

**Town of Gorham
Planning Board Meeting
June 1, 2020**

ITEM 1 – 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	The item was moved to the May 18th Planning Board meeting.	May 4, 2020
Public Hearing	The Planning Board asked for additional changes to the buffering plan: 6' tall stockade fence along the portion of the fence near the abutters located on Norway Road and providing revised comments to address staff comments.	May 18, 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 and conducted a public hearing on May 18th. The Planning Board minutes from that meeting are included as draft minutes on for the Planning Board's approval.

The applicant is represented by Christopher Ryan, Meridian Associates.

2. WAIVER REQUEST

No waivers are requested.

3. ITEMS OF NOTE

1. Peer Review Engineer: Appears there are a couple of minor details that need to be to the plan to address discrepancies per the Town's peer review engineer comments revolving around stormwater. Staff has added condition of approval number 8 that identifies these will be addressed prior to the Planning Board's endorsement of the final plan.

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: May 28, 2020

Yes I believe they have

On Thu, May 28, 2020 at 1:51 PM Tom Poirier <tpoirier@gorham.me.us> wrote:
Bob,

Just putting together the comments for the solar project on Fort Hill Road and wanted to see if all your comments have been addressed. Thanks.

Thomas M Poirier
Director of Community Development

Planning Department: May 29, 2020

No further comments.

Police Department: No comments received.

Public Works Department: April 8, 2020

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

Milone & MacBroom: May 27, 2020

Dear Mr. Fox:

Milone and MacBroom, Inc. (MMI) is pleased to provide the following additional 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 in follow-up to responses received by the applicant's representative (Meridian Associates) dated May 11, 2020.

Provided Follow-Up Documents:

1. Revised 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 (dated March 2, 2020, Revised May 12, 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. Revised Site Plan set, Proposed Solar Array Development Plan (Assessors Map 64 – Lots 4 and 4-1), Gorham ME (dated February 14, 2020, latest revision date of May 11, 2020);
3. Peer Review Response Letter from Meridian Associates dated May 11, 2020.
While the response letter addresses and clarifies many of the items brought up in our original peer review letter (dated April 20, 2020), there are still a couple of outstanding issues that we feel should be addressed further by the applicant. Therefore, other than the two issues listed below, we have no further comment on any of the responses provided by Meridian in their May 11, 2020 letter and follow up plans. However, we do feel that Item # 9 under the Application heading, and Item #5 under the Site Plan heading (which is further detailed under the Stormwater and Analysis Calculations heading) need further clarification.

For clarity I have provided our initial comment and the response provided by the applicant (in italics) below and then our follow up comment below that, which is in bold text.

Review, Comments and Recommendations:

Application

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.

The Construction Plan referenced above is part of the DEP SLODA Application, and will be amended for DEP review. A final SLODA package copy will be provided to the Town as required by Maine DEP. Documents to be submitted to the MDEP should indicate the same information and general work descriptions as those being submitted for the record to this Board, for both consistency and accuracy of the work being permitted. Therefore, it is our opinion that this document should be updated as part of this review process and be representative of the actual work to be performed, so that the record of this permit application is accurate and complete.

Site Plan

5. Proposed Development Activity – No stormwater mitigation measures, swales, ditches, detention basins are shown. The submitted plan set included details for meadow buffers to be utilized adjacent to gravel driveways and gravel fill detail to be used under the proposed concrete pads. Both methods were recommended by DEP staff during the project pre-application meeting. Given the size of the property and the soil types present, the effect on the rates of runoff is de minimis. A letter from DEP is included as source material for use of gravel fill under concrete pads for water quality purposes.

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.

Solar PV panels are generally not required to be modeled as impervious area, since they function as a surface that only interrupts rain on its route to the ground surface. As long as the ground surface under the panels is pervious, then the area is generally modeled as if no panels exist, and shallow gravel trenches are usually placed at the leading edge of a panel row to reduce any scouring over time. PV panels do not meet the criteria in the definition of Impervious Area in Maine DEP Chapter 500 pertaining to Stormwater. Also, the Applicant was instructed by MaineDEP's Regional Licensing and Compliance Manager for Bureau of Land Resources, James Beyer, that PV panels are not considered impervious for the purposes of stormwater analysis in the project's SLODA pre-application meeting. Since this proposed system will be utilizing single-axis tracking panels that follow the path of the sun throughout the day, rainfall

would not be directed to the same location during every rain storm, reducing the possibility of scouring due to repeated concentrated flows hitting the same ground area. Modeling the panel area as disconnected roofs would still assume no pervious surface exists underneath these areas, which would not be accurate.

While the revised plans indicate stormwater control features around the roadways and concrete pads, they provide no information of how or where the “shallow gravel trenches” are installed around the solar panel array to control runoff from them. Are they to be constructed in a semicircular pattern, similar to the “path” that the leading edge of the panels will follow? These items should be called out on the construction plans and further detailed on the Site Detail sheet particularly as to their size, depth, shape, materials, etc. We believe this is an integral and important part of the overall stormwater management plan for the site to minimize and eliminate the adverse effects on abutting and downstream properties. Lastly with these trenches and the amount of them required on the site, please provide a written maintenance plan for them to insure their continued and proper functionality throughout the life of the project.

If we can be of any further assistance, please do not hesitate to contact us.

Thank You,
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**

June 1, 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 18, 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 – 05/27/20
Sheet C-101 – Record Conditions Plan Overview – 05/27/20
Sheet C-102 – Record Conditions Plan Overview of Land 1 – 05/27/20
Sheet C-103 – Record Conditions Plan Overview of Land 2 – 05/27/20
Sheet C-104 – Record Conditions Plan Overview of Land 3 – 05/27/20
Sheet C-105 – Record Conditions Plan Overview of Land 4 – 05/27/20
Sheet C-200 – Site Plan Overview – 05/027/20
Sheet C-201 – Site Plan Sheet 1 – 05/27/20
Sheet C-202 – Site Plan Sheet 2 – 05/27/20
Sheet C-203 – Site Plan Sheet 3 – 05/27/20
Sheet C-204 – Site Plan Sheet 4 – 05/27/20
Sheet C-301 – Erosion and Sedimentation Control Notes & Details – 05/27/20

Other documents submitted consist of the following:

Sketch Plan Application – 12/30/19
Plans – 12/20/19; 03/03/20
Site Plan Application – 03/03/20
Stormwater Management Plan – 03/03/20
Gorham Town Planner Comments – 04/23/20; 05/29/20
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 500' looking north and 350' 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.

No structures are proposed that will require connection to a water supply. A fire hydrant is located along Fort Hill Road to serve the site with Fire Protection.

No water supply improvements are proposed.

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.

No structures are proposed that will require connection to a sanitary sewer system.

Onsite septic system is not proposed for this development.

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.

No exterior lighting is proposed for the site.

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.

No waste or 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.

A 6' tall stockade fence is proposed to be installed near the solar array to break-up the appearance of the project from the residential properties located on Norway Road.

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&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. A 6' tall stockade fence is proposed to be installed near the solar array to break-up the appearance of the project from the residential properties located on Norway Road.

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 the applicant shall address staff and peer review engineer's comments prior to Planning Board's endorsement of the final plan;
9. That not less than one (1) Fire Department key box shall be installed at a location or locations determined by the Fire Department;
10. That an E-911 address shall be established for the project and the address shall be properly posted;
11. 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;

12. That the Planning Board Chairman is authorized by the Planning Board to sign the Findings of Fact on behalf of the entire Board; and
13. 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 GRANT APPROVAL:

Move to grant Gorham Solar, LLC request for site plan approval with Findings of Fact and conditions of approval was written by the Town Planner with changes made by the Planning Board).

TO PLACE THE ITEM ON THE CONSENT AGENDA:

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