

**Town of Gorham
Planning Board Meeting
May 4, 2020**

ITEM 4 – Public Hearing - Site Plan Review – Gorham Solar, LLC (formerly Nexamp, Inc.) - a request for approval to construct a Solar Ground-Base Photovoltaic Array with associated equipment, gravel access, and perimeter fencing. Zoned Rural (R), small portion of Floodplain Overlay, and Fort Hill Road Impact fee. Map 64, Lot 4 and 4-1. The applicant is represented by Christopher Ryan, Meridian Associates

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PROJECT TRACKING

DESCRIPTION	COMMENTS	STATUS
Pre-Application (optional)	The Planning board discussed parking requirements, solar power, looped road and the appearance of the new building looking into the site from School Street.	February 3, 2020
Site Walk	None held	
Public Hearing		May 4, 2020

The following staff notes are written to assist the Applicant with compliance to the Town of Gorham Land Use Development Code and may not be all inclusive of project requirements. Staff notes are review comments and recommendations prepared by the Town Planner and, if applicable, the Town’s peer review consultant, regarding applicability to The Gorham Land Use Development Code and standard engineering practices.

The Planning Board refers to staff notes during the review process; however it shall be noted that staff recommendations are non-committal and all final decisions are those of the Planning Board and not Town Staff.

George H. Fox, Chairman, Gorham Planning Board

PLACE MAP AND LOT NUMBER IN 1/4" HIGH LETTERS AT LOWER RIGHT BORDER OF ALL PLAN SHEETS.

1. OVERVIEW

The applicant is requesting approval to construct a Solar Ground-Base Photovoltaic Array with associated equipment, gravel access, and perimeter fencing. The Planning Board reviewed the pre-application on February 3, 2020. The Planning Board minutes from that meeting are included on pages 18 through 22.

The applicant is represented by Christopher Ryan, Meridian Associates.

2. WAIVER REQUEST

No waivers are requested.

3. ITEMS OF NOTE

1. Public Hearing: This item is on for a public hearing, which will require the Planning Board to open the item for public comment.
2. A water and sewer/septic supply is not proposed for this development. It may be deemed unnecessary and waived by the Planning Board.
3. The sight distance for the access driveway has not been provided.
4. The applicant has not provided a lighting plan. It may be considered unnecessary or waived by the Planning Board.
5. The waste disposal hauler has not been determined by the applicant. It may be considered unnecessary or waived by the Planning Board.
6. The applicant is proposing to install a landscape buffer along the southern property line that varies in species with heights ranging from 24 inches to 60 inches. The Board may want to discuss the addition of Maine native evergreen and deciduous species that will grow to 60 or more feet.

4. STAFF REVIEWS

Assessing Department: March 31, 2020

What is the proposal for Map 64 Lot 4 & 65-4-1
Stay as separate lot or combine into the project?
64-4 to be assessed as excess acreage?

Code Department: No comments received.

Fire Department: March 11, 2020

Not less than one Fire Department key shall be installed at a location or locations determined by the Fire Department.

An E911 address shall be established for the project and the address shall be properly posted.

Charles Jarrett, Fire Inspector, on behalf of Chief Lefebvre

Planning Department: April 23, 2020

- The sight distance for the access driveway has not been provided.
- The applicant has not provided a lighting plan. It may be considered unnecessary or waived by the Planning Board.
- There is no provision for sewer or water.
- The applicant is proposing to install a landscape buffer along the southern property line that varies in species with height ranging from 24 inches to 60 inches. The Board may want to discuss the addition of Maine native evergreen and deciduous species that will grow to 60 or more feet.

Police Department: No comments received.

Public Works Department: April 8, 2020

I have no stormwater concerns for NexAmp SP. - Matt Lacroix

Milone & MacBroom: April 20, 2020

Dear Mr. Fox:

Milone and MacBroom, Inc. (MMI) is pleased to provide the following peer review comments for the proposed Solar Project near 412 Fort Hill Road in Gorham ME. Please recall that the project as proposed by Gorham Solar, LLC, a subsidiary of NEXAMP Solar, consists of a 5 MW solar project to be installed or constructed on a currently undeveloped lot. Please note that the comments or recommendations listed below are only for items that appear to be unaddressed or not shown per the Town of Gorham requirements. It is understood that the proposed project is within the Rural District (R) zone and considered a Major Development and will follow Section 4-8 and applicable subsections.

Provided Documents:

1. Site Plan Review Application, for Gorham Solar, LLC, Tax Map 64, Lots 4 and 4-1, Fort Hill Road, Gorham, ME, prepared by Meridian Associates, Inc., of Beverly MA (March 2, 2020), including Town checklist for site plan review, checklist for plan requirements, agent authorization, property records deeds, lease agreements, project narrative, and other supporting information;
2. Site Plan set, Proposed Solar Array Development Plan (Assessors Map 64 – Lots 4 and 4-1), Gorham, ME (February 14, 2020);
3. Stormwater Analysis & Calculations, for Gorham Solar, LLC, Tax Map 64, Lots 4 and 4-1, Fort Hill Road, Gorham, ME, prepared by Meridian Associates, Inc., of Beverly MA (February 14, 2020);

4. Town of Gorham ME Planning Board Meeting Site Plan Pre-Application discussion with Items of Note (February 3, 2020).

Documents Obtained:

1. Land Use & Development Code, Town of Gorham ME (effective May 1, 2015), chapters 1 through 7
2. Zoning Map, of the Town of Gorham ME, Cumberland County (October 2, 2018).
3. FEMA Flood Rate Insurance Map (FIRM), Town of Gorham ME, Cumberland County, Panel 15 of 30, Panel Number 230047-0015, effective date October 15, 1981.

Review Comments and Recommendations:

Application: Site Plan Review

1. Page 3 of 10, under Questions, the maximum building height and building volume are not checked nor is a height or volume provided. Additionally, the proposed lot coverage box is not checked and the % provided (0%) is lower than the existing lot coverage (0.6%). At a minimum there is an 8'x50' structure, and the associated concrete pads being proposed to house and place the equipment, which must be included in the responses to the noted questions.
2. Page 3 of 10, under Questions, 23,929 sq. ft. of existing floor area is noted. Only one 25'x25' (625 sq. ft.) structure is shown on the existing conditions plan. Additionally, no square footage for the new 8'x50' (400 sq. ft.) structure, or any concrete pad areas and solar panels, have been accounted for in the response to the proposed floor area as it indicates 0 sq. ft. These items should be corrected and clarified on the application form.
3. Page 3 of 10, under Parking, the existing paved area is listed as 11,625 sq. ft, which we assume is based on the existing gravel drive and parking area at the storage building, but the following three boxes are unchecked and only comments are provided. Like above, the new gravel drives, turnaround areas and widening of the existing gravel drive to the "split" should be considered as new pavement, as their runoff characteristics are quite different than a hay field. It also appears there are several existing parking spaces at the storage facility, but N/A is provided as a comment to that question. And similarly, the turnaround area provides parking for service personnel/vehicles when they need to monitor, inspect, repair, or replace equipment.
4. Page 3 of 10, under Utilities or Water and Sanitary Sewer, "N/A" Not Applicable is listed under the comments section. Based on the applicants plans and C101, a water valve is apparently present at the current driveway apron and it should be determined if the water line is stubbed near the shown valve, or if the water line extends to the Landowners Shed at western end (rear) of property, and be labeled as such on the plan.
5. Page 5 of 10, under State and Local Permits, a variance from the Board of Appeals is checked as "No" or not required, but it does not appear that Solar Arrays / Solar or Photovoltaic projects are defined within the Town of Gorham Land Use & Development Code,

nor listed under the Rural District, Special Exception uses. Therefore, it seems that the project should be check off as “yes” and a Variance from the Zoning Board of Appeals completed.

6. Page 5 of 10, under State and Local Permits, neither box is checked for listing of all other municipal permits and licenses. It appears that “Yes” should be checked as a Building Permit will be required.

7. Page 5 of 10, under State and Local Permits, a MDEP SLODA permit is the only State permit listed, however, based on apparent impacts to wetlands and the site disturbance (greater than one acre), a NRPA and Stormwater Law permit may also be required for these activities. Page 7 of 10, Applicant’s Checklist, seems to indicate that a copy of the NRPA permit has been supplied, but no record of it is included in the submittal package received by us.

8. Although a sequence or description of construction procedures is provided in the application, it is recommended that a graph or bar chart with tentative dates and project milestones be provided.

9. The Project Narrative (page 2 of 2) specifically states that no tree removal is anticipated for this project, however the Construction Plan (page 1) in the third bullet point – Clearing – talks about forested areas and trees being cut, removed and used for commercial purposes. The specific activities being performed should be clarified and the respective narrative and/or construction plan should be modified accordingly.

Site Plan

1. Existing Conditions – Fort Hill Road right-of-way width and street (pavement) widths are not listed.

2. Existing Conditions – Due to proximity of dwellings and driveways to the abutting southern property line, it appears that the driveway and structure outlines should be shown for lots 64-5-1 and 64-5-3.

3. Existing Conditions – No arrows or other means of indicating the anticipated direction of stormwater runoff is shown, but flows can be determined by the topography.

4. Proposed Development Activity – Although test pit locations are shown on the plan sheets, it is recommended that the Test Pit Data logs be added to the plans.

5. Proposed Development Activity – No stormwater mitigation measures, swales, ditches, detention basins are shown.

6. Proposed Development Activity – Although the general location of proposed overhead and underground electrical lines are shown and a general electrical conduit detail is shown, it is recommended that the underground electrical routing be parallel to the proposed gravel driveways with a uniform offset distance, and that fiberglass markers at the surface are installed along the route. It is also recommended that “Electrical” Warning tape be added to the construction detail and be installed 1 ft below grade within the electric trench during installation.

7. Proposed Development Activity – It is recommended that the cement concrete blocks or foundations for the vehicle access gate support posts be at least 4 feet below grade to prevent rotation from true vertical due to frost heaving.

8. Proposed Development Activity – Proposed solar array fence in the plan view sheets indicates a proposed 7-ft fence. Construction detail of fence indicates an 8-ft fence height.

9. Proposed Development Activity – A separation distance of 13.3-ft between solar panels is listed in plan views. However, no individual Solar Panel array dimensions are listed (typical lengths or widths) in the plan views or in the construction details sheets, nor is general solar panel information listed or provided on the plans.
10. Proposed Development Activity – It is recommended that the solar panels be “anti-glare” or have a matte finish.

Stormwater Analysis & Calculations

Based on review of the drainage report narrative and HydroCAD modeling reports, it appears that the Post Construction condition model accounts for alteration of portions of the undeveloped lot to include the additional gravel driveways and cement concrete pads for electrical equipment, totaling 50,426 square feet (SF). However, based on the estimated total solar panel area of 368,235 SF (8.5 acres) +/-, it appears that the post construction condition modeling does not account for or consider the above photovoltaic solar panel area.

Although the solar panels are above ground and not considered a direct or continuous impervious area on the ground, they are impervious from a planar perspective and the runoff from the panels will flow off the lower edge of panels and onto the ground in a concentrated area. Therefore, it is recommended that the applicant’s engineer account for the substantial solar panel area within each catchment or drainage area for the proposed conditions scenario and model the solar panels as “Unconnected Roofs”, which is a built-in HydroCAD modeling option. This will account for the dis-jointed solar panel area for the entire site and will likely demonstrate an increase in peak flows for the proposed or post construction condition that will likely require stormwater mitigation measures such as detention ponds.

Please do not hesitate to contact us should you have any questions regarding this review or require additional information.

Very truly yours,
MILONE & MACBROOM, INC.

Michael F. Zarba, PE
Senior Project Manager

Portland Water District: No comments

Town Attorney: No comments

**TOWN OF GORHAM PLANNING BOARD
SITE PLAN REPORT AND
FINDINGS OF FACT**

**For
Gorham Solar, LLC**

May 4, 2020

Applicant/ Property Owner: The property owner is Norman A. Martin, III and the applicant is Gorham Solar, LLC, 101 Summer St, 2nd, floor, Boston, ME 02110.

Property: The lots are identified as Tax Map 64, Lots 4 and 4-1, and located just south of 412 Fort Hill Road, Gorham, Maine 04038.

Consultants: Christopher Ryan; Meridian Associates, Civil Engineers; David Sean Kelley, Licensed Engineer #12031; Sean P. Pierce, Licensed Surveyor #2517.

Project Description: This proposal is to construct a Solar Ground-Base Photovoltaic Array with associated equipment, gravel access, and perimeter fencing.

Site Description: The site is 89.3 acres in size and has road frontage along Fort Hill Road. The lot is served by public water and overhead utilities.

The site is currently in agricultural use and serves as a hay field. A storage building is located in the western corner of the site.

Applicability: The applicant's proposal requires site plan review because it involves new non-residential construction.

Zoning: Rural (R), small portion of Floodplain Overlay, and Fort Hill Road Impact fee. Public and private utilities are allowed within this zoning district.

Variances: None required.

Waivers: None requested.

Pursuant to the Application:

A Pre-application discussion was held on February 3, 2020.
Site Plan review was held on May 4, 2020.

The projects and plans and other documents considered to be a part of the approval by the Planning Board in this ruling consist of the following:

Meridian Associates plans (the plans) prepared by David Sean Kelley P.E. consist of the following:

Sheet C-100 - Cover Sheet and Locus Context – 03/03/20
Sheet C-101 – Record Conditions Plan Overview – 03/03/20
Sheet C-102 – Record Conditions Plan Overview of Land 1 – 03/03/20
Sheet C-103 – Record Conditions Plan Overview of Land 2 – 03/03/20
Sheet C-104 – Record Conditions Plan Overview of Land 3 – 03/03/20
Sheet C-105 – Record Conditions Plan Overview of Land 4 – 03/03/20
Sheet C-200 – Site Plan Overview – 03/03/20
Sheet C-201 – Site Plan Sheet 1 – 03/03/20
Sheet C-202 – Site Plan Sheet 2 – 03/03/20
Sheet C-203 – Site Plan Sheet 3 – 03/03/20
Sheet C-204 – Site Plan Sheet 4 – 03/03/20
Sheet C-301 – Erosion and Sedimentation Control Notes & Details – 03/03/20

Other documents submitted consist of the following:

Sketch Plan Application – 12/30/19
Plans – 12/20/19
Site Plan Application – 03/03/20
Stormwater Management Plan – 03/03/20
Gorham Town Planner Comments – 04/23/20
Gorham Assessor Comments – 03/31/20
Gorham Fire Chief Comments – 03/11/20
Gorham Code Enforcement Officer – No comments
Gorham Police Chief – No comments
Gorham Public Works Director – 04/08/20
Milone & MacBroom Comments – 04/20/20

CHAPTER 4, SITE PLAN REVIEW, SECTION 9 – Approval Criteria and Standards

The Planning Board, following review of the Site Plan Amendment Application, makes these findings based on the Site Plan Review criteria found in Chapter 4, Section 9 – Approval Criteria and Standards of the Town of Gorham Land Use and Development Code.

A. Utilization of the Site: The plan for the development will reflect the natural capabilities of the site to support development.

The applicant has provided detailed site plans that describe the use of the land as it relates to the proposed Solar Ground-Base Photovoltaic Array with associated equipment, gravel access, and perimeter fencing showing that the lot can support the proposed improvements.

Finding: *The plan for the development reflects the natural capabilities of the site to support the development and the natural features and drainage ways are preserved to the greatest extent possible.*

B. Access to the Site: Vehicular access to the site will be on roads which have adequate capacity to accommodate the additional traffic generated by the development.

The site is accessed from Fort Hill Road. The proposal is for very few access requirements per year onto this site.

Finding: *Vehicular access to the site will be on roads which have adequate capacity to accommodate the additional traffic generated by the development.*

C. Access into the Site: Vehicular access into the development will provide for safe and convenient access.

The existing property is accessed from a 12 foot gravel driveway entrance off Fort Hill Road.

The driveway has a sight distance of looking north and looking south and will provide for safe and convenient access into the site.

The grade of the drive will be a -2.0% for a minimum of five (5) feet from the existing pavement edge or of the existing drainage swale.

Finding: *The plans provide for safe and convenient vehicular access into the development.*

D. Internal Vehicular Circulation: The layout of the site will provide for the safe movement of passenger, service and emergency vehicles through the site.

The existing gravel driveway will be utilized throughout the site with minor modifications to accommodate emergency vehicle access as shown on Sheet C-201.

Finding: *The layout of the site provides for the safe movement of passenger, service, and emergency vehicles through the site.*

E. Pedestrian Circulation: The development plan will provide for a system of pedestrian circulation within and to the development.

The gravel driveway will be utilized for pedestrians, since the traffic will be extremely limited.

Finding: *The plans provide a system of pedestrian circulation within the development.*

F. Stormwater Management: Adequate provisions will be made for the disposal of all storm water collected on streets, parking areas, roofs or other impervious surfaces through a storm water drainage system and maintenance plan which will not have adverse impacts on abutting or downstream properties.

The applicant has submitted a Site Location of Development Application (-SLODA) to the Maine Department of Environmental Protection, which states the proposed stormwater management system designed for this project will consist of the installation of vegetated buffer strips and stone pads around proposed concrete pads. The vegetated buffer strips are designed to infiltrate stormwater runoff from the gravel access roads. The installation of the stone pads and dedicated buffer strips will allow no increase in peak rate of stormwater runoff during 2, 10, and 25 year design storms.

Finding: *The site has adequate provisions for the disposal of all storm water collected on driveways, parking areas or other impervious surfaces through a stormwater drainage system and maintenance plan which does not have adverse impacts on abutting or downstream properties.*

G. Erosion Control: For all projects, building and site designs and roadway layouts will fit and utilize existing topography and desirable natural surroundings to the fullest extent possible.

The applicant has submitted a Site Location of Development Application (SLODA) to the Maine Department of Environmental Protection, which states the project will be periodically inspected by an erosion and sedimentation control specialist. The SLODA and grading and erosion control plans C-300 and C-301 include provisions and locations for filter barriers, straw bales, silt fencing, sediment traps, diversion swales, vegetated buffer strips, stone pads, and surface stabilization.

Finding: *The plan utilizes existing topography and desirable natural surroundings to the fullest extent possible. Filling, excavation, and earth moving are kept to a minimum.*

H. Water Supply: The development will be provided with a system of water supply that provides each use with an adequate supply of water meeting the standards of the State of Maine for drinking water.

A water supply is not proposed for this development. It may be deemed unnecessary or waived by the Planning Board.

Finding: *The development provides a system of water supply that provides for an adequate supply of water meeting the standards of the State of Maine for drinking water.*

I. Sewage Disposal: A sanitary sewer system will be installed at the expense of the developer if the project is located within a sewer service area as identified by the sewer user ordinance. The Site Plan Review Committee or Planning Board may allow individual subsurface waste disposal systems to be used where sewer service is not available.

Onsite septic system is not proposed for this development. It may be deemed unnecessary or waived by the Planning Board.

Finding: *The development provides for sewage disposal for the anticipated use of the site.*

J. Utilities: The development will be provided with electrical and telephone service adequate to meet the anticipated use of the project.

The applicant states that 3 phase power will serve this site utilizing overhead power and telephone lines.

Finding: *The development will provide for adequate electrical and phone service to meet the anticipated use of the project.*

K. Natural Features: The landscape will be preserved in its natural state insofar as practical by minimizing tree removal, disturbance and compaction of soil, and by retaining existing vegetation insofar as practical during construction.

The applicant has shown on the site plans that very little vegetation will be removed or disturbed; existing vegetation will be preserved as much as possible.

Finding: *The development of the site will preserve existing vegetation to the greatest extent practical during construction.*

L. Groundwater Protection: The proposed site development and use will not adversely impact either the quality or quantity of groundwater available to abutting properties or public water supply systems.

The solar array is not proposed to impact the groundwater table on the site.

Finding: *The proposed development will not adversely impact either the quality or quantity of the groundwater available to abutting properties or public water supply systems.*

M. Exterior Lighting: The proposed development will provide for adequate exterior lighting to provide for the safe use of the development in nighttime hours.

The applicant has not provided a lighting plan. It may be considered unnecessary or waived by the Planning Board.

Finding: *The proposed development provides for adequate exterior lighting to provide for the safe use of the development during nighttime hours.*

O. Waste Disposal: The proposed development will provide for adequate disposal of solid wastes and hazardous wastes.

The waste disposal hauler has not been determined by the applicant. It may be considered unnecessary or waived by the Planning Board.

No hazardous materials are proposed to be stored on site.

Finding: *The development will provide for adequate disposal of solid wastes and hazardous waste.*

P. Landscaping: The development plan will provide for landscaping to define street edges, break up parking areas, soften the appearance of the development and protect abutting properties from adverse impacts of the development.

The applicant has submitted a Landscape Plan & Details Sheet: Sheet C205, which shows planting locations, species, sizes, and details for installation of the proposed plantings. The applicant is proposing to install a landscape buffer along the southern property line that varies in species with height ranging from 24 inches to 60 inches.

Finding: *The proposed plan will provide landscaping to soften the appearance of the development.*

Q. Shoreland Relationship: The development will not adversely affect the water quality or shoreline of any adjacent water body. The development plan will provide for access to abutting navigable water bodies for the use of occupants of the development.

A portion of the back of the lot is located in the Shoreland Overlay District. The applicant is proposing development in the areas outside of the shoreland overlay, vernal pool and wetlands, so the development will not adversely affect the water quality or shoreline of any adjacent water bodies.

Finding: *The development will not adversely affect the water quality or shoreline of any adjacent body of water.*

R. Technical and Financial Capacity: The applicant has demonstrated that he has the financial and technical capacity to carry out the project in accordance with this Code and the approved plan.

The applicant has stated and provided documentation in Section 3 of the SLODA that MUFG Bank, Ltd. will provide financing, Nexamp will be the contractor; &J Contractors, Inc. will provide decommissioning expertise; and Meridian Associates is providing engineering.

Finding: *The applicant has the financial and technical capacity to complete the project in accordance with Gorham's Land Use and Development Code and the approved plan.*

S. Buffering: The development will provide for the buffering of adjacent uses where there is a transition from one type of use to another use and to screen service and storage areas. The buffer areas required by the district regulations will be improved and maintained.

The applicant has submitted a Landscape Plan & Details Sheet: Sheet C205, which shows planting locations, species, sizes, and details for installation of the proposed plantings. The applicant is proposing to install a landscape buffer along the southern property line that varies in species with height ranging from 24 inches to 60 inches.

The western, northern, and eastern portion of the parcel is to remain wooded and unchanged.

Finding: *The development provides buffering to screen service and storage areas.*

T. Noise: The applicant has demonstrated that the development will comply with the noise regulations listed in Table 1 – *Sound Level Limits* and the associated ordinances.

The uses at the site are required to meet the A-weighted hourly equivalent sound level limits of 70 dBA daytime (7am-7pm) and 60 dBA nighttime (7pm- 7am).

Finding: *The development will comply with the A-weighted hourly equivalent sound level limits of 70 dBA daytime (7am-7pm) and 60 dBA nighttime (7pm-7am).*

Conditions of Approval

1. That this approval is dependent upon, and limited to, the proposals and plans contained in this application and supporting documents submitted and affirmed by the applicants and that any variation from the plans, proposals and supporting documents is subject to review and approval by the Planning Board, except for minor changes which the Town Planner may approve;
2. That prior to the commencement of construction of the site plan, the applicant is responsible for obtaining all required local, state and federal permits;
3. That all relevant conditions of approval from past Site Plan approvals shall remain in effect;
4. That any proposed use on the site shall meet the sound level requirements outlined under Chapter 4, Section 9, T. Noise;
5. That prior to the pre-construction meeting, the applicant will establish the following: an escrow for field inspection meeting the approvals of Town Staff;
6. That prior to the commencement of any site improvements, the applicant, its earthwork contractor, and the design engineer shall arrange a pre-construction meeting with the Town's Review Engineer, Public Works Director, Fire Chief, Code Enforcement Officer and the Town Planner to review the proposed schedule of improvements, conditions of approval, and site construction requirements;
7. That all site construction shall be carried out in conformance with the Maine Erosion and Sediment Control Best Management Practices, Maine Department of Environmental Protection, latest edition and in accordance with the erosion and sedimentation control information contained in the application;
8. That not less than one (1) Fire Department key box shall be installed at a location or locations determined by the Fire Department;
9. That an E-911 address shall be established for the project and the address shall be properly posted;
10. That the site plan shall not be released for recording at the Registry of Deeds until the required performance guarantee for that phase has been posted meeting the approval of Town Staff, and

the site plan is required to be recorded within one year of original approval or the approval becomes null and void;

11. That the Planning Board Chairman is authorized by the Planning Board to sign the Findings of Fact on behalf of the entire Board; and
12. That once the site plan has been recorded at the Cumberland County Registry of Deeds, a dated copy of the recorded site plan shall be returned to the Town Planner prior to the pre-construction meeting.

SUGGESTED MOTIONS:

TO POSTPONE APPROVAL:

Move to postpone further review of Gorham Solar, LLC request for site plan approval pending responses to outstanding ordinance requirements (and finalizing revisions to the plan or application).

TO PLACE THE ITEM ON THE CONSENT AGENDA:

Move to place the item on the consent agenda pending the submission of responses to outstanding ordinance requirements.

TOWN OF GORHAM
PLANNING BOARD MEETING MINUTES

For Reference Only
February 3, 2020

ITEM 3 Pre-Application Discussion – Site Plan – Nexamp – Fort Hill Road Solar Project – a request for approval to construct a PV Solar Ground-Based Array south of 412 Fort Hill Road, with associated equipment, gravel access, perimeter fence and utility poles. Zoned R, Map 64, Lot 4.001.

Ms. Eyerman advised the Board that this proposal is for a solar array off Fort Hill Road. The site is proposed to be fenced. She asked what the total array acreage amount will be.

Henry Barrett, Nexamp, solar business development manager, came to the podium and introduced Palmer Moore, Nexamp vice president of business development, Chris Coppi of Frick Associates, and Christopher Ryan, Meridian Associates, Inc. Mr. Barrett told the Board that Nexamp, a solar energy company based in Massachusetts, will be the long-term owner and operator of the project. Nexamp is working with the landowner to bring forth this solar array as part of the procurement for distributed generation in Maine.

Christopher Ryan, Meridian Associates, Inc., representing Nexamp as site engineers for the project, told the Board that Nexamp will lease 35 acres of the 83.6 acre total existing farm field parcel from the Norman Martin Trust off Fort Hill Road in the Rural zoning district. Mr. Ryan said that Mr. Coppi of Frick Associates has delineated the natural resource areas on site, primarily

wet meadow inside the wooded area, as well as an area of forested wetlands and a potential vernal pool as yet not verified. Appropriate setbacks have been established on the design. Mr. Ryan said that to the west end of the site there is a tributary to the Little River, traversing north-south on the property.

Mr. Ryan described the project as a 5-megawatt AC solar facility with onsite battery storage. The panels are planned on being single axis trackers, the panel rows will be oriented directly north-south and will rotate to follow the sun. Mr. Ryan said that the photovoltaic solar, ground-based array would consist of solar panels being 7 feet off the ground at the highest point, with a supporting framework consisting of posts 25 feet apart, with no concrete footings. He showed the onsite battery storage areas, basically a large bank of lithium ion batteries, totally self-contained with HVAC and fire suppression systems built in. He said that as the sun is shining, power is going into the grid, and at the same time the battery banks are being charged to feed electricity when the sun goes down. Utility poles for interconnection with the existing substation to the north will be installed out to the street, and the power would be tying in and utilizing some of the capacity of the substation. The area of the arrays will that will be fenced in is a little over 35 acres. The fence being proposed is a 6-1/2 foot farm fence, with wooden posts with wire mesh in between. The fence will have a six inch buffer from the ground to allow small animals to crisscross the site.

Mr. Ryan said the existing gravel road on site would remain, with an extension on either side to allow access for maintenance once the system is up and running, as well as to allow any emergency vehicles to access the arrays. The entrance to the facility will have lock boxes with keys for emergency crews to utilize, and there will be signs listing emergency contact information.

Mr. Ryan showed the Board the initial sketch plan of the site, noting that a change they are hoping to do is to be able to move things away from the southern border to allow for landscape buffer plantings. Included with a formal submission will be a view shed analysis of the project. No lighting is proposed. The idea is to leave the field as it is as much as possible and no tree removal is proposed. Any disturbed areas occurring during construction will be re-seeded, using a conservation seed mix containing fast growing, low plants including wildflowers and other pollinator-friendly plants to establish regrowth as quickly as possible.

Mr. Fox said he assumes that the existing topography of the field will remain the same, that the units follow the curve that exists there now. Mr. Ryan said that is correct, with the idea being to minimize earthwork as much as possible. Mr. Ryan said there is a small area with a 20% slope on the sides which the system designers are trying to figure out how to avoid. Mr. Fox asked about the areas of wet meadow on the plans. Mr. Coppi of Frick Associates came to the podium and told the Board that he delineated the site in November, saying that the wetlands are linear because they basically follow the wet furrows in the wet meadow that hold water and have all the wetland characteristics of vegetation hydrology and hydric soils. In reply to Mr. Fox, Mr. Coppi said that the wetlands qualify for a normal tier 2 level permit review for one acre with the DEP, so there are no wetlands of special significance, with the exception of any wetlands within 250 feet of the vernal pool. Mr. Coppi said the DEP requires a 75-foot setback from the stream, and the arrays all meet that setback, with most of the impact coming from the shading of the panels over the wetlands.

Mr. Ryan told Mr. Richman that the single axis trackers, one solar module next to another in a row, are approximately 6 feet long by 3 feet wide. Mr. Richman said there will be a string of panels tied together, with an h-shape post every 20 to 25 feet driven into the ground as support. Mr. Richman asked Mr. Ryan to provide the Board with photographs of existing panels similar to what is being proposed. Palmer Moore from Nexamp advised Mr. Richman that a project of this scale would probably take between 4 to 6 months to build. Mr. Richman asked what the life expectancy of this project is; Mr. Moore replied that it is about a 20-year life cycle, and the system could be in service for up to 35 or 40 years, with maintenance visits expected to be 1 or 2 times a year, consisting of a light duty vehicle and a couple of people checking some of the major electrical components. Mr. Moore said they could potentially have vegetation maintenance but they are trying to introduce grazing animals at most of their sites, so a herd of sheep will doing most of that maintenance work.

In reply to Mr. Richman, Mr. Moore said that the components that rotate the modules are not loud, the noise emanating equipment are the inverters, which on this site are located toward the eastern end of the site. Mr. Moore said they will provide noise analysis studies which have been done on the inverters in the past, but at source they are about 95 plus or minus decibels and degrade to about 40 or 50 decibels to background noise at about 100 feet from the source. The noise generates from the cooling system and will peak on a hot day, and will not be constant.

Mr. Richman asked if there will be any glare produced. Mr. Moore said that there have been third party analyses on glare, which they will provide with a more formal submission. He said that the single axis tracker wants to be pointing at the sun, and if there is light reflecting off that panel, it will be pointing up at the sky and not at ground level. Mr. Moore said the surface is glass and is not especially reflective. Mr. Richman asked for samples of the panels to be provided.

Mr. Anderson asked how tall are the units off the ground. Mr. Ryan replied that the high end will be about 7 feet off the ground. Mr. Ryan said the area of the perimeter fencing is 35 acres and the panel array would be some 2 to 3 acres less than that. Mr. Anderson said the site is bigger than the Maine Mall and it would be helpful for the Board to have as much information as possible in reviewing the project. Mr. Anderson noted that the project abuts homeowners along Norway Road and asked if there are trees there now and does the applicant intend to do some additional buffering in that area. Mr. Ryan said it is proposed to add to any natural buffer already there, and once the area is not being mowed, a certain amount of vegetation will grow back. Mr. Anderson asked that the applicant consider upgrading the fence along that property to a wooden fence or a PVC solid fence.

PUBLIC COMMENT PERIOD OPENED: James Moulton, 21 Norway Road, spoke about concerns about wind noise and heat to Norway Road and a possible increase in pests, asked when construction would start and what happens after 20 years. He asked if any farming uses would continue on the overall site.

Michelle Whittemore, 12 Norway Road, expressed concerns about wind conditions and bugs. She asked who would benefit from the project and who would use the power. She expressed concerns about the impact of the project on property values.

Mr. Moore responded to the abutters' comments. He said that when wind passes over the array it may be knocked down somewhat because of the structures being there and it may be a little less windy. There are no appreciable temperature differences and they can provide temperature field data. Mr. Moore said he believes that there will still be some haying done around the perimeter of the site and they can figure out a vegetated maintenance schedule for their area. It is proposed that a much more diversified plant mix will be installed in an attempt to enhance the ecosystem. The project will be ready for ground breaking in the fall of 2020 or spring of 2021. There will be no concrete footings, only the posts every 20 to 25 feet, and at the end of the project life the posts will be removed and the site reverts to being an open field. He said the proposed community solar project would generate electricity connecting to the grid and there will be credits generated for each kilowatt hour that comes off the project. Those credits can be assigned to utility poles, so anyone within the same utility service area can sign up to be a recipient of the credits of this project allocated by CMP. Mr. Moore said that it can benefit the community by producing electricity for nearly 1,000 homes. Mr. Moore said that a farm fence is being proposed, not a chain link fence, with wooden posts and wire in between and blends in well with agricultural uses.

Keith Havenor, Nexamp communications director, said that the company launched a solar grazing program last year, with sheep grazing on four of its sites, two in New York and two in Massachusetts. They would anticipate partnering with a local farmer to determine the right approach for this site.

PUBLIC COMMENT PERIOD ENDED.

Mr. Firmin advised the Board that he works for the Portland Water District and its Board of Trustees recently approved a contract on the demand side of a program such as this one. He was not involved in that and does not see a conflict of interest but believes it is important to note it for the record.

Mr. Richman asked that a sample of the fence being proposed be provided, and suggested that the boundary line be pushed further away from the neighborhood on the south side of the property. Mr. Ryan said they are looking into trying to do exactly that, to push away as far as possible from that border.

Mr. Fox said the Board will be looking to see that quality of life issues are being considered, as well as reviewing the project as a renewable energy generating facility. Mr. Firmin read from the Comprehensive Plan that Gorham strives to be a sustainable community and supports the sustainability of the environment and natural resources and should be open to considering new technologies and new ideas.

Mr. Poirier advised the Board that the project will be reviewed under the performance standards of Chapter 2 and Chapter 4, and the Board cannot consider impacts on value to abutting properties.

Mr. Fox reassured the abutters that they will have ample opportunity to comment in the future as the application progresses under review, as well as being able to attend any site walk or hearings.

Mr. Fox advised Mr. Ryan about the sequence for scheduling a site walk, which is set up once the Board has received a formal application. Mr. Ryan asked when they can expect to receive

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comments from the Fire Department, which would impact the width of the gravel paths proposed. Ms. Eyerman said he could reach out directly to the Fire Chief.