



MASTER PLAN REVIEW MEMORANDUM

To: James Lamphere, Town Planner

From: Steven M. Cabral, P.E. and Douglas Allam, P.E.
Crossman Engineering

Date: April 5, 2021
Revised May 3, 2021

Re: Review of Revised Master Plan Review Submission for the Proposed Stone Ridge at Hopkinton

Brief Background:

The applicant is proposing a 23.5 photovoltaic solar energy project and a 15,000 square foot building with associated parking, well and onsite wastewater treatment system (OWTS) on Assessors Plat 11, Lot 47A, which is approximately 252 acres in size. The site is currently zoned Commercial Special (CS) and is predominately woodlands.

In response to our Memoranda dated December 5, 2020 and April 5, 2021, Cherenzia & Associates, Inc. provided the following revised documents for review:

- Cover Letter including Response to Comments, dated April 21, 2021
- Project Narrative, dated April 2021
- Soil Report, dated January 29, 2021
- Wildlife Habitat Assessment, dated April 14, 2021
- Major Land Development Project Plan Review Analysis, dated April 18, 2021
- Noise Impact Assessment, dated April 21, 2021
- Site Lighting Specifications
- Hopkinton Conservation Commission letter, dated April 7, 2021
- Site Plans, dated Revision 6 05-20-2021
- Landscape Plans by Traverse Landscape Architects, dated Revision 2 April 2021

Comments that have been adequately addressed from the April 5, 2020 Memo have been crossed out and new comments have been added in red.

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1. Checklist Waivers: The Applicant is seeking waivers from the following Master Plan checklist items:

- Construction Schedule
- ~~Proposed Grading~~ Conceptual grading is now provided on a Master Grading Plan, Plan Sheet 2 of 4. Minimal grading is proposed within the solar panel areas.
- Stormwater Design (Plans & Computations) A conceptual stormwater analysis is provided. The applicant requests to satisfy Checklist item 57, Detailed Drainage Plan, at the Preliminary Stage.
- ~~Soil Testing~~ Soil data by Avizinis Environmental Services is now provided.
- ~~Lighting~~ A Lighting Plan for the proposed 15,000 sf building is now provided. No lighting is proposed for the solar field.
- Architectural Schematic Drawings, Floor Plans, Exterior Elevations

Other items normally provided but not received include a ~~Noise Study~~, Operations and Maintenance Manuals and Decommissioning Cost Estimates.

- ~~Checklist Item B.59 (hazardous materials). The response to comments indicates that no hazardous materials or batteries will be kept on site. A notation is recommended on the Plan to document the reply.~~
- In regards to the **Stormwater Design**, a conceptual analysis is provided to demonstrate the intent to meet standards. As final design progresses, the applicant should also make sure that they address the cold-water discharge standards of the RI Stormwater Design Manual. At this time, we can only comment that when the design is performed, that local and State standards must be satisfied. We recognize the designer's intent to conform to standards but subsequent submissions will need much more detail.

2. General Comments:

- ~~On Page 11 of 20 of the Major Land Development Project Plan Review Analysis there is a statement that the solar panel development area has been reduced to 77 acres, on Page 3 of 5 of the Project Narrative there is a statement that the solar facility consists of a 91.7 acre fenced area and the Open Space Plan calls for a fenced area of 81.31 acres. The final fenced solar area should be confirmed and all impact narratives updated.~~
- ~~Minor item: It is recommended to combine the multiple Plan Sheets into one plan set with sequentially numbered sheets.~~
- ~~The MW (ac/dc) of the facility should be identified on the Plans.~~

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3. Existing Conditions Plan: The submission includes a Class I Limited Perimeter Boundary Survey and a note states the topography was compiled from RIGIS LIDAR mapping. For final design, we recommend that the accuracy of the wetland flag locations, stream locations, site features and topography be verified and certified by a professional land surveyor.

4. Site Plans:

- ~~The Typical Solar Layout Insert shows a 15-foot wide crushed stone access drive. We understand that access is subject to Fire Marshal review but we recommend that a 20-foot access drive with adequate turning radius be provided to meet standard fire lane requirements. A 20 ft wide crushed stone access drive is now depicted but we recommend that it be demonstrated that adequate turning radius is provided.~~
- The Plan calls out “Approximate Narragansett Trail” on the site and Note 5 states that existing trails are present on the property and shall be located for future permitting. We recommend confirmation of their significance and if others have rights or easements to those trails prior to authorizing relocation.
- ~~Design Note 2 states that site topography will largely remain unchanged except for existing slopes greater than 25% and that grading plans will be provided at the Preliminary Plan submission. Town Checklist Item B28 does require proposed topographical changes. This requirement allows the Board to better understand the proposed land disturbance, therefore we recommend that the data be provided. Conceptual grading is now provided on a Master Grading Plan, Plan Sheet 2 of 4. Minimal grading is proposed within the solar panel areas.~~
- ~~The Plan should identify the proposed use of the new 15,000 Sf building.~~
- A historical cemetery is noted on the plan. A dedicated access easement to the cemetery is recommended.

5. Chapter 246 Non-residential Photovoltaic Solar Energy Systems (PSES): We understand that the applicant will seek permission to delay submission of the noise, O&M and decommissioning cost estimate ~~but we do recommend that the any item that could impact abutters be included at the Master Plan phase, such as the Noise Analysis.~~

6. Landscape Plans:

- The LA Plans indicate a Limit of Disturbance (LOD) within portions of the 100 ft residential setback. Section 2 on Sheet L11.0 provides an example. ~~The project narratives stated that the 100 ft separation would remain in a “present, natural vegetated state” (page 12 of 20, Major Development Project Plan Review Analysis). A clear delineation of all proposed clearing needs to be highlighted. A clear explanation of the extent of clearing~~

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in the 100 ft residential buffer will need to be provided to the Planning Board. It is not clear if any clearing is proposed to eliminate shading of the solar panels or solely for trail construction.

- ~~LA Details call for a 14 ft separation from fence line to solar arrays. The Civil Plans call for a 15 ft crushed stone drive and we recommend a standard 20 ft fire lane, pending review by the fire official.~~
- ~~Since final grading design is not provided, the LA Plans will need to be updated at the Preliminary Stage.~~

7. Wildlife Habitat Assessment Comments:

- The report states that existing stone walls provide habitat for various species and will be preserved in situ or relocated on site. Therefore, the Plans need to address which walls will remain, which will be relocated and the relocated position. **Site Plan C-2 does identify existing and a relocated wall but based upon the Wildlife Habitat Assessment, we recommend that it be confirmed if the replacement wall lengths are equivalent to the existing to be removed.**
- ~~The report states a 12-inch gap will be provided at the bottom of the chain link fence but public safety officials typically require a maximum 6-inch gap to minimize trespass.~~

8. Hopkinton Conservation Commission Comments: We understand that the commission previously requested the following and it is unknown if their concerns were addressed:

- ~~The applicant was requested at the Pre-Application meeting to have AMC flag their trail centerline which would be more accurate than the location from USGS maps.~~
- The applicant was requested at the Pre-Application meeting to locate the stone structures that make up the ceremonial stone landscape on the property.
- The applicants should research the legal aspects of established trails across private properties and on conservation easements or buffer areas to ensure that they are protected.
- **In a letter dated April 7, 2021 to Mr. Al DiOrio, Chairman of the Hopkinton Planning Board, the Hopkinton Conservation Commission provided recommendations in regards to increased stormwater infiltration, solar panel efficiency versus limits of disturbance, trail connectivity, 7 ft tall, black vinyl fencing, preservation of ceremonial stone features, stone wall alignment and easements/rights to utilize trails.**