Stormwater Operation & Maintenance Plan
Pomham Solar

AP 16, Lots 18 and 19
Off Iron Mine Hill Road,
North Smithfield, Rhode Island 02896

PREPARED FOR:
Islander Solar, LLC
396 Springfield Avenue, 2nd Floor
Summit, New Jersey 07901

APPLICANT/OWNER
Islander Solar, LLC
396 Springfield Avenue, 2nd Floor
Summit, New Jersey 07901

PREPARED BY:
ESS Group, Inc.
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451

ESS Project No. P322-001

January 7, 2022

OPERATION AND MAINTENANCE PLAN

The operation and maintenance (O&M) plan is part of the Stormwater Management Plan required by the Stormwater Management, Design, and Installation Rules (250-RICR-150-10-8). Proper maintenance of the solar development and proposed BMP will help maintain an aesthetic quality compatible with the surrounding land uses while also ensuring functionality.

Owner
Islander Solar, LLC
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Transfer of Ownership

This document shall be provided to the grantee upon transfer of ownership. The entity responsible for O&M activities as well as the funding source shall be transferred to the grantee.

Funding Source

Funding for the project will come strictly from Islander Solar, LLC. Islander Solar, LLC is responsible for all maintenance activities thereafter the project. An approximate annual operation and maintenance budget of $10,000 is estimated.

Scope of Work

1. **Vegetation Management.** Low maintenance grasses and ground cover that require little to no fertilization shall be used. Chemical pesticides, herbicides, insecticides, fungicides and rodenticides shall not be used. Ground cover shall be mowed two to three times per season, or on an as needed basis. Grass will be cut no shorter than four-inches and shall not be allowed to grow taller than 18 inches. Ride-on and self-propelled mowers and weed whackers will be used for mowing operations. Lime according to a soil test or at a minimum every two to three years using a rate of one ton per acre (50 lbs. per 1,000 square feet). Fertilize only if indicated by a soil test. At least 30% of the fertilizer's available nitrogen must be in a slow releasing form.

   The site shall be inspected for evidence of erosion and rilling in any slopes a minimum of two times per year. Immediately repair any observed areas of erosion or incipient erosion. Any such conditions shall be noted in the annual report for re-vegetating. Any erosion shall be repaired using similar methods to installation, with like equipment and materials.

   Growth of trees or other vegetation growing with the grass channel or dry swale shall be noted in the annual report, and vegetation growth shall be thinned appropriately. Vegetation growth (saplings, bush, large weeds, etc.) within the footprint of the grass channel or dry swale shall be removed. In the event that weed control is required, use only non-persistent solutions approved for use by RIDEM. Some snow removal may be required to allow access during winter months. Removed snow shall be placed in pervious areas.

   Permanent vegetative cover shall not be considered established until ground cover (approximately 95% vegetative surface cover) controls soil erosion and withstands severe weather conditions. Replace grass cover that fails to grow.

2. **Gravel Road.** The gravel road shall be inspected for evidence of erosion, rilling and clogging a minimum of two times per year. The surface shall be regraded as necessary to maintain a stable driving surface and prevent concentrated flows from entering the grass channel or dry swale. These conditions shall be noted and supported with photographs and locations as part of the annual report. Any observed erosion, rilling, or clogging shall be mitigated by the Contractor. Other maintenance activities should be periodic rejuvenation of the stone surface by removal of any subsurface sediments, replenishment of aggregate surface, and surface scarification to ensure long-term maintenance of the access road.

3. **Debris and Litter.** Remove and properly dispose debris and litter observed during the inspections.

4. **Sediment Disposal.** All accumulated sediments to be removed from the site during O&M activities shall be properly disposed of off-site.

5. **BMP Maintenance**

   Maintenance activities are adapted from the Rhode Island Stormwater Design and Installation Standards Manual (RISDISM).

   - Maintenance responsibility for the grass channel and dry swale shall be vested with a responsible authority by means of a legally binding and enforceable maintenance agreement that is executed as a condition of plan approval.

   - General inspections for the grass channel and dry swale should be conducted on an annual basis and after storm events greater than or equal to the one-year, 24-hour Type III precipitation event.

   - Inspect the check dams within the grass channel and dry swale for sediment or blockage and clean as necessary.

   - Slopes of the grass channel and dry swale shall be inspected for erosion and gullying and repaired as necessary.

   - Structural components including check dam spillways and the rock apron at the dry swale outlet shall be inspected and deficiencies reported and repaired.

   - Sediment shall be removed from the dry swale when the sediment volume exceeds 25% of the total water quality volume.

   - Sediment shall be removed manually from the surface of the grass channel or dry swale when the accumulation exceeds one inch. When the filtering capacity of the dry swale diminishes substantially (water ponds on the surface of the dry swale for more than 48 hours), the top few inches of discolored material shall be removed and shall be replaced with fresh bioretention and plantable soil.

   - Replace or repair the check dams within 24 hours of observed failure. Failure of the check dams has occurred when sediment fails to be retained because: the check dams have moved or settled, soil has eroded around or under the check dams reducing their functional capacity, or trapped sediments are greater than one-half of the height of the check dam.

   - Eroded side slopes and channel bottoms shall be stabilized as necessary.

   - Vegetation in dry swales shall be mowed as required to maintain grass heights in the four to six-inch range, with mandatory mowing once grass heights exceed ten inches.

- General inspections for the basins should be conducted on an annual basis and after storm events greater than or equal to the one-year, 24-hour Type III precipitation event.
- Slopes of the basin, sand filter and swales shall be inspected for erosion and gullying and repaired as necessary.
- Structural components including spillways shall be inspected and deficiencies reported and repaired.
- Sediment shall be removed from the forebays when the sediment depth exceeds twelve inches.
- Sediment shall be removed manually from the surface of the sand filters when the accumulation exceeds one inch. When the filtering capacity of the sand filter diminishes substantially (water ponds on the surface of the filter bed for more than 48 hours), the top few inches of discolored material shall be removed and shall be replaced with fresh sand material.
- If sediment or organic debris build-up has limited the infiltration/filtration capabilities of any BMP to below the design rate, the top six inches of surface material should be removed and replaced. The surface of the infiltration basin shall be roto-tilled to a depth of 12 inches. The basin bottom should be restored and re-vegetated according to the original design specifications.

BMP MAINTENANCE AND MANAGEMENT INSPECTION CHECKLIST

Project

Location:

Site Status:

Date:

Time:

Inspector:

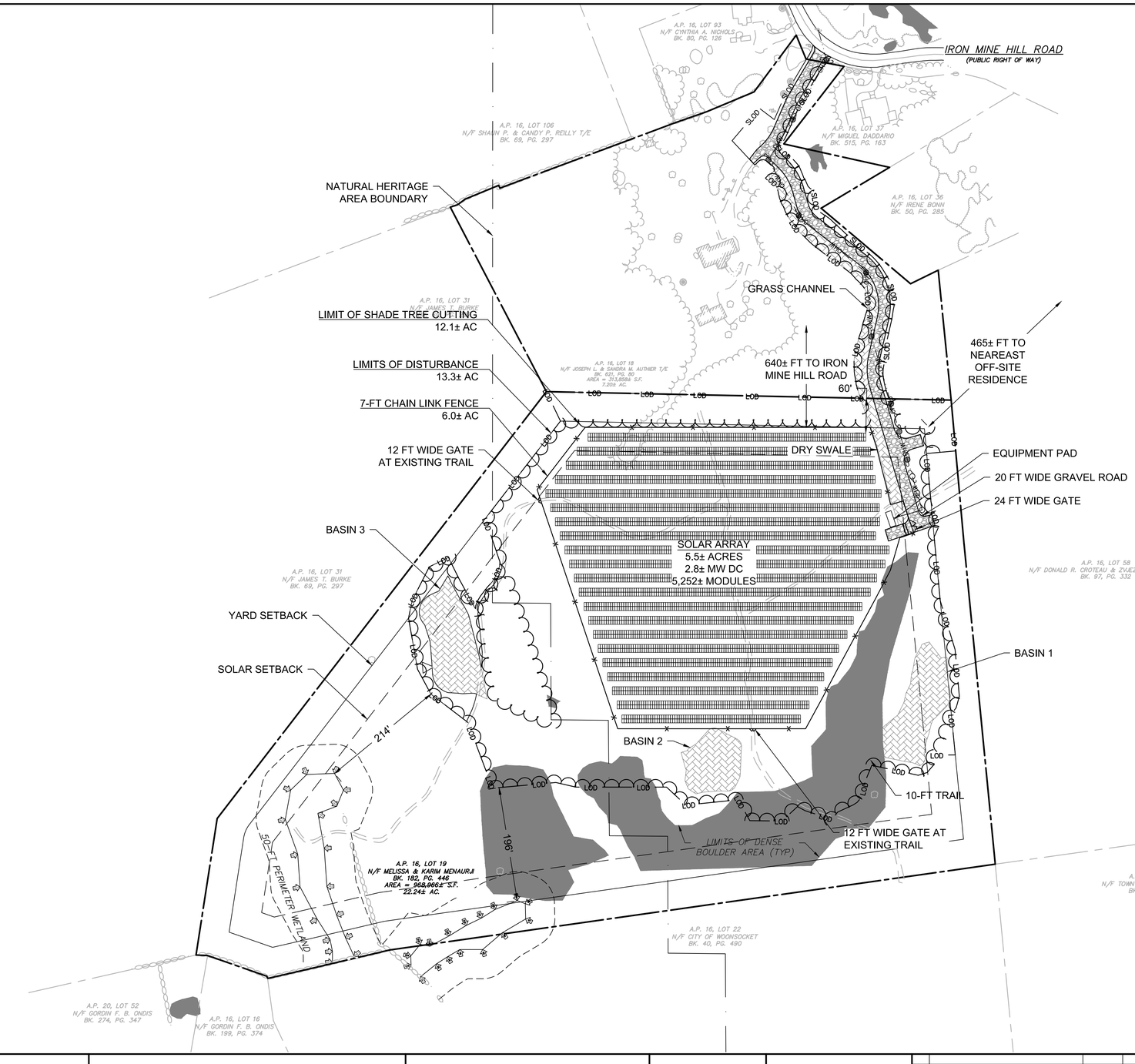
Maintenance Item	Satisfactory/ Unsatisfactory	Comments
1. Access Road		
a. Evidence of Erosion, Rilling and Clogging		
b. Replenishment of aggregate surface necessary		
c. Subsurface scarification necessary		
2. Vegetative Cover		
a. Good ground cover established		
b. Grass height is between 4-18 inches		
c. Lime necessary (based on soil test)		
d. Fertilizer necessary (based on soil test)		
e. Erosion and/or rilling repair necessary		
f. Vegetation growth		
g. Old growth trimming necessary		
h. Thinning of shade trees necessary		
i. Landscape plantings are established		
j. Planting pruning is required		
3. Grass Channel and Dry Swale (Annual, After Major Storms)		
a. Vegetation adequate		

b. Undesirable vegetative growth		
c. Undesirable woody vegetation		
d. Channels clear of obstructions		
e. Standing water or wet spots		
f. Sediment and/or trash accumulation		
g. No standing water or accumulated sediment observed in Dry Swale		
h. No standing water observed 48 hours after storm event		
4. Condition of Dry Swale Outfall (Annual, After Major Storms)		
a. Riprap failures		
b. Slope erosion		
c. Sediment deposition below outlet		
d. Level Spreader		
5. Embankment and emergency spillway (Annual, After Major Storms)		
a. Vegetation and ground cover adequate		
b. Embankment erosion		
c. Animal burrows		
d. Unauthorized planting		
e. Cracking, bulging, or sliding of berm		
f. Upstream face		
g. Downstream face		
h. At or beyond toe		
i. Emergency spillway		
j. Basin and swales clear and functioning		
k. Seeps/leaks on downstream face		

l. Slope protection or riprap failure		
m. Vertical/horizontal alignment of top of berm "As Built"		
n. Emergency spillway clear of obstructions and debris		
6. Basin, Sand Filter, and Conveyance Swales (Annual, After Major Storms)		
a. Vegetation adequate		
b. Undesirable vegetative growth		
c. Undesirable woody vegetation		
d. Channels clear of obstructions		
e. Standing water or wet spots		
f. Sediment and/or trash accumulation		
g. No standing water or accumulated sediment observed in Sand Filter Cleanouts and Underdrain		
h. No standing water observed in 48 hours after storm event		
7. Other		

Comments:

Actions to be Taken:



DIMENSIONAL REGULATIONS (LOT 19)		
ZONING DISTRICT - RA - RESIDENTIAL - RURAL AGRICULTURAL		
DESCRIPTION	**REQUIRED**	**PROPOSED**
LOT FRONTAGE, MINIMUM	200'	NA
FRONT YARD SETBACK, MINIMUM	NA	NA
SIDE YARD SETBACK, MINIMUM	25'	84'
REAR YARD SETBACK, MINIMUM	40'	275'
HEIGHT - MAIN STRUCTURE, MAXIMUM	35'	N/A
HEIGHT - ACCESSORY STRUCTURE, MAXIMUM	25'	N/A
LOT AREA (1,000s SQ FT), MINIMUM	65	1,283±
FENCED AREA (AC), MAXIMUM	6.0	6.0
VISUAL BUFFER, MINIMUM	50'	50'
SOLAR SETBACK, MINIMUM	100'	50'

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SUMMIT, NJ 07901

POMHAM SOLAR
AP 16 LOTS 18 & 19
OFF IRON MINE HILL ROAD
NORTH SMITHFIELD, RI 02896

Not Valid Without Signature

0 100' 200'
SCALE: 1" = 100'

No.	REVISION	DATE	DRAWN	DESIGN	CHK

DRAWN BY: GJR | DESIGNED BY: JMG | CHECKED BY:

PERMITTING PLANS
SITE OVERVIEW PLAN

FOR PERMITTING ONLY

DRAWING NO:
SO-1

PROJECT NO: P322-001
DATE OF ISSUE: 1/7/2022
SHEET NO: 4 OF 16

DATE: Jan 07, 2022 - 5:14PM
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