the facility ceasing to operate.

3. Abandonment will occur as a result of any of the following conditions unless the lessee or owner of the facility or of the parcel notifies the Code Enforcement Officer of the intent to maintain and reinstate the operation of the facility within 30 days of the following events:

a. The land lease (if applicable) ends; or

b. The system does not function for 12 months; or

C. The system is damaged and will not be repaired or replaced.

4. A notice submitted to the Code Enforcement Officer of the intent to maintain and reinstate the operation of the facility shall be updated every six months with a statement of the progress made towards that goal.

5. If the facility has not returned to operational condition within one year from the date of the first notice of the intent to maintain and reinstate the operation of the facility, the Code Enforcement Officer shall find the facility has been abandoned unless there is documentable evidence that the process has had significant progress and in the Code Enforcement Officer's opinion is likely to be completed in a timely manner.

6. Upon determination of abandonment based on the foregoing, the Code Enforcement Officer shall notify the party (or parties) responsible by certified mail or by hand delivery with signed receipt that they must remove the facility and fully restore the site in accordance with section 6 subsection (1) of this ordinance within three hundred and sixty (360) days of notice by the Code Enforcement Officer. A copy of the notice shall be forwarded by the Code Enforcement Officer to the Board of Selectmen.

a. In the event the lessee of the facility fails to decommission the facility as outlined above, the landowner shall decommission the facility within 90 days of notice by the Code Enforcement Officer.

b. In the event the landowner fails to remove the facility as stated above, the Town of Chelsea shall have the facility removed and shall reimburse the Town's costs by accessing any performance guarantee provided.

c. Any unpaid costs associated with the removal after one year of removal shall be enforced as a special tax to be assessed against the real estate of the array site,

Section7. General Standards for all Arrays

1. Unless otherwise specified through a written contract, lease or other agreement, a copy of which is on file with the Chelsea Code Enforcement Officer, the property owner of record will be presumed to be the responsible party for owning and maintaining the array.

2. Approval under this Ordinance is conditional upon compliance with all other Chelsea Ordinances, the Maine Plumbing and Electrical Codes, Natural Resources Protection Act, Storm water Management Law or other applicable regulations and any requirements of the local utility if any array is to be connected to any existing electric grid.

3. An array shall not be constructed until the Solar Array Complex plan has been approved by the Planning Board and a Building Permit has been issued by the Code Enforcement Officer and any applicable appeal period having passed without an appeal being filed.

4. All arrays shall be operated and located such that no disruptive electromagnetic interference with signal transmission or reception is caused beyond the site. If it has been demonstrated that the system is causing disruptive interference beyond the site, the system operator shall promptly eliminate the disruptive interference or cease operation of the system.

5. All on-site electrical wires or piping associated with the system shall be installed underground except for "tie-ins" from above-ground mounted installations and to public-utility company transmission & distribution poles, towers and/or lines. This standard may be waived by the Planning Board if the project terrain is determined to be unsuitable for underground installation.

6. The array site shall not display any permanent or temporary signs, writing, symbols, logos, or any graphic representation of any kind except appropriate manufacturer's or installer's identification and warning signs,

7. Array placement must be designed to minimize or negate any solar glare onto nearby properties, or roadways.

8. If lighting is provided at the site, lighting shall be shielded and downcast such that the

light does not spill onto the adjacent parcel or the night sky. Motion sensor control is preferred.

9. Any point of potential contact of people or animals with generated electric current must be secured.

10. The boundaries of any nonexempt array that borders any road or any abutting residential dwelling lot shall consist of a vegetated buffer the width of the required setback along that border, in addition to any fence that may be erected, and existing vegetation should be used to satisfy these planting requirements where possible. Berms with vegetation are encouraged as a component of any buffer and the Planning Board may allow up to 25% reduction in the required buffer width where a berm is to be constructed. The buffer shall screen the array from view by the abutting road or any nearby residences to the greatest extent practical. In the event no natural vegetation exists a plan by a licensed arborist shall be submitted to the Planning Board for approval. The plan shall contain indigenous species of conifers or evergreens and must be maintained to adequately screen the array.

11. Arrays covering permanent parking lots and other hardscape areas approved by the Planning Board are encouraged in order to limit the amount of stormwater flowage. Where the array will cover existing hardscape (impermeable surface) areas, the Planning Board may in its discretion waive the vegetated buffer requirement so long as the required setback is met.

12. If electric storage batteries are included as part of any array system, they must be installed according to all requirements set forth in the National Electric Code and State Fire Code when in operation. When no longer in operation, the batteries shall be disposed of in accordance with the laws and regulations of the Town of Chelsea and any other applicable laws and regulations relating to solid, special, or hazardous waste disposal.

13. Financial gain from "Net metering' for electric power is not considered a commercial activity if used to offset energy costs of private individuals only.

Section 8. Dimensional and Design Standards

1. Setbacks: All parts of the array shall be setback from all property lines a distance equal to the required minimum setback required by the Building Permit and Occupancy Ordinance plus ten (10) feet for each 100,000 square feet or fraction thereof of array collector surface area.

2. Height: A ground - or pole - mounted SECA shall have a maximum height of 20 feet as measured from the ground level to the system's highest point at full tilt,

3. Roof Load: The weight of any array proposed to be roof mounted on any non-exempt structure must be calculated and the applicant must submit a determination by a registered engineer with stamped certification or finding that the load rating of the underlying structure can accommodate the additional weight of the SECA.

4. Lot Coverage: The maximum surface area of a ground - or pole - mounted panel system, regardless of the mounted angle, shall be calculated as part of the overall lot coverage or area of the structure, for the purposes of any applicable Town of Chelsea ordinance.

5. Design Standards:

a. Any height limitations of this Ordinance shall not be applicable to roof-mounted solar collectors provided that such structures are erected only to such height as is reasonably necessary to accomplish the purpose for which they are intended to serve.

b. Array installations shall not obstruct solar access to neighboring properties.

c. The array structure shall be a non-reflective color that blends the system and

its components into the surrounding landscape to the greatest extent possible and incorporates non-reflective surfaces to minimize any visual disruptions.

Section 9, Retroactive Clause

Notwithstanding the provisions of 1 M.R.S.A §302, and regardless of the date on which it is approved by the voters, this Ordinance shall be effective as of February 1, 2021 and shall govern any and all applications for permits or approvals required under the applicable laws of The Town of Chelsea Maine that were or become pending before any officer board or agency of The Town of Chelsea on or at any time after February 1 2021.

Section 10. Conflicts; Savings Clause

Any provisions of the Town's ordinances that are inconsistent with or conflict with the provisions of this Ordinance are hereby repealed to the extent applicable. If any section or provision of this Ordinance is declared by a Court of competent jurisdiction to be invalid, such a declaration shall not invalidate any other section or provision.

Section 11. Violations and Enforcement

Violations of this Ordinance shall be subject to per-day penalties in accordance with 30-A M.R.S. § 4452 and the violator shall be assessed the Town's reasonable attorney fees and costs. The Code Enforcement Officer shall have authority to enforce this Ordinance.

DEFINITIONS

Array: A Solar Energy Conversion Array.

For the purposes of this Ordinance, any single antenna or panel greater than 5,000 square feet of surface area is included in this definition.

Examples of arrays are, but are not limited to, solar heating panels, solar photovoltaic panels, concentrated solar thermal installations, and antenna arrays.

Berm: A barrier constructed of landscaped earth, four (4) feet or more in height measured from the outside base of the berm. Berms may be pierced with reasonable access ways no more than twelve (12) feet in width as approved by the Planning Board.

Solar Energy Conversion Array (SECA): The components and subsystems required to convert solar energy into electric or thermal energy suitable for use. The term applies, but is not limited to, solar photovoltaic (PV) systems, solar thermal systems, concentrated solar thermal installations, and solar hot water systems.

FEBRUARY 2020

Model Site Plan Regulations and Conditional Use Permits to Support Solar Energy Systems in Maine Municipalities

This document describes and models two land-use tools Maine municipalities may use to permit small-, medium-, and large-scale solar energy systems, including both ground-mounted and roof-mounted solar installations. The purpose of this document is to assist Maine municipalities in supporting development of solar energy systems in ways that address the needs of their community. Communities will need to carefully consider how model language may be modified to suit local conditions and where it should be inserted into an existing zoning ordinance, if applicable. Further, it is highly recommended that any language adapted from these models be reviewed by municipal counsel prior to adoption.

Selecting a Land-Use Tool

Several land-use tools are available to accommodate solar energy systems, including overlay zones, floating zones, conditional-use permits, and site plan regulations. The two land-use tools addressed here, site plan regulations and conditional-use permits, were selected to respond to the variations in planning resources across Maine municipalities. Site-plan regulation may be more appropriate for municipalities that do not have a zoning ordinance in place; a combination of Site Plan Review and conditional-use permits may be appropriate for municipalities that have an existing zoning ordinance. That said, municipalities with an existing zoning ordinance that wish to allow solar may not need to amend their ordinance in advance of development; the model site-plan regulation standards may be sufficient to meet a community's needs in the short-term as they consider amending their ordinance for development over the long-term.

Furthermore, roof-mounted and small-scale ground-mounted solar energy systems may not require any regulatory or permitting changes, or additional oversight by a municipal planning authority, at all. Many communities allow these land uses as-of-right, for example, if they meet standards such as accessory structure requirements in the case of small ground-mounted systems. This means that development may proceed without the need for a conditional use permit, variance, amendment, waiver, or other discretionary approval. These projects cannot be prohibited, and can be built once a building permit has been issued by the inspector of buildings, building commissioner, or local inspector. See page 7 for model definitions (including square footage) for small-, medium-, and large-scale solar energy systems, as well as definitions for roof- and ground-mounted solar energy systems.

Navigating This Document

The document contains model site plan regulations and conditional use permit language. Model site plan regulation language begins on page 3 and model conditional use language begins on page 7. Content in the yellow boxes includes additional context and information for readers to consider as they contemplate how the model language may suit their municipality. Content in brackets should be modified to fit a municipality's particular resources and nomenclature. This content, a long with the model language, may also provide municipalities the information they need to create different land use tools to guide solar development in their community.

Readers may also want to consider a Maine-based Frequently Asked Questions document that addresses solar power development from a community and municipal perspective and recommended Best Practices for Low Impact Siting, Design, and Maintenance from some of Maine's leading natural resource and agricultural organizations. These documents can be found at maineaudubon.org/solar.

For More Information

Please contact Eliza Donoghue, Director of Advocacy and Staff Attorney for Maine Audubon, at edonoghue@maineaudubon.org.

I. MODEL SITE PLAN REGULATION LANGUAGE

Site Plan Review and Performance Standards

Site Plan Review may be appropriate when medium-scale ground-mounted systems are sited within natural resource protection districts. Site Plan Review may be appropriate for large-scale ground-mounted systems when they are sited anywhere within the community.

Site Plan Review procedures and requirements may stand alone or as a separate section of a municipality's zoning ordinance. There are also instances when communities that have a zoning ordinance have separate Site Plan Review provisions and procedures pertaining to a particular use or development type.

As discussed previously (see 'Selecting a Land-Use Tool', above), performance standards are generally sufficient for roof-mounted and small-scale ground-mounted solar energy systems.

Standards for Roof-Mounted and Small-Scale Ground-Mounted Solar Energy Systems

(a) Roof-mounted and building-mounted solar energy systems and equipment are permitted by right, unless they are determined by the [Code Enforcement Officer, with input from the Town Engineer and the Fire Chief] to present one or more unreasonable safety risks, including, but not limited to, the following:

  (i) Weight load;

  (ii) Wind resistance;

  (iii) Ingress or egress in the event of fire or other emergency; or

  (iv) Proximity of a ground-mounted system relative to buildings.

(b) All solar energy system installations shall be installed in compliance with the photovoltaic systems standards of the latest edition of the National Fire Protection Association (NFPA1) adopted by [Town].

(c) All wiring shall be installed in compliance with the photovoltaic systems standards of the latest edition of the National Electrical Code (NFPA 70) adopted by [Town].

(d) Prior to operation, electrical connections must be inspected and approved by the Electrical Inspector.

Additional Standards for Medium- and Large-Scale Ground-Mounted Solar Energy Systems

In addition to the standards in [Sec. __], medium- and large-scale ground-mounted solar energy systems shall comply with the following:

(a) Utility Connections: Overhead or pole-mounted electrical wires shall be avoided to the extent possible within the facility.

(b) Safety: The solar system owner or project proponent shall provide a copy of the Site Plan Review application to the [Fire Chief] for review and comment. The [Fire Chief] shall base any recommendation for approval or denial of the application upon review of the fire safety of the proposed system.

(c) Visual Impact: Reasonable efforts, as determined by the [Planning Board], shall be made to minimize undue visual impacts by preserving native vegetation, screening abutting properties, or other appropriate measures, including adherence to height standards and setback requirements.

(d) Land Clearing, Soil Erosion, and Habitat Impacts: Clearing of natural vegetation shall be limited to what is necessary for the construction, operation and maintenance of ground-mounted solar energy systems or as otherwise prescribed by applicable laws, regulations, and bylaws/ordinances. Ground-mounted facilities shall minimize mowing to the extent practicable. Removal of mature trees shall be avoided to the extent possible. Native, pollinator-friendly seed mixtures shall be used to the extent possible. Herbicide and pesticide use shall be minimized. No prime agricultural soil or significant volume of topsoil shall be removed from the site for installation of the system.

Solar Energy System Fencing

The National Electric Code requires fencing for certain sized, ground-mounted solar energy systems. To allow for wildlife passage, fences should be elevated by a minimum of 5 inches. To maximize wildlife's ability to permeate fencing, municipalities may consider requiring the use of 'Solid Lock Game Fences'. Such fencing would start with 8 by 12-inch openings at the bottom (ground) with progressively smaller openings at the top of the fence. This type of fencing meets the National Electric Code for human safety. Additionally, municipalities may consider requiring the placement of five-inch or larger diameter wooden escape poles in two or more corners of the perimeter fence as an alternative means for wildlife to escape the enclosed area.

(e) Fencing: Where fencing is used, fences should be elevated by a minimum of 5 inches to allow for passage of small terrestrial animals.

(f) Removal: Solar energy systems that have reached the end of their useful life or that has been abandoned consistent with this ordinance shall be removed. The owner or operator shall physically remove the installation no more than 365 days after the date of discontinued operations. The owner or operator shall notify the [Code Enforcement Officer] by certified mail of the proposed date of discontinued operations and plans for removal. Decommissioning shall consist of:

(i) Physical removal of all solar energy systems, structures, equipment, security barriers, and transmission lines from the site.

(ii) Disposal of all solid and hazardous waste in accordance with local, state, and federal waste disposal regulations.

(iii) Stabilization or re-vegetation of the site as necessary to minimize erosion. Native, pollinator-friendly seed mixtures shall be used to the maximum extent possible.

(g) Abandonment:

(i) Absent notice of a proposed date of decommissioning or written notice of extenuating circumstances, a large-scale ground-mounted solar energy system shall be considered abandoned when it fails to operate for more than one year.

(ii) If the owner or operator of the solar energy system fails to remove the installation within 365 days of abandonment or the proposed date of decommissioning, the [Town] retains the right to use all available means to cause an abandoned, hazardous, or decommissioned large-scale ground-mounted solar energy system to be removed.

Additional Standards for Large-Scale Solar Energy Systems

(a) Large-scale ground-mounted solar energy systems shall not be considered accessory uses.

(b) Operations and Maintenance Plan: The project proponent shall submit a plan for the operation and maintenance of the large-scale ground-mounted solar energy system, which shall include measures for maintaining safe access to the installation as well as other general procedures for operational maintenance of the installation.

(c) Signage: A sign shall be placed on the large-scale solar energy system to identify the owner and provide a 24-hour emergency contact phone number.

(d) Emergency Services: The large-scale ground-mounted solar energy system owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the [Fire Chief]. Upon request, the owner or operator shall cooperate with the [Fire Department] in developing an emergency response plan. All means of shutting down the system shall be clearly marked. The owner or operator shall provide to the [Code Enforcement Officer] the name and contact information of a responsible person for public inquiries throughout the life of the installation.

Site Plan Application and Review

(a) Applicability:

(i) Roof-mounted systems and small-scale ground- mounted systems are not subject to Site Plan Review.

(ii) Medium-scale ground-mounted solar energy systems are not subject to Site Plan Review, except in natural resource protection districts and as may be required if conditional use permits are needed.

(iii) Large-scale ground-mounted solar energy systems are subject to Site Plan Review.

(b) In addition to the [Town's] site plan application requirements, the Applicant shall submit the following supplemental information as part of a site plan application:

(i) A site plan showing:

(1) Property lines and physical features, including roads, for the project site;

(2) Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, screening vegetation or structures;

(3) Blueprints or drawings of the solar energy system showing the proposed layout of the system, any potential shading from nearby structures, the distance between the proposed solar collector and all property lines and existing on-site buildings and structures, and the tallest finished height of the solar collector;

(4) Documentation of the major system components to be used, including the panels, mounting system, and inverter(s);

(5) Name, address, and contact information of the proposed system installer, the project proponent, project proponent agent, and all co-proponents or property owners, if any; and

(6) A one- or three-line electrical diagram detailing the solar photovoltaic installation, associated components, and electrical interconnection methods.

If the following are not addressed in existing Site Plan Review regulations, then the community may wish to include them:

(7) Locations of important plant and animal habitats identified by the Maine Department of Inland Fisheries and Wildlife or [Town of], or rare and irreplaceable natural areas, such as rare and exemplary natural communities and rare plant habitat as identified by the Maine Natural Areas Program.

(8) Locations of wetlands and waterbodies.

(9) Locations of "Prime Farmland" and "Farmland of Statewide Importance".

(10) Locations of floodplains.

(11) Locations of local or National Historic Districts.

(12) A public outreach plan, including how the project proponent will inform abutters and the community.

Review Processes

(a) For projects that are subject to permitted uses, [Town staff] will review the application and make final determination within 5 days of receipt.

(b) For all projects that require Site Plan Review, the following administrative procedures shall take effect:

(i) Prior to submitting an application and the start of the review process, a pre-application conference is recommended. The conference is initiated by the Applicant and is scheduled with the Applicant and a member of the planning staff to discuss pertinent requirements.

(ii) The Applicant shall submit the required number of copies of their application at least seven days in advance of the meeting when the project is scheduled for a [Planning Board] agenda.

(iii) Applications are processed in the order in which they are received.

(iv) Within 10 days of receipt of the application in the [Department of Planning and Development], the Applicant will be notified if their application is complete or incomplete. If it is incomplete, a list of outstanding items will be included in the notification letter. Each time revisions are submitted on an incomplete application, the [Town] has another 10 days to review the revised materials to make a determination of completeness.

(v) Once an application is deemed to be complete, the project will be reviewed by [Town staff] for compliance with the ordinance standards. The Applicant will be notified of staff comments regarding the project and the Applicant may make revisions to address these comments.

(vi) When the project is scheduled for a [Planning Board] agenda, the planning staff will prepare a written report that discusses the project and makes a recommendation to the [Planning Board] as to a decision. The report is available to the Applicant on the [___ day] preceding the [Planning Board] meeting. The [Board] will hold the public hearing on the application within 30 days of receipt of a complete application and make a decision within 10 days of that hearing. A decision may be postponed, with agreement of the applicant, to allow time for revisions to a plan.

(vii) The applicant or a duly authorized representative should attend the [Planning Board] meeting to discuss the application.

II. MODEL CONDITIONAL-USE PERMIT LANGUAGE

Purpose

(a) Solar energy is a local, renewable and non-polluting energy resource that can reduce fossil fuel dependence and emissions. Energy generated from solar energy systems can be used to offset energy demand on the grid, with benefits for system owners and other electricity consumers.

(b) The use of solar energy equipment for the purpose of providing electricity and energy for heating and/or cooling is an important component of the [Town's] sustainability goals.

(c) The standards that follow enable the accommodation of solar energy systems and equipment in a safe manner while still allowing the quiet enjoyment of property.

(d) This ordinance is intended to balance the need for reasonable standards and expedited and streamlined development review procedures.

Within a Zoning Ordinance the definition section usually stands alone, but may be included in a subsection within other sections of the Zoning Ordinance.

Definitions

Electrical Equipment: Any device associated with a solar energy system, such as an outdoor electrical unit/control box, that transfers the energy from the solar energy system to the intended location.

Electricity Generation (production, output):
The amount of electric energy produced by transforming other forms of energy, commonly expressed in kilowatt-hours (kWh) or megawatt-hours (MWh).

Height of building: The vertical measurement from grade to the highest point of the building, except that utility structures such as chimneys, TV antennae, HVAC systems, and roof-mounted solar energy systems shall not be included in this measurement, nor shall any construction whose sole function is to house or conceal such structures.

Mounting: The manner in which a solar PV system is affixed to the roof or ground (i.e., roof mount, or ground mount.

Power: The rate at which work is performed (the rate of producing, transferring, or using energy). Power is measured in Watts (W), kilowatts (kW), Megawatts (MW), etc. in Alternative Current (AC).

Solar Array: Multiple solar panels combined together to create one system.

Solar Collector: A solar PV cell, panel, or array, or solar thermal collector device, that relies upon solar radiation as an energy source for the generation of electricity or transfer of stored heat.

Solar Energy System: A solar energy system whose primary purpose is to harvest energy by transforming solar energy into another form of energy or transferring heat from a collector to another medium using mechanical, electrical, or chemical means. It may be roof-mounted or ground-mounted, and may be of any size as follows:

1. Small-scale Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is less than 15,000 square feet (approximately one-third of an acre);
2. Medium-scale Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is equal to or greater than 15,000 square feet but less than 87,120 square feet (two acres); and
3. Large-scale Solar Energy System is one whose physical size based on total airspace projected over a roof or the ground is equal to or greater than 87,120 square feet (two acres).

Solar Energy System, Ground-Mounted: A Solar Energy System that is structurally mounted to the ground and is not roof-mounted; may be of any size (small-, medium- or large-scale).

Solar Energy System, Roof-Mounted: A Solar Energy System that is mounted on the roof of a building or structure; may be of any size (small-, medium- or large-scale).

Tilt. The angle of the solar panels and/or solar collector relative to horizontal. Tilt is often between 5 and 40 degrees. Solar energy systems can be manually or automatically adjusted throughout the year. Alternatively, fixed-tilt systems remain at a static tilt year-round.

Use Regulations

Within a Zoning Ordinance, the Use Regulations describe which land uses are allowed within different zoning districts of the community, as well as which permits are required. The Use Regulations typically include a Use Table and/or narrative description of the principal and accessory uses that are allowed, prohibited, and/or allowed only through a conditional use permit or are subject to Site Plan Review within each zoning district.

The example provided in this section demonstrates how roof-mounted, small-scale ground-mounted, medium-scale ground-mounted, and large-scale ground-mounted solar energy systems can be incorporated into a municipality's Use Regulations as a Use Table. A town may elect instead to list uses.

In this model, roof-mounted solar energy systems, regardless of size, are allowed as-of-right throughout the community. This means that development may proceed without the need for a conditional-use permit, variance, amendment, waiver, or other discretionary approval. These projects cannot be prohibited, and can be built once a building permit has been issued by the inspector of buildings, building commissioner, or local inspector.

Ground-Mounted Systems

For ground-mounted systems, there is a distinction between how small-scale, medium-scale and large-scale systems are treated and where each are allowed as-of-right, via Site Plan Review, or by conditional use permit. The model zoning allows small-scale ground-mounted systems as-of-right throughout the community except for in natural resource protection zones, in which a conditional use permit is required. These are of a size that would service a house, small businesses, or small municipal building. The model zoning allows medium-scale ground-mounted systems in all districts except as a principal use in natural resource protection zoning districts; in these or similar districts, medium-scale ground-mounted systems are only allowed as an accessory use through Site Plan Review.

As drafted, the model zoning requires Site Plan Review for all large-scale ground-mounted systems and prohibits such systems in natural resource protection districts. Alternatively, a municipality may choose to prohibit large-scale ground-mounted systems in residential districts, due to housing or other growth or land use needs. Site Plan Review is discussed in more detail earlier in this document (see page 3), but in general it establishes criteria for the layout, scale, appearance, safety, and environmental impacts of certain types and/or scales of development. Typically, site plan approval must be obtained before the building permit is issued.

Siting Best Practices

"Low Impact Solar Siting, Design, and Maintenance", a resource created by Maine-based environmental and agricultural NGOs, describes how Maine communities can realize solar energy systems' climate and economic benefits while avoiding or significantly reducing undue impacts to wildlife, farming, and critical natural resources. This resource can be found at maineaudubon.org/solar. The practices described in the resource, coupled with the standards outlined in the model site plan regulation language, can ensure that solar energy systems are thoughtfully sited within a community.

Applicability

(a) Notwithstanding the provisions of 1 M.R.S.A section 302 or any other law to the contrary, the requirements of this [Chapter] shall apply to all roof-mounted and ground-mounted solar energy systems modified or installed after the date of its enactment.

(b) All solar energy systems shall be designed, erected, and installed in accordance with all applicable codes, regulations and standards.

(c) Any upgrade, modification or structural change that materially alters the size, placement or output of an existing solar energy system shall comply with the provisions of this [Chapter].

(d) For the purpose of this [Chapter], the [Town's] zoning districts are mapped and categorized as follows:
[see Use Table on next page].

Permitting

(a) A solar energy system or device shall be installed or operated in the [Town] provided it is in compliance with this ordinance.

(b) Permitting shall be determined by the locational zone within the [Town], type of solar system, and proposed size. The [Town] has designated the proper permitting process for each solar system in the attached matrix entitled "Permitting Required for Solar Energy Systems."

(c) Permitted Use: Roof-mounted solar energy systems are permitted in all zoning districts, subject to the dimensional standards of [Sec. 5] and the additional standards outlined in [Sec. 5] and [Sec. 6].

Permitting Required for Solar Energy Systems

	Commercial	Industrial	Residential	Rural Residential	Rural Farm and Forest	Natural Resource Protection
Principal Use						
Medium-scale Ground-mounted SES	**Y**	**Y**	**CU**	**CU**	**CU**	**N**
Large-scale Ground-mounted SES	**SPR**	**SPR**	**SPR or N**	**SPR**	**SPR**	**N**
Accessory Use						
Rooftop SES	**Y**	**Y**	**Y**	**Y**	**Y**	**Y**
Small-scale Ground-mounted Solar	**Y**	**Y**	**Y**	**Y**	**Y**	**CU**
Medium-scale Ground-mounted Solar	**Y**	**Y**	**Y**	**CU**	**CU**	**SPR**

Y = Allowed; N = Prohibited; CU = Conditional Use; SPR = Site Plan Review

Dimensional Regulations

In most cases, the existing dimensional standards in a Zoning Ordinance will allow for the development of small-, medium-, and large-scale solar energy systems. However, if a municipality finds alternate dimensional standards are necessary to allow solar energy energy systems while protecting public health, safety, and welfare, it may impose them.

Height

It is recommended that for purposes of height, roof-mounted solar energy systems should be considered similar to chimneys, television antennae, roof-top mechanical equipment and other appurtenances that are usually either allowed a much higher maximum height (e.g., 100 feet instead of 35 feet) or are exempted altogether from building height requirements. Such an exemption can be stated in the definition of "Building Height" or through language similar to that provided in the following example.

Dimensional Standards

(a) Height: In mixed-use and non-residential commercial/industrial zones, solar energy systems shall be considered to be mechanical devices and, for purposes of height measurement, are restricted only to the extent consistent with other building-mounted mechanical devices.

(b) Height standards for ground-mounted solar energy systems are dependent on location and zoning district:

(i) In residential and mixed-use zoning districts, such systems shall not exceed twelve (12) feet in height when oriented at maximum tilt, except that the maximum height is twenty-two (22) feet for systems set back at least thirty (30) feet from any property line.

(ii) In all other zoning districts, such systems shall conform to the building height requirements of the zoning districts in which they are located.

Setbacks

It is recommended that small- and medium-scale ground-mounted solar energy systems that are accessory to a primary building or structure on a lot be provided with more flexible setback requirements than those that would typically apply to a primary structure. Many communities already provide some flexibility for "accessory structures" like sheds, allowing these to be closer to the lot line than the primary structure. For example, where a front/side/rear yard setback for the primary structure may be 50 feet, setbacks of 20 feet may be allowed for accessory structures. When ground-mounted solar energy systems are developed as accessory structures to a home, business or other building or structure, they should be afforded at least the same flexibility.

If a community does not have this type of reduced setback already built into the Zoning Ordinance, a provision could be added that effectively reduces the setback distance just for this use.

(c) Setbacks for Ground-Mounted Solar Energy Systems

(i) Notwithstanding any other provision of this ordinance to the contrary, the setbacks for ground-mounted solar energy systems shall be as follows:

(1) Minimum front yard: In residential zoning districts, fifty (50) feet. In mixed use and non-res idential zoning districts, whatever the front yard setback is for that zoning district, but in no event less than ten (10) feet.

(2) Minimum rear yard: Whatever the rear yard setback is for accessory buildings in that zoning district.

(3) Minimum side yard: Whatever the rear yard setback is for accessory buildings in that zoning district.

(ii) Additional setbacks may be required to mitigate visual and functional impacts.

Lot Coverage

A number of communities use "maximum lot coverage" or "maximum impervious surface" as one of their dimensional standards. While it is clear that such features as driveways or buildings would be included in any calculation of lot coverage, many other features may be more ambiguous depending on how clearly the definition in the Zoning Ordinance is written. Regardless of the definition, it is recommended that solar energy systems with grass or another pervious surface under them be exempted from lot coverage or impervious surface calculations. However, if the area is to be paved or otherwise rendered impervious then this land area should in fact count toward any coverage or impervious surface limit. For the purposes of municipal stormwater regulations, panels could have the effect of altering the volume, velocity, and discharge pattern of stormwater runoff, however, vegetated cover beneath arrays should not be considered fully impervious.

Example:

Solar energy systems shall not be included in calculations for lot coverage or impervious cover as defined in [Sec. __].

Created by

Maine Audubon, with significant review, feedback, and support from Maine-based solar developers, municipal planners, agricultural organizations, and solar advocates.

Please contact Eliza Donoghue at edonoghue@maineaudubon.org with questions.

From:	Joel Greenwood
To:	Anthony Wilson
Subject:	RE: follow-up email - Draft language for Wind / Solar / Cell towers
Date:	Tuesday, October 19, 2021 1:32:15 PM
Attachments:	image004.png image005.png Simplified Cell Tower Ordinance Draft - Belgrade Oct 2021.docx Model Wind Energy Ordinance - Belgrade Oct 2021.docx Solar Energy Systems Model Language - Oct 2021.docx

EXTERNAL MESSAGE:

Hi Anthony,

Here is a slew of model language for each individual issue. Of course a lot of this will have repetitive and redundant "ordinance admin" within it and if it is to be folded into an overarching commercial development review ordinance only the relevant sections on standards etc. would be needed.

A good starting point for discussions though I hope, showing the different areas that need consideration.

Hope this is helpful and I can likely make a Thursday meeting in the future, so let me know when a good time for this will be (November meeting perhaps?)

Good to see you this morning.

Regards,

Joel

Joel Greenwood
Planning Director
Kennebec Valley Council of Governments
17 Main Street, Fairfield, ME 04937
(207) 453-4258 Ext - 219

From: Anthony Wilson <townmanager@townofbelgrade.com>
Sent: Friday, October 8, 2021 11:24 AM
To: Joel Greenwood <jgreenwood@kvcog.org>
Subject: FW: follow-up email

Hey, Joel. I followed up with Ole on this email, and he suggested perhaps getting some template ordinances from you for solar farms and the decommissioning of those structures, along with wind turbines and telecommunication towers. Also, I'd like to briefly touch base with you to ensure that

TOWN OF BELGRADE

UTILITY SCALE SOLAR ENERGY FACILITY ORDINANCE

DRAFT 10-18-2021

Section 1. Purpose

The purpose of this Ordinance is to establish a municipal review procedure and siting standards for Utility Scale Solar Facilities (USSF's). These standards are intended to:

a. Establish clear guidelines and standards to regulate utility scale solar energy facilities;

b. Permit the Town to fairly and responsibly protect public health, safety and welfare;

c. Support the development of utility scale solar energy facilities in a manner that minimizes any potential adverse effects on the scenic, cultural, and natural resource character of the Town;

d. Provide for the removal of panels and associated utility structures that are no longer being used for energy generation and transmission purpose; and

e. Support the goals and policies of the Comprehensive Plan, including orderly development, efficient use of infrastructure, and protection of natural and scenic resources.

Section 2. Authority

This Ordinance is enacted pursuant to the enabling provisions of Article VIII, Part 2, §1 of the Maine Constitution, the provisions of Title 30-A MRSA, §3001 (Home Rule), and the provisions of Title 30-A §4312 et. seq. (Comprehensive Planning and Site Plan Review Regulation, or "Growth Management" Act).

Section 3. Applicability

a. No Utility Scale Solar Energy Facility shall be located within the Town of Belgrade without a Permit issued by the Town of Belgrade Planning Board, unless specifically exempted from the permit requirements of this Ordinance. Any physical expansion, reconfiguration, or increase in the Rated Nameplate Capacity of an existing Solar Energy Facility shall also require approval from the same permitting authority as required for a new Utility Scale Solar Energy Facility under this Ordinance. Routine maintenance or replacements do not require a permit.

b. Exemption. Solar Energy Facilities occupying 800 square feet or less are exempt from the requirements of this Ordinance, but must meet state electrical codes and permitting requirements, and applicable requirements of any other Ordinance of the Town of Belgrade.

Section 4. Definitions

As used in this Ordinance, unless the context otherwise indicates, the terms referenced below have the following meanings:

a. **Financial capacity:** Means the demonstration of current and future financial capacity, which must be unaffected by the owner's or operator's future financial condition, to fully fund decommissioning in accordance with an approved decommissioning plan under this ordinance.

b. **Rated Nameplate Capacity:** means the maximum rated output of electric power production of the photovoltaic system in watts of Direct Current (DC)

c. **Residential Dwelling Structure:** means any structure that includes a room or group of rooms with a bathroom, cooking, and sleeping facilities designed and equipped exclusively for use as permanent, seasonal, or temporary living quarters. The term shall include mobile homes and rental units that contain cooking, sleeping and toilet facilities regardless of the time-period rented. Recreational vehicles are not residential dwellings.

d. **Transfer of ownership**: means a change in the legal entity that owns or operates a solar energy development. A sale or exchange of stock or membership interests or a merger is not a transfer of ownership as long as the legal entity that owns or operates the solar energy development remains the same.

e. **Utility Scale Solar Facility (USSF):** is any solar facility, project, or installation which is intended to and/or in fact does generate solar power and feeds said power into the electric grid supplying the local utility with power. This shall include, but is not limited to, any ground mounted photovoltaic (PV) project that is larger than 0.10 M.W. (ac) in capacity. Residential/commercial solar arrays smaller than 0.10 M.W. (ac) are not included in this definition.

Section 5. Administration and Enforcement

a. This Ordinance will be administered as an additional level of review along with the provisions of the Site Plan Review Ordinance, including Sections II through V, which are hereby incorporated by reference. Specific application requirements, standards of review, and other requirements pertinent to Solar Energy Facilities within this Ordinance shall be added to the Application Requirements and Standards of Approval within the Site Plan Review Ordinance. In case of a conflict, the stricter provision shall apply.

b. Permit Required. An approval Permit from the Planning Board is required prior to the installation, construction, or expansion of a Utility Scale Solar Energy Facility (USSF). USSF's must meet the requirements of this Ordinance and the Site Review Ordinance. All USSF's must also meet all federal and state electrical codes and permitting requirements.

Section 6. Specific Application Requirements

In addition to the requirements listed in Section II of the Site Plan Review Ordinance, an application for a USSF Permit must also include the following:

a. An additional permit / technical review fee to be set by the Board of Selectmen shall be payable at the time of application. This fee will be reviewed and amended as necessary on an annual basis.

b. A description of the owner of the facility, the operator if different, and detail of qualifications and track record to run the USSF;

c. If the operator will be leasing the land, a copy of the agreement (minus financial compensation) clearly outlining the relationship inclusive of the rights and responsibilities of the operator, landowner, and any other responsible party with regard to the USSF and the life of the agreement;

d. A description of the energy to be produced and to whom it will be sold;

e. A copy of the agreement and schematic details of the connection arrangement with the transmission facility, clearly indicating which party is responsible for various requirements and how they will be operated and maintained;

f. A description of the panels to be installed, including make and model, and associated major facility components;

g. A construction plan and timeline, identifying known contractors, site control, and anticipated on-line date;

h. A full official land survey of the proposed site. Must include any Rights of way and Easements on the property and be sealed and/or stamped by a Maine licensed professional surveyor.

i. An operations and maintenance plan, including site control and the projected operating life of the facility;

j. An emergency management plan for all anticipated hazards;

k. Proof of financial capacity to construct and operate the proposed USSF; and

l. A Visual Impact Assessment

An analysis to determine potential visual effect of the USSF must be undertaken.
In all visual impact assessments, scenic resources within the viewshed of the proposed activity must be identified and the existing surrounding landscape must be described. The assessment must be completed following standard professional practices to illustrate the proposed change to the visual environment and the effectiveness of any proposed mitigation measures.

A visual impact assessment must also include narratives to describe the significance of any potential impacts, the level of use and viewer expectations, measures taken to avoid and minimize visual impacts, and steps that have been incorporated into the activity design that may mitigate any potential adverse visual impacts to scenic resources.

The Visual Impact Assessment must include the following elements:

i. A visual and cartographic analysis (Viewshed Analysis)

A geographical representation of all the areas of where the USSF, from its highest points is visible from the surrounding (impact) area should be presented. The radius of the impact area to be analyzed must be based on the relative size and scope of the proposed activity given the specific location. Areas of the impact area from which the activity will be visible, including representative and worst-case viewpoints, must be identified. Line-of-sight profiles constitute the simplest acceptable method of illustrating the potential visual impact of the proposed activity from viewpoints within the context of its viewshed. A line-of-sight profile represents the path, real or imagined, that the eye follows from a specific point to another point when viewing the landscape.

ii. Site inventory and photographic review.

This should provide a comprehensive and objective means by which to analyze and assess the potential visual and aesthetic impacts that may result from the USSF and its associated elements.

iii. Visual Simulations - Visual simulations should be provided to show a photo-realistic perspective view of proposed USSF elements in the landscape, thereby allowing abutters to clearly visualize how a project will really look from their primary residential structure.

The visual impact assessment must be prepared by a design professional trained in visual assessment procedures, or as otherwise directed by the Planning Board.

m. A decommissioning plan, including:

i. A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if no electricity is generated for a continuous period of 12 months. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for a continuous period of 12 months, the project has not been abandoned and should not be decommissioned.

ii. A description of the work required to physically remove all solar panels, associated foundations, buildings, cabling, electrical components, and any other associated facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing.

[Note: At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Solar Energy Facility. Any changes to the approved decommissioning plan shall be subject to review and approval by the Planning Board.]

iii. An estimate of the total cost of decommissioning less salvage value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: panel removal, panel foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization, and road infrastructure removal and permanent stabilization. This cost estimate must be updated every three (3) years.

iv. Demonstration in the form of a performance bond, surety bond, letter of credit, or other form of financial assurance as may be acceptable to the Planning Board that upon the end of the useful life of the USSF the Applicant will have the necessary financial assurance in place for 100% of the total cost of decommissioning, less salvage value. The Applicant may propose securing the necessary financial assurance in phases, as long as the total required financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the USSF. The financial assurance shall include a provision granting the Town the ability to access the funds and property and perform the decommissioning if the USSF is abandoned or the Applicant or subsequent responsible party fails to meet their obligations after reasonable notice, to be defined in the agreement and approved by the Planning Board.

v. Transfer of ownership. Upon a transfer of ownership of a solar energy development subject to a decommissioning plan approved under this ordinance, a person that transfers ownership of the development remains jointly and severally liable for implementation of the plan until the Planning Board approves transfer of the decommissioning plan to the new owner or operator.

Section 7. Standards for Approval

In addition to the requirements in Section III of the Site Plan Review Ordinance, the following standards must also be met:

a) Legal Responsibilities: The Applicant must provide proof of authorization to construct, use, and maintain the property and any access drive for the life of the USSF and including the decommissioning of the USSF. The roles and responsibilities of the facility owner, operator, landowner and any other party involved in the project must be clear and meet the satisfaction of the Planning Board that the public interest is protected.

b) Setbacks: Structures (including fencing) that are part of a USSF shall be setback a minimum of **100 feet** from any existing residential dwelling structure.

c) Height: The USSF shall be no more than 15 feet high at its tallest point of any equipment.

d) Utility Notification: No USSF shall be installed until evidence has been given to the Planning Board that the applicant has an agreement with the local utility to accept the power.

e) Fencing: The Planning Board may require that a USSF be enclosed by fencing to prevent unauthorized access and may also require landscaping to avoid adverse aesthetic impacts of installed fencing to adjacent properties.

f) Signage: Signage shall be required to identify the owner of the USSF and provide a 24-hour emergency contact phone number. This signage shall not be used for advertising except for reasonable identification of the manufacturer or operator of the USSF. A clearly visible warning sign shall be placed at the base of all pad-mounted transformers and substations and on the fence surrounding the USSF, informing individuals of potential voltage hazards, including stating the output of power (AC or DC).

Signage indicating the official e911 address of the Facility shall also be required to clearly be visible, from both directions of travel, from the public road or roads from which the USSF is accessed.

g) Visual Impact: Any USSF should not have any detrimental effect on the scenic resources of the town or degrade the scenic value from abutters properties. In order determine the visual impact of any USSF, the Planning Board will, using the information provided in the Visual Impact Assessment study (See above), consider the following:

i. The significance of the potentially affected scenic resources;
ii. The existing character of the surrounding area;
iii. The expectations of the typical viewer;
iv. The project purpose and the context of the proposed activity;
v. The extent, nature and duration of the potential effect of the USSF's presence on the public's continued use and enjoyment of the towns scenic resources.

h) Emergency Services: The USSF owner or operator shall provide a copy of the project summary, electrical schematic, and site plan to the Town of Belgrade Fire Chief. Upon request, the owner or operator shall coordinate with local emergency services in developing an emergency response plan. A "3200 Series KNOX-BOX" shall be provided and installed by the operator to be used to allow emergency service personnel continuous access. All means of shutting down the USSF shall be clearly marked. The owner or operator shall identify a responsible person for public inquiries throughout the life of the installation.

Access roads to the USSF shall be of sufficient quality and dimensions to satisfy the fire chief that any emergency response vehicles be able to easily and safely gain access to and around the site.

i) Maintenance Conditions: The USSF owner or operator shall maintain the USSF and all associated fencing and landscaping elements in good functional condition. Maintenance shall include, but not be limited to, painting, structural repairs, and integrity of security and visual barrier measures. The USSF must be properly maintained and be kept free from all hazards, including, but not limited to, faulty wiring, loose fastenings, being in an unsafe condition or detrimental to public health, safety, or general welfare. Site access shall be maintained to a level acceptable to the Town of Belgrade Fire Chief for emergency response. The owner or operator shall be responsible for the cost of maintaining the USSF and any access road(s).

j) Modifications: Any material modifications to a USSF made after issuance of the required Town permit(s) shall require approval by the Code Enforcement Officer and/or the Planning Board.

k) Satisfaction with All Aspects of Capacity and Plans Submitted: The Planning Board must find that the Applicant has the capacity to finance, safely operate and decommission the USSF.

Legal Disclaimer:

The intent of this model ordinance is to provide Maine municipalities an example as information for review, reference, and consideration, at their sole discretion, regarding potential approaches to local regulation of wind energy development. Provided for informational purposes only, this model ordinance does not and is not intended to render any legal advice. Pertinent factual, legal, and other circumstances vary significantly among municipalities and are subject to changes. Municipalities considering use of this model ordinance or any of its provisions are advised and encouraged to consult with a qualified attorney.

Wind Energy Facility Ordinance for Belgrade, Maine

1.0 Title

This Ordinance shall be known as the Wind Energy Facility Ordinance for Belgrade.

2.0 Authority

This Ordinance is adopted pursuant to the enabling provisions of Article VIII, Part 2, Section 1 of the Maine Constitution; the provisions of 30-A M.R.S. § 3001 (Home Rule), and the provisions of the Planning and Land Use Regulation Act, 30-A M.R.S. § 4312, *et seq.*

3.0 Purpose

The purpose of the Ordinance is to provide for the construction and operation of Wind Energy Facilities in Belgrade, subject to reasonable conditions that will protect the public health, safety, and welfare.

4.0 Definitions

Applicant is the legal entity, including successors and assigns, that files an application under this Ordinance.

Approved Residential Subdivision means a residential subdivision for which all applicable land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Associated Facilities means elements of a Wind Energy Facility other than its Generating Facilities that are necessary to the proper operation and maintenance of the Wind Energy Facility, including but not limited to buildings, access roads, Generator Lead Lines and substations.

DEP Certification means a certification issued by the Department of Environmental Protection pursuant to 35-A M.R.S. § 3456 for a Wind Energy Development.

Generating Facilities means Wind Turbines and electrical lines, not including Generator Lead Lines, that are immediately associated with the Wind Turbines.

Generator Lead Line means a "generator interconnection transmission facility" as defined by 35- A M.R.S. § 3132 (1-B).

Historic Area means an Historic Site administered by the Bureau of Parks and Recreation of the Maine Department of Conservation, with the exception of the Arnold Trail.

Historic Site means any site, structure, district or archaeological site which has been officially included on the National Register of Historic Places and/or on the Maine Historic Resource Inventory, or which is established by qualified testimony as being of historic significance.

Locally-Designated Passive Recreation Area means any site or area designated by a municipality for passive recreation that is open and maintained for public use and which: a) has fixed boundaries, b) is owned in fee simple by a municipality or is accessible by virtue of public easement, c) is identified and described in a local comprehensive plan and, d) has been identified and designated at least nine months prior to the submission of the Applicant's Wind Energy Facility permit application.

Meteorological Tower (MET Tower) means a Tower used for the measurement and collection of wind data that supports various types of equipment, including but not limited to anemometers, data recorders, and

solar power panels. MET Towers may also include wildlife related equipment such as ANABAT detectors, bird diverts and wildlife entanglement protectors.

Municipal Reviewing Authority means the municipal planning board, agency or office, or if none, the municipal officers.

Nacelle means the frame and housing at the top of the Tower that encloses the gearbox and generator.

Non-Participating Landowner means any landowner, other than a Participating Landowner whose land is located within [Belgrade].

Occupied Building means a residence, school, hospital, house of worship, public library or other building that is occupied or in use as a primary residence or is customarily frequented by the public at the time when the permit application is submitted.

Participating Landowner means one or more Persons that hold title in fee or a leasehold interest with sublease rights to property on which Generating Facilities or Associated Facilities are proposed to be located pursuant to an agreement with the Applicant or an entity that has entered into an appropriate agreement with the Applicant allowing the Applicant to demonstrate the requisite right, title and interest in such property.

Person means an individual, corporation, partnership, firm, organization or other legal entity.

Planned Residence means a Residence for which all applicable building and land use permits have been issued, provided that the time for beginning construction under such permits has not expired.

Protected Location means any location that is:

1. accessible by foot, on a parcel of land owned by a Non-Participating Landowner containing a residence or planned residence, or an approved residential subdivision, house of worship, academic school, college, library, duly licensed hospital or nursing home near the development site at the time an application for a Wind Energy Facility is submitted under this Ordinance;

2. within a State Park, Baxter State Park, a National Park, a nature preserve owned by a land trust, the Maine Audubon Society or the Maine chapter of the Nature Conservancy, the Appalachian Trail, the Moosehorn National Wildlife refuge, a federally designated wilderness area, a state wilderness area designated by statute, a municipal park or a locally-designated passive recreation area, or any location within consolidated public reserve lands designated by rule by the Bureau of Public Lands as a Protected Location, or;

3. a hotel, motel, campsite, or duly licensed campground that the municipal authority responsible for review and approval of the pending application under 9.1 has designated a Protected Location after making a determination that the health and welfare of the guests or the economic viability of the establishment will be unreasonably impacted by noise in excess of that allowed under section 13.1.3(b).

Residence means a building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy providing living, cooking and sleeping facilities and having permanent indoor or outdoor sanitary facilities, excluding recreational vehicles, tents and watercraft.

Scenic Resource means either a Scenic Resource of state or national significance, as defined in 35-A M.R.S § 3451 (9) or a scenic resource of local significance located within the municipality and identified as such in a comprehensive plan, open space plan or scenic inventory adopted by the municipal legislative body.

Shadow Flicker means alternating changes in light intensity caused by the movement of Wind Turbine blades casting shadows on the ground or a stationary object.

Short Duration Repetitive Sounds means a sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in duration, and which are inherent to the process or operation of the development and are foreseeable.

Sight Line Representation means a profile drawing showing prominent features, including but not limited to topography, buildings, and trees, along and in relation to a line of sight extending from an observer's eye to the lowest point visible on a proposed Tower.

Significant Wildlife Habitat means a Significant Wildlife Habitat as defined in 38 M.R.S. § 480- B(10).

Substantial Start means that construction shall be considered to be substantially commenced when any work beyond excavation, including but not limited to, the pouring of a slab or footings, the installation of piles , the construction of columns, or the placement of a Tower on a foundation has begun.

Tower means the free-standing structure on which a wind measuring or energy conversion system is mounted.

Turbine Height means the distance measured from the surface of the Tower foundation to the highest point of any turbine rotor blade measured at the highest arc of the blade.

Wind Energy Facility means a facility that uses one or more Wind Turbines to convert wind energy to electrical energy. A Wind Energy Facility includes Generating Facilities and Associated Facilities.

Wind Energy Facility, Type 1A means a Wind Energy Facility having a maximum generating capacity of less than 100kW, a maximum of one Wind Turbine and a maximum Turbine Height of 80 feet.

Wind Energy Facility, Type 1B means a Wind Energy Facility having a maximum generating capacity of less than 100kW and either more than one Wind Turbine, or one or more Wind Turbines with a Turbine Height greater than 80 feet.

Wind Energy Facility, Type 2 means a Wind Energy Facility having a maximum generating capacity of 100 kW or greater and which does not require a state permit issued by the Department of Environmental Protection under the Site Location of Development Act, 38 M.R.S. §481, *et seq.*

Wind Energy Facility, Type 3 means a Wind Energy Facility having a generating capacity of 100kW or greater and which requires a state permit issued by the Department of Environmental Protection under the Site Location of Development Act, 38 M.R.S. §481, *et seq.*

Wind Turbine means a system for the conversion of wind energy into electricity which is comprised of a Tower, generator, Nacelle, rotor and transformer.

5.0 Applicability

5.1 This Ordinance applies to any Wind Energy Facility proposed for construction in Belgrade after the effective date of this Ordinance. This Ordinance does not apply to Associated Facilities unless the Generating Facilities are located within Belgrade, in which case this Ordinance applies to both the Generating Facilities and the Associated Facilities.

5.2 A Wind Energy Facility that is the subject of an application determined to be complete by the Belgrade Planning Board prior to the effective date of this Ordinance shall not be required to meet the requirements of this Ordinance; provided that any physical modifications after the effective date of the Ordinance shall be subject to the permitting requirements of Section 9.2.

6.0 Conflict and Severability

6.1 If there is a conflict between provisions in this Ordinance, the more stringent shall apply. If there is a conflict between a provision in this Ordinance and that of another Belgrade ordinance, the provision of this Ordinance shall apply.

6.2 The invalidity of any part of this Ordinance shall not invalidate any other part of this ordinance.

7.0 Effective Date

This Ordinance becomes effective on

8.0 Classification of Wind Energy Facilities

All Wind Energy Facilities shall be classified in accordance with Table 1 below:

Table 1-Classification of Wind Energy Facilities and Corresponding Local Review and Approval Authority

Facility	Aggregate	Turbine	Max. # of	DEP Site Location	Local Review
1A	<100 kW	< 80’	1	No	Code Enforcement Officer
1B	<100 kW	> 80’	NA	No	Belgrade Planning Board
2	≥100 kW	NA	NA	No [1]	Belgrade Planning Board
3	≥ 100 kW	NA	NA	Yes [2]	Belgrade Planning Board

1 Per 35-A MRS §3456. DEP Certificate required if energy generated is for sale or use by a Person other than the generator.
2 Per 38 MRS §482(2)

9.0 Administration

9.1 Review and Approval Authority

1. The Code Enforcement Officer is authorized to review all applications for Type 1A Wind Energy Facilities and MET Towers pursuant to section 11.0, and may approve, deny or approve such applications with conditions in accordance with the standards of the Ordinance.

2. The Belgrade Planning Board is authorized to review all applications for Type 1 B, Type 2, and Type 3 Wind Energy Facilities and may approve, deny or approve such applications with conditions in accordance with this Ordinance.

9.2 Permit Required

1. No Wind Energy Facility shall be constructed or located within Belgrade without a permit issued in accordance with this Ordinance.

2. Any physical modification to an existing Wind Energy Facility that materially alters the location or increases the area of development on the site or that increases the Turbine Height or the level of sound emissions of any Wind Turbine shall require a permit modification under this Ordinance. Like-kind replacements and routine maintenance and repairs shall not require a permit modification.

9.3 Permit Applications

1. Application components. A Wind Energy Facility permit application shall consist of the application form, application fee, and supporting documents, as described below:

   a. Application Forms. The municipality shall provide the application form which shall be signed by: 1) a Person with right, title and interest in the subject property or; 2) a Person having written authorization from a Person with right, title and interest in the subject property. The signature shall be dated and the signatory shall certify that the information in the application is complete and correct and that the proposed facility will be constructed and operated in accordance with the standards of this ordinance and all approval and permit conditions, if any.

   b. Application Fees. Application fees shall be assessed and paid upon submission of the application in accordance with Appendix A of this Ordinance.

   c. Supporting Documents. The application shall include all additional documents necessary to satisfy the applicable submission requirements under section 10 of this Ordinance.

2. Application Submission. The Applicant shall submit its application for a Wind Energy Facility permit to the Code Enforcement Officer who shall note on the application the date on which it was received.

3. Changes to a Pending Application

a. The Applicant shall promptly notify the municipal entity responsible for review and approval of a pending application under section 9.1 of any changes the Applicant proposes to make to information contained in the application.

b. If changes are proposed to a pending application after a public hearing has been held, the Belgrade Planning Board may consider those changes and continue with the review and approval process without a renewed public hearing if it determines that the changes do not materially alter the application. If the Belgrade Planning Board determines that the proposed changes do materially alter the application it shall schedule and conduct another public hearing within 30 days of that determination. In making its determination, the Belgrade Planning Board shall consider whether the proposed changes involve potential adverse effects different than or in addition to those addressed in the initial application.

9.4 Permit Application Procedures

1. Type 1A Wind Energy Facility Application

a. Within 10 days after receiving an application, the Code Enforcement Officer shall notify the Applicant in writing either that the application is complete or, if the application is incomplete, the specific additional material needed to complete the application. The Code Enforcement Officer may waive any submission requirement if the Code Enforcement Officer issues a written finding that, due to special circumstances of the application, adherence to that requirement is not necessary to determine compliance with the standards of this Ordinance.

b. Within 30 days after determining the application to be complete, the Code Enforcement Officer shall issue a written order: 1) denying approval of the proposed Wind Energy Facility, 2) granting approval of the proposed Wind Energy Facility or, 3) granting approval of the proposed Wind Energy Facility with conditions. In making the decision, the Code Enforcement Officer shall make findings on whether the proposed Wind Energy Facility meets the applicable criteria described in sections 12 and 13.c. With the agreement of the applicant, the Code Enforcement Officer may extend the procedural time frames of this section.

2. Type 1 B, Type 2 and Type 3 Wind Energy Facility Applications

a. The Applicant is strongly encouraged to meet with the Code Enforcement Officer before submitting an application. At this pre-application meeting, the Code Enforcement Officer will explain the Ordinance's provisions, application forms, and submission requirements. The Applicant should provide photos of the proposed site and written descriptions of the proposed facility and the proposed site, including its location and lot area.

b. An application shall be eligible for consideration at a regularly-scheduled meeting of the Belgrade Planning Board only if the applicant submits it at least 14 days prior to the meeting.

c. Within 30 days after receipt of the application by the Code Enforcement Officer, the Belgrade Planning Board shall notify the Applicant in writing either that the application is complete or, if the application is incomplete, the specific additional material needed to complete the application. The Belgrade Planning Board may waive any submission requirement if it issues a written finding that, due to special circumstances of the

application, adherence to that requirement is not necessary to determine compliance with the standards of this Ordinance.

d. The Belgrade Planning Board shall hold a public hearing for a Type 3 Wind Energy Facility application within 60 days after determining that the application is complete. The Belgrade Planning Board may decide to hold a public hearing for a Type 1 B or a Type 2 Wind Energy Facility application. If it decides to hold a public hearing for a Type 1 B application, the Belgrade Planning Board shall hold that hearing within 30 days after determining that application is complete. If it decides to hold a public hearing for a Type 2 application, the Belgrade Planning Board shall hold that hearing within 60 days after determining that the application is complete.

e. Within 60 days after determining that an application for a Type 1 B Wind Energy Facility is complete or within 90 days after determining that an application for a Type 2 or Type 3 Wind Energy Facility is complete, the Belgrade Planning Board shall issue a written order: 1) denying approval of the proposed Wind Energy Facility, 2) granting approval of the proposed Wind Energy Facility or, 3) granting approval of the proposed Wind Energy Facility with conditions. In making its decision, the Belgrade Planning Board shall make findings on whether the proposed Wind Energy Facility meets the applicable criteria described in sections 12, 13, and 14.

f. With the agreement of the applicant, the Belgrade Planning Board may extend the procedural time frames of this section.

Table 2: Procedural Time Frames

Facility	**Application**	**Public**	**Final**
1A	<10 days [1]	NA	<30 days [2]
1B	<30 days [1]	<30 days [2]	<60 days [2]
2	<30 days [1]	<60 days [2]	<90 days [2]
3	<30 days [1]	<60 days [2]	<90 days 2

1 Days after receipt of the application by the Code Enforcement Officer
2 Days after the application is determined to be complete

9.5 Notice of Meetings

Ten days prior to any meeting at which an application for a Type 1 B, Type 2, or Type 3 Wind Energy Facility is to be considered, the Belgrade Planning Board shall send notice by first class mail, to the applicant and all owners of property abutting the property on which the Wind Energy Facility is proposed to be located. The notice shall state the date, time and place of the meeting and the proposed location and the classification of the proposed Wind Energy Facility.

9.6 Public Hearings

The Belgrade Planning Board shall have notice of the date, time, and place of any public hearing and the proposed location and the classification of the proposed Wind Energy Facility:

1. Published at least once in a newspaper having general circulation within the municipality. The date of the first publication shall be at least 10 days before the hearing.

2. Mailed by first class mail to the Applicant and to owners of property within 500 feet of the property on which the Wind Energy Facility is proposed to be located, at least 10 days before the public hearing. The Belgrade Planning Board shall maintain a list of property owners to whom notice is mailed in the application file. Failure of any of these property owners to receive a notice shall not invalidate the public hearing, nor shall it require the Belgrade Planning Board to schedule another hearing.

9.7 Professional Services

In reviewing the application for compliance with this Ordinance, the Belgrade Planning Board may retain professional services, including but not limited to those of an attorney or consultant, to verify information presented by the Applicant. The attorney or consultant shall first estimate the reasonable cost of such review and the Applicant shall deposit, with the municipality, the full estimated cost, which the municipality shall place in an escrow account. The municipality shall pay the attorney or consultant from the escrow account and reimburse the Applicant if funds remain after payment.

9.8 Expiration of Permits

Permits shall expire: 1) two years after the date of approval unless a substantial start on construction has occurred and; 2) three years after the date of approval unless construction of the Wind Energy Facility has been completed. If a permit for a Type 2 or Type 3 Wind Energy Facility expires, the Applicant shall implement pertinent provisions of the approved decommissioning plan. Upon the Applicant's written request, the municipal entity responsible for review and approval of the application under section 9.1 may extend either or both expiration time limits by one year.

9.9 Access

The Code Enforcement Officer shall have access to the site at all times to review the progress of the work and shall have the authority to review all records and documents directly related to the design, construction and operation of the facility.

9.10 Enforcement

1. It shall be unlawful for any Person to violate or fail to comply with or take any action that is contrary to the terms of the Ordinance, or to violate or fail to comply with any permit issued under the Ordinance, or to cause another to violate or fail to comply or take any action which is contrary to the terms of the Ordinance or any permit under the Ordinance.

2. If the Code Enforcement Officer or other Person charged with enforcement of municipal laws determines that a violation of the Ordinance or the permit has occurred, the Code Enforcement Officer shall provide written notice to any Person alleged to be in violation of this Ordinance or permit. If the alleged violation does not pose an immediate threat to public health or safety, the Code Enforcement Officer and the alleged violator shall engage in good faith negotiations to resolve the alleged violation. Such negotiations shall be conducted within thirty (30) days of the notice of violation and, with the consent of the alleged violator, may be extended.

3. If, after thirty (30) days from the date of notice of violation or further period as agreed to by the alleged violator, the Code Enforcement Officer determines, in the officer's reasonable

discretion, that the parties have not resolved the alleged violation, the Code Enforcement Officer may institute civil enforcement proceedings or any other remedy at law to ensure compliance with the Ordinance or permit.

9.11 Appeals

Any Person aggrieved by a decision of the Code Enforcement Officer or the Belgrade Planning Board under this Ordinance may appeal the decision to the Board of Appeals, as provided by Section 10, Subsection B3 of the Belgrade Land Use Ordinance.

10.0 Application Submission Requirements

10.1 General Submission Requirements

1. A completed application forms including:
    a. The Applicant and Participating Landowner(s') name(s) and contact information.
    b. The address, tax map number, zone and owner(s) of the proposed facility site and any contiguous parcels owned by Participating Landowners.
    c. The tax map number, zone, current use, owner(s) and addresses of owner(s) of parcels that abut the proposed facility site or abut parcels of Participating Landowners that are contiguous with the proposed facility site (Not required for Type 1A applications)
    d. An affirmation, signed and dated by the Applicant, that the information provided in the application is correct and that the proposed Wind Energy Facility, if approved and built, shall be constructed and operated in accordance with the standards of this ordinance and all conditions of approval, if any.
2. A Receipt showing payment of application fee in accordance with Appendix A.
3. A copy of a deed, easement, purchase option or other comparable documentation demonstrating that the Applicant has right, title or interest in the proposed facility site.
4. Location map showing the boundaries of the proposed facility site and all contiguous property under total or partial control of the Applicant or Participating Landowner(s) and any Scenic Resource or Historic Site within 2500 feet of the proposed development.
5. Description of the proposed Wind Energy Facility that includes the number and aggregate generating capacity of all Wind Turbines, the Turbine Height and manufacturer's specifications for each Wind Turbine (including but not limited to the make, model, maximum generating capacity, sound emission levels and types of overspeed controls) and a description of Associated Facilities.
6. Site plan showing the proposed location of each Wind Turbine and Associated Facilities and any of the following features located within 500 feet of any Wind Turbine: parcel boundaries, required setbacks, topographic contour lines (maximum 20-foot interval), roads, rights-of-way, overhead utility lines, buildings (identified by use), land cover, wetlands, streams, water bodies and areas proposed to be re-graded or cleared of vegetation.
    a. In addition to the information in 6, above, site plans for Type 1 B, Type 2 and Type 3 Wind Energy Facilities shall show the location and average height of tree cover to be retained and the location, variety, planting height and mature height of proposed trees, if any.

7. Written evidence that the Environmental Coordinator of the Maine Department of Inland Fisheries and Wildlife (MDIFW) and that the Maine Natural Areas Program (MNAP) have both been notified of the pending application and the location and Turbine Height of all proposed Wind Turbines.

8. Written evidence that the provider of electrical service to the property has been notified of the intent to connect an electric generator to the electricity grid, if such connection is proposed.

9. Description of emergency and normal shutdown procedures.

10. Photographs of existing conditions at the site.

11. An application for a Type 1A or 1 B Wind Energy Facility shall include structural drawings of the Tower foundation and anchoring system: a) prepared by the Wind Turbine or Tower manufacturer, b) prepared in accordance with the manufacturer's specifications or, c) prepared and stamped by a Maine-licensed professional engineer.

12. An application for a Type 1A or Type 1B Wind Energy Facility shall include:

    a. a written statement, signed by the Applicant, that certifies that the proposed facility is designed to meet the applicable noise control standards under section 13.1.3 and acknowledges the Applicant's obligation to take remedial action in accordance with section 13.1.6 if the Code Enforcement Officer determines those standards are not being met or;

    b. a written request for review under section 14.1 along with information required under Appendix B, subsection B (Submissions).

13. An Application for Type 1 B, Type 2 or Type 3 Wind Energy Facility shall include the following site line, photographic and, if applicable, screening information, provided that an Applicant for a Type 3 Wind Energy Facility may provide this information as part of a visual assessment if required pursuant to section 14.5:

    a. Sight Line Representations of each Wind Turbine from the nearest Occupied Building and from at least one other representative location within 500 feet of the Wind Turbine, such as a Scenic Resource or another Occupied Building. Each Site Line Representation shall be drawn at a scale sufficiently large to make it legible. If screening is proposed, the proposed screening device, such as trees, shrubs or fencing, shall be depicted on the drawing along with the sight line as altered by the screening.

    b. A current four-inch by six-inch color photograph of the proposed site of the Wind Turbine(s) taken from viewpoints corresponding to each of the Site Line Representations.

    c. One copy of each of the photographs described in b, above, onto which is superimposed an accurately-scaled and sited representation of the Wind Turbine(s).

14. An application for a Type 2 Wind Energy Facility that generates energy primarily for sale or use by a Person other than the generator, shall include, if issued at the time of application, certification from the Department of Environmental Protection pursuant to 35-A M.R.S. § 3456 that the Wind Energy Facility:

    a. Will meet the requirements of the noise control rules adopted by the Board of Environmental Protection pursuant to the Site Location of Development Act, 38 M.R.S. §481, *et seq.* ;

b. Will be designed and sited to avoid unreasonable adverse Shadow Flicker effects; and

c. Will be constructed with setbacks adequate to protect public safety.

If such certification has not been issued at the time of application, the Applicant shall include written evidence that the Applicant has applied for certification.

10.2 Additional Submission Requirements for an Application for a Type 2 and 3 Wind Energy Facility

1. Certificates of design compliance obtained by the equipment manufacturers from Underwriters Laboratories, Det Norske Veritas, or other similar certifying organizations.
2. Decommissioning plan in conformance with Appendix C.
3. Written summary of operation and maintenance procedures for the Wind Energy Facility and a maintenance plan for access roads, erosion and sedimentation controls and storm water management facilities.
4. Standard boundary survey of the subject property stamped by a Maine-licensed surveyor. The Belgrade Planning Board may waive this requirement if it determines that the Applicant has provided information sufficient to identify property boundaries to the extent necessary.
5. Visual impact assessment, if required pursuant to section 14.5.
6. Stormwater management plan stamped by a Maine-licensed professional engineer.
7. Sound level analysis, prepared by a qualified engineer, which addresses the standards of section 14.1.
8. Shadow Flicker analysis based on WindPro or other modeling software approved by the Department of Environmental Protection.
9. Foundation and anchoring system drawings that are stamped by a Maine-licensed professional engineer.
10. Other relevant studies, reports, certifications and approvals as may be reasonably requested by the Belgrade Planning Board to ensure compliance with this Ordinance.

11.0 Meteorological Towers (MET Towers)

Applications for Meteorological (MET) Towers shall be subject to the submission and review standards for a Type 1A Wind Energy Facility, as applicable, except that no height limitation shall apply. A permit for a MET Tower shall be valid for 2 years and 2 months from the date of issuance. The Code Enforcement Officer may grant one or more one-year extensions of this permit period. Within 30 days following removal of a MET Tower, the Applicant shall restore the site to its original condition to the extent practicable. The provisions of this section do not apply to permanent MET Towers included as Associated Facilities in approved Wind Energy Facility applications.

12.0 General Standards

12.1 Safety Setbacks

Wind Turbines shall be set back a horizontal distance equivalent to 150% of the Turbine Height from property boundaries, public and private rights-of-way and overhead utility lines that are not part of the proposed Generating Facility except that the entity responsible for review and approval of the application may allow a reduced setback if the Applicant submits, in writing: 1) a waiver of the property boundary setback signed by the pertinent abutting landowner or; 2) evidence, such as operating protocols, safety programs, or recommendations from the manufacturer or a licensed professional engineer with appropriate expertise and experience with Wind Turbines, that demonstrates that the reduced setback proposed by the Applicant is appropriate.

12.2 Natural Resource Protection

A Wind Energy Facility shall not have an unreasonable adverse effect on rare, threatened, or endangered wildlife, significant wildlife habitat, rare, threatened or endangered plants and rare and exemplary plant communities. In making its determination under this subsection, the municipal entity responsible for review and approval of the permit application under section 9.1 shall consider pertinent application materials and the written comments and/or recommendations, if any, of the Maine Department of Inland Fisheries and Wildlife (MDIFW) Environmental Coordinator and the Maine Natural Areas Program (MNAP).

12.3 Building Permit

All components of the Wind Energy Facility shall conform to relevant and applicable local and state building Code.

12.4 Overspeed Controls and Brakes

Each Wind Turbine shall be equipped with an overspeed control system that: 1) includes both an aerodynamic control such as stall regulation, variable blade pitch, or other similar system, and a mechanical brake that operates in fail safe mode; or 2) has been designed by the manufacturer or a licensed civil engineer and found by the municipal entity responsible for review and approval of the application under 9.1, based on its review of a written description of the design and function of the system, to meet the needs of public safety.

12.5 Electrical Components and Interconnections

All electrical components of the Wind Energy Facility shall conform to relevant and applicable local, state, and national Code.

12.6 Access

All ground-mounted electrical and control equipment and all access doors to a Wind Turbine shall be labeled and secured to prevent unauthorized access. A Wind Tower shall not be climbable up to a minimum of fifteen (15) feet above ground surface.

12.7 Blade Clearance

The minimum distance between the ground and all blades of a Wind Turbine shall be 25 feet as measured at the lowest arc of the blades.

12.8 Signal Interference

The Applicant shall make reasonable efforts to avoid and mitigate to the extent practicable any disruption or loss of radio, telephone, television, or similar signals caused by the Wind Energy Facility.

12.9 Structure Type

With the exception of Meteorological (MET) Towers, Towers shall be monopoles with no guy wires. This requirement may be waived if the Applicant demonstrates to the satisfaction of the municipal entity responsible for review and approval of the permit application under section 9.1, that there is no practicable alternative. Bird flight diverters must be installed on any guy wires that are permitted.

12.10 Erosion Control

Erosion of soil and sedimentation shall be minimized by employing "best management practices" in the "*Maine Erosion Control Handbook for Construction: Best Management Practices",* March 2003.

12.11 Building-Mounted Wind Turbines

Building-mounted Wind Turbines are not permitted.

12.12 Visual Appearance

1. A Wind Turbine shall be a non-obtrusive color such as white, off-white or gray, or as may otherwise be required by another governmental agency with jurisdiction over the Wind Energy Facility.

2. A Wind Turbine shall not be lighted artificially, except to the extent consistent with Federal Aviation Administration recommendations or other applicable authority that regulates air safety or as is otherwise required by another governmental agency with jurisdiction over the Wind Energy Facility.

3. A Wind Turbine shall not be used to support signs and shall not display advertising except for reasonable and incidental identification of the turbine manufacturer, facility owner and operator, and for warnings.

12.13 Visibility of Wind Turbine

The following requirements apply, to the extent practicable, to Type 1 B and Type 2 Wind Energy Facilities:

1. To the extent that doing so does not inhibit adequate access to the wind resource, each Wind Turbine shall be located to maximize the effectiveness of existing vegetation, structures and topographic features in screening views of the Wind Turbine from Occupied Buildings and Scenic Resources.

2. When existing features do not screen views of a Wind Turbine from Residences and Scenic Resources, screening may be required, where feasible and effective, through the planting of trees and/or shrubs. In order to maximize the screening effect and minimize wind turbulence near the Wind Turbine, plantings should be situated as near as possible to the point from which the Wind Turbine is being viewed. Such plantings should be of native varieties.

13.0 Special Standards for Type 1A and Type 1B Wind Energy Facilities

13.1 Noise emanating from a Type 1A or Type1 B Wind Energy Facility shall be controlled in accordance with the provisions of this section or, upon the written request of the applicant, the provisions of section 14.1. If the Applicant chooses review under section 14.1, the provisions of 13.1.1, 13.1.2 and 13.1.6 shall apply, but the provisions of 13.1.3, 13.1.4 and 13.1.5 shall not apply.

1. The sound level limits contained in this section apply only to areas that are defined as Protected Locations and to property boundaries that describe the outer limits of the facility site in combination with any parcel(s) owned by a Participating Land-Owner that are contiguous with the facility site .

2. The sound level limits contained in this section do not apply to the facility site or any parcel(s) owned by a Participating Land-Owner that are contiguous with the facility site.

3. The sound levels resulting from routine operation of a Wind Energy Facility, as measured in accordance with the procedures described in section 13.1.5 shall not exceed the limits specified for the following locations and times:

    a. At a Protected Location with no living and sleeping quarters: 55 dBA during the Protected Location's regular hours of operation
    b. At a Protected Location with living and sleeping quarters:

        i. Area(s) within 500 feet of living and sleeping quarters: 45 dBA between 7:00 p.m. and 7:00 a.m. / 55 dBa between 7:00 a.m. and 7:00 p.m.

        ii. Area(s) more than 500 feet from living and sleeping quarters: 55dBA at all times.
    c. At property boundaries that describe the outer limits of the facility site combined with any parcel(s) owned by a Participating Land-Owner that are contiguous with the facility site: 75 dBA at all times.

4. If the Applicant submits the certification and acknowledgement required by Section 10.1.12(1), the municipal entity responsible for review and approval of the application under Section 9.1 shall determine, for purposes of issuing its approval, that the pertinent sound-level limits under section 13.1.1 have been met, subject to the Applicant's obligation to take remedial action as necessary under section 13.1.4.

5. The Code Enforcement Office may perform measurements of sound levels resulting from routine operation of an installed Type 1A or Type 1 B Wind Energy Facility at the officer's own initiative or in response to a noise-related complaint to determine compliance with the pertinent standards in section 13.1.1. Such measurements shall be performed as follows:

    a. Measurements shall be obtained during representative weather conditions when the sound of the Wind Energy Facility is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the Wind Turbine and inversion periods (which most commonly occur at night).

    b. Sound levels shall be measured at least four (4) feet above the ground by a meter set on the A-weighted response scale, fast response. The meter shall meet the latest

version of American National Standards Institute (ANSI S1.4.) "American Standard Specification for General Purpose Sound Level Meters" and shall have been calibrated at a recognized laboratory within the past year.

c. 5 dBA shall be added to sound levels of any Short Duration Repetitive Sound measured in accordance with paragraphs a and b.

6. The Applicant shall operate the proposed Wind Energy Facility in conformance with the sound level limits of section 13.1 or section 14.1, as applicable. If, based on post-installation measurements taken in accordance with section 13.1.3 or section 14.1, as applicable, the Code Enforcement Officer determines that the applicable sound-level limits are not being met, the Applicant shall, at the Applicant's expense and in accordance with the Belgrade Wind Energy Facility Ordinance and in consultation with the Code Enforcement Officer, take remedial action deemed necessary by the Code Enforcement Officer to ensure compliance with those limits. Remedial action that the Code Enforcement Officer may require, includes, but shall not be limited to, one or more of the following:
   a. modification or limitation of operations during certain hours or wind conditions;
   b. maintenance, repair, modification or replacement of equipment;
   c. relocation of the Wind Turbine(s); and,
   d. removal of the Wind Turbine(s) provided that the Code Enforcement Officer may require removal of the Wind Turbine(s) only if the Code Enforcement Officer determines that there is no practicable alternative.

13.2 Discontinued Use

1. A Type 1A or Type 1 B Wind Energy Facility that is not generating electricity for twelve (12) consecutive months shall be deemed a discontinued use and shall be removed from the property by the Applicant within 120 days of receipt of notice from the Code Enforcement Officer, unless the Applicant provides information that the Belgrade Planning Board deems sufficient to demonstrate that the project has not been discontinued and should not be removed. If the Wind Energy Facility is not removed within this time period, the municipality may remove the turbine at the Applicant's expense. The Applicant shall pay all site reclamation costs deemed necessary and reasonable to return the site to its pre-construction condition, including the removal of roads and reestablishment of vegetation.

2. If a surety has been given to the municipality for removal of a Type 1 B Wind Energy Facility, the Applicant may apply to the Belgrade Planning Board for release of the surety when the Wind Energy Facility has been removed to the satisfaction of the Code Enforcement Officer.

14.0 Special Standards for Type 2 and Type 3 Wind Energy Facilities

14.1 Control of Noise

Noise emanating from a Type 2 Wind Energy Facility, a Type 3 Wind Energy Facility, or, upon written request of the Applicant pursuant to section 13.1, a Type 1A or Type 1 B Wind Energy Facility shall be controlled in accordance with the provisions of Appendix B

If there is a conflict between a provision of Appendix B and another provision of this ordinance, the provision of Appendix B shall apply.

14.2 Use of Public Roads

1. The Applicant shall identify all state and local public roads to be used within Belgrade to transport equipment and parts for construction, operation or maintenance of a Type 2 or Type 3 Wind Energy Facility.

2. The Town Engineer, Road Commissioner or a qualified third-party engineer reasonably acceptable to both the Belgrade Planning Board and the Applicant and paid for by the Applicant pursuant to Section 9.7 of the Ordinance, shall document road conditions prior to construction. The Town Engineer, Road Commissioner or third-party engineer shall document road conditions again thirty (30) days after construction is complete or as weather permits.

3. The Applicant shall demonstrate, to the satisfaction of the Belgrade Planning Board, that it has financial resources sufficient to comply with subsection 4, below, and the Belgrade Planning Board may require the Applicant to post a bond or other security in order to ensure such compliance.

4. Any road damage caused by the Applicant or its contractors shall be promptly repaired at the Applicant's expense.

14.3 Warnings

A clearly visible warning sign concerning voltage must be placed at the base of all pad-mounted transformers and substations.

14.4 Artificial Habitat

To the extent practicable, the creation of artificial habitat for raptors or raptor prey shall be minimized. In making its determination under this subsection the Belgrade Planning Board shall consider comments and recommendations, if any, provided by the Maine Department of Inland Fisheries and Wildlife.

14.5 Effect on Scenic Resources

1. Except as otherwise provided in this subsection, if a Type 2 or Type 3 Wind Energy Facility is proposed for location in or is visible from a Scenic Resource, the Applicant shall provide the Belgrade Planning Board a visual impact assessment that addresses the evaluation criteria in subsection 14.5.3. There is a rebuttable presumption that a visual impact assessment is not required for those portions of a Type 2 or Type 3 Wind Energy Facility that are located more than 3 miles, measured horizontally, from a Scenic Resource. The Belgrade Planning Board may require a visual impact assessment for portions of the Type 2 or Type 3 Wind Energy Facility located more than 3 miles and up to 8 miles from a Scenic Resource if it finds that a visual impact assessment is needed to determine if there is the potential for significant adverse effects on the Scenic Resource. Information intended to rebut the presumption must be submitted to the Belgrade Planning Board by any interested Person within 30 days of acceptance of the application as complete. The Belgrade Planning Board shall determine if the presumption is rebutted based on a preponderance of evidence in the record.

2. The Belgrade Planning Board shall determine, based on consideration of the evaluation criteria in subsection 14.5.3, whether the Type 2 or 3 Wind Energy Facility significantly compromises views from a Scenic Resource such that the proposed facility has an unreasonable adverse effect on the scenic character or existing uses related to scenic character of that Scenic Resource.

3. In making its determination pursuant to subsection 14.5.2, and in determining whether an Applicant for a Type 2 or 3 Wind Energy Facility located more than 3 miles from a Scenic Resource must provide a visual impact assessment in accordance with subsection 14.5.1, the Belgrade Planning Board shall consider:

a. The significance of the potentially affected Scenic Resource;

b. The existing character of the surrounding area;

c. The expectations of the typical viewer;

d. The Type 2 or Type 3 Wind Energy Facility's purpose and the context of the proposed activity;

e. The extent, nature and duration of potentially affected public uses of the Scenic Resource and the potential effect on the public's continued use and enjoyment of the Scenic Resource; and

f. The scope and scale of the potential effect of views of the Wind Energy Facility on the Scenic Resource, including but not limited to issues related to the number and extent of Wind Turbines visible from the Scenic Resource, the distance from the Scenic Resource and the effect of prominent features of the Wind Energy Facility on the landscape.

A finding by the Belgrade Planning Board that the Type 2 or Type 3 Wind Energy Facility is a highly visible feature in the landscape is not a solely sufficient basis for determination that it has an unreasonable adverse effect on the scenic character and existing uses related to scenic character of a Scenic Resource. In making its determination under subsection 14.5.2, the Belgrade Planning Board shall consider insignificant the effects of portions of a Type 2 or Type 3 Wind Energy Facility located more than 8 miles, measured horizontally, from a Scenic Resource.

14.6 Shadow Flicker

Type 2 and Type 3 Wind Energy Facilities shall be designed to avoid unreasonable adverse shadow flicker effect at any Occupied Building located on a Non-Participating Landowner's property.

14.7 Relationship to DEP Certification and Permitting

1. For a Type 2 Wind Energy Facility for which a DEP Certification has been submitted in accordance with section 10.1.14, the Belgrade Planning Board shall consider, to the extent applicable, pertinent findings in that certification when making its determination under sections 12.1, 14.1, and 14.6. There is a rebuttable presumption that a Wind Energy Facility that has obtained DEP Certification meets the requirements of sections 12.1, 14.1, and 14.6. The Belgrade Planning Board may, as a condition of approval of a Type 2 Wind Energy Facility that generates energy for sale or use by a person other than the generator, deem DEP's issuance of a certificate for the development sufficient to meet, in whole or in part, as applicable, the requirements of sections 12.1, 14.1, 14.6.

2. If DEP has issued a Site Location of Development Act permit for a Type 3 Wind Energy Facility pursuant to 38 M.R.S. § 484(3), there is a rebuttable presumption that the development meets the requirements of sections 12.1 12.2, 14.1, 14.6, 14.12 and, as it pertains to Scenic Resources of state or national significance as defined by 35-A M.R.S. §3451 (9), section 14.5. The Belgrade Planning Board may, as a condition of approval of a Type 3 Wind Energy Facility, deem DEP's issuance of a permit for the development sufficient to meet, in whole or in part, as applicable, the requirements of sections 12.1, 12.2, 14.1, 14.6, 14.12 and, as it pertains to Scenic Resources of state or national significance, section 14.5.

14.8 Local Emergency Services

1. The Applicant shall provide a copy of the project summary and site plan to local emergency service providers, including paid or volunteer fire department(s).

2. Upon request, the Applicant shall cooperate with emergency service providers to develop and

coordinate implementation of an emergency response plan for a Type 2 or Type 3 Wind Energy Facility.

3. A Wind Turbine shall be equipped with an appropriate fire suppression system to address fires within the Nacelle portion of the turbine or shall otherwise address the issue of fire safety to the satisfaction of the Belgrade Planning Board.

14.9 Liability Insurance

The Applicant or an Applicant's designee acceptable to the Belgrade Planning Board shall maintain a current general liability policy for the Type 2 or Type 3 Wind Energy Facility that covers bodily injury and property damage with limits in an amount commensurate with the scope and scale of the Facility. The Applicant or its designee shall make certificates of insurance available to the Belgrade Planning Board upon request.

14.10 Design Safety Certification

Each Wind Turbine shall conform to applicable industry standards including those of the American National Standards Institute (ANSI) and at least one of the following: Underwriters Laboratories, Det Norske Veritas, Germanischer Llloyd Wind Energies, or other similar certifying organization.

14.11 Public Inquiries and Complaints

1. The Applicant or its designee shall maintain a phone number and identify a responsible Person for the public to contact with inquiries and complaints throughout the life of the Wind Energy Facility.
2. The Applicant or its designee shall make reasonable efforts to respond to the public's inquiries and complaints and shall provide written copies of all complaints and the company's resolution or response to the Code Enforcement upon request.

14.12 Decommissioning

The Applicant shall prepare a decommissioning plan in conformance with Appendix C.

Application Fees

To be determined by Planning Board / Selectmen / Town Council

Control of Noise

Pursuant to section 14.1, noise emanating from a Type 2 Wind Energy Facility, a Type 3 Wind Energy Facility, or, upon written request of the Applicant pursuant to section 13.1, a Type 1A or Type 1B Wind Energy Facility, shall be controlled in accordance with the following provisions:

A. Sound Level Limits

(1) Sound from Routine Operation of Facility.

(a) Except as noted in subsections (b) and (c) below, the hourly sound levels resulting from routine operation of the facility and measured in accordance with the measurement procedures described in subsection F shall not exceed the following limits:

(i) At any property line of the facility site or contiguous property owned by the Applicant or Participating Land Owner(s), whichever is farther from the proposed facility's regulated sound sources:

75 dBA at any time of day.

(ii) At any Protected Location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial;

60 dBA between 7:00 a.m. and 7:00 p.m. (the "daytime hourly limit"), and
50 dBA between 7:00 p.m. and 7:00 a.m. (the "nighttime hourly limit").

(iii) At any Protected Location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is predominantly commercial, transportation, or industrial:

70 dBA between 7:00 a.m. and 7:00 p.m. (the "daytime hourly limit"), and
60 dBA between 7:00 p.m. and 7:00 a.m. (the 'nighttime hourly limit').

(iv) For the purpose of determining whether the use of an unzoned area is predominantly commercial, transportation, or industrial (e.g. non-residential in nature), the Code Enforcement Officer shall consider the municipality's comprehensive plan, if any. Furthermore, the usage of properties abutting each Protected Location shall be determined, and the limits applied for that Protected Location shall be based upon the usage occurring along the greater portion of the perimeter of that parcel; in the event the portions of the perimeter are equal in usage, the limits applied for that Protected Location shall be those for a Protected Location in an area for which the use is not predominantly commercial, transportation, or industrial.

(v) When a proposed facility is to be located in an area where the daytime pre-development

ambient hourly sound level at a Protected Location is equal to or less than 45 dBA and/or the nighttime pre-development ambient hourly sound level at a Protected Location is equal to or less than 35 dBA, the hourly sound levels resulting from routine operation of the facility and measured in accordance with the measurement procedures described in subsection F shall not exceed the following limits at that Protected Location:

55 dBA between 7:00 a.m. and 7:00 p.m. (the "daytime hourly limit"), and
45 dBA between 7:00 p.m. and 7:00 a.m. (the "nighttime hourly limit").

For the purpose of determining whether a Protected Location has a daytime or nighttime pre-development ambient hourly sound level equal to or less than 45 dBA or 35 dBA, respectively, the Applicant may make sound level measurements in accordance with the procedures in subsection F or may estimate the sound-level based upon the population density and proximity to local highways. If the resident population within a circle of 3,000 feet radius around a Protected Location is greater than 300 persons, or the hourly sound level from highway traffic at a Protected Location is predicted to be greater than 45 dBA in the daytime or 35 dBA at night, then the Applicant may estimate the daytime or nighttime pre-development ambient hourly sound level to be greater than 45 dBA or 35 dBA, respectively.

NOTE: Highway traffic noise can be predicted using the nomograph method of FHWA Highway Traffic Noise Prediction Model, FHWA-RD-77-108, December 1978.

(vi) Notwithstanding the above, the Applicant need not measure or estimate the pre-development ambient hourly sound levels at a Protected Location if he demonstrates, by estimate or example, that the hourly sound levels resulting from routine operation of the facility will not exceed 50 dBA in the daytime or 40 dBA at night.

(b) If the Applicant chooses to demonstrate by measurement that the daytime and/or nighttime pre-development ambient sound environment at any Protected Location near the facility site exceeds the daytime and/or nighttime limits in subsection 1(a)(ii) or 1(a)(iii) by at least 5 dBA, then the daytime and/or nighttime limits shall be 5 dBA less than the measured daytime and/or nighttime pre-development ambient hourly sound level at the location of the measurement for the corresponding time period.

(c) For any Protected Location near an existing facility, the hourly sound level limit for routine operation of the existing facility and all future expansions of that facility shall be the applicable hourly sound level limit of 1(a) or 1(b) above, or, at the Applicant's election, the existing hourly sound level from routine operation of the existing facility plus 3 dBA.

(d) For the purposes of determining compliance with the above sound level limits, 5 dBA shall be added to the observed levels of any tonal sounds that result from routine operation of the facility.

(e) When routine operation of a facility produces short duration repetitive sound, the following limits shall apply:

(i) For short duration repetitive sounds, 5 dBA shall be added to the observed levels of the short duration repetitive sounds that result from routine operation of the facility for the purposes of determining compliance with the above sound level limits.

(ii) For short duration repetitive sounds which the municipal entity responsible for review and approval of a pending application under section 9.1 determines, due to their character and/or duration, are particularly annoying or pose a threat to the health and welfare of nearby neighbors, 5 dBA shall be added to the observed levels of the short duration repetitive sounds that result from routine operation of the facility for the purposes of determining compliance with the above sound level limits, and the maximum sound level of the short duration repetitive sounds shall not exceed the following limits:

(a) At any Protected Location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial, transportation, or industrial:

65 dBA between 7:00 a.m. and 7:00 p.m., and 55 dBA between 7:00 p.m. and 7:00 a.m.

(b) At any Protected Location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is predominantly commercial, transportation, or industrial:

75 dBA between 7:00 a.m. and 7:00 p.m., and 65 dBA between 7:00 p.m. and 7:00 a.m.

(c) The methodology described in subsection 1 (a)(iv) shall be used to determine whether the use of an unzoned area is predominantly commercial, transportation, or industrial.

(d) If the Applicant chooses to demonstrate by measurement that the pre-development ambient hourly sound level at any Protected Location near the facility site exceeds 60 dBA between 7:00 a.m. and 7:00 p.m., and/or 50 dBA between 7:00 p.m. and 7:00 a.m., then the maximum sound level limit for short duration repetitive sound shall be 5 dBA greater than the measured pre-development ambient hourly sound level at the location of the measurement for the corresponding time period.

(e) For any Protected Location near an existing facility, the maximum sound level limit for short duration repetitive sound resulting from routine operation of the existing facility and all future expansions and modifications of that facility shall be the applicable maximum sound level limit of (e)(ii)(a) or (e)(ii)(b) above, or, at the Applicant's election, the existing maximum sound level of the short duration repetitive sound resulting from routine operation of the existing facility plus 3 dBA.

NOTE: The maximum sound level of the short duration repetitive sound shall be measured using the fast response $_{[LAFmax].}$ See the definition of maximum sound level.

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(2) Sound from Construction of a Facility

(a) The sound from construction activities between 7:00 p.m. and 7:00 a.m. is subject to the following limits:

(i) Sound from nighttime construction activities shall be subject to the nighttime routine operation sound level limits contained in subsections 1(a) and 1(b).

(ii) If construction activities are conducted concurrently with routine operation of the facility,

then the combined total of construction and routine operation sound shall be subject to the nighttime routine operation sound level limits contained in subsections 1(a) and 1(b).

(iii) Higher levels of nighttime construction sound are permitted when a duly issued permit authorizing nighttime construction sound in excess of these limits has been granted by the Code Enforcement Officer.

(b) Sound from construction activities between 7:00 a.m. and 7:00 p.m. shall not exceed the following limits at any Protected Location:

Duration of Activity	Hourly Sound Level Limit
12 hours	87 dBA
8 hours	90 dBA
6 hours	92 dBA
4 hours	95 dBA
3 hours	97 dBA
2 hours	100 dBA
1 hour or less	105 dBA

(c) All equipment used in construction on the facility site shall comply with applicable federal noise regulations and shall include environmental noise control devices in proper working condition, as originally provided with the equipment by its manufacturer.

(3) Sound from Maintenance Activities

(a) Sound from routine, ongoing maintenance activities shall be considered part of the routine operation of the facility and the combined total of the routine maintenance and operation sound shall be subject to the routine operation sound level limits contained in subsection 1.

(b) Sound from occasional, major, scheduled overhaul activities shall be subject to the construction sound level limits contained in subsection 2. If overhaul activities are conducted concurrently with routine operation and/or construction activities, the combined total of the overhaul, routine operation and construction sound shall be subject to the construction sound level limits contained in subsection 2.

B. Submissions

(1) Facilities with Minor Sound Impact.

An Applicant proposing facility with minor sound impact may choose to file, as part of the permit application, a statement attesting to the minor nature of the anticipated sound impact of their facility. An applicant proposing an expansion or modification of an existing facility with minor sound impact may follow the same procedure as described above. For the purpose of this ordinance, a facility or an expansion or modification of an existing facility with minor sound impact means a facility where the Applicant demonstrates, by estimate or example, that the regulated sound from routine operation of

the facility will not exceed 5 dBA less than the applicable limits established under Section A. It is the intent of this subsection that an applicant need not conduct sound level measurements to demonstrate that the facility or an expansion or modification of an existing facility will have a minor sound impact.

(2) Other Facilities

Technical information shall be submitted describing the Applicant's plan and intent to make adequate provision for the control of noise. The applicant's plan shall contain information such as the following, when appropriate:

(a) Maps and descriptions of the land uses, local zoning and comprehensive plans for the area potentially affected by sounds from the facility.

(b) A description of major sound sources, including tonal sound sources and sources of short duration repetitive sounds, associated with the construction, operation and maintenance of the proposed facility, including their locations within the proposed facility.

(c) A description of the daytime and nighttime hourly sound levels and, for short duration repetitive sounds, the maximum sound levels expected to be produced by these sound sources at Protected Locations near the proposed facility.

(d) A description of the Protected Locations near the proposed facility.

(e) A description of proposed major sound control measures, including their locations and expected performance.

(f) A comparison of the expected sound levels from the proposed facility with the sound level limits of this regulation.

C. Terms and Conditions

The municipal entity responsible for review and approval of the pending application under 9.1 may, as a term or condition of approval, establish any reasonable requirement to ensure that the Applicant has made adequate provision for the control of noise from the facility and to reduce the impact of noise on Protected Locations. Such conditions may include, but are not limited to, enclosing equipment or operations, imposing limits on hours of operation, or requiring the employment of specific design technologies, site design, modes of operation, or traffic patterns.

The sound level limits prescribed in this ordinance shall not preclude the municipal entity responsible for review and approval of the pending application under 9.1 from requiring an Applicant to demonstrate that sound levels from a facility will not unreasonably disturb wildlife or adversely affect wildlife populations in accordance with 12.2. In addition, the sound level limits shall not preclude the municipal entity responsible for review and approval of the pending application under 9.1, as a term or condition of approval, from requiring that lower sound level limits be met to ensure that the Applicant has made adequate provision for the protection of wildlife.

D. Waiver from Sound Level Limits

[Belgrade] recognizes that there are certain facilities or activities associated with facilities for which noise control measures are not reasonably available. Therefore, the municipal entity responsible for review and approval of the pending application under section 9.1 may grant a waiver from any of the sound level limits contained in this ordinance upon (1) a showing by the Applicant that he or she has made a comprehensive assessment of the available technologies for the facility and that the sound level limits cannot practicably be met with any of these available technologies, and (2) a finding by the municipal entity responsible for review and approval of the pending application under section 9.1 that the proposed facility will not have an unreasonable impact on Protected Locations. In addition, a waiver may be granted by the municipal entity responsible for review and approval of the pending application under section 9.1 if (1) a facility is deemed necessary in the interest of national defense or public safety and the Applicant has shown that the sound level limits cannot practicably be met without unduly limiting the facility's intended function, and (2) a finding is made by the municipal entity responsible for review and approval of the pending application under section 9.1 that the proposed facility will not have an unreasonable impact on Protected Locations. The municipal entity responsible for review and approval of the pending application under section 9.1 shall consider the request for a waiver as part of the review of a completed permit application. In granting a waiver, the municipal entity responsible for review and approval of the pending application under section 9.1 may, as a condition of approval, impose terms and conditions to ensure that no unreasonable sound impacts will occur.

E. Definitions

Terms used herein are defined below for the purpose of this noise regulation.

(1) AMBIENT SOUND: At a specified time, the all-encompassing sound associated with a given environment, being usually a composite of sounds from many sources at many directions, near and far, including the specific facility of interest.

(2) CONSTRUCTION: Activity and operations associated with the facility or expansion of the facility or its site.

(3) EMERGENCY: An unforeseen combination of circumstances which calls for immediate action.

(4) EMERGENCY MAINTENANCE AND REPAIRS: Work done in response to an emergency.

(5) ENERGY SUM OF A SERIES OF LEVELS: Ten times the logarithm of the arithmetic sum of the antilogarithms of one-tenth of the levels. [Note: See Section F(4.2).]

(6) EXISTING FACILITY: A Wind Energy Facility legally constructed before the effective date of this ordinance or a proposed Wind Energy Facility for which the Application is found complete on or before the effective date of this ordinance. Any facility with an approved permit application which has been remanded to the municipal entity responsible for review and approval of the application under 9.1 by a court of competent jurisdiction for further proceedings relating to noise limits or noise levels prior to the effective date of this ordinance shall not be deemed an existing facility and the ordinance shall apply to the existing noise sources at that facility.

(7) EXISTING HOURLY SOUND LEVEL: The hourly sound level resulting from routine operation of an existing facility prior to the first expansion that is subject to this ordinance.

(8) EQUIVALENT SOUND LEVEL: The level of the mean-square A-weighted sound pressure during a stated time period, or equivalently the level of the sound exposure during a stated time period divided by the duration of the period. (NOTE: For convenience, a one hour equivalent sound level should begin approximately on the hour.)

(9) HISTORIC AREAS: Historic sites administered by the Bureau of Parks and Lands of the Maine Department of Conservation, with the exception of the Arnold Trail.

(10) HOURLY SOUND LEVEL: The equivalent sound level for one hour measured or computed in accordance with this ordinance.

(11) LOCALLY-DESIGNATED PASSIVE RECREATION AREA: Any site or area designated by [*Belgrade]* for passive recreation that is open and maintained for public use and which:

(a) has fixed boundaries,

(b) is owned in fee simple by [*Belgrade]* or is accessible by virtue of public easement,

(c) is identified and described in [*Belgrade]* comprehensive plan, and

(d) has been identified and designated at least nine months prior to submission of the Applicant's Wind Energy Facility permit application.

(12) MAXIMUM SOUND LEVEL: Ten times the common logarithm of the square of the ratio of the maximum sound to the reference sound of 20 micropascals. Symbol: LAFmax.

(13) MAXIMUM SOUND: Largest A-weighted and fast exponential-time-weighted sound during a specified time interval. Unit: pascal (Pa).

(14) RESIDENCE: A building or structure, including manufactured housing, maintained for permanent or seasonal residential occupancy providing living, cooking and sleeping facilities and having permanent indoor or outdoor sanitary facilities, excluding recreational vehicles, tents and watercraft.

(15) PRE-DEVELOPMENT AMBIENT: The ambient sound at a specified location in the vicinity of a facility site prior to the construction and operation of the proposed facility or expansion.

(16) PROTECTED LOCATION: any location that is:

1) accessible by foot, on a parcel of land owned by a Non-Participating Landowner containing a Residence or planned Residence, or an approved residential subdivision, house of worship, academic school, college, library, duly licensed hospital or nursing home near the facility site at the time an application for a Wind Energy Facility permit is submitted under this ordinance; or

2) within a State Park, Baxter State Park, a National Park, a nature preserve owned by a land trust, the Maine Audubon Society or the Maine chapter of the Nature Conservancy, the Appalachian Trail, the Moosehorn National Wildlife refuge, a federally designated wilderness area, a state wilderness area designated by statute, a municipal park or a locally-designated passive recreation area, or any location within consolidated public reserve lands designated by rule by the Bureau of Public Lands as a Protected Location.

At Protected Locations more than 500 feet from living and sleeping quarters within the above noted buildings or areas, the daytime hourly sound level limits shall apply regardless of the time of day.

Houses of worship, academic schools, libraries, State and National Parks without camping areas, Historic Areas, nature preserves, the Moosehorn National Wildlife Refuge, federally-designated wilderness areas without camping areas, state wilderness areas designated by statute without camping areas, and locally-designated passive recreation areas without camping areas are considered protected locations only during their regular hours of operation.

Transient living accommodations are generally not considered Protected Locations; however, in certain special situations where it is determined by the municipal entity responsible for review and approval of the application under 9.1 that the health and welfare of the guests or the economic viability of the establishment will be unreasonably impacted, the municipal entity responsible for review and approval of the application under 9.1 may designate certain hotels, motels, campsites and duly licensed campgrounds as protected locations.

This term does not include buildings and structures located on leased camp lots, owned by the Applicant used for seasonal purposes.

For purposes of this definition, (1) a Residence is considered planned when the owner of the parcel of land on which the Residence is to be located has received all applicable building and land use permits and the time for beginning construction under such permits has not expired, and (2) a residential subdivision is considered approved when the developer has received all applicable land use permits for the subdivision and the time for beginning construction under such permits has not expired.

(17)ROUTINE OPERATION: Regular and recurrent operation of regulated sound sources associated with the purpose of the facility and operating on the facility site.

(18)SHORT DURATION REPETITIVE SOUNDS: A sequence of repetitive sounds which occur more than once within an hour, each clearly discernible as an event and causing an increase in the sound level of at least 6 dBA on the fast meter response above the sound level observed immediately before and after the event, each typically less than ten seconds in duration, and which are inherent to the process or operation of the facility and are foreseeable.

(19)SOUND COMPONENT: The measurable sound from an audibly identifiable source or group of sources.

(20)SOUND LEVEL: Ten times the common logarithm of the square of the ratio of the frequency-weighted and time-exponentially averaged sound pressure to the reference sound of 20 micropascals. For the purpose of this ordinance, sound level measurements are obtained using the A-weighted frequency response and fast dynamic response of the measuring system, unless otherwise noted.

(22)SOUND PRESSURE: Root-mean-square of the instantaneous sound pressures in a stated frequency band and during a specified time interval. Unit: pascal (Pa).

(23)SOUND PRESSURE LEVEL: Ten times the common logarithm of the square of the ratio of the sound pressure to the reference sound pressure of 20 micropascals.

(24)TONAL SOUND: for the purpose of this ordinance, a tonal sound exists if, at a Protected Location, the one-third octave band sound pressure level in the band containing the tonal sound exceeds the arithmetic average of the sound pressure levels of the two contiguous one-third octave bands by 5 dB for center frequencies at or between 500 Hz and 10,000 Hz, by 8 dB for center frequencies at or between 160 and 400 Hz, and by 15 dB for center frequencies at or between 25 Hz and 125 Hz.

Additional acoustical terms used in work associated with this ordinance shall be used in accordance with

the following American National Standards Institute (ANSI) standards:

ANSI S12.9-1988 - American National Standard Quantities and Procedures for Description and Measurements of Environmental Sound, Part 1;

ANSI S3.20-1973 - American National Standard Psychoacoustical Terminology;
ANSI S1.1-1960 - American National Standard Acoustical Terminology.

F. Measurement Procedures

(1) Scope. These procedures specify measurement criteria and methodology for use, with applications, compliance testing and enforcement. They provide methods for measuring the ambient sound and the sound from routine operation of the facility, and define the information to be reported. The same methods shall be used for measuring the sound of construction and maintenance activities.

(2) Measurement Criteria

2.1 Measurement Personnel
Measurements shall be supervised by personnel who are well qualified by training and experience in measurement and evaluation of environmental sound, or by personnel trained to operate under a specific measurement plan approved by the municipal entity responsible for review and approval of the pending application under 9.1.

2.2 Measurement Instrumentation

(a) A sound level meter or alternative sound level measurement system used shall meet all of the Type 1 or 2 performance requirements of American National Standard Specifications for Sound Level Meters, ANSI S1 .4-1983.

(b) An integrating sound level meter (or measurement system) shall also meet the Type 1 or 2 performance requirements for integrating/averaging in the International Electrotechnical Commission Standard on Integrating-Averaging Sound Level Meters, IEC Publication 804 (1985).

(c) A filter for determining the existence of tonal sounds shall meet all the requirements of-American National Standard Specification for Octave-Band and Fractional Octave-Band Analog and Digital Filters, ANSI S1.11-1986 for Order 3, Type 3-D performance.

(d) An acoustical calibrator shall be used of a type recommended by the manufacturer of the sound level meter and that meets the requirements of American National Standard Specification for Acoustical Calibrators, ANSI S1 .40-1984.

(e) A microphone windscreen shall be used of a type recommended by the manufacturer of the sound level meter.

2.3 Calibration

(a) The sound level meter shall have been calibrated by a laboratory within 12 months of the measurement, and the microphone's response shall be traceable to the National Bureau of Standards.

(b) Field calibrations shall be recorded before and after each measurement period and at shorter intervals if recommended by the manufacturer.

2.4 Measurement Location, Configuration and Environment Except as noted in subsection (b) below, measurement locations shall be at nearby Protected Locations that are most likely affected by the sound from routine operation of the facility.

(a) For determining compliance with the 75 dBA property line hourly sound level limit described in subsection A(l)(a)(i), measurement locations shall be selected at the property lines of the proposed facility or contiguous property owned by the Applicant, as appropriate.

(b) The microphone shall be positioned at a height of approximately 4 to 5 feet above the ground, and oriented in accordance with the manufacturer's recommendations.

(c) Measurement locations should be selected so that no vertical reflective surface exceeding the microphone height is located within 30 feet. When this is not possible, the measurement location may be closer than 30 feet to the reflective surface, but under no circumstances shall it be closer than 6 feet.

(d) When possible, measurement locations should be at least 50 feet from any regulated sound source on the facility.

(e) Measurement periods shall be avoided when the local wind speed exceeds 12 mph and/or precipitation would affect the measurement results.

2.5 Measurement Plans. Plans for measurement of pre-development ambient sound or post-facility sound may be discussed with the Code Enforcement Officer.

(3) Measurement of Ambient Sound

3.1 Pre-development Ambient Sound

Measurements of the pre-development ambient sound are required only when the Applicant elects to establish the sound level limit in accordance with subsections A(1)(b) and A(1)(e)(ii)(d) for a facility in an area with high ambient sound levels, such as near highways, airports, or pre-existing facilities; or when the Applicant elects to establish that the daytime and nighttime ambient hourly sound levels at representative Protected Locations exceed 45 dBA and 35 dBA, respectively.

(a) Measurements shall be made at representative Protected Locations for periods of time sufficient to adequately characterize the ambient sound. At a minimum, measurements shall be made on three different weekdays (Monday through Friday) during all hours that the facility will operate. If the proposed facility will operate on Saturdays and/or Sundays, measurements shall also be made during all hours that the facility will operate.

(b) Measurement periods with particularly high ambient sounds, such as during holiday traffic activity, significant insect activity or high coastline waves, should generally be avoided.

(c) At any measurement location the daytime and nighttime ambient hourly sound level shall be computed by arithmetically averaging the daytime and nighttime values of the measured one hour

equivalent sound levels. Multiple values, if they exist, for any specific hour on any specific day shall first be averaged before the computation described above.

3.2 Post-Facility Ambient Sound

(a) Measurements of the post-facility ambient one hour equivalent sound levels and, if short duration repetitive sounds are produced by the facility, the maximum sound levels made at nearby Protected Locations and during representative routine operation of the facility that are not greater than the applicable limits of subsection C clearly indicate compliance with those limits.

(b) Compliance with the limits of subsection A(l)(b) may also be demonstrated by showing that the post-facility ambient hourly sound level, measured in accordance with the procedures of subsection 3.1 above during routine operation of the facility, does not exceed the pre-development ambient hourly sound level by more than one decibel, and that the sound from routine operation of the facility is not characterized by either tonal sounds or short duration repetitive sounds.

(c) Compliance with the limits of subsection A(1)(e)(ii)(d) may also be demonstrated by showing that the post facility maximum sound level of any short duration repetitive sound, measured in accordance with the procedures of subsection 3.1 above, during routine operation of the facility, does not exceed the pre-development ambient hourly sound level by more than five decibels.

(d) .If any of the conditions in (a), (b) or (c) above are not met, compliance with respect to the applicable limits must be determined by measuring the sound from routine operation of the facility in accordance with the procedures described in subsection 4.

(4) Measurement of the Sound from Routine Operation of Facility. 4.1 General

(a) Measurements of the sound from routine operation of facilities are generally necessary only for specific compliance testing purposes in the event that community complaints result from operation of the facility, for validation of an Applicant's calculated sound levels when requested by the municipal entity responsible for review and approval of the pending application under 9.1, for determination of existing hourly sound levels for an existing facility or for enforcement by the Code Enforcement Officer.

(b) Measurements shall be obtained during representative weather conditions when the facility sound is most clearly noticeable. Preferable weather conditions for sound measurements at distances greater than about 500 feet from the sound source include overcast days when the measurement location is downwind of the facility and inversion periods (which most commonly occur at night).

(c) Measurements of the facility sound shall be made so as to exclude the contribution of sound from facility equipment that is exempt from this regulation.

4.2 Measurement of the Sound Levels Resulting from Routine Operation of the Facility.

(a) When the ambient sound levels are greater than the sound level limits, additional measurements can be used to determine the hourly sound level that results from routine operation of the facility. These additional measurements may include diagnostic measurements such as measurements made close to the facility and extrapolated to the Protected Location, special checkmark measurement techniques that include the separate identification of audible sound sources, or the use of sound level meters with pause capabilities that allow the operator to exclude non-facility sounds.

(b) For the purposes of computing the hourly sound level resulting from routine operation of the facility, sample diagnostic measurements may be made to obtain the one hour equivalent sound levels for each sound component.

(c) Identification of tonal sounds produced by the routine operation of a facility for the purpose of adding the 5 dBA penalty in accordance with subsection A(l)(d) requires aural perception by the measurer, followed by use of one-third octave band spectrum analysis instrumentation. If one or more of the sounds of routine operation of the facility are found to be tonal sounds, the hourly sound level component for tonal sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds.

(d) Identification of short duration repetitive sounds produced by routine operation of a facility requires careful observations. For the sound to be classified as short duration repetitive sound, the source(s) must be inherent to the process or operation of the facility and not the result of an unforeseeable occurrence. If one or more of the sounds of routine operation of the facility are found to be short duration repetitive sounds, the hourly sound level component for short duration repetitive sounds shall be computed by adding 5 dBA to the one hour equivalent sound level for those sounds. If required, the maximum sound levels of short duration repetitive sounds shall be measured using the fast response [LAFmax]. The duration and the frequency of occurrence of the events shall also be measured. In some cases, the sound exposure levels of the events may be measured. The one hour equivalent sound level of a short duration repetitive sound may be determined from measurements of the maximum sound level during the events, the duration and frequency of occurrence of the events, and their sound exposure levels.

(e) The daytime or nighttime hourly sound level resulting from routine operation of a facility is the energy sum of the hourly sound level components from the facility, including appropriate penalties, (see (c) and (d) above). If the energy sum does not exceed the appropriate daytime or nighttime sound level limit, then the facility is in compliance with that sound level limit at that Protected Location.

(5) Reporting Sound Measurement Data. The sound measurement data report should include the following:

(a) The dates, days of the week and hours of the day when measurements were made.

(b) The wind direction and speed, temperature, humidity and sky condition.

(c) Identification of all measurement equipment by make, model and serial number.

(d) The most recent dates of laboratory calibration of sound level measuring equipment.

(e) The dates, times and results of all field calibrations during the measurements.

(f) The applicable sound level limits, together with the appropriate hourly sound levels and the measurement data from which they were computed, including data relevant to either tonal or short duration repetitive sounds.

(g) A sketch of the site, not necessarily to scale, orienting the facility, the measurement locations, topographic features and relevant distances, and containing sufficient information for another investigator to repeat the measurements under similar conditions.

(h) A description of the sound from the facility and the existing environment by character and location.

APPENDIX C

Decommissioning Plan

Pursuant to section 14.12, the Applicant shall provide a plan for decommissioning a Type 2 or Type 3 Wind Energy Facility. The decommissioning plan shall include, but shall not be limited to the following:

1. A description of the trigger for implementing the decommissioning plan. There is a rebuttable presumption that decommissioning is required if no electricity is generated for a continuous period of twelve (12) months. The Applicant may rebut the presumption by providing evidence, such as a force majeure event that interrupts the generation of electricity, that although the project has not generated electricity for a continuous period of 12 months, the project has not been abandoned and should not be decommissioned.

2. A description of the work required to physically remove all Wind Turbines, associated foundations to a depth of 24 inches, buildings, cabling, electrical components, and any other Associated Facilities to the extent they are not otherwise in or proposed to be placed into productive use. All earth disturbed during decommissioning must be graded and re-seeded, unless the landowner of the affected land requests otherwise in writing.

   [Note: At the time of decommissioning, the Applicant may provide evidence of plans for continued beneficial use of any or all of the components of the Wind Energy Facility. Any changes to the approved decommissioning plan shall be subject to review and approval by the Code Enforcement Officer.]

3. An estimate of the total cost of decommissioning less salvage value of the equipment and itemization of the estimated major expenses, including the projected costs of measures taken to minimize or prevent adverse effects on the environment during implementation of the decommissioning plan. The itemization of major costs may include, but is not limited to, the cost of the following activities: turbine removal, turbine foundation removal and permanent stabilization, building removal and permanent stabilization, transmission corridor removal and permanent stabilization and road infrastructure removal and permanent stabilization.

4. Demonstration in the form of a performance bond, surety bond, letter of credit, parental guarantee or other form of financial assurance as may be acceptable to the Belgrade Planning Board that upon the end of the useful life of the Wind Energy Facility the Applicant will have the necessary financial assurance in place for 100% of the total cost of decommissioning, less salvage value. The Applicant may propose securing the necessary financial assurance in phases, as long as the total required financial assurance is in place a minimum of 5 years prior to the expected end of the useful life of the Wind Energy Facility.

TOWN OF BELGRADE

PERSONAL WIRELESS SERVICE FACILITIES SITING ORDINANCE

1. Title and Purpose

This ordinance shall be known and cited as the "Town of Belgrade Personal Wireless Service Facilities Siting Ordinance" hereinafter referred to as "this Ordinance".

The purpose of this Ordinance is to establish balanced regulations for the siting of personal wireless service facilities within the Town of Belgrade. The requirements of the Ordinance are intended to:

a. Provide for siting of personal wireless service facilities while avoiding potential damage to abutting properties;

b. To minimize any adverse impact on sensitive environmental areas as designated by the Department of Inland Fisheries and Wildlife;

c. To maximize the use of approved or preexisting sites within the coverage area to reduce the number of personal wireless service facilities needed to serve the community; and

d. To maintain to the greatest extent possible, the character of the existing site.

e. To accommodate the communication needs of residents and businesses, while protecting the public health, safety and general welfare of the community.

2. Authority

This Ordinance is adopted pursuant to Home Rule provisions of Title 30-A of the Maine Revised Statutes Annotated, Section 3001, et. seq.

3. Conflict with other Ordinances

a. Any applications shall be subject to all applicable Federal, State and Town of Belgrade regulations as well as this Ordinance.

b. Whenever a provision of this Ordinance conflicts with or is inconsistent with any other Federal, State or Town of Belgrade ordinance or standard, the more restrictive provision shall apply.

4. Severability

Should any section or provision of this Ordinance be declared by any court to be invalid, such decision shall not invalidate any other section or provision.

5. Effective Date

The effective date of this Ordinance shall be the date of adoption by voters at a Town Meeting scheduled for this purpose.

6. Definitions

As used in this Ordinance, unless the context otherwise indicates, the terms referenced below have the following meanings:

"Accessory Structure" is a structure which is incidental and subordinate to the principal use or structure.

"Accessory Use" is a use which is incidental and subordinate to the principal use. Accessory uses, when aggregated, shall not subordinate the principal use of the lot.

"Alternative Tower Structure" is defined as clock towers, church steeple, light poles, water towers and similar alternative-design mounting structures that camouflage or conceal the presence of towers.

"Antenna" is the surface from which electromagnetic frequency signals are sent or received by the personal wireless service facility.

"Camouflaged" means personal wireless service facilities are disguised, hidden, part of an existing or proposed structure or placed within an existing or proposed structure.

"Co-location" means the use of a single mount on the ground by more than one carrier and/or several mounts on an existing building or structure by more than one carrier.

"Equipment Shelter" is an enclosed structure, shed or box at or near the base of the mount within which are housed equipment for personal wireless service facilities, such as batteries and electrical equipment. Equipment shelters sometimes are referred to as base receiver stations.

"FAA" means the Federal Aviation Administration, or its lawful successor.

"FCC" means the Federal Communications Commission, or its lawful successor.

"Guyed Tower" is a tower that is tied to the ground or other surface by diagonal cables for lateral support.

"Height" means, when referring to a tower or other structure, the distance measured from ground level to the highest point on the tower or other structure, even if said highest point is an antenna.

"Lattice Tower" means a type of mount that is self-supporting with multiple legs and cross-bracing of structural steel.

"Licensed Carrier" is a company authorized by the FCC to construct and operate a commercial mobile radio services system.

"Mast" is a pole that resembles a street light standard or telephone pole.

"Monopole" is a type of mount, normally thicker than a mast that is self supporting with a single shaft of concrete, steel or wood, which is designed for the placement of antennas or arrays along the shaft.

"Mount" is the structure or surface upon which antennas are mounted. Antennas may be mounted on the roof of a building (roof-mounted), on the side of a building (side-mounted), mounted on the ground (ground-mounted), or mounted on a structure other than a building (structure-mounted).

"Parabolic Antenna" means an antenna which is bowl-shaped, designed for the reception and/or transmission of electromagnetic radiation signals in a specific directional pattern.

"Personal Wireless Service Facility" or **"Wireless Service Facility"** or **"Facility"** means any structure, antenna, tower or other device which provides personal wireless services.

"Personal Wireless Services" includes any personal wireless service defined in the Federal Telecommunications Act of 1996, which includes FCC licensed commercial wireless telecommunications services, including cellular, personal communications services (PCS), specialized mobile radio (SMR), enhanced specialized mobile radio (ESMR), paging and unlicensed wireless services, and common carrier wireless exchange access services.

"Propagation Studies" are computer generated estimates prepared by a professional radio frequency engineer of the signal emanating, and prediction of coverage, from antennas or repeaters sited on a specific personal wireless service facility or structure.

"Site" means the lot, tract or parcel upon which the personal wireless service facility is located.

"Structure" means anything built for the support, shelter or enclosure of persons, animals, goods or property of any kind, together with anything constructed or erected with a fixed location on or in the ground, exclusive of fences.

"Tower" means any structure, whether free standing or in association with a building or other permanent structure, primarily for the purposes of supporting one or more antennas, including self-supporting lattice towers, guy towers, or monopole towers.

7. Exemptions

The following are exempt from the provisions of this Ordinance:

a. Amateur (Ham) radio stations licensed by the FCC.
b. Parabolic antennas of 10 feet or less in diameter that are an accessory use of the property.
c. Maintaining or repair of a personal wireless service facility and existing equipment, provided that there is no change in the height or other dimensions of the facility.
d. Temporary personal wireless service facility in operation for a maximum period of 30 (thirty) days.
e. Residential antennas that are an accessory to a residential dwelling unit, such as a television or radio antenna.

8. Permit Required

No person shall place, construct, erect, or expand a wireless service facility unless a permit first has been obtained from the Town of Belgrade Planning Board.

9. General Filing Requirements

An application for a personal wireless service facility siting permit must include the name, address, and telephone number of the applicant and any co-applicants, including landowners, as well as agents for the same. Signed permission is required from the registered landowner of any site.

10. Specific Application Requirements

a. An application for a personal wireless service facility siting permit must also include the following, at the cost of the applicant:

b. A site plan prepared and reviewed by a professional engineer registered to practice in Maine indicating the location, type, and height of the proposed facility and any accessory structure, loading/antenna capacity, on-site and abutting off-site land uses, means of access, and setbacks from property lines. The site plan must include certification by a professional engineer registered in Maine that the design and construction of the proposed facility meets accepted industry standards and satisfies all federal, state, and local building code requirements. The Board may also require an independent review of the site plan by a professional engineer or independent consultant at the applicant's expense.

c. A United States Geological Survey 7.5 minute topographical map showing the current location of all structures and personal wireless service facilities above 100 feet in height from ground level, except antennas located on roof tops, within a 5 mile radius of the proposed facility.

d. A list of all abutting property owners and evidence that written notification has been provided to them (through certified mail delivery) of the intended application.

e. Documentation of the applicant's search for appropriate sites for the location of a personal wireless communications facility and the rationale for selecting the site under consideration.
f. Verification of contact with all other owners of facilities for commercial mobile radio or wireless transmission operating within a 5 mile radius, inquiring as to the feasibility of co-locating the proposed personal wireless service facility on a pre-existing tower or structure.

g. Proof of the need for a new structure and that co-location on an existing structure is not available. In addition, the applicant shall present proof that there is a contracted first tenant. Propagation studies for the proposed location as well as for any existing or approved personal wireless service facility within a 5 mile radius of the proposed site.

h. Photo simulations of the proposed facility taken from perspectives determined by the Planning Board. Each photo should be labeled with line of sight, elevation, and the date taken. Photos must demonstrate the color of the proposed facility and method of screening.

i. Elevation drawings of the proposed facility, showing height above ground level.

j. A landscaping plan indicating the proposed placement of the facility on the site; location of existing structures, trees, and other significant site features; the type and location of plants proposed to screen the facility; the method of fencing, the access road design and the color of the structure.

k. A balloon test, illustrating the proposed height and location of a personal wireless service facility, may be required at applicant expense. Adequate notice to the public of the test shall be given by the applicant. The Planning Board will determine what photos will be taken.

11. <u>Location/Co-location</u>

a. Co-Location Opportunities: Applicants seeking approval for siting of new personal wireless service facilities shall first evaluate the suitability of existing structures or approved sites. Only after finding that there are no suitable existing structures or approved sites for co-location, shall a provider propose a new ground mounted facility. Personal wireless service facilities that may be suitable for co-location include but are not limited to buildings, water towers, flag poles, telecommunication facilities, utility poles or existing personal wireless service facilities and related facilities.

b. Burden of Proof: The applicant shall have the burden of proving that there are no co-location opportunities which are suitable to locate its personal wireless service facility.

c. The applicant and owner shall allow other future wireless service carriers, using functionally equivalent personal wireless technology to co-locate antennas, equipment and facilities on the personal wireless service facility they are proposing, unless satisfactory evidence is presented and the Planning Board concurs that technical constraints prohibit co-location. In addition, space shall be provided at no charge to public agencies that benefit the Town of Belgrade; namely police, fire, ambulance, communication and highway, including internet access if requested at the time of review

of the application by the Planning Board and as determined to be appropriate by the Planning Board.

12. Dimensional Requirements

a. The height of any proposed personal wireless service facility shall not exceed two hundred (200) feet. No expanded personal wireless service facility shall exceed the height of two hundred (200) feet.

b. Subject to approval of a Town of Belgrade Planning Board permit, new personal wireless service facilities that are located on water towers, electric transmission and distribution towers, utility poles and similar existing utility structures, guyed towers, lattice towers, masts, and monopoles, may be increased in height, but in no event shall the resulting height be more than two hundred (200) feet.

13. Setbacks/Appearance

a. All personal wireless service facilities, guys and accessory facilities shall be setback from any residences or property lines by a minimum of 125% (percent) of the height of the facility; however it may not be closer than two hundred and fifty (250) feet of a structure located on abutting property without written consent of the abutting property owner.

b. All personal wireless service facilities shall be galvanized steel or finished in a neutral color so as to reduce visual obstructiveness.

c. When a personal wireless service facility extends above the roof height of a building on which it is mounted, every effort shall be made to conceal or camouflage the facility within or behind existing or new architectural features to limit its visibility from public ways.

14. Lighting/Signage/Security/Access Roads/Equipment Shelters

a. Personal wireless service facilities shall not be artificially lit, except for manually operated emergency lights for use when operating personnel are on site.

b. A security fence or wall of not less than eight (8) feet in height from the finished grade shall be provided around the tower. Access to the tower shall be through a locked gate.

c. No advertising signs or signage is permitted on personal wireless service facilities, except for signs that are needed to identify the property and the owner and to warn of potential hazards. A clearly visible sign with emergency contact information should be provided on site.

d. Road access to the personal wireless service facility shall be limited to a single roadway, which must be designed to harmonize with the topographic and natural features of the site by minimizing filling, grading, excavation, or similar activities which result in unstable soil conditions and soil erosion. The access roadway must follow the natural contour of the land and should not involve excessive grading or tree removal. Curvilinear roads shall be used as access roads to prevent direct line of site from the town road access point to the tower site. Existing vegetation should be maintained to the extent practical. All practical steps must be taken to prevent a visible scar up or across a ridgeline.

e. The base of the tower shall not be located in a wetland or floodplain.

f. At the site, the design of the facility and accessory structures shall use materials, colors, textures, screening and landscaping that will blend the personal wireless service facility to the natural setting as much as possible. The required security fence shall also use materials that blend in to the natural setting as much as possible. The Planning Board will determine if the style of fencing and/or landscape buffer is compatible with the surrounding area.

15. Application Procedure

a. Applicants must fulfill the application requirements as outlined in this Ordinance and present the material to the Belgrade Planning Board.

b. A Public Hearing may be called for the application at the discretion of the Planning Board. The applicant is required to cover the additional costs of this process. The fee is to be determined by the Board of Selectmen as below.

16. Application Fee

A non-refundable application fee (at a level determined by the Board of Selectmen) per proposed personal wireless service facility, payable to the Town of Belgrade, must be submitted with the application. In addition, the applicant is responsible for all out of pocket expenses, relating to the application.

17. Hazardous Waste

No hazardous waste shall be discharged on the site of any personal wireless service facility. If any hazardous materials are to be used on site, there shall be provisions for full containment of such materials and the owner or operator of the personal wireless services facility shall comply with all local, state and federal laws, codes, rules regulations, orders and ordinances in the handling and disposal of such materials. An enclosed containment area shall be provided with a sealed floor, designed to contain at least one hundred and ten (110) percent of the volume of the hazardous materials stored or used on site. In the event of leakage, the owner is responsible for all costs related to cleanup of the site and affected surrounding areas.

18. Maintenance

The owner and/or operator of the personal wireless service facility shall maintain the structure in good condition. Such maintenance shall include, but is not limited to: painting, structural integrity of the mount and security barrier, any buffer areas, fencing and landscaping.

19. Monitoring

a. On an annual basis, the personal wireless service facility owner shall provide the Town of Belgrade with evidence of compliance with federally mandated safety levels for radio frequency electromagnetic fields and radio frequency radiation exposure levels, to include copies of any reports filed with the FCC.

b. The personal wireless service facility owner shall arrange for a licensed structural engineer to conduct regular inspections of the personal wireless service facility's structural integrity and safety at least every five years. A report of the inspection results shall be submitted to the Town of Belgrade Selectmen and members of the Planning Board.

20. Bond for Removal

At the time of approval of a permit application, and prior to initiating construction of any personal wireless service facility within the Town of Belgrade, the applicant must post a bond to cover costs for the removal of the personal wireless service facility, including site reclamation. The amount of the bond shall be based on the removal and reclamation costs plus fifteen (15) percent, provided by the applicant and certified by a professional civil engineer licensed in Maine. The owner of the facility shall provide the Planning Board with a revised removal and reclamation cost estimate prepared by a professional civil engineer licensed in Maine every five (5) years from the date of the Planning Board's approval of the site plan. If the cost has increased more than fifteen (15) percent, then the owner of the facility shall provide additional security in the amount of the increase.

21. Abandonment or Discontinuation of Use/Removal

a. A personal wireless service facility that is not operated for a continuous period of twelve (12) months shall be considered abandoned. The Town shall notify the owner of an abandoned facility in writing, certified mail, return receipt requested, ordering the removal of the facility within 180 days of receipt of the written notice. The owner of the facility shall have thirty (30) days from the receipt of the notice to demonstrate to the Town that the facility has not been abandoned.

b. If the owner fails to show that the facility is not abandoned, the owner shall have one hundred fifty (150) days to remove the facility. If the facility is not removed within that time period, the Town shall remove the facility at the owner's expense and the Town may draw upon the bond required in Section 20 above to defray the costs of removal of the facility. Removal shall include, but not be limited to, antennas, mounts, equipment shelters and security barriers. The owner of the facility shall pay all site reclamation costs deemed necessary and reasonable to return the site to its pre-construction condition, including the removal of roads, and reestablishment of any vegetation.

22. Appeals

Appeals involving conditions imposed by the Planning Board, or a decision to deny approval, shall lie from the Planning Board to the Superior Court, according to State law, except that when such appeals involve administrative procedures or interpretation, they may first be heard and decided by the Board of Appeals, as detailed below:

a. When errors of administrative procedure are found, the case shall be referred back to the Planning Board for rectification.

b. When errors of interpretation are found, the Board of Appeals may modify or reverse the order or action but may not alter the conditions attached by the Planning Board in a conditional use permit. The Planning Board in accordance with the Board of Appeals' information, other than changes made by the granting of a variance, shall make all changes in conditions.

Appeals involving administrative procedure or interpretation shall lie from the decision of the Planning Board to the Board of Appeals and from the Board of Appeals to the Superior Court according to State Law.

23. Violations

a. Failure to comply with any conditions of the Site Plan Review subsequent to the receipt of a building permit shall be construed to be a violation of this regulation and shall be grounds for the revocation of any building permit by the Planning Board.

b. In instances where no new building or construction is proposed, establishment of a new use or resumption of a use which has been discontinued for at least two (2) years, if accomplished without Planning Board approval, shall constitute a violation of this ordinance. Such a violation shall be punishable by a fine of not less than one hundred dollars ($100) or more than two thousand five hundred dollars ($2500) for each day that the violation continues to exist after official notification by the Town.

c. Whenever sedimentation is caused by stripping vegetation, regarding, or other development, it shall be the responsibility of the owner to remove sedimentation from all adjoining surfaces, drainage systems, and watercourses, and to repair any drainage at his expense as quickly as possible. Failure to do so within two (2) weeks after official notification by the Town shall be punishable by a fine of not less than one hundred dollars ($100) or more than two thousand five hundred dollars ($2500) for each day the offense continues.

24. Enforcement

a. Nuisances: Any violation of this Ordinance shall be deemed to be a nuisance.

b. Code Enforcement Officer: It shall be the duty of the Code Enforcement Officer to enforce the provisions of this Ordinance. If the Code Enforcement Officer shall find that any provision of this Ordinance is being violated, they shall notify in writing the person responsible for such violation, indicating the nature of the violation, and ordering the action necessary to correct it, including discontinuance of illegal use of land, buildings, structures, or work being done, removal of illegal buildings or structures, and abatement of nuisance conditions. A copy of such notices shall be maintained as a permanent record.

c. Legal Action: When the above action does not result in the correction or abatement of the violation or nuisance condition, the municipal officers, upon notice from the Code Enforcement Officer, are hereby authorized and directed to institute any and all actions and proceedings, either legal or equitable, including seeking injunctions of violations and the imposition of fines, that may be appropriate or necessary to enforce the provisions of this Ordinance in the name of the municipality.

d. Fines: Any person who continues to violate any provision of this Ordinance, after receiving notice of such violation, shall be guilty of a misdemeanor subject to a fine of not less than one hundred dollars ($100) or more than two thousand five hundred dollars ($2500) for each violation. Each day such a violation is continued is a separate offense.

Town of Belgrade
Planning Board
Oct 7, 2021 / 6 p.m.

Belgrade Town Office
990 Augusta Road
Belgrade, ME 04917
This meeting was conducted in person. The meeting can be viewed at:
https://youtu.be/GgS4cpCpM8k

Present: Belgrade Planning Board Members, Peter Rushton, Rich Baker, Craig Alexander, George Seel, Planning Board Secretary Julie Morrison, Ryan Eldridge, Kate Bernadino

Called to order by Chairman Peter Rushton at 6:02 p.m.

1. **OLD BUSINESS**
   a. **PUBLIC HEARING-** Review a commercial permit application submitted by Kathryn DiBerardino (DBA). Location: 11 School Street; Map 25 Lot 60. Purpose: Renovate existing structure. Proposed name of development or new use: Ladies of the Lakes. The application is posted online at townofbelgrade.com/LadiesoftheLakes.
   Public meeting: 1 comment from abutter was in favor.

   b. **COMMERCIAL APPLCTION –** Applicants/Owners: Kathryn DiBernardino (applicant)/Ladies of the Lakes (owner): Location: 11 School Street; Map 25 Lot 60. Purpose: Renovate existing structure. Will not change square footage (2/3 of building will be residential; 1/3 building dedicated to classroom space)
   Findings of facts were completed. The Following conditions set:
   Building Application limited to the described above. Board Approval to transferable.
   Motion by Craig Alexander to approve allocation with waivers granted, 2nd by George Seel. 4-0 approved.
2. **NEW BUSINESS**
   a. **SHORELAND APPLICATION –** Applicant: Ryan Eldridge of Maine Cabin Masters. Owners: John & Janice Rooney. Location: 122 Snug Harbor Road (Great Pond). Map 41 Lot 1B. Purpose: Jack and level camp and add full foundation. Will not increase footprint (non-conforming structure on a non-conforming lot)
   Modify Plan & Application to extend no more than 20 feet. Request to be on next meeting.

b. Discuss and consideration of the **proposed subdivision ordinance.**
What is the Deadline? Would like a public informational meeting.

3. OLD BUSINESS

a. Consideration of Sept. 2 and Sept. 16, 2021, Planning Board minutes.

Sept. 2, 2021, minutes- Motion to approve, 2nd 4-0 approved
Sept. 16, 2021, minutes – Motion to accept with date correction, 2nd 4-0 approved as amended.

Meeting adjourned 8:05 p.m.