

September 30, 2026

Town of Southampton Planning Board
210 College Highway
Southampton, MA 01073

Re: **Response to Peer Review Comments Regarding Site Plan Review Application
Proposed 5.49 MW DC Solar Electric Generating Facility, Dual-Use and Agriculture Use
43 & 53 Pleasant Street, Southampton, MA 01073**

Dear Members of the Planning Board:

On behalf of BlueWave d/b/a Manhan River, LLC (the Applicant), Weston & Sampson Engineers, Inc. (Weston & Sampson) is pleased to submit this response package to the engineering peer review letter prepared by Berkshire Design Group, Inc. (BDG) dated September 11, 2026, regarding the proposed Pleasant Street Dual-Use Solar and associated Battery Energy Storage System project located at 43 and 53 Pleasant Street in Southampton, Massachusetts.

Peer review comments from the BDG letter dated September 11, 2026 are itemized below in regular font, with Weston & Sampson's responses provided immediately following each comment in *italic* font.

General

- 1) The application describes the project site inconsistently. Sheet G001 identifies two parcels, 25-20 and 24-23D, totaling 121.54 acres, while the zoning table on the same sheet reports a lot area of 129 ± acres. The Stormwater Report and the May 31, 2026 response to the Conservation Commission each describe three parcels, adding 24-23B, totaling approximately 129 acres. We recommend that the applicant confirm the parcels included in the project and their areas, and confirm that all owners of record have signed the application.

Response: Lot Area in Zoning Analysis Table has been updated to only include lots 25-20 and 24-23D which are the two lots associated with the proposed limits of work.

- 2) Note 7 or 8 on Sheets G002 and C101 through C106 states that "solar array layout and capacity is subject to final design (by others) but will remain within the proposed limits of work," and that the "proposed fence may be relocated beyond the limit of work pending final design." The second sentence contradicts the first. We recommend that the fence sentence from the plans be removed. In our opinion, the note about the solar array layout is reasonable; however, we recommend a condition that requires increases (but not decreases) in either the limit of work or the system capacity requiring amendment of the permit approval.

Response: Sentence regarding relocating the proposed fence beyond the limit of work has been removed. Client acknowledges that increasing the limit of work or fence limits may require an amendment of the permit approval.

- 3) § 275-7.6G(7) requires evidence that the utility has been informed of the intent to install an interconnected facility and acknowledges receipt of that notification, and § 275-7.6H(3)(e) requires information demonstrating agreement by the utility to allow connection to the grid. Appendix G contains a completed interconnection application. We recommend the applicant provide the utility's acknowledgment of the application.

*Response: See **Appendix B** for Interconnection Service Agreement with Eversource.*

- 4) § 275-7.6C(5) requires all plans for a solar electric generating facility to depict the location of and describe any battery energy storage system proposed to be installed in association with it. The plan set depicts the battery pad locations but does not describe the system, and the application describes it inconsistently. The Hazard Mitigation Analysis states four SolBank 3.0 cabinets at approximately 5 MW and 10 MWh; the SolBank 3.0 data sheet in Appendix H states a nameplate capacity of 5.0 MWh per cabinet (20 MWh for four cabinets). We also note that the electrical line diagram in the interconnect application to Eversource shows two battery storage units labeled 875kW/1,750kWh each.

We recommend the applicant identify the proposed BESS on the plans, matching the data sheets provided in Appendix H, and state the current proposed manufacturer, model, cell chemistry, number of cabinets, rated power and rated energy capacity. We recommend the applicant confirm that the proposed interconnect with the utility anticipates the proposed battery capacity. We acknowledge that final design of the system may alter these values, and we recommend a condition requiring the applicant to return to the Board if the chemistry, capacity or cabinet count changes.

Response: The proposed BESS has been identified on the Plan Sheets as requested. The project is now proposing two (2) SolBank containers for the project instead of four (4) containers, with one container at each equipment pad. Final equipment selection will occur following zoning approval and prior to building permit issuance. The Applicant acknowledges that final system specifications may be refined during detailed electrical design and has no objection to a condition requiring return to the Board if the battery chemistry changes or if the approved rated energy capacity or cabinet count increases from that presented in the application. An additional note, the proposed associated BESS is a DC coupled design, meaning it is set up for the solar array to generate energy and then store the solar generated power in the battery. The battery as designed would not receive power from the utility grid to store. It will only store energy generated from the solar array.

- 5) At each equipment pad, the plans show an unimproved sixteen-foot space inside the perimeter fence between the fence and the gravel pad area. Pad #2 also shows an unimproved gap between the twenty-foot access way and the fence. The applicant should confirm whether hardened access road surfacing will connect to the gravel equipment pad.

Response: The access road has been extended to connect with both gravel equipment pad areas.

- 6) The Zone Criteria table on Sheet G001 is unclear whether each line reports the dimensional standard for the Residential-Rural district under Tables 2 and 3 or the standard for solar electric generating facilities under § 275-7.6G(2)(a), and appears to use each in different places. Show both sets of criteria or identify the controlling standard for each line. In addition, minimum lot depth in the R-R district is 200 feet rather than the 150 feet shown, maximum

building coverage is 15 percent rather than the 20 percent shown, and maximum impervious coverage of 25 percent is not reported. The table cites the Zoning Bylaw as last revised May 7, 2024; the current bylaw was amended May 6, 2025.

Response: Zoning Analysis Table has been updated to reference the latest Zoning Bylaw dated May 6, 2025. Each dimensional standard references whether it is for the Residential-Rural district under Tables 2 and 3 or the standard for solar electric generating facilities under § 275-7.6G(2)(a).

Zoning Bylaw Compliance

- 7) § 275-7.6G(2)(b)[2] limits the height of solar panels and associated support structures to fifteen feet. Sheet G001 reports a maximum panel height of fourteen feet, while the Project Description states that the primary axis is "proposed to be at a maximum of 15-feet above grade." The key system dimensions table on Sheet C503 lists the minimum panel height at maximum angle and at 90 degrees as "TBD." Provide the anticipated dimensions of the array in the tilted position, demonstrating the maximum height of any part of the array above finished grade.

It would be beneficial for the board if the applicant would comment on whether the maximum height dimension may come into tension with the SMART program requirements for an Agricultural Solar Tariff Generation Unit, which set a minimum panel height at the horizontal position of ten feet for tracking units. Stated differently, is there a potential racking design that cannot meet both the ten-foot minimum and the fifteen-foot maximum equipment height? If that proved to be the case, the applicant may need to request (and the Board consider) a waiver under § 275-7.6G(5), which requires the prior written request of the applicant.

Response: The proposed tracker system is designed such that tracker rotation will not exceed 60 degrees and the primary axis (torque tube) will not exceed 15 feet above grade. Based on the current design, the Applicant does not anticipate any portion of the array exceeding 15 feet above grade at maximum tilt. Final dimensions will be confirmed during detailed design, but the system has been selected with the intent of complying with both the SMART Agricultural Solar Tariff Generation Unit clearance requirements and the Southampton Zoning Bylaw height limitations.

- 8) § 275-7.6G(8)(g)[2] caps the land area coverage for the array at 50%. Sheet G001 reports a ground coverage ratio of 0.52, which may violate the bylaw provision (depending on how the Board interprets "land area within the solar electric field"); however the row spacing details on Sheet C503 imply a ground coverage ratio of approximately 0.31, which would comply under any conceivable definition. Additionally, the May 31, 2026 response to the Conservation Commission calculates panel coverage of 16.5 percent. The applicant should provide a single calculation, clearly state its basis, and confirm how the applicant believes the project complies with the coverage requirement.

Response: Land area coverage has been updated on sheet G001 to be 30.4%. The area was obtained by calculating the open space within the land area occupied by the solar panels and dividing it by the total land area occupied by the solar panels, which the applicant believes aligns with the intent of the bylaw.

- 9) § 275-7.6G(9)(b)[2] requires that at least 50% of the land parcel utilized for a solar electric generating facility remain forested. Sheet G001 reports zero acres of tree clearing, and the array is proposed within fields that are not forested in existing conditions. It appears that less than 50% of the property is forested in the existing condition, so the 50% standard cannot be met despite the fact that the proposed project is clearly aligned with the intent of this provision. We recommend the Board formally determine how the provision applies. If the Board concludes the standard cannot be met as written, the Board should consider a waiver under § 275-7.6G(5), which technically requires written request of the applicant.

Response: The Applicant believes the project is consistent with the intent of the provision, as existing forested areas on the property will remain undisturbed and no forested land is being converted for project development. If the Board determines that a waiver is necessary to address this unique site condition, the Applicant will submit a written waiver request in accordance with § 275-7.6G(5).

- 10) § 275-7.6G(9)(b)[1] provides that solar electric generating facilities shall be designed and constructed so that no installation occurs on slopes greater than 15 percent. The Stormwater Report states that site slopes range from approximately 2 to 8 percent, with limited areas up to 26 percent. The Project Description states that the project meets this requirement. The applicant should provide an exhibit identifying areas of the site exceeding 15 percent and demonstrating compliance.

Response: Hatching has been added to Sheet C102 showing locations on site where slopes exceed 15% to demonstrate compliance with bylaw.

- 11) § 275-7.6H(3)(f) requires an estimate of earthwork listing the amount of soil material to be imported to or exported from the site, and § 275-7.6G(9)(b)[5] requires a detailed earthworks estimate and a topsoil management plan as site plan submittal components. The applicant should provide this documentation. The estimate should demonstrate compliance with § 275-7.6G(9)(b)[3], which provides that no topsoil shall be removed from the land parcel, and [4], which limits export of other material.

Response: See Sheet C001 for Earthwork Estimates and topsoil management plan which demonstrate project compliance with bylaw. Export of earth material is not proposed as part of this project.

- 12) § 275-7.6G(8)(i) requires that solar electric generating facilities be screened from view by a minimum fifteen-foot-wide staggered and grouped planting of shrubs and small trees, using native plants and a mix of deciduous and evergreen species. To the extent that screening plantings are included in the plans, the proposed buffer is appropriately located and occupies a strip of adequate width. The following elements of the standard are not met or are borderline:

- a. The planting schedule contains no shrubs.

Response: Native shrub plantings have been added to the proposed screening plan and planting schedule.

- b. The evergreens are regularly spaced at eighteen feet on center in a single line. At that spacing the planting is not "staggered and grouped", in our opinion.

Response: Staggered spacing has been reduced from 18 feet on center to 15 feet on center in grouped plantings to meet the bylaw requirement.

- c. The Board should consider whether the density of planting proposed is sufficient to meet the intent of the bylaw, or whether closer spacing, grouping, and the addition of shrubs would be required.

Response: Acknowledged. The Applicant understands that the Planning Board may determine whether the proposed screening density satisfies the intent of § 275-7.6G(8)(i). The screening plan has been revised to increase planting density and incorporate staggered plantings.

- d. The plan proposes several red maples. While ecologically valuable, large maple trees will provide diminished screening value as they mature. Given the location south of the project, over time the trees will increasingly shade productive agricultural land and potentially the solar panels. The applicant might consider the smaller species on the planting sheet (dogwood and especially serviceberry) as better on both counts.

Response: Red Maple has been replaced with Serviceberry in the Planting Schedule

- e. In our opinion, the inclusion of birch as a possible tree planting should be discouraged for this use. Birch canopies tend to thin with age and will provide less screening value than other suggested species.

Response: Birch has been removed from list of proposed deciduous alternatives.

The plan legend and the planting schedule disagree on the species proposed, and the schedule notes list alternates for species that do not appear in the schedule. Confirm the species proposed and revise the plan so that the legend, the schedule and the notes agree. We note that arborvitae is arguably a native species depending on the variety and that "green giant" arborvitae are known to be used as a windbreak in agricultural settings in the Pioneer Valley.

Response: Legends have been updated to match the planting schedule which has been updated per comment 12.

- 13) The stretch of Pleasant Street north of the site is open with no screening proposed. In the existing condition views into the site from this location reach as far as 2,000 feet into the site. Given the site topography, these views are more significant than those addressed by the proposed buffer. The Board should consider whether screening should be provided in this location.

Screening located at the roadway may provide the greatest benefit for the least cost. That location lies on an adjoining lot in Bashista family ownership that is not represented on the plan set as part of the project. The applicant should identify whether that parcel is available

for planting. Alternatively, there is space along the property line at the northeast end of the site where planting would likely provide screening value from this direction.

Response: The applicant has not proposed screening on the north side at the request of the landowner so they can continue to maximize their existing agricultural fields. If the Board requires screening on this north side, the applicant and landowner request a landscape design that will have the least acreage reduction of agricultural productive land.

- 14) The Project Description responds to § 275-7.6G(8)(e) by stating that herbicides may be used along the project fence line, and that fertilizer may be used for post-construction seeding, both in accordance with MGL c. 132B and MDAR standards. § 275-7.6G(8)(e)[1] provides that herbicides, pesticides and chemical fertilizers may not be used to manage vegetation at the solar electric generating facility. We note that fertilizer and/or herbicide per MDAR standards is to be expected on an agricultural site.

The Board should determine whether the proposed methods of vegetation management comply with the spirit of the bylaw. The Board may wish to consider a formal waiver of the prohibition on herbicides, pesticides, and/or chemical fertilizers. Technically, the bylaw requires a written request from the applicant for any waivers of the requirements of § 275-7.6.

Response: The Applicant acknowledges the MA Office of the Attorney General review of Section 275-7.6 (G) (8) (e) (1) and letter the Office sent to the Town of Southampton, Town Clerk, dated 10/31/25, noting that provision "[1] Herbicides, pesticides, or chemical fertilizers may not be used to manage vegetation at the solar electric generating facility." was disapproved because it is preempted by state law, G.L. c. 132B, Massachusetts Pesticide Control Act ("Act") and is preempted by Chapter 262 of the Acts of 2012 (amending G.L. c. 128, § 2), which grants the Department of Agricultural Resources (MDAR) the exclusive authority to regulate the application of plant nutrients, including fertilizers, in the Commonwealth. Thus, any project use would be conducted in accordance with applicable MA G.L. c. 132B and MDAR standards.

- 15) § 275-7.6G(6)(a) requires removal within 150 days of abandonment or the proposed date of decommissioning. The array decommissioning plan uses 150 days while the BESS plan on the following page uses 365 days. Both run from the end of the lease term or a finding of disuse. The trigger in the bylaw is abandonment, defined as failure to operate for more than one year without the written consent of the Planning Board, or the proposed date of decommissioning, and "disuse" is not defined. We recommend updating both for consistency with the bylaw text.

Response: The array decommissioning plan and BESS plan have been updated to require removal within 150 days of abandonment or the proposed date of decommissioning as required in the bylaw. See **Appendix C**.

- 16) § 275-7.6G(6)(c) requires that the surety amount include a mechanism for calculating increased removal costs due to inflation, which is not accounted for in the estimate. The applicant should propose a method of calculating escalation for the Board's consideration based on the anticipated lifecycle of the equipment.

Response: The decommissioning estimate has been updated to include escalation of future removal costs assuming a 20-year project life and an annual inflation rate of 2.5%. The revised estimate incorporates this escalation factor in the calculation of the required surety amount. See Appendix C.

- 17) The BESS decommissioning plan states that the batteries have no recyclable value, and that the primary cost of decommissioning the BESS is the transportation and disposal of the batteries. The estimate carries \$2,800 to load and dispose of the battery racks at a licensed facility, from four cabinets with a combined gross weight of approximately 190 tons. The estimate states that costs are based on current market averages, but provides no unit rate or assumed battery weight. Disposal of lithium-ion cells can carry substantial cost unless the manufacturer accepts return of equipment at end of life. We recommend the applicant confirm that the BESS decommissioning estimate accounts for disposal/recycling costs of the LFP and provide justification for assumed rates.

Response: The decommissioning costs have been updated to reflect two SolBank 3.0 battery containers. As the batteries have no recyclable value, Weston & Sampson has assumed that it will cost approximately \$0.70 per pound of batteries to dispose. As the batteries make up 100% of the weight of the fully loaded 94,800 pound container, Weston & Sampson accounted for 70% of the total weight as batteries. The remaining weight can be attributed to the container itself, HVAC equipment, and ancillary electrical equipment and wiring. The revised BESS decommissioning estimate has been updated and incorporated into the overall project decommissioning cost. See Appendix C.

- 18) The Project Description states that the project is "a dual-use solar agrivoltaic project with a capacity greater than 250 kW DC qualifying as a Large-Scale Solar Electric Generating Facility." The zoning bylaw Table of Uses (Table 1) lists Agricultural use 5, dual-use solar electric generating facility, as permitted by right with site plan approval in the Residential-Rural district, and Principal use 17, large-scale solar electric generating facility, as requiring a special permit from the Planning Board. While the installation is, descriptively, a large-scale generation facility, the project meets the § 275-2.3 definition of a dual-use facility as it is described in the application. We recommend the Board formally determine that the project is reviewed as a dual-use solar electric generating facility under Agricultural use 5 and does not require a special permit so the project record is clear.

Response: Acknowledged. The applicant agrees that the proposed project qualifies as a dual-use solar electric generating facility and may be reviewed accordingly by the Planning Board.

- 19) The zoning conformance narrative does not address § 275-7.1, the Floodplain Overlay District. The project appears to lie entirely outside the floodplain; however, the plan sheets carry a number of overlapping resource and jurisdictional lines, which makes the floodplain boundary difficult to read. The application also mixes flood map editions: the survey sheet cites preliminary panel 25015C0477E dated August 27, 2025, while the Stormwater Report uses the effective (older) designations. § 275-7.1B bases the extent of the district on the “most recent Flood Insurance Rate Map”. The Board’s review would benefit from a simplified figure for the record clearly showing only the Floodplain Overlay District boundary, the limit of the effective floodplain and the limit of work.

Response: The Floodplain Boundary Line and Limit of Work Line are now shown in color on sheet C102 for clarity.

Water Supply Protection District

- 20) The Project Description states that no hazardous substances are proposed within the site, and the Long Term Pollution Prevention Plan states that no hazardous materials will be stored or handled on site with the exception of fuel for construction equipment. The application also specifies four lithium-ion battery cabinets with liquid thermal management systems, and two pad-mounted transformers each containing 762 gallons of Envirotemp FR3 dielectric fluid.

§ 275-7.6H(3)(i) requires that documentation of major system components for a system located in the Water Supply Protection District include information on elements of the system that use materials that are in “any way either hazardous or toxic”. That information has been provided in part: the transformer fluid is identified by type and volume and the battery chemistry is identified, but the hazard (or lack thereof) presented by each fluid that will be present on the site should be clearly characterized.

We recommend the applicant provide a list of all fluids present in the proposed equipment, with quantities, together with safety data sheets for each, so that the hazard presented by each can be assessed. At a minimum this should address the battery chemistry, the thermal management system fluid, and the transformer dielectric fluid.

The Board should note that § 275-9.10A(7) allows the Board to consider prevention of groundwater contamination from operations involving the use, storage, handling or containment of “hazardous substances”. The Board should also note that the bylaw defines hazardous waste at § 275-2.3 but does not define “hazardous substance”.

Response: See **Appendix D** for Material Safety Data Sheets which lists specific compounds included within the battery, this includes the glycol based thermal management system fluids, and the hydrocarbon-based electrolyte components.

- 21) We understand that the Board has requested tertiary containment at the BESS pads. § 275-7.6G(8)(f) requires impervious containment areas capable of controlling any release to the environment where hazardous materials are utilized within the solar electric equipment.

The applicant should clearly state whether containment is proposed for the BESS, the transformers or any other equipment. If containment is proposed, provide design details. If it is not, provide a specific justification for each fluid identified in the preceding comment, including firefighting water that has contacted the BESS, explaining why containment is not necessary.

Note, regardless of whether any fluids are considered “hazardous materials”, § 275-9.10A(1) requires the Board to determine that the site plan “minimize[s] the... threat of air and water pollution” and the stated purpose of § 275-7.2 (Water Supply Protection District) is “preserving the surface water and groundwater resources of the Town and the region from any use of land or buildings which may reduce the quality of its water resources.”

For the Board’s information, the Massachusetts Department of Environmental Protection issued Guidance on Public Health, Safety and Environmental Impacts of Electric Battery Storage and Electric Vehicle Chargers on August 20, 2025. The guidance states that battery energy storage systems are prohibited within Zone I of a public water supply. On other land owned or controlled by a public water system, a BESS requires MassDEP approval and should be located above the 100-year floodplain and within a self-containment area such that fire extinguishing chemicals would be completely contained in the event of a fire. This site is not owned or controlled by the water supplier, so those stipulations do not apply to this project, and the guidance describes the conditions as examples. However, they indicate the practices the Department regards as protective of a drinking water source. The same guidance states that lithium-ion systems are typically required to provide spill containment. Conversely, we also note that BESS technology continues to evolve and we understand that the current industry standard chemistry, which is proposed here, is not considered a leak or spill risk under the applicable NFPA codes.

Response: The proposed BESS has been designed in accordance with NFPA 855, as documented in the Hazard Mitigation Analysis included in Appendix L of the Site Plan Review and Stormwater Management Permit application package dated June 3, 2026. The NFPA 855 does not require spill containment for BESS systems. The applicant notes that the MassDEP document referenced by the reviewer provides guidance rather than project-specific regulatory requirements. Based on the proposed system design and applicable code requirements, additional containment is not proposed.

- 22) The two pad-mounted transformers specified in Appendix H contain a combined 1,524 gallons of Envirotemp FR3. The applicant notes that the primary ingredient in this fluid is vegetable oil, which is accurate. However, we note that vegetable oils are included in the definition of “oil” under state and federal environmental regulation. The total volume of transformer fluid on site appears to trigger requirements for a Spill Prevention, Control, and

Countermeasure (SPCC) Plan and a significant release may be a reportable event to MassDEP. We recommend that the applicant incorporate spill or release response procedures into the site operation and maintenance plan so the board may consider the level of protection these required procedures will provide to the aquifer.

Response: The applicant acknowledges that the proposed transformers contain a combined 1,524 gallons of Envirotemp FR3 dielectric fluid. While this volume exceeds the 1,320 gallon above ground oil storage threshold referenced in the SPCC regulations, SPCC applicability also depends on whether the facility could reasonably be expected to discharge oil to navigable waters or adjoining shorelines. The proposed transformers are located within interior equipment areas and are not adjacent to a navigable waterbody. Accordingly, the presence of 1,524 gallons of dielectric fluid alone does not establish that an SPCC Plan is required. The applicant will incorporate spill response procedures into a final Operations and Maintenance Plan and will comply with all applicable environmental regulations.

- 23) Section 5.1.8 of the Emergency Response Plan directs responders to establish a continuous water supply and to apply water in a fog pattern for exposure protection. The Emergency Response Plan, does not address the management of water that has contacted the equipment, or environmental assessment following an event. The MassDEP BESS guidance document states that the Massachusetts Contingency Plan (310 CMR 40.0000) requires a hazardous materials response and site assessment after a battery fire or other release to the environment. We recommend that the emergency response plan be updated to include post-incident procedures consistent with the applicable requirements, including thresholds for notification to MassDEP. The applicant should consider including notification of the Water Department, in addition to MassDEP.

Response: The Emergency Response Plan addresses incident stabilization, emergency response coordination, and post-incident recovery activities. Following any fire or release event, the Owner will coordinate with applicable emergency response and regulatory agencies to implement any required notification, site assessment, cleanup, and response actions in accordance with applicable federal and state requirements. A final Emergency Response Plan can list the Water Department as to receive any notices should the Department request this.

- 24) The Long Term Pollution Prevention Plan states that salt and sand will not be stored on site. § 275-7.2F(2) provides that the use of sodium chloride for ice control shall be minimized. The applicant should clarify for the project record whether de-icing chemicals will be applied on site and, if so, which.

Response: De-icing chemicals will not be applied on site. The site is generally unmanned, consists of gravel access roads and gravel equipment pad areas, and is accessed infrequently for maintenance activities. Salt, sand, and other de-icing materials will not be stored on-site.

- 25) The Project Description states that § 275-7.2F(6) is not applicable because no storage or stockpiling of manure is proposed, but the application also notes that the existing agricultural activities include a compost operation. Confirm whether the existing or proposed compost operation includes manure or whether manure is stockpiled on a temporary basis for fertilization of agricultural fields.

Response: The existing compost operation does not include the storage or stockpiling of manure. Manure may be incorporated as a component of the composting process, but it is not separately stored or stockpiled on-site for fertilization of agricultural fields.

Battery Energy Storage System, Hazard Mitigation and Emergency Response

- 26) The Hazard Mitigation Analysis identifies four items requiring modification or confirmation, in the Executive Summary:

- a. Approved signage per NFPA 855 § 4.3.5;

Response: NFPA 855-compliant signage will be provided on the construction plans and installed prior to operation of the facility in accordance with the requirements of NFPA 855 and the Massachusetts Fire Code

- b. Increasing the minimum unobstructed fire apparatus access roadway width from 16' to 20';

Response: As noted by the peer reviewer, this comment has already been addressed.

- c. Removing the fire apparatus access dead end exceeding 150 feet or providing an approved turnaround;

Response: See **Appendix E** for Firetruck Vehicle Turning Analysis which demonstrates the hammerhead turnaround can accommodate an aerial ladder truck.

- d. Obtaining Fire Code Official approval of the fire protection water supply.

Response: Use of water for fire suppression is not recommended for the BESS equipment. The Applicant will continue to coordinate with the Fire Department and Fire Code Official regarding final fire protection and emergency response provisions and will obtain all required approvals prior to operation of the facility.

The current plan set resolves (b): the access way is shown at 20' wide. The other three do not appear to be resolved on the plans.

Response: See responses to Comment 26a through 26d above.

§ 275-9.10A(9) requires Board to consider whether the plan ensures adequate access to each structure for fire and service equipment. We recommend that the Board obtain approval of site access from the Fire Department before issuing a site plan approval.

NFPA 855 code compliance is required for the proposed facility. The Board may wish to include a condition of approval requiring that Fire Department approval of the final plans be submitted to the board prior to issuance of a building permit.

Response: NFPA 855 and MA Fire code compliance is required for the proposed facility. The Applicant acknowledges that the Board may propose a condition for the Applicant prior to applying for the Building Permit, to provide the Building Inspector with (a) all requests for comments on this project made to the Fire Department, (b) any responses received from the Fire Department, and (c) a summary of actions taken by the Applicant in response to concerns or requirements identified by the Fire Department.

- 27) The Hazard Mitigation Analysis states that the nearest hydrant is located at the site entrance, approximately 1,500 feet to the north BESS yard and 2,000 feet to the south yard, and concludes that the water supply requirement is met subject to Fire Code Official approval. Section 5.1.8 of the Emergency Response Plan includes establishing a continuous water supply to cool equipment during a thermal runaway event. While review of this condition would fall under Fire Department review noted in the previous comment, the Board may wish to obtain approval of the Fire Department prior to site plan approval since the result of that review has site design implications.

Response: NFPA 855 and MA Fire code compliance is required for the proposed facility. The Applicant acknowledges that the Board may propose a condition for the Applicant prior to applying for the Building Permit, to provide the Building Inspector with (a) all requests for comments on this project made to the Fire Department, (b) any responses received from the Fire Department, and (c) a summary of actions taken by the Applicant in response to concerns or requirements identified by the Fire Department.

Noise

We note that § 275-7.6C(3) and (4) include requirements that are identical to 310 CMR 7.10 and MassDEP Noise Policy 90-001, which apply to the facility independently of the Zoning Bylaw. The bylaw requires documentation by an acoustic engineer of the noise levels projected to be generated by the installation. The applicant provided a sound analysis showing that the proposed project would comply with this standard. The following comments apply to the analysis.

- 28) The Sound Pressure Calculations memorandum states that the noise rating for the proposed BESS was not available at the time the calculations were performed, and that an industry standard of 70 dBA at one meter was used. The SolBank 3.0 data sheet in Appendix H states 75 dB at one meter. Revise the calculation using the manufacturer's value.

Response: The noise analysis has been revised to utilize the manufacturer's published sound level of 75 dBA at 1 meter for the proposed SolBank 3.0 BESS, consistent with the equipment specifications provided in Appendix H. The Applicant currently proposes to install one pad mounted BESS container at each pad location. The calculations and memorandum have been

updated accordingly. The revised analysis continues to demonstrate compliance with applicable noise requirements. See **Appendix F**.

- 29) The noise mapping reports at Attachments B and C each enter a value of 88.2 dB as the sound power level. Attachment B applies a distance attenuation of 48.55 dB at 75.41 meters. Tables 1 and 2 of the memorandum identify the equipment values as listed sound pressure at a distance of one meter, and Attachment A calculates their logarithmic sum as 85.06 dBA. Please clarify the basis for the difference between 85.06 and 88.2, which footnote 1 attributes to temperature and relative humidity. A brief summary of each calculation step and adjustment factor would assist BDG in validating the analysis.

Response: The noise analysis for the site has been updated in respect to Weston & Sampson's response to Comment 28. However, to answer the Peer Reviewers' comment, the difference in listed value can be attributed to temperature, relative humidity, and standard broadcast frequency. To generate these noise calculations, Weston & Sampson first performs a mathematical calculation of the sound pressure levels using the Inverse Square Law to generate a single broadcast decibel level for each pad location. This sound level is then entered into a Noise Mapping Software, which adjusts the level for the aforementioned temperature, relative humidity, and standard broadcast frequency. Often, this results in an increase in overall decibel level. See **Appendix F**.

- 30) § 275-7.6C(4) defines ambient as the background A-weighted sound level that is exceeded 90 percent of the time measured during equipment hours. Attachment A describes the measured value as an average maximum ambient sound pressure reading collected on February 17, 2026 between 1:50 and 3:30 p.m. (note that the memo states data were collected on February 18, 2026). Confirm the measurement meets the bylaw standard. Presumably equipment may run at any time of day, so the applicant should comment on whether mid-afternoon ambient sound readings are sufficient for the analysis.

Response: Weston & Sampson believes that the ambient sound levels collected are representative of the background A-weighted sound levels. In addition, standard practice by this Applicant is to collect pre- and post-construction sound levels and confirm that installed equipment does not exceed the conditions set forth by MassDEP. Should sound levels exceed these conditions, sound-dampening measures may be installed by the Applicant accordingly to bring the site into compliance.

Site Plan Review Standards

- 31) The Project Description states that § 275-9.10A(2) through (6) are not applicable. Those subsections address pedestrian and vehicular safety, obstruction of scenic views, visual intrusion, glare and light trespass, and departure from the character, materials and scale of the vicinity. Regardless, we note that these items are generally addressed elsewhere in the application.

Response: The applicant notes that the considerations identified above are addressed elsewhere in the application materials and plan set for the Board's consideration.

- 32) While the Zoning Bylaw contains no glare standard applicable to solar arrays, and § 275-9.10A(5) addresses glare from headlights rather than panels, a statement addressing potential glare toward Pleasant Street and toward abutting residences would allow the applicant to demonstrate that visibility of the array presents neither a hazard to the roadway nor an impact on abutters.

Response: See **Appendix G** for Glare Analysis.

Agricultural and Dual Use

- 33) § 275-7.6K(1) requires an application for a dual-use solar electric generating facility to demonstrate that it will not diminish the use of the property for an agricultural purpose. The project is designed to qualify as an Agricultural Solar Tariff Generation Unit under the SMART program. We recommend that the applicant provide communication with DOER and/or MDAR regarding the proposed project as evidence that the project will not diminish the use of the property.

Response: The Applicant has submitted a pre-determination application to the Massachusetts Department of Agricultural Resources (MDAR) and Department of Energy Resources (DOER) for review under the SMART Agricultural Solar Tariff Generation Unit (ASTGU) program. Upon receipt, the MDAR/DOER pre-determination approval documentation will be provided to the Planning Board as evidence that the proposed project is designed to maintain and support continued agricultural use consistent with ASTGU requirements.

Other

- 34) Sheet C103 shows underground electric conduit from the equipment pads along the access way to a customer riser pole, and an overhead line from that pole to the point of interconnection at Pleasant Street, with the intermediate poles labeled. Note 7 on Sheet G002 states that the pole line up is shown for reference only and that electrical design, including utility poles, is by others. § 275-7.6G(8)(c) requires that reasonable efforts be made to place utility connections underground. Confirm the routing shown, identify the length of the overhead segment, and state the basis for placing that segment overhead rather than underground to assist the board in determining if overhead runs have been minimized.

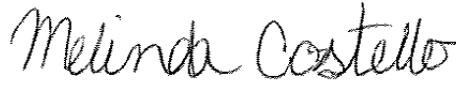
Response: The proposed overhead interconnection segment is required by the utility provider, Eversource, as part of the approved interconnection configuration. Underground conduit is proposed throughout the site to the customer riser pole, minimizing the extent of aboveground utility infrastructure. The overhead segment is limited to the utility-required connection between the customer riser pole and the point of interconnection, which represents the minimum overhead routing necessary to satisfy utility interconnection requirements.

Should you have any further questions or require any additional information, please feel free to contact me by phone at (978) 532-1900 or by email at costello.melinda@wseinc.com.

Sincerely,
WESTON & SAMPSON ENGINEERS, INC.



William (Cam) Gosine
Project Manager



Melinda Costello, PE
Senior Team Leader

Attachments:

- Appendix A – Revised Issued for Permitting Site Plans
- Appendix B – Interconnection Service Agreement
- Appendix C – Revised Decommissioning Estimate
- Appendix D – Material Safety Data Sheets
- Appendix E – Firetruck Vehicle Turning Analysis
- Appendix F – Noise Analysis
- Appendix G – Glare Analysis

cc: Mike Zhe, Manhan River, LLC

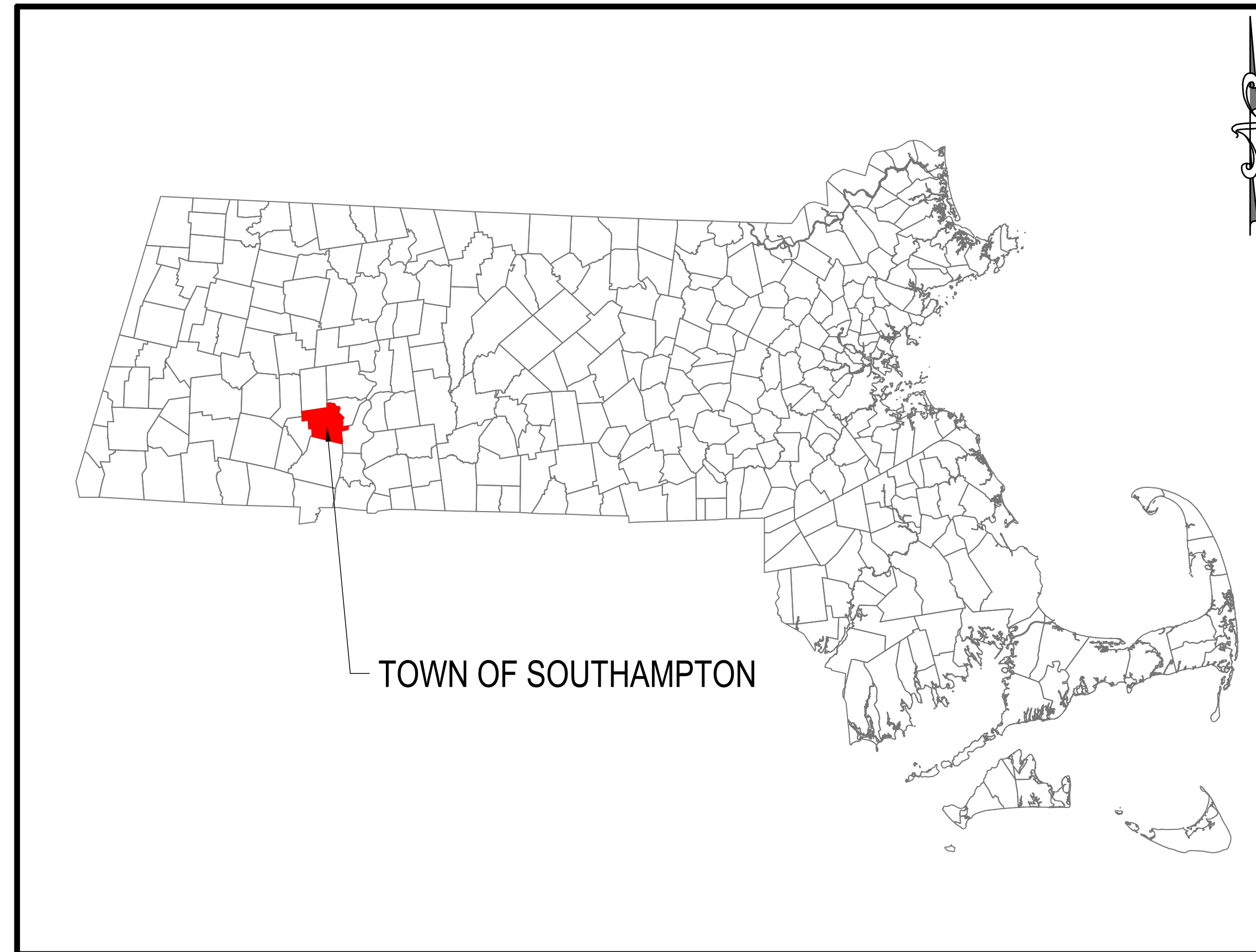
Appendix A – Revised Issued for Permitting Site Plans

5.49 MW (DC) AGRIVOLTAIC SOLAR DEVELOPMENT & BATTERY ENERGY STORAGE SYSTEM (BESS) FACILITY

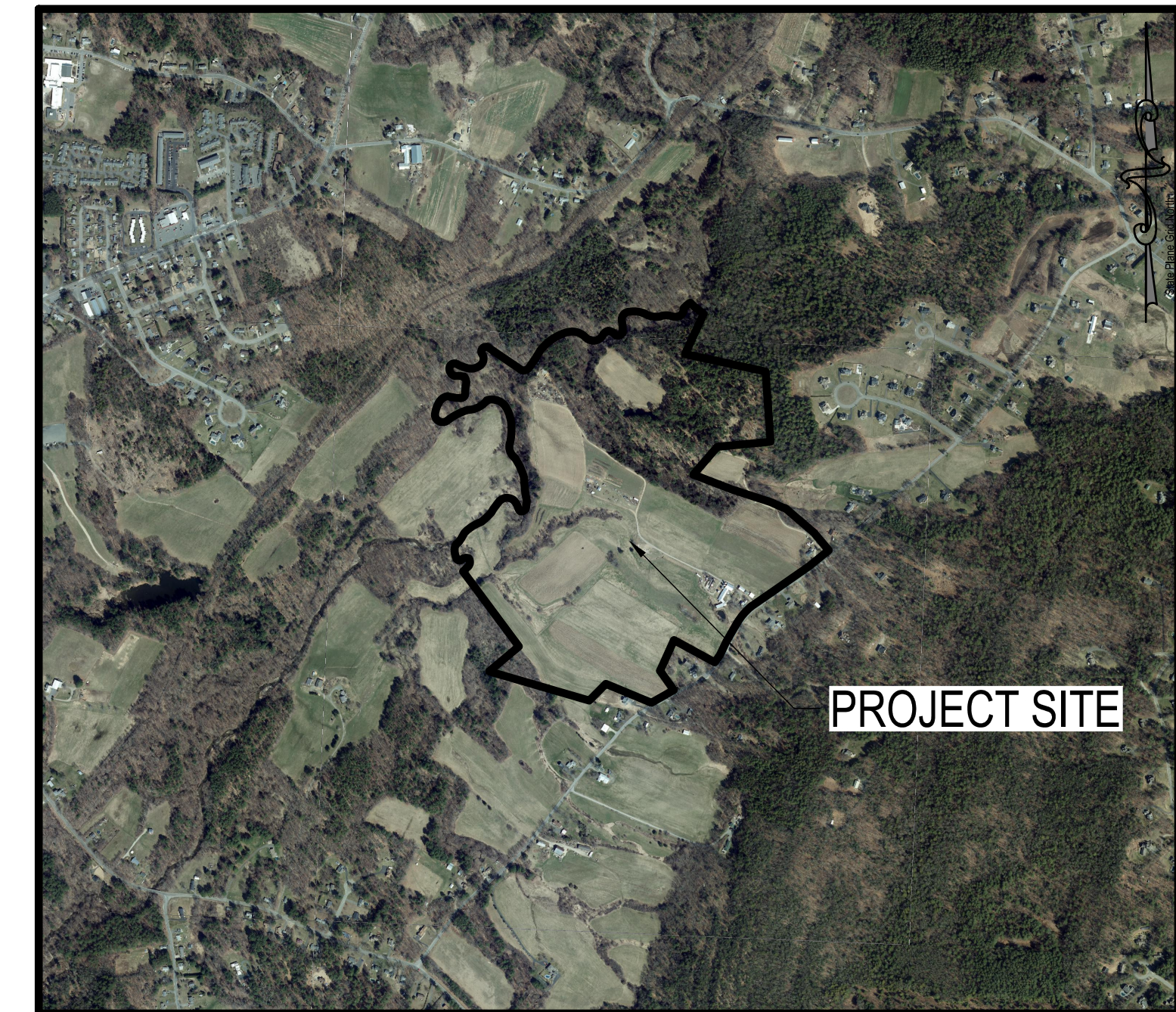
A detailed topographic map of the Southampton area in New Hampshire. The map features contour lines indicating elevation, with labels such as '1000', '900', '800', and '700'. Major roads are shown in red and orange, including Route 103, Route 102, and Route 101. Water bodies like 'Moose Brook' and 'Moose Pond' are labeled in blue. The map includes several place names: 'Southampton', 'East Hampton Town', 'Swanton Corners', and 'Rock Valley'. A black outline marks the 'PROJECT SITE' in the central-northern part of the map, with a black arrow pointing to it from the text 'PROJECT SITE'. A north arrow is located in the top right corner, pointing towards the top of the page.

$$1'' = 3,000' \pm$$

1. BASE MAPPING AND EXISTING CONDITIONS DERIVED FROM A SURVEY ENTITLED "LIMITED ALT/NSPS LAND TITLE SURVEY OF LAND IN SOUTHAMPTON, MA" FOR A PROPERTY LOCATED AT 43 AND 53 PLEASANT STREET DATED 9/25/2025 FROM NORTHEAST SURVEY CONSULTANTS.
2. WETLAND AND WATER RESOURCE DATA DERIVED FROM WETLAND DELINEATIONS PERFORMED BY FLEETWOOD ENVIRONMENTAL SOLUTIONS, LLC ON JULY 17, 19, 25, AND 26, 2023, AND AN ADDITIONAL DELINEATION PERFORMED ON SEPTEMBER 18, 2025.



NOT TO SCALE


$$1'' = 1,200'$$

PROJECT CONTACT SUMMARY

DRAWING INDEX

ZONING ANALYSIS TABLE

PROJECT SUMMARY

OWNER / PARCEL DATA

Weston & SampsonSM
Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

MANHAN RIVER, LLC

116 Huntington Ave., Suite 601
Boston, MA 02116
tel. (617) 209-3122 <https://www.bluewave.energy/>



Know what's Below.
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4	PEER REVIEW COMMENTS	09/30/26
3	PEER REVIEW COMMENTS	05/29/26
2	PEER REVIEW COMMENTS	04/30/26
1	CONS COM / DEP COMMENTS	01/30/26
0	ISSUED FOR PERMITTING	11/25/25
No.	Description	Date
Revisions		

Seal:



The seal is circular with a double-lined border. The outer ring contains the text "COMMONWEALTH OF MASSACHUSETTS" at the top and "PROFESSIONAL ENGINEER" at the bottom. The center of the seal contains the name "MELINDA COSTELLO" in a large, bold, sans-serif font, followed by "CIVIL" in a smaller font, and "No. 52956" at the bottom. Below the seal, the name "Melinda Costello" is handwritten in cursive, and the date "9/30/26" is handwritten in a simple font.

Issued For:	
PERMITTING	
Issued Date:	11/25/2025
Scale:	AS NOTED
Drawn By:	RJR/AKA
Reviewed By:	NVG
Approved By:	MRC
W&S Project No.:	ENG24-0244

Drawing Title:	COVER SHEET
Sheet Number:	

G001

NOT FOR CONSTRUCTION

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CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL CALL DIG SAFE AT 811 OR 1-888-DIG-SAFE AT LEAST 72 HOURS, SATURDAYS, SUNDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIG SAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE OWNER PRIOR TO EXCAVATION.
2. LOCATIONS OF EXISTING PIPES, CONDUITS, UTILITIES, FOUNDATIONS AND OTHER UNDERGROUND OBJECTS ARE NOT WARRANTED TO BE CORRECT AND THE CONTRACTOR SHALL HAVE NO CLAIM ON THAT ACCOUNT SHOULD THEY BE OTHER THAN SHOWN.
3. STONE WALLS, FENCES, CURBS, ETC., SHALL BE REMOVED AND REPLACED AS NECESSARY TO PERFORM THE WORK. UNLESS OTHERWISE INDICATED, ALL SUCH WORK SHALL BE INCIDENTAL TO CONSTRUCTION OF THE PROJECT.
4. ALL AREAS DISTURBED BY THE CONTRACTOR BEYOND THE PROJECT AREA SHALL BE RESTORED AT THE CONTRACTOR'S EXPENSE.
5. NOTHING SHOWN OR OMITTED FROM THE DOCUMENTS PROVIDED SHALL RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH ALL APPLICABLE CODES, REGULATIONS, BYLAWS, AND ORDINANCES.
6. CONTRACTOR SHALL VERIFY EXISTING SITE CONDITIONS, INCLUDING TOPOGRAPHY, PRIOR TO CONSTRUCTION. ANY DISCREPANCIES BETWEEN SITE CONDITIONS AND THE DESIGN PLANS SHALL BE REPORTED TO THE ENGINEER UPON DISCOVERY.
7. ELECTRICAL DESIGN, INCLUDING UTILITY POLES, BY OTHERS, POINT OF INTERCONNECTION (POI) UTILITY POLE LINE UP SHOWN ON THE PLANS FOR REFERENCE ONLY. SEE ELECTRICAL PLANS BY OTHERS FOR FINAL LOCATION AND CONFIGURATION (POI) UTILITY POLES.
8. SOLAR ARRAY LAYOUT AND CAPACITY IS SUBJECT TO FINAL DESIGN (BY OTHERS) BUT WILL REMAIN WITHIN THE PROPOSED LIMITS OF WORK.
9. THE PROPOSED PROJECT SHALL COMPLY WITH THE MASSACHUSETTS DIVISION OF FISHERIES & WILDLIFE CONDITIONAL APPROVAL NHESP NO. 24-18603 ISSUED ON JANUARY 21, 2026.

MATERIAL SPECIFICATIONS:

GEOSYNTHETICS:

1. GENERAL:
INSTALLATION OF GEOTEXTILE FABRICS SHALL BE IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND SPECIFIC LAYOUT PLANS AND DETAILS REVIEWED BY ENGINEER.
1. WOVEN GEOTEXTILE:
THE WOVEN GEOTEXTILE SHALL BE TENCATE MIRAFI HP270 FABRIC, OR APPROVED EQUIVALENT. THE WOVEN GEOTEXTILE SHALL BE COMPOSED OF POLYPROPYLENE STABILIZED WITH CARBON BLACK TO RESIST ULTRAVIOLET DEGRADATION AND BE RESISTANT TO BIOLOGICAL AND CHEMICAL DEGRADATION DUE TO ALL NATURALLY OCCURRING ORGANISMS OR REAGENTS NORMALLY ENCOUNTERED IN NATURAL SOIL ENVIRONMENTS.
2. NON-WOVEN GEOTEXTILE:
THE NON-WOVEN GEOTEXTILE SHALL BE TENCATE MIRAFI 140N FABRIC, OR APPROVED EQUIVALENT. THE NONWOVEN FABRIC SHALL BE INERT TO BIOLOGICAL DEGRADATION AND RESIST NATURALLY ENCOUNTERED CHEMICALS, ALKALIS, AND ACIDS.

EARTHWORK MATERIALS:

1. MODIFIED ROCK FILL:
MODIFIED ROCK FILL SHALL MEET THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION SECTION M2.02.4.

U.S. STANDARD SIEVE

PERCENT PASSING

8 INCH

95-100

4 INCH

0-25

2 1/2 INCH

0-5
2. CRUSHED STONE:
2-3 INCH CRUSHED STONE SHALL BE USED FOR THE CONSTRUCTION ENTRANCE/EXIT AS SHOWN ON THE DRAWINGS, AND SHALL MEET THE REQUIREMENTS LISTED BELOW.

U.S. STANDARD SIEVE

PERCENT PASSING

4 INCH

95-100

3 INCH

0-25

2 INCH

0-5
3. GRAVEL BORROW:
GRAVEL BORROW SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION M1.03.0-TYPE B GRAVEL BORROW.

U.S. STANDARD SIEVE

PERCENT PASSING

3 INCH

100

12 INCH

50-85

NO. 4

40-75

NO. 50

8-28

NO. 200

0-10

*3 INCH DIAMETER LARGEST DIMENSION
4. LOAM:

4.1. LOAM SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION M1.05.0: LOAM.

U.S. STANDARD SIEVE

PERCENT PASSING

NO. 10

85-100

NO. 40

35-85

NO. 200

10-35

<20 MICROMETER

<5

4.2. LOAM SHALL BE A NATURAL, FERTILE, FRIABLE SOIL, TYPICAL OF PRODUCTIVE SOILS IN THE VICINITY. OBTAINED FROM NATURALLY WELL-DRAINED AREAS, NEITHER EXCESSIVELY ACID NOR ALKALINE, AND CONTAINING NO SUBSTANCES HARMFUL TO GRASS GROWTH. LOAM SHALL NOT BE DELIVERED TO THE SITE IN FROZEN OR MUDDY CONDITION AND SHALL BE REASONABLY FREE OF STUMPS, ROOTS, HEAVY OR STIFF CLAY, STONES LARGER THAN 1-INCH IN DIAMETER, LUMPS, COARSE SAND, NOXIOUS WEEDS, STICKS, BRUSH OR OTHER LITTER.

4.3. LOAM SHALL CONTAIN NOT LESS THAN 4 PERCENT OR MORE THAN 10 PERCENT ORGANIC MATTER AS DETERMINED BY THE LOSS OF WEIGHT BY IGNITION OF OVEN-DRIED SAMPLES. TEST SAMPLES SHALL BE OVEN-DRIED TO A CONSTANT WEIGHT AT A TEMPERATURE OF 230 DEGREES F.
5. COMPACTED IMPERVIOUS MATERIAL:

5.1. SHALL SATISFY THE REQUIREMENTS LISTED IN MASSDOT SPECIFICATION M1.08.0: IMPERVIOUS SOIL BORROW WHICH REFERENCES THE SPECIFICATION UNDER AASHTO M 145. THE IMPERVIOUS SOILS SHALL HAVE THE PHYSICAL CHARACTERISTICS OF ONE OF THE FOLLOWING:

5.1.1. A-4, A-5, A-6, A-7 SOILS; OR

5.1.2. A-2 SOILS CONTAINING MORE THAN 20% BY WEIGHT PASSING THE NO. 200 SIEVE.

5.2. AASHTO SOIL CLASSIFICATION SYSTEM INFORMATION IS LISTED BELOW:

GROUP CLASSIFICATION	% PASSING NO. 200 SIEVE	USUAL TYPES OF SIGNIFICANT CONSTITUENT MATERIALS
A-2	35% OR LESS	SILTEY OR CLAYEY GRAVEL AND SAND
A-4	36% MINIMUM	SILTY SOILS
A-5	36% MINIMUM	SILTY SOILS
A-6	36% MINIMUM	CLAYEY SOILS
A-7	36% MINIMUM	CLAYEY SOILS
- 5.3. MATERIAL SHALL BE THOROUGHLY COMPACTED AND SHALL BE FREE FROM DELETERIOUS, ORGANIC, ELASTIC OR FOREIGN MATTER.

SLOPE PROTECTION:

1. EROSION CONTROL BLANKET
EROSION CONTROL BLANKET (ECB) SHALL BE NORTH AMERICAN GREEN, BIONET SC150BN OR APPROVED EQUAL. ECB SHALL BE INSTALLED USING STAPLE PATTERN C IN ACCORDANCE WITH THE INSTALLATION DETAIL INCLUDED ON SHEET C501.

BACKFILL MATERIALS:

1. GRANULAR BORROW:

EMBANKMENT FILL SHALL BE USED IN AREAS WHERE GRADE INCREASES ARE PROPOSED. FILL MATERIAL SHALL MEET THE REQUIREMENTS OF MASSDOT MATERIAL SPECIFICATION M1.01.0 ORDINARY BORROW WITH LESS THAN 15 PERCENT PASSING THE NO 200 SIEVE.

ON-SITE GRANULAR SOILS FROM CUT AREAS CONTAINING LESS THAN 20 PERCENT FINES AND FREE OF ORGANICS, CONTAMINATION (INCLUDING METALS, VOCs, SVOCs, ETC.), AND OTHER DELETERIOUS MATERIALS MAY BE SUITABLE FOR USE AS EMBANKMENT FILL WITH PROPER MOISTURE CONDITIONS.

FILL MATERIALS SHALL BE PLACED IN MAXIMUM OF 12-INCH LOOSE LIFTS AND COMPACTED TO AT LEAST 95 PERCENT OF MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR) FOR THE SPECIFIC FILL MATERIAL.

DRAINAGE PIPE:

1. HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE WITH SMOOTH INTERIOR AND MITERED EDGE MEETING AASHTO M252, TYPE C.

BACKFILL PLACEMENT AND COMPACTION:

1. PRIOR TO BACKFILLING, THE CONTRACTOR SHALL COMPACT THE EXPOSED NATURAL SUBGRADE AS SPECIFIED HEREIN.
2. AFTER APPROVAL OF SUBGRADE BY THE ENGINEER, THE CONTRACTOR SHALL BACKFILL AREAS TO REQUIRED CONTOURS AND ELEVATIONS WITH SPECIFIED MATERIALS.
3. THE CONTRACTOR SHALL PLACE AND COMPACT MATERIALS IN CONTINUOUS HORIZONTAL LAYERS UNTIL FIRM. LIFT THICKNESS SHALL NOT EXCEED THE FOLLOWING THICKNESS:

3.1. ACCESS ROADS - 6 INCHES

3.2. EQUIPMENT PADS - 6 INCHES.
4. IF THE MATERIAL REMOVED FROM THE EXCAVATION IS SUITABLE FOR BACKFILL WITH THE EXCEPTION THAT IT CONTAINS STONES LARGER THAN PERMITTED, THE CONTRACTOR HAS THE OPTION TO REMOVE THE OVERSIZED STONES AND USE THE MATERIAL FOR BACKFILL OR TO PROVIDE REPLACEMENT BACKFILL AT NO ADDITIONAL COST TO THE OWNER.

DUST CONTROL:

1. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE AREAS OF DISTURBED SOIL EXPOSED AT ONE TIME.
2. DUST SHALL BE CONTROLLED ON CONSTRUCTION ROUTES AND OTHER DISTURBED AREAS SUBJECT TO SURFACE DUST MOVEMENT AND DUST BLOWING.
3. MAINTAIN DUST CONTROL MEASURES PROPERLY THROUGH DRY WEATHER PERIODS UNTIL ALL DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
4. DUST CONTROL METHODS SHALL INCLUDE VEGETATIVE COVER, MULCH (INCLUDING GRAVEL MULCH), WATER SPRINKLING, STONE, AND BARRIERS.

TYPICAL SEQUENCE OF CONSTRUCTION:

PRIOR TO THE DEVELOPMENT OF THE SITE, EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS NOTED ON THE PLANS. SITE DEVELOPMENT SCHEDULING SHALL TAKE INTO CONSIDERATION THE GROWING SEASON, SUCH THAT BULK OF THE EARTHWORK IS NOT INITIATED DURING A PERIOD WHEN VEGETATIVE STABILIZATION CANNOT BE ACHIEVED WITHIN 14 DAYS OF COMPLETING THE EARTHWORK IN A GIVEN AREA. A TYPICAL SEQUENCE OF CONSTRUCTION IS:

1. CONTRACTOR SHALL CONFIRM FLAGGING FOR WETLANDS, BUFFERS, STREAMS, AND/OR OTHER CRITICAL AREAS. IF FLAGGING IS NOT AVAILABLE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE SHALL FLAG WETLANDS, BUFFERS, STREAMS, AND/OR OTHER CRITICAL AREAS PRIOR TO STARTING ANY WORK ON SITE.
2. PRIOR TO STARTING ANY WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL OBTAIN ALL PERMITS, NOTIFY APPROPRIATE OFFICIALS OF CONSTRUCTION COMMENCEMENT, AND SUBMIT CONSTRUCTION TIMETABLE.
3. ON-SITE CONSTRUCTION SHALL START WITH THE MINIMUM AMOUNT OF CLEARING REQUIRED TO INSTALL EROSION AND SEDIMENTATION CONTROL MEASURES AS NOTED ON SHEET C101. THIS INCLUDES SILT FENCE AND CONSTRUCTION ENTRANCE/EXIT, AND OTHER MEASURES NOTED ON THE PLAN. NO WORK SHALL TAKE PLACE UNTIL THE ENGINEER HAS INSPECTED AND APPROVED INSTALLED MEASURES.
4. REMOVE AND STOCKPILE TOPSOIL AS REQUIRED FOR PROPOSED GRADING ACTIVITY. STOCKPILED TOPSOIL SHALL BE SEEDED AND MULCHED WHEN IT IS TO BE STORED MORE THAN 30 DAYS FROM TIME OF STOCKPILING. STOCKPILES SHALL NOT BE PLACED WITHIN THE WETLAND BUFFER ZONE. SEE SHEET C501 FOR A TYPICAL TEMPORARY STOCKPILE DETAIL. CONTRACTOR TO COORDINATE STOCKPILE LOCATION WITH OWNER.
5. CONSTRUCT GRAVEL ACCESS ROADS AND TEMPORARY CONSTRUCTION BMPS. INSTALL ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES AS REQUIRED TO PREVENT EROSION OF GRAVEL SURFACE AND STORMWATER MANAGEMENT FEATURES.
6. REMOVE AND STOCKPILE TOPSOIL IN AREAS OF PROPOSED GRADING TO ACHIEVE REQUIRED RACKING SYSTEM SLOPES. LOAM AND SEED DISTURBED AREAS WITH TEMPORARY SEEDING AND INSTALL INTERMEDIATE EROSION CONTROL MEASURES PARALLEL TO THE SLOPES IMMEDIATELY FOLLOWING COMPLETION OF GRADING.
7. IN AREAS OF PROPOSED GRADING WHERE SEEDING HAS TAKEN PLACE, ALLOW FOR ADEQUATE GROWTH TO ESTABLISH DENSE VEGETATION PRIOR TO SOLAR ARRAY CONSTRUCTION TO LIMIT RISK OF EROSION.
8. PROCEED WITH SOLAR PHOTOVOLTAIC (PV) SYSTEM INSTALLATION/CONSTRUCTION WORK.
9. REMOVE ALL TEMPORARY GRAVEL AREAS, REPAIR ALL DISTURBED AREAS, AND REAPPLY LOAM WHERE NECESSARY. INTER-ROW AREAS SHALL BE DECOMPACTED TO A DEPTH OF 12" WHILE ENSURING PROTECTION OF BURIED CONDUIT. REMOVE ANY ROCKS >2" TURNED UP DURING DECOMPACTION.
10. SEED ALL AREAS WITH PERMANENT SEED MIX AND STABILIZE SLOPES IN ACCORDANCE WITH THE CONSTRUCTION SITE PLAN DRAWINGS EROSION AND SEDIMENTATION CONTROL PLAN.
11. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL NOT BE REMOVED UNTIL AFTER THE SITE IS STABILIZED IN ACCORDANCE WITH THE SWPPP.

Project:

MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON,
MASSACHUSETTS 01073

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

MANHAN RIVER, LLC

116 Huntington Ave., Suite 601
Boston, MA 02116
Tel. (617) 209-3122 https://www.bluewave.energy/

811

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4	PEER REVIEW COMMENTS	09/30/26
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No.	Description	Date
Revisions		
Seal: COMMONWEALTH OF MASSACHUSETTS MELINDA COSTELLO CIVIL No. 52956 PROFESSIONAL ENGINEER mccostello 9/30/26		
Issued For: PERMITTING		
Issued Date: 11/25/2025		
Scale: N/A		
Drawn By: RJR/AKA		
Reviewed By: NVG		
Approved By: MRC		
W&S Project No.: ENG24-0244		

Drawing Title:

GENERAL NOTES

Sheet Number:

G002

The following encumbrances were taken from a title commitment prepared by Fidelity National Title Insurance Company, file #24-2451, commitment date 4/9/2025.

1. Rights or claims of parties in possession not recorded in the public records. **(not a survey matter)**
2. Easements or claims of easements not recorded in the public records. **(not a survey matter)**
3. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished, imposed by law and not shown by the public records. **(not a survey matter)**
4. Unrecorded easements, discrepancies or conflicts in boundary lines, shortage in area and encroachments, which an accurate and complete survey would disclose. **(see Significant Observations for any such matters found by this survey)**
5. All municipal liens for real estate taxes and assessments which are due and payable as of the date hereof and such as become due and payable heretofore. **(not a survey matter)**
6. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records not attaching subsequent to the effective date of the commitment and until the date that the proposed insured acquires record title, for value, of the estate or interest or mortgage thereon covered by this commitment. **(not a survey matter)**
7. Title and rights of the public and others entitled hereto in and to those portions of the insured premises lying within the bounds of Pleasant Street. **(sidelines of Pleasant Street are plotted)**
8. INTENTIONALLY DELETED.
9. Land Tax Lien issued by the Town of Southampton recorded at Book 1940, Page 186. **(not a survey matter)**
10. Land Tax Lien issued by the Town of Southampton recorded at Book 1940, Page 187. **(not a survey matter)**
11. Land Tax Lien issued by the Town of Southampton recorded at Book 2006, Page 144. **(not a survey matter)**
12. Land Tax Lien issued by the Town of Southampton recorded at Book 2006, Page 145. **(not a survey matter)**
13. Land Tax Lien issued by the Town of Southampton recorded at Book 2085, Page 277. **(not a survey matter)**
14. Land Tax Lien issued by the Town of Southampton recorded at Book 2085, Page 278. **(not a survey matter)**
15. Land Tax Lien issued by the Town of Southampton recorded at Book 12875, Page 279. **(not a survey matter)**
16. Terms and provisions of a lease between Marianne C. Bashista, Trustee of the Bashista Family Irrevocable Trust as Lessor and Southampton River, LLC as Tenant as evidenced by Notice of Lease and Easements recorded in Book 215369, Page 1. **(not plottable due to vague description; covers all of locus parcel 24-23D & a portion of locus parcel 24-23B)**

- The following exceptions were taken from a title commitment prepared by Fidelity National Title Insurance Company, file #24-2452, commitment date 4/11/2025.
1. Rights or claims of parties in possession not recorded in the public records. **(not a survey matter)**
2. Easements or claims of easements not recorded in the public records. **(not a survey matter)**
3. Any lien, or right to a lien, for services, labor, or material heretofore or hereafter furnished imposed by law and not shown by the public records. **(not a survey matter)**
4. Unrecorded easements, discrepancies or conflicts in boundary lines, shortage in area and encroachments, which an accurate and complete survey would disclose. **(see Significant Observations for any such matters disclosed by this survey)**
5. All municipal liens for real estate taxes and assessments which are due and payable as of the date hereof and such as become due and payable hereafter. **(not a survey matter)**
6. Title to and rights of the public and others entitled thereto in and to the portions of the insured premises lying within the bounds of adjacent streets, roads, and ways. **(adjacent streets, roads, and ways are plotted)**
7. Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date of the commitment and until the date that the proposed insured acquires record title, for value, of the estate or interest or mortgage thereon covered by this commitment. **(not a survey matter)**
8. Flowage rights of the public set forth in Deed from Daisy Brown to Edward Bashista and Stella Bashista recorded in Book 940, Page 296. **(not plottable due to vague description; may impact locus parcel 25-20)**
9. Rights of other to use a right of way as set forth in Deed from Clyde C. Connor and Avis B. Connor to Edward Bashista and Stella Bashista recorded in Book 989, Page 253. **(not plottable due to vague description; may be non-locus)**
10. Grant of water-pipe rights set forth in Easement from Clyde C. Connor and Avis B. Connor recorded in Book 905, Page 12. **(not plottable due to vague description; location of spring and water pipe are not known; may impact locus parcel 25-20)**
11. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 1940, Page 186. **(not a survey matter)**
12. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 1940, Page 187. **(not a survey matter)**
13. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 2006, Page 144. **(not a survey matter)**
14. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 2006, Page 145. **(not a survey matter)**
15. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 2085, Page 277. **(not a survey matter)**
16. Agricultural or Horticultural Land Tax Lien issued by the Town of Southampton Board of Assessors recorded in Book 2085, Page 278. **(not a survey matter)**
17. License No. 907 Granted to Stephen Bashista by the Commonwealth of Massachusetts, Department of Environmental Quality Engineering recorded in Book 2299, Page 1. **(not a survey matter)**
18. Notices and provisions of a lease between Stephen E. Bashista and Ronald E. Bashista of Landford and Manhan River, LLC as Tenant as evidenced by Term, Lease, and Easements recorded in Book 15369, Page 11. **(not plottable due to vague description; covers a portion of locus parcel 25-20)**
19. Declaration of Homestead filed by Stephen Bashista recorded in Book 4421, Page 46, as subordinated to the lease to be insured by Subordination of Declaration of Homestead recorded in Book 6181, Page 312. **(not a survey matter)**
- The following documents are of record and are listed for informational purposes:
 - Order of Conditions issued by the Town of Southampton Conservation Commission recorded in Book 2302, Page 212, as affected by Certificate of Compliance recorded in Book , Page . **(not a survey matter)**
21. Decision issued by the Town of Southampton Zoning Board of Appeals recorded in Book 11684, Page 173. **(not a survey matter)**

None found.

CERTIFICATION:

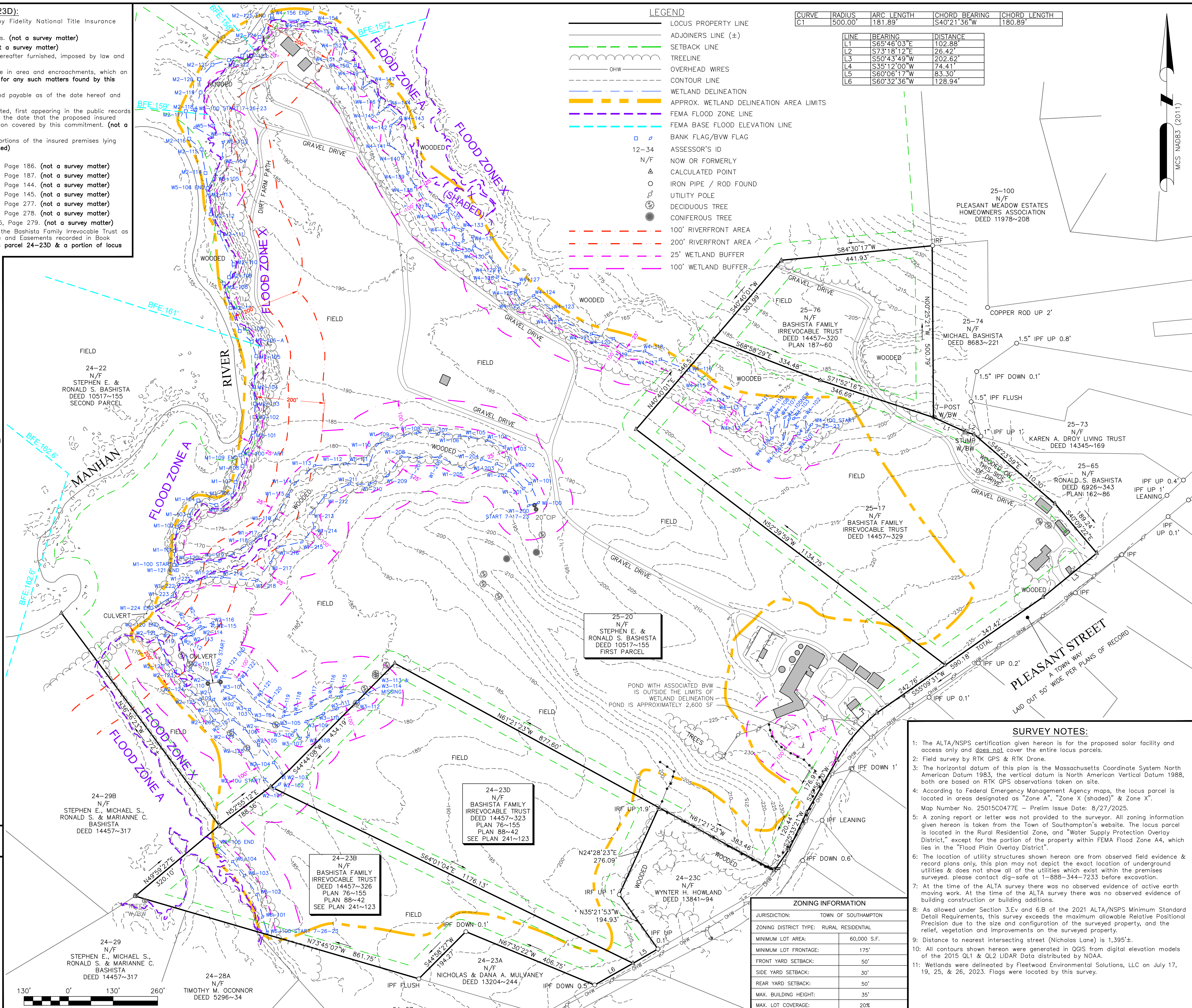
To: Fidelity National Title Insurance Company

This is to certify that this map or plat and the survey on which it is based were made in accordance with the 2021 Minimum Standard Detail Requirements for ALTA/NSPS Land Title Surveys, jointly established and adopted by ALTA and NSPS, and includes items 2, 3, 4, 5, 6, 6a, 6b, 7a, 7b1, 8, 11a, 13, 14, 16 & 17 of Table A thereof. The fieldwork was completed on 11/13/2024. Wetflags W2-121 to 128 were located 9/23/2025.

5-29-2026

Date of map or plat

Brian C. Franetovich PLS #54258
brian@northstarurvey.com



**THE EAST
SURVEY
CONSULTANTS**

3 FERRY STREET
STUDIO 1 EAST
EASTHAMPTON, MA 01027
(413) 203-5144

43 & 53
PLEASANT
STREET

SURVEYOR:	BCF	ENGINEER:
DRAFTING:	BCF JDG	DESIGN:
FIELD WORK:	NAE MAK	HORZ. SCALE
PROJECT NUMBER:	24-002	VERT. SCALE
DRAWING NAME:	24-002 ALTA.DWG	DATE:

LIMITED ALTA/NPS LAND TITLE SURVEY
OF LAND IN SOUTHAMPTON, MA
PREPARED FOR
WESTON & SAMPSON

SHEET NO. **1** OF **1**

FROST PROTECTION AND SNOW REMOVAL:

1. THE CONTRACTOR SHALL, AT ITS OWN EXPENSE, KEEP EARTHWORK OPERATIONS CLEAR AND FREE OF ACCUMULATIONS OF SNOW AS REQUIRED TO CARRY OUT THE WORK.
2. THE CONTRACTOR SHALL PROTECT THE SUBGRADE BENEATH NEW STRUCTURES AND PIPES FROM FROST PENETRATION WHEN FREEZING TEMPERATURES ARE EXPECTED.

SOIL STABILIZATION NOTES:

1. THE MAXIMUM ALLOWABLE SLOPE IS 3:1. ALL 3:1 SLOPES SHALL BE STABILIZED WITH A TEMPORARY BIODEGRADABLE EROSION CONTROL BLANKET (SEE SHEET C501).
2. ALL DISTURBED AREAS SHALL HAVE LOAM AND SEED AND STABILIZED WITH GRASS COVER (SEE SHEET C501).
3. IF SUFFICIENT STABILIZATION CANNOT BE ACCOMPLISHED AFTER SEEDING, AT THE CONTRACTOR'S SOLE EXPENSE, SHALL BE RESPONSIBLE FOR ADDING THE NECESSARY SOIL AMENDMENTS AND/OR LOAM UNTIL STABILIZATION IS ACHIEVED IN ACCORDANCE WITH THE REQUIREMENTS OF THE PROJECT STORMWATER POLLUTION PREVENTION PLAN (SWPPP).

GENERAL MAINTENANCE PLAN (DURING CONSTRUCTION):

1. ALL EROSION AND SEDIMENTATION CONTROL PRACTICES SHALL BE INSPECTED AT LEAST ONCE EVERY 7 CALENDAR DAYS, OR EVERY 14 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.25 INCHES OR GREATER, IN ACCORDANCE WITH THE SWPPP.
2. IN THE EVENT WORK IS HALTED, ON SITE INSPECTIONS SHALL CONTINUE AT A REGULAR SCHEDULE, UNLESS TEMPORARY STABILIZATION IS ACHIEVED AND ALL BARE AREAS AND STOCKPILES HAVE INSTALLED STABILIZATION MEASURES.
3. IF CONSTRUCTION ACTIVITIES ARE ENTIRELY SUSPENDED DUE TO FROZEN CONDITIONS, INSPECTIONS MAY BE TEMPORARILY SUSPENDED ON-SITE UNTIL THAWING CONDITIONS OCCUR AS LONG AS DISCHARGES ARE UNLIKELY TO OCCUR DUE TO FROZEN CONDITIONS THAT ARE LIKELY TO CONTINUE FOR THREE (3) MONTHS BASED ON HISTORIC DATA. LAND DISTURBANCES HAVE BEEN HALTED, AND ALL DISTURBED AREAS HAVE BEEN ADEQUATELY STABILIZED.
4. IF CONSTRUCTION ACTIVITIES CONTINUE DURING FROZEN CONDITIONS, INSPECTION FREQUENCY MAY BE REDUCED TO MONTHLY INSPECTIONS IF DISCHARGES ARE UNLIKELY TO OCCUR DUE TO FROZEN CONDITIONS THAT ARE LIKELY TO CONTINUE FOR THREE (3) MONTHS BASED ON HISTORIC DATA AND DISTURBED AREAS HAVE BEEN ADEQUATELY STABILIZED EXCEPT FOR AREAS IN WHICH ACTIVE CONSTRUCTION IS TAKING PLACE.
5. ACCUMULATED SEDIMENT SHALL BE REMOVED FROM BEHIND SEDIMENT BARRIERS WHEN IT BECOMES 4 INCHES DEEP OR WHEN ACCUMULATIONS HAVE ADVERSELY AFFECTED ITS FUNCTION. SEDIMENT BARRIERS SHALL BE REPAIRED BY REMOVING SILT AND SEDIMENTS AND THEN TAMPING LOOSE SOIL ALONG BASE, REPLACING DAMAGED OR WEAKENED POSTS AND STAKES, OR AS NECESSARY TO MAINTAIN A BARRIER.
6. ALL DISTURBED AREAS SHALL BE STABILIZED PER THESE SPECIFICATIONS TO MAINTAIN VIGOROUS, DENSE VEGETATION. REPAIR ANY ERODED SLOPES, REAPPLY TOPSOIL, RESEED AND STABILIZE REPAIR AREA AS REQUIRED FOR PERMANENT OR TEMPORARY MEANS. REPAIR SOIL AREAS DAMAGED BY EROSION OR CONSTRUCTION EQUIPMENT.
7. IMMEDIATELY REPAIR ANY DAMAGE CAUSED BY CONSTRUCTION EQUIPMENT, MAINTENANCE OR OTHER ACTIVITY TO ANY EROSION AND SEDIMENTATION CONTROL MEASURE, OR BEST MANAGEMENT PRACTICE (BMP) OR DEVICE.
8. THE PRIME CONTRACTOR IS RESPONSIBLE FOR THE PERFORMANCE AND COMPLIANCE OF ITS SUBCONTRACTOR'S ACTIVITIES RELATING TO THE SWPPP. THEY SHALL MAKE FREQUENT INSPECTIONS OF THEIR WORK AND COORDINATE APPROPRIATE INSTALLATION AND MAINTENANCE OF EROSION AND SEDIMENTATION CONTROL AND WATER QUALITY DEVICES.
9. EMPLOY POLLUTION PREVENTION MEASURES TO CONTROL LITTER, DEBRIS CONSTRUCTION CHEMICALS, SEDIMENT, AND CONSTRUCTION DEBRIS INCLUDING, BUT NOT LIMITED TO THE FOLLOWING: SALVAGE AND REUSE OF MATERIALS, MINIMIZING PACKAGING WASTE, RECYCLING, PROPER DISPOSAL AT FREQUENT INTERVALS IN ACCORDANCE WITH PREVAILING LAWS, ON-SITE INSTRUCTION REGARDING APPROPRIATE SEPARATION/HANDLING/RECYCLING, PROPER MAINTENANCE OF SEDIMENT EROSION CONTROL SYSTEMS, ROUTINE AND EVENT RELATED INSPECTIONS OF DRAINAGE AND BMP SYSTEMS PER PERMIT REQUIREMENTS, PROVIDE APPROPRIATE SANITARY FACILITIES FOR ON-SITE PERSONNEL, PICK UP TRASH AND DEBRIS FREQUENTLY AND USE WATER MIST, CALCIUM CHLORIDE, OR OTHER LEGAL MEANS TO LIMIT THE SPREAD OF DUST AND SOIL PARTICLES.
10. TRUCKS NEED TO BE WASHED OUT.

GENERAL SWPPP NOTES:

1. THE FOLLOWING NOTES ARE PROVIDED AS A SUMMARY REFERENCE FOR THE CONTRACTOR ONLY. THE REQUIREMENTS IN THE FULL SWPPP FOR THE PROJECT SHALL BE FOLLOWED BY THE CONTRACTOR. IN THE EVENT OF A CONFLICT BETWEEN THE DRAWINGS AND THE SWPPP, THE ENGINEER SHALL DETERMINE THE CORRECT REQUIREMENTS.
2. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE PERFORMED IN ACCORDANCE WITH THE MASSACHUSETTS EROSION AND SEDIMENTATION CONTROL GUIDELINES. THE CONTRACTOR SHALL OWN AND MAINTAIN A COPY OF THE GUIDELINES ON-SITE DURING CONSTRUCTION.
3. ALL DISTURBED AREAS SHALL BE KEPT TO A MINIMUM. FINAL GRADING AND RESTORATION SHALL BE ACCOMPLISHED AS SOON AS PRACTICAL.
4. EROSION AND SEDIMENTATION CONTROL STRUCTURES SHALL BE INSTALLED PRIOR TO SITE WORK.
5. SHOULD TRUCKS NEED TO BE WASHED OUT ON-SITE, A CONCRETE WASHOUT BASIN SHALL BE INSTALLED. OTHERWISE TRUCKS MUST BE WASHED OUT OFF-SITE.
6. ALL CONTROL STRUCTURES SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION AND REMOVED WHEN STABILIZATION HAS BEEN ATTAINED. IF THE PROPOSED CONTROL MEASURES ARE NOT SATISFACTORY TO THE ENGINEER, ADDITIONAL CONTROL MEASURES SHALL BE TAKEN.
7. ALL RUNOFF FROM THE DISTURBED AREA SHALL BE CONTROLLED AND FILTERED. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS.
8. CONTRACTOR IS RESPONSIBLE FOR OBTAINING NPDES CONSTRUCTION GENERAL PERMIT FOR THE PROPOSED PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE IMPLEMENTATION AND COMPLIANCE WITH THE APPROVED NPDES NOTICE OF INTENT (NOI) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP).
9. THE CONTRACTOR MUST OBTAIN COPIES OF SITE SPECIFIC PERMITS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IMPLEMENTATION OF EROSION AND SEDIMENTATION CONTROL MEASURES. THIS RESPONSIBILITY INCLUDES THE ACQUISITION OF MATERIALS, INSTALLATION, AND MAINTENANCE OF EROSION AND SEDIMENTATION STRUCTURES, THE COMMUNICATION AND DETAILED EXPLANATION TO ALL PEOPLE INVOLVED IN THE SITE WORK OF THE REQUIREMENTS AND OBJECTIVE OF THE EROSION AND SEDIMENTATION CONTROL MEASURES.
11. TWO (2) WEEKS PRIOR TO THE START OF WORK, THE CONTRACTOR SHALL PROVIDE THE NAME AND PHONE NUMBER OF THE INDIVIDUAL RESPONSIBLE FOR IMPLEMENTATION OF THE EROSION & SEDIMENTATION CONTROL PLAN TO THE ENGINEER.
12. THE ENGINEER SHALL BE NOTIFIED OF ANY PROPOSED ALTERATION TO THE EROSION AND SEDIMENTATION CONTROL PLAN, PRIOR TO ALTERING, IN ORDER TO ENSURE THE FEASIBILITY OF THE ADDITION, SUBTRACTION, OR CHANGE IN THE PLAN.

SEEDING NOTES:

1. THE SITE IS AN ACTIVELY MANAGED AGRICULTURAL FIELD AND IS INTENDED TO CONTINUE AS THE SAME USE AFTER CONSTRUCTION. SWPPP PRACTICES SHALL PRIORITIZE PROTECTION OF EXISTING VEGETATION, MINIMIZING COMPACTION, AND REPLANTING TO MATCH EXISTING VEGETATION.
2. NO SEEDING OR SOIL PREPARATION SHALL BE DONE IF SOILS ARE MUDDY, DRY, AND/OR COMPACTED. BARE SOILS SHALL BE RAKED TO REMOVE SOIL CLOUDS, LUMPS, BRUSH, ROOTS, STUMP, LITTER AND OTHER FOREIGN MATTER. RUTS AND DEPRESSIONS SHALL BE FILLED WITH ADDITIONAL LOAM AND/OR COMPOST AND THE SOIL SHALL BE RE-GRADED TO A RELATIVELY SMOOTH FINISH CORRESPONDING TO THE REQUIRED GRADES.
3. ALL DISTURBED AREAS OUTSIDE OF PV DEVELOPMENT AREAS SHALL BE RESTORED WITH A VEGETATIVE STABILIZATION MATERIAL (GRASS).
4. THE SOIL SHALL BE ADJUSTED TO A PH OF 5.70 OR HIGHER. THIS CAN BE DONE BY USING THE APPROPRIATE AMOUNT OF GROUND LIMESTONE OR FERTILIZER, AS REQUIRED BY A SOIL TEST. IF A TEST IS NOT PERFORMED, THE AREA SHALL BE FERTILIZED WITH 10-10-10 U.F. OR EQUAL AT A RATE OF 300 POUNDS PER ACRE (11 POUNDS PER 1000 SQUARE FEET). THE LIME OR FERTILIZER SHALL BE WORKED INTO THE SOIL A MINIMUM OF 4 INCHES AND UNIFORMLY BLENDED.
5. AT SLOPES EXCEEDING 33% GRADE, AND IN AREAS DEPICTED WITHIN THE PLANS, SEEDING SHALL BE APPLIED IMMEDIATELY FOLLOWED BY THE INSTALLATION OF THE EROSION CONTROL BLANKET SPECIFIED ON SHEET G002 OR APPLIED VIA HYDROSEED WITH TACIFIER THAT MUST BE EITHER PLANT-BASED OR LIQUID OR DRY POLYMERIC EMULSION BLEND. TO BE APPROVED BY OWNERS ENGINEER PRIOR TO APPLICATION.

6. AT SLOPES EXCEEDING 25% GRADE, SEEDING SHALL OCCUR WITHIN 72 HOURS OF LOAM PLACEMENT TO PREVENT LOSS OF TOPSOIL.
7. ALL DISTURBED AREAS WITHIN THE PHOTOVOLTAIC DEVELOPMENT AREA SHALL BE SEEDED EITHER BY HAND, CYCLONE SEEDER, OR A CULTIPACKER TYPE SEEDER IN ACCORDANCE WITH THE FOLLOWING METHODS.
8. THE LIMING, FERTILIZING, AND SEEDING TO BE ACCOMPLISHED UNDER THIS SECTION SHALL BE DONE DURING A PERIOD OF TIME TO BE APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT. CONTRACTOR SHALL NOTIFY THE ENGINEER OR ARCHITECT 30 DAYS PRIOR TO THE TIME THAT HE/SHE INTENDS TO BEGIN THIS WORK.
9. HEAVILY SCARIFYING THE EXISTING TURF GRASS AND OVER SEEDING WITH ADDITIONAL SEED MIX MAY BE NECESSARY IN SOME AREAS.
10. WHERE GRADING IS PROPOSED (AS DEPICTED ON THE GRADING PLANS), AREAS OF BARE SOIL SHALL RECEIVE 4-INCHES OF LOAM PRIOR TO SEEDING. THE EXISTING VEGETATION SHALL BE TOP DRESSED WITH 1 OR 2-INCHES OF LOAM BEFORE SEED IS APPLIED.
11. AFTER ALL SURFACES TO BE SEEDED HAVE BEEN BROUGHT TO FINISHED GRADE, THE CONTRACTOR SHALL FURNISH AND APPLY LIMESTONE AS HEREIN SPECIFIED.
12. LIMESTONE SHALL BE APPLIED AS DETERMINED BY THE RESULTS OF LABORATORY TESTING CONDUCTED BY AN APPROVED TESTING LABORATORY, OR AT A RATE UP TO A MAXIMUM OF 100 POUNDS PER 1000 SQUARE FEET.
13. IT IS RECOMMENDED THAT THE CONTRACTOR COLLECT TOPSOIL SAMPLES FOR LABORATORY ANALYSIS. A MINIMUM OF 4 SUB-SAMPLES, TAKEN TO THE PROPOSED DEPTH OF TOPSOIL, SHALL BE TAKEN PER ACRE OF AREA TO BE LIMED. THESE SAMPLES SHALL BE PLACED IN A SUITABLE CONTAINER OBTAINED FROM THE TESTING LABORATORY AND MARKED SO AS TO CLEARLY INDICATE THE ACRE AREA FROM WHICH THEY WERE TAKEN.
14. THE SAMPLE SHALL BE DELIVERED BY THE CONTRACTOR TO THE TESTING LABORATORY FOR CHEMICAL AND MECHANICAL ANALYSIS. THE TESTING LABORATORY SHALL BE DIRECTED BY THE CONTRACTOR TO FURNISH TEST RESULTS AND RECOMMENDATIONS FOR LIMING AND FERTILIZING TO THE ENGINEER OR ARCHITECT FOR APPROVAL.
15. LIME SHALL BE MECHANICALLY SPREAD IN TWO APPLICATIONS UP TO 50 POUNDS PER 1000 SQUARE FEET, ON ALL AREAS. THE LIME SHALL BE DISTRIBUTED UNIFORMLY.
16. FERTILIZER SHALL BE MECHANICALLY SPREAD SO AS TO OBTAIN UP TO A MINIMUM SOWN FERTILIZER COVERAGE YIELD OF 16 POUNDS PER 1000 SQUARE FEET. THE ACTUAL AMOUNTS AND TYPE OF FERTILIZER APPLIED SHALL BE AS DETERMINED BY THE RESULTS OF LABORATORY TESTS CONDUCTED ABOVE. AT SLOPES EXCEEDING 25% GRADE, THE FERTILIZER SHALL BE APPLIED MANUALLY IN AN APPROVED MANNER.
17. SEEDING SHALL BE UNDERTAKEN IN TWO SEPARATE PASSES AT NINETY DEGREES TO EACH OTHER. ONE-HALF THE SEEDING RATE SHALL BE APPLIED IN EACH DIRECTION (HORIZONTALLY AND VERTICALLY). TO ENSURE SEED-TO-SOIL CONTACT WITH BROADCASTING OF SEED, SEEDING SHALL BE FOLLOWED BY ROLLING OR TRACKING WITH EQUIPMENT APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
18. SEED SHALL BE INCORPORATED WITH THE MULCHING MATERIAL SO AS TO OBTAIN A MINIMUM SOWN COVERAGE OF 200 POUNDS OF THE SPECIFIED MIX PER ACRE. SEED SUBSTITUTIONS MAY REQUIRE RATE ADJUSTMENTS AS RECOMMENDED BY THE SEED SUPPLIERS, IF APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT.
19. AT SLOPES EXCEEDING 25% GRADE, SEEDING AND/OR STABILIZATION SHALL OCCUR AS SOON AS IS REASONABLE GIVEN THE CONSTRUCTION ACTIVITIES OR SEQUENCING WILL PERMIT. REFERENCE SOIL EROSION AND SEDIMENT CONTROL NOTES AND DETAILS.
20. AFTER THE FINE GRADING AND PREPARATIONS FOR SEEDING ARE APPROVED BY THE ENGINEER OR LANDSCAPE ARCHITECT, THE CONTRACTOR SHALL SEED THE AREA INDICATED, AS SPECIFIED HEREIN. THE SEED SHALL BE INCORPORATED WITH MULCHING MATERIALS COMPOSED OF WOOD CELLULOSE FIBERS THAT WILL READILY DISPERSE IN WATER TO FORM A UNIFORM AND HOMOGENEOUS MIXTURE WHEN AGITATED.
21. NO EXPOSED STONES OR WOODY DEBRIS SHALL BE AT THE SURFACE TO IMPROVE SEEDING AND ELIMINATE RISK OF DAMAGE FROM THROWN PROJECTILES WHILE MOWING.

SEEDING MATERIALS:

1. LIME: LIME SHALL BE STANDARD COMMERCIAL GROUND LIMESTONE CONTAINING AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE AND MAGNESIUM OXIDE) AND 50% PERCENT OF THE MATERIAL MUST PASS THROUGH A #100 MESH SIEVE, WITH 98% PASSING A #20 MESH SIEVE.
2. FERTILIZER: FERTILIZER SHALL BE COMMERCIAL FERTILIZER 10-10-10 U.F. FERTILIZER MIXTURE CONTAINING AT LEAST 80% OF ORGANIC MATERIAL OR TYPE DETERMINED BY CHEMICAL SOIL ANALYSIS AS TESTED BY AN APPROVED LABORATORY. IT SHALL BE DELIVERED AT THE SITE IN THE ORIGINAL SEALED CONTAINERS WITH CONTENTS CLEARLY DESCRIBE.
3. SEED MIXES: THE ARRAY SHALL BE SEEDED WITH TWO DISTINCT SEED MIXES. THE TEMPORARY SEED MIX SHALL BE USED FOR SEEDING DURING CONSTRUCTION ACTIVITIES. THE PERMANENT SEED MIX SHALL BE USED IN THE FINAL SEEDING OF INTERIOR AND EXTERIOR PERIMETER AREAS AND INTER-ROW AREAS AFTER ARRAY CONSTRUCTION.
4. MULCH: MULCH MATERIAL SHALL BE A MANUFACTURED PRODUCT OF NATURAL WOOD CELLULOSE FIBERS. MATERIAL SHALL BE INTERNATIONAL PAPER COMPANY'S "TURFIBER," WEYERHAEUSER COMPANY'S "SILVA-FIBER," OR APPROVED EQUAL AND CLEARLY PACKED IN ORIGINAL CONTAINERS, SEALED AND CLEARLY LABELED WITH BRAND NAME AND MANUFACTURER. IT SHALL HAVE A DELIVERED MOISTURE CONTENT OF NOT OVER 12%.
5. PERMANENT SEED: THE SEED SHALL BE APPLIED BY EITHER HAND, CYCLONE SEEDER, OR A CULTIPACKER TYPE SEEDER. SEED MIX SHALL BE HAY PRODUCTION SEED MIX WITH THE SPECIFICATIONS LISTED BELOW IN THE SEEDING TABLE, OR APPROVED EQUAL. SUBMIT SUPPLIER'S SEED BLEND SPECIFICATIONS TO THE ENGINEER OR LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO COMMENCING WITH SEEDING OPERATIONS. SEEDING SHALL BE APPLIED AT A RATE OF 100-200 LB PER ACRE, OR 3-5 LB PER 1,000 SQ.FT. SEEDING SHALL BE COMPLETED BETWEEN APRIL 15 AND MAY 15 OR AUGUST 15 AND OCTOBER 15. ALL SEEDED AREAS SHALL BE MAINTAINED TO ENSURE PROPER GROWTH AND TO MINIMIZE EROSION.

HAY PRODUCTION SEED MIX		
ITEM	COMMON NAME	WEIGHT
1	TIMOTHY GRASS / HAY	50%
2	LATE HEADING ORCHARD GRASS	20%
3	RED CLOVER	5%
4	WHITE CLOVER	5%
5	TALL FESCUE	10%
6	KENTUCKY BLUEGRASS	5%
7	MEADOW BROME	5%

6. TEMPORARY SEED: THE SEED MIX WHEN SEEDING OCCURS DURING SPRING/SUMMER MONTHS, SHALL BE GRAIN OATS (ERNMX-181-1) NATIVE STEEP SLOPE MIX WITH THE SPECIFICATIONS LISTED BELOW IN THE SEEDING TABLE, OR APPROVED EQUAL. THE SEED MIX WHEN SEEDING OCCURS DURING WINTER MONTHS, SHALL BE THREE-WAY RYEGRASS MIX (ERNMX-149) WITH THE SPECIFICATIONS LISTED BELOW IN THE SEEDING TABLE, OR APPROVED EQUAL. SUBMIT SUPPLIER'S SEED BLEND SPECIFICATIONS TO THE ENGINEER OR LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO COMMENCING WITH THE SEEDING OPERATIONS. SEEDING SHALL BE APPLIED AT A RATE OF 7-10 LB PER 1,000 SQ.FT.

NATIVE STEEP SLOPE MIX W/ GRAIN OATS (ERNMX-181)			
ITEM #	BOTANICAL (LATIN) NAME	COMMON NAME	WEIGHT
1	AVENA SATIVA	OATS, VARIETY NOT STATED	40.00%
2	ANDROPOGON GERARDII	BIG BLUESTEM, 'SOUTHW-LW-M' ECOTYPE	19.12%
3	SORGHASTRUM NUTANS	INDIANGRASS, 'PA' ECOTYPE	12.00%
4	ELYMUS VIRGINICUS	VIRGINIA WILDRYE, MADISON-NY ECOTYPE	10.72%
5	ELYMUS CANADENSIS	CANADA WILDRYE	5.28%
6	PANICUM VIRGATUM	SWITCHGRASS, 'SHAWNEE'	4.32%
7	AGROSTIS PERANNANS	AUTUMN BENTGRASS, ALBANY PINE BUSH-NY ECOTYPE	3.20%
8	PANICUM CLANDESTINUM	DEERTONGUE, TIAGA	2.24%
9	RUDBECKIA HIRTA	BLACKEYED SUSAN	0.80%
10	COREOPSIS LANCEOLATA	LANCELEAF COREOPSIS	0.56%
11	ECHINACEA PURPUREA	PURPLE CONEFLOWER	0.56%
12	HELIOPSIS HELIANTHOIDES	OXEYE SUNFLOWER, 'PA' ECOTYPE	0.56%
13	ASTER PILOSUS	HEATH ASTER, 'PA' ECOTYPE	0.16%
14	MONARDA FISTULOSA	WILD BERGAMOT	0.16%
15	SOLIDAGO RUPEOSA	WRINKLELEAF GOLDENROD, 'PA' ECOTYPE	0.16%
16	APOCYNUM CANNABINUM	INDIANHEMP, 'PA' ECOTYPE	0.08%
17	ASCLEPIAS SYRIACA	COMMON MILKWEED	0.08%
TOTAL			100%

THREE-WAY RYE GRASS MIX (ERNMX-149)			
ITEM #	BOTANICAL (LATIN) NAME	COMMON NAME	WEIGHT
1	LOLIUM PERENNE, 'BIGLEAGUE'	PERENNIAL RYEGRASS	33%
2	LOLIUM PERENNE, 'AMAZING XL'	PERENNIAL RYEGRASS, (TURF TYPE)	33%
3	LOLIUM PERENNE, 'PASCO'	PERENNIAL RYEGRASS, (TURF TYPE)	33%
TOTAL			100%

MAINTENANCE OF SEEDED AREAS:

1. FOLLOWING THE FINAL SEEDING THE CONTRACTOR SHALL CONTINUE TO INSPECT EROSION AND SEDIMENTATION CONTROLS AT LEAST ONCE EVERY 7 CALENDAR DAYS. WITHIN 24 HOURS AFTER A STORM EVENT (RAINFALL OR EXCESS SNOWMELT), ALL MEASURES MUST BE MAINTAINED IN EFFECTIVE OPERATING CONDITION UNTIL AREAS ARE PERMANENTLY STABILIZED.
2. PERMANENT STABILIZATION IS ACHIEVED WHEN 90% MATURE VEGETATION COVER OF DESIRED SPECIES IS ACHIEVED IN ALL AREAS AND/OR PERMANENT NON-VEGETATIVE STABILIZATION MEASURES ARE IMPLEMENTED TO PROVIDE EFFECTIVE COVER OF ANY AREAS OF EXPOSED SOIL. IN THE EVENT OF ANY UNSATISFACTORY GROWTH, RESEEDING SHALL BE CARRIED OUT, WITH FOLLOW-UP INSPECTION.
3. THE CONTRACTOR SHALL MAINTAIN THE ENTIRE SEEDED AREAS UNTIL FINAL ACCEPTANCE AT THE COMPLETION OF THE PROJECT OR FOR 90 DAYS, WHICHEVER IS LONGER. MAINTENANCE SHALL INCLUDE WATERING ON AN AS-NEEDED BASIS SUCH THAT ESTABLISHMENT OF AT LEAST 70% OF THE SEEDED AREAS IS ACHIEVED AFTER ONE GROWING SEASON. MAINTENANCE SHALL ADDITIONALLY INCLUDE WEEDING, REMOVAL OF STONES WHICH MAY APPEAR, AND REGULAR CUTTINGS OF THE GRASS NO CLOSER THAN 10 DAYS APART. CONTRACTOR SHALL FURNISH ALL TEMPORARY PIPE AND CONNECTIONS FOR SPRINKLING. CONTRACTOR SHALL FURNISH ALL REQUIRED WATER AT NO EXPENSE TO THE OWNER.
4. ALL BARE SPOTS, WHICH BECOME APPARENT AS THE GRASS GERMINATES, SHALL BE RESEEDED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE AS MANY TIMES AS NECESSARY TO SECURE AN ADEQUATE GROWTH, AND THE ENTIRE AREA SHALL BE MAINTAINED AND CUT UNTIL ALL WORK HAS BEEN COMPLETED AND FINAL ACCEPTANCE HAS OCCURRED. RESEEDING SHALL BE ACCOMPLISHED BY MECHANICAL MEANS AS DETERMINED BY THE AREA OF RESEEDING TO BE ACCOMPLISHED.
5. CONTRACTOR SHALL TAKE WHATEVER MEASURES ARE NECESSARY TO PROTECT THE GRASS WHILE IT IS GERMINATING. THESE MEASURES SHALL INCLUDE SPRINKLING STRAW OR WOOD FIBER MULCH TO COVER THE AREA, AND/OR FURNISHING OF WARNING SIGNS, BARRIERS, TEMPORARY FENCE OR ANY OTHER NECESSARY MEASURES OF PROTECTION.
6. CONTRACTOR SHALL FURNISH, PROTECT, AND MAINTAIN ALL TEMPORARY BARRIERS UNTIL FINAL ACCEPTANCE OF THE SEEDED AREAS BY THE OWNER AND SHALL REMOVE THEM UPON SUCH FINAL ACCEPTANCE, THE BARRIERS SHALL REMAIN THE PROPERTY OF CONTRACTOR AT ALL TIMES.
7. AFTER THE ENGINEER, OR LANDSCAPE ARCHITECT HAS DETERMINED THAT THE PROJECT AREA HAS STABILIZED (90% MATURE VEGETATION COVER ACHIEVED), THE CONTRACTOR SHALL REMOVE ALL SEDIMENT BARRIERS AND ANY OTHER TEMPORARY EROSION CONTROL MEASURES WITHIN 30 DAYS.

DRAINAGE PIPE:

1. HIGH DENSITY POLYETHYLENE (HDPE) CORRUGATED PIPE WITH SMOOTH INTERIOR AND MITERED EDGE MEETING AASHTO M252, TYPE C.

TOPSOIL MANAGEMENT PLAN:

1. THIS TOPSOIL MANAGEMENT PLAN IS INTENDED TO COMPLY WITH SOUTHAMPTON ZONING BYLAW 275-7.6G(9)(B)(3) AND (4), WHICH PROHIBIT REMOVAL OF TOPSOIL FROM THE PARCEL AND LIMIT EXPORT OF OTHER EARTH MATERIALS.
2. TOPSOIL ENCOUNTERED DURING CONSTRUCTION SHALL BE STRIPPED, STOCKPILED, AND REUSED ON-SITE.
3. NO TOPSOIL SHALL BE EXPORTED FROM THE PROJECT SITE.
4. TOPSOIL STOCKPILES SHALL BE PROTECTED WITH EROSION AND SEDIMENT CONTROLS UNTIL REDISTRIBUTED.
5. TO THE EXTENT PRACTICABLE, TOPSOIL SHALL BE STOCKPILED SEPARATELY FROM SUBSOIL AND UNSUITABLE MATERIALS.
6. STOCKPILED TOPSOIL SHALL BE REDISTRIBUTED WITHIN DISTURBED AREAS FOLLOWING CONSTRUCTION TO SUPPORT RESTORATION AND CONTINUED AGRICULTURAL USE.
7. ANY EXPORTED MATERIAL SHALL BE LIMITED TO EXCESS SUBSOIL, ROCK, OR UNSUITABLE MATERIAL AND SHALL NOT INCLUDE TOPSOIL.
8. DISTURBED AGRICULTURAL SOILS SHALL BE RESTORED FOLLOWING COMPLETION OF CONSTRUCTION ACTIVITIES.
9. THE FOLLOWING EARTH MOVING CALCULATIONS ARE AN ESTIMATE BASED ON THE PROPOSED GRADING INCLUDED WITH THIS PLAN SET. THE FINAL VOLUME IS SUBJECT TO CHANGE BASED ON FINAL DESIGN AND SHALL NOT BE USED FOR BIDDING OR ESTIMATING PURPOSES.

EARTH MOVING CALCULATIONS	
ITEM	ESTIMATED VOLUME
TOPSOIL STRIPPING	5,200 CY
CUT	310 CY
FILL	620 CY
NET	310 CY FILL
IMPORTED MATERIAL	310 CY
EXPORTED MATERIAL	0 CY

Project:

MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON, MASSACHUSETTS 01073

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

MANHAN RIVER, LLC

116 Huntington Ave., Suite 801
Boston, MA 02116
Tel: (617) 209-3122 https://www.bluewave.energy/

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4	PEER REVIEW COMMENTS	09/30/26
3	PEER REVIEW COMMENTS	05/29/26
2	PEER REVIEW COMMENTS	04/30/26
1	CONS COM / DEP COMMENTS	01/30/26
0	ISSUED FOR PERMITTING	11/25/25
No.	Description	Date
Revisions		
Seal:		
 Melinda Costello 9/30/26		
Issued For:		

PERMITTING

Issued Date: 11/25/2025

Scale: N/A

Drawn By: RJR/AKA

Reviewed By: NVG

Approved By: MRC

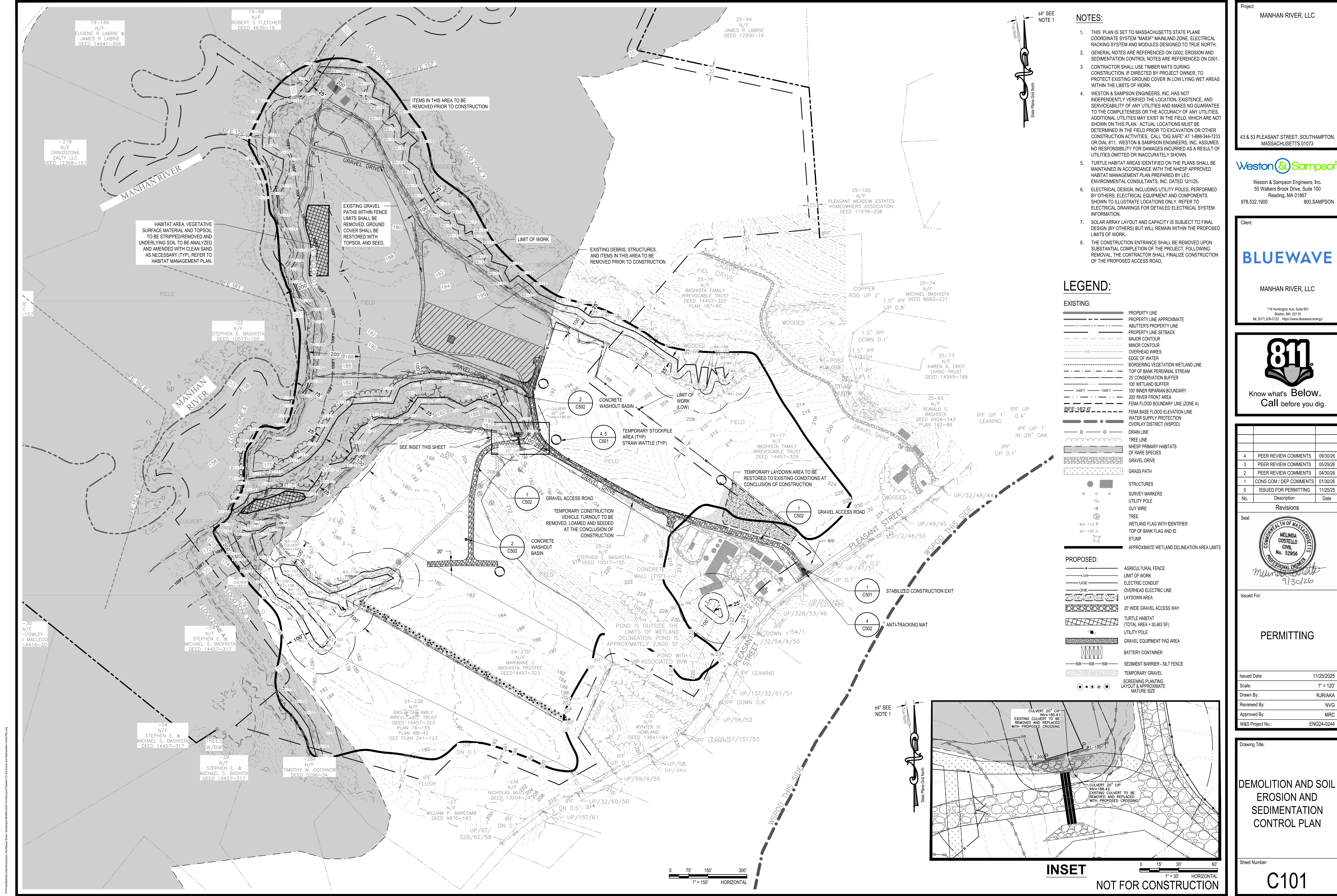
W&S Project No.: ENG24-0244

Drawing Title:

NOTES AND SPECIFICATIONS

Sheet Number:

C001



NOTES:

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- GENERAL NOTES ARE REFERENCED ON G002, EROSION AND SEDIMENTATION CONTROL NOTES ARE REFERENCED ON C001.
- CONTRACTOR SHALL USE TIMBER MATS DURING CONSTRUCTION, IF DIRECTED BY PROJECT OWNER, TO PROTECT EXISTING GROUND COVER IN LOW LYING WET AREAS WITHIN THE LIMITS OF WORK.
- WESTON & SAMPSON ENGINEERS, INC. HAS NOT INDEPENDENTLY VERIFIED THE LOCATION, EXISTENCE, AND SERVICEABILITY OF ANY UTILITIES AND MAKES NO GUARANTEE TO THE COMPLETENESS OR THE ACCURACY OF ANY UTILITIES. ADDITIONAL UTILITIES MAY EXIST IN THE FIELD, WHICH ARE NOT SHOWN ON THIS PLAN. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD PRIOR TO EXCAVATION OR OTHER CONSTRUCTION ACTIVITIES. CALL "DIG SAFE" AT 1-888-344-7233 OR DIAL 811. WESTON & SAMPSON ENGINEERS, INC. ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN.
- TURTLE HABITAT AREAS IDENTIFIED ON THE PLANS SHALL BE MAINTAINED IN ACCORDANCE WITH THE NHESP APPROVED HABITAT MANAGEMENT PLAN PREPARED BY LEC ENVIRONMENTAL CONSULTANTS, INC. DATED 12/1/25.
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LEGEND:

EXISTING:

- PROPERTY LINE
- PROPERTY LINE APPROXIMATE
- ABUTTER'S PROPERTY LINE
- PROPERTY LINE SETBACK
- MAJOR CONTOUR
- MINOR CONTOUR
- OVERHEAD WIRES
- EDGE OF WATER
- BORDERING VEGETATION WETLAND LINE
- TOP OF BANK PERENNIAL STREAM
- 25' CONSERVATION BUFFER
- 100' WETLAND BUFFER
- 100' INNER RIPARIAN BOUNDARY
- 200' RIVER FRONT AREA
- FEMA FLOOD BOUNDARY LINE (ZONE A)
- FEMA BASE FLOOD ELEVATION LINE
- WATER SUPPLY PROTECTION OVERLAY DISTRICT (WSPD)
- DRAIN LINE
- TREE LINE
- NHESP PRIMARY HABITATS OF RARE SPECIES
- GRAVEL DRIVE
- GRASS PATH
- STRUCTURES
- SURVEY MARKERS
- UTILITY POLE
- GUY WIRE
- TREE
- WETLAND FLAG WITH IDENTIFIER
- TOP OF BANK FLAG AND ID
- STUMP
- APPROXIMATE WETLAND DELINEATION AREA LIMITS

PROPOSED:

- AGRICULTURAL FENCE
- LIMIT OF WORK
- ELECTRIC CONDUIT
- OVERHEAD ELECTRIC LINE
- LAYDOWN AREA
- 20' WIDE GRAVEL ACCESS WAY
- TURTLE HABITAT (TOTAL AREA = 30,463 SF)
- UTILITY POLE
- GRAVEL EQUIPMENT PAD AREA
- BATTERY CONTAINER
- SEDIMENT BARRIER - SILT FENCE
- TEMPORARY GRAVEL
- SCREENING PLANTING LAYOUT & APPROXIMATE MATURE SIZE

INSET

NOT FOR CONSTRUCTION

Project:

MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON, MASSACHUSETTS 01073

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

MANHAN RIVER, LLC

116 Huntington Ave., Suite 601
Boston, MA 02116
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4	PEER REVIEW COMMENTS	09/30/26
3	PEER REVIEW COMMENTS	05/29/26
2	PEER REVIEW COMMENTS	04/30/26
1	CONS COM / DEP COMMENTS	01/30/26
0	ISSUED FOR PERMITTING	11/25/25

Revisions

Seal:

Issued For:

PERMITTING

Issued Date: 11/25/2025

Scale: 1" = 120'

Drawn By: RJR/AKA

Reviewed By: NVG

Approved By: MRC

W&S Project No.: ENG24-0244

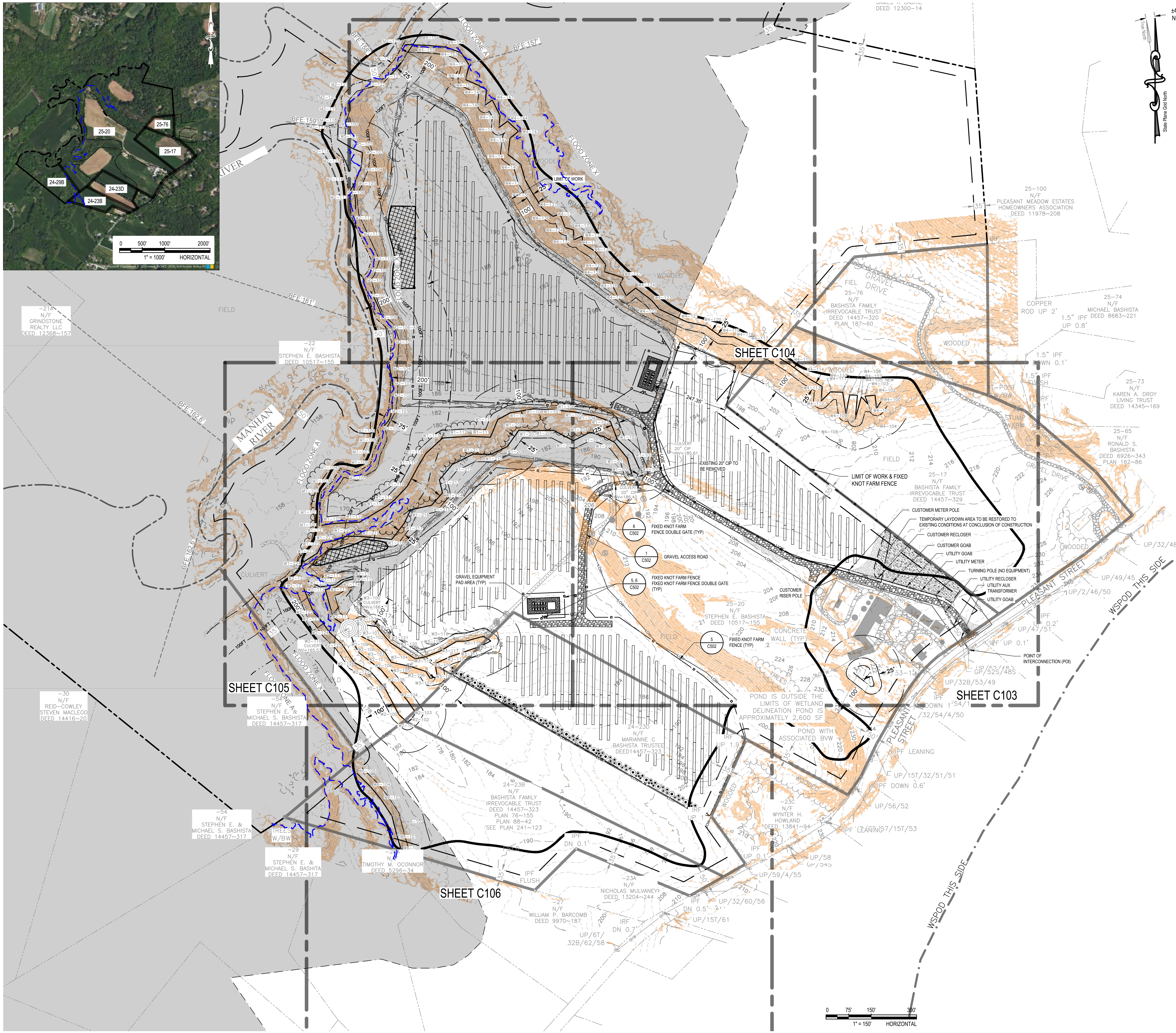
Drawing Title:

DEMOLITION AND SOIL EROSION AND SEDIMENTATION CONTROL PLAN

Sheet Number:

C101

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NOTES:

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- REFER TO SHEET C106 FOR LANDSCAPING PLAN/ PLANTING SCHEDULE.

LEGEND:

EXISTING:

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- PROPERTY LINE APPROXIMATE
- ADJUTER'S PROPERTY LINE
- PROPERTY LINE SETBACK
- MAJOR CONTOUR
- MINOR CONTOUR
- OVERHEAD WIRES
- EDGE OF WATER
- BORDERING VEGETATION WETLAND LINE
- TOP OF BANK PERENNIAL STREAM
- 25' CONSERVATION BUFFER
- 100' WETLAND BUFFER
- 100' INNER RIPARIAN BOUNDARY
- 200' RIVER FRONT AREA
- FEMA FLOOD BOUNDARY LINE (ZONE A)
- FEMA BASE FLOOD ELEVATION LINE
- WATER SUPPLY PROTECTION OVERLAY DISTRICT (WSPD)
- DRAIN LINE
- TREE LINE
- NHESP PRIMARY HABITATS OF RARE SPECIES
- GRAVEL DRIVE
- GRASS PATH
- STRUCTURES
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PROPOSED:

- AGRICULTURAL FENCE
- LIMIT OF WORK
- ELECTRIC CONDUIT
- OVERHEAD ELECTRIC LINE
- LAYDOWN AREA
- 20' WIDE GRAVEL ACCESS WAY
- TURTLE HABITAT (TOTAL AREA = 30,463 SF)
- UTILITY POLE
- GRAVEL EQUIPMENT PAD AREA
- BATTERY CONTAINER
- SEDIMENT BARRIER - SILT FENCE
- SOLAR PV PANEL
- TEMPORARY GRAVEL
- SCREENING PLANTING LAYOUT & APPROXIMATE MATURE SIZE

SLOPE ANALYSIS TABLE

	0 - 2%
	>15%

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Project: MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON, MASSACHUSETTS 01073

Weston & Sampson

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No.	Description	Date
Revisions		
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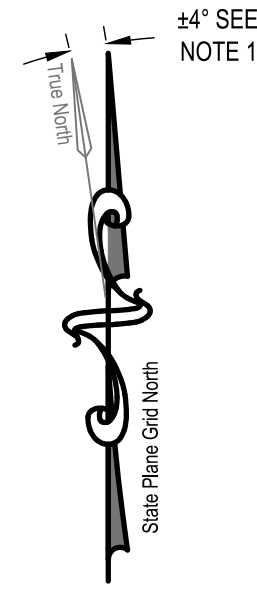
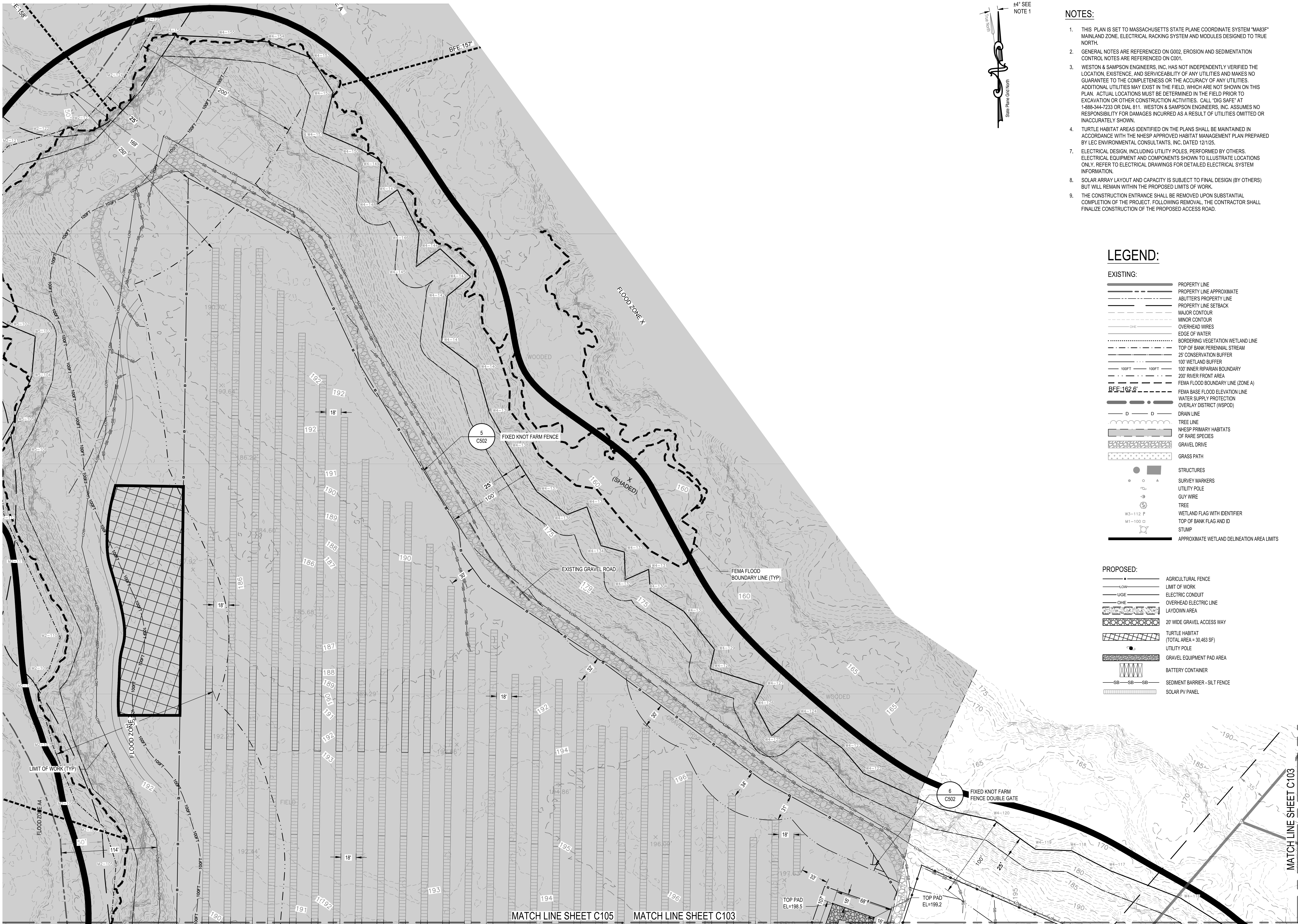
Issued Date:	11/25/2025
Scale:	1" = 120'
Drawn By:	RJR/KA
Reviewed By:	NVG
Approved By:	MRC
W&S Project No.:	ENG24-0244

Drawing Title:

OVERALL SITE PLAN

Sheet Number:

C102

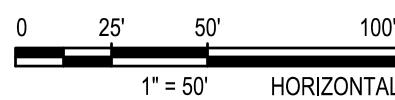


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Project: MANHAN RIVER, LLC

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Revisions

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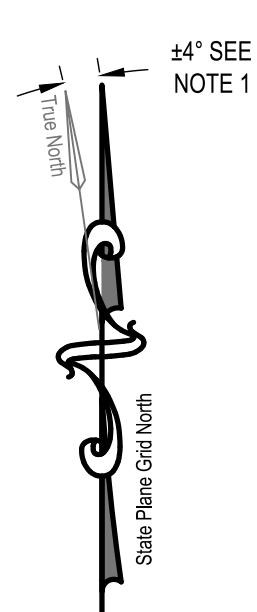
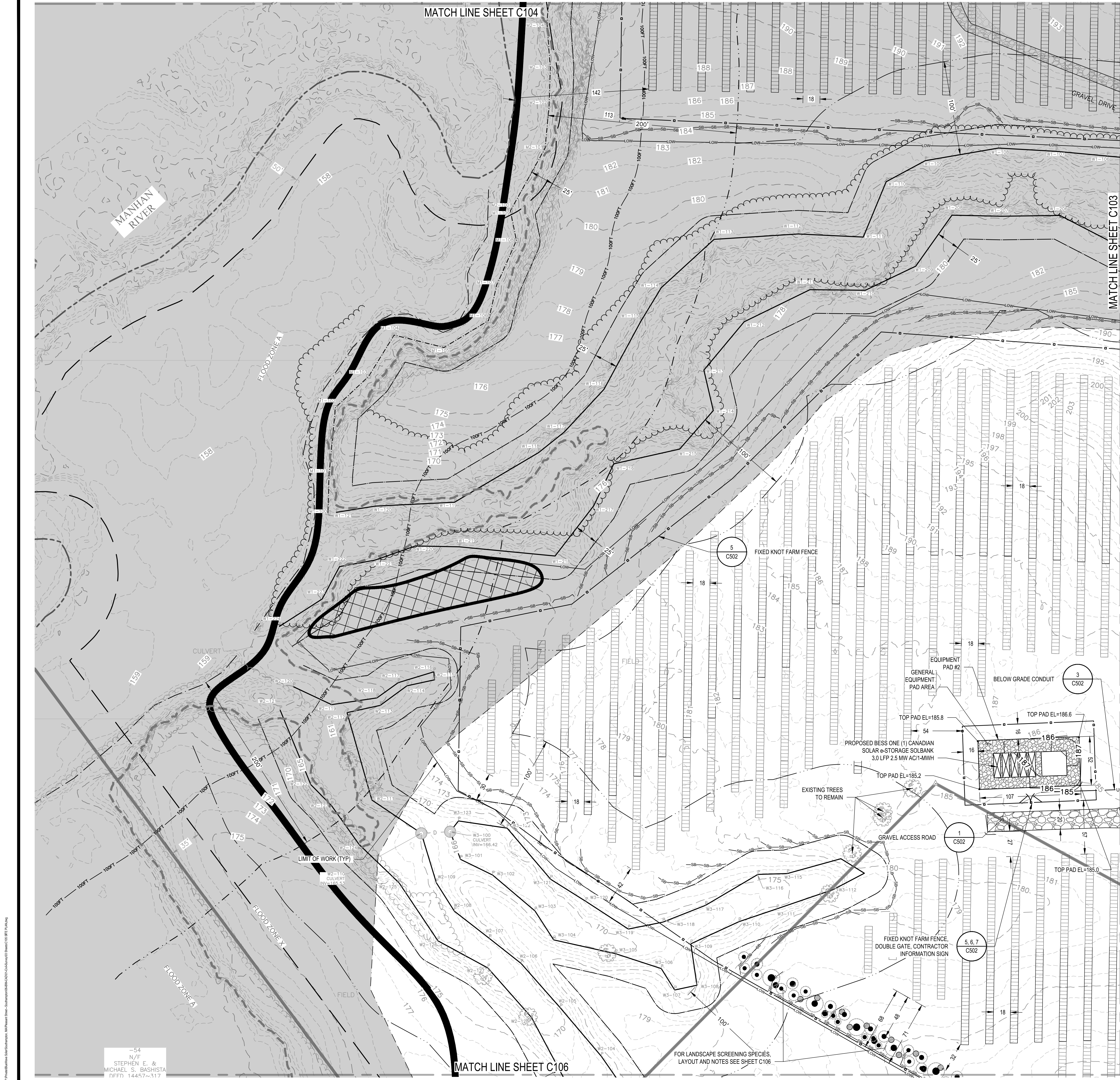
Issued Date: 11/25/2025
Scale: 1" = 50'
Drawn By: RJR/KA
Reviewed By: NVG
Approved By: MRC
W&S Project No.: ENG24-0244

Drawing Title:

SITE PLAN

Sheet Number:

C104



- NOTES:
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 - GENERAL NOTES ARE REFERENCED ON C302. EROSION AND SEDIMENTATION CONTROL NOTES ARE REFERENCED ON C001.
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LEGEND:

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 - LIMIT OF WORK
 - ELECTRIC CONDUIT
 - OVERHEAD ELECTRIC LINE
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 - SEDIMENT BARRIER - SILT FENCE
 - SOLAR PV PANEL
 - TEMPORARY GRAVEL

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Revisions

Seal:

COMMONWEALTH OF MASSACHUSETTS
MELINDA COSTELLO
CIVIL
No. 52956
9/30/26

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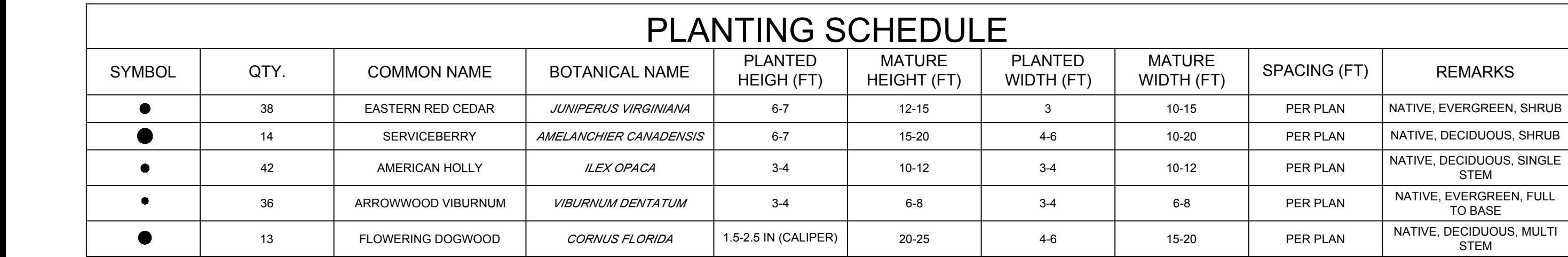
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Scale: 1" = 50'
Drawn By: RJR/KA
Reviewed By: NVG
Approved By: MRC
W&S Project No.: ENG24-0244

Drawing Title:

SITE PLAN

Sheet Number:

C105



- LEGEND:

——— AGRICULTURAL FENCE
 ——— LOW LIMIT OF WORK
 ——— UGE ELECTRIC CONDUIT
 ——— OHE OVERHEAD ELECTRIC LINE
 [Pattern] LAYDOWN AREA
 [Pattern] 20' WIDE GRAVEL ACCESS WAY
 [Pattern] TURTLE HABITAT
 [Pattern] (TOTAL AREA = 30,463 SF)
 [Symbol] UTILITY POLE
 [Pattern] GRAVEL EQUIPMENT PAD AREA
 [Symbol] BATTERY CONTAINER
 —SB—SB—SB— SEDIMENT BARRIER - SILT FENCE
 [Pattern] SOLAR PV PANEL
 [Pattern] TEMPORARY GRAVEL
 [Pattern] SCREENING PLANTING
 [Pattern] LAYOUT AT APPROXIMATE
 [Symbol] TYPE

- ## NOTES

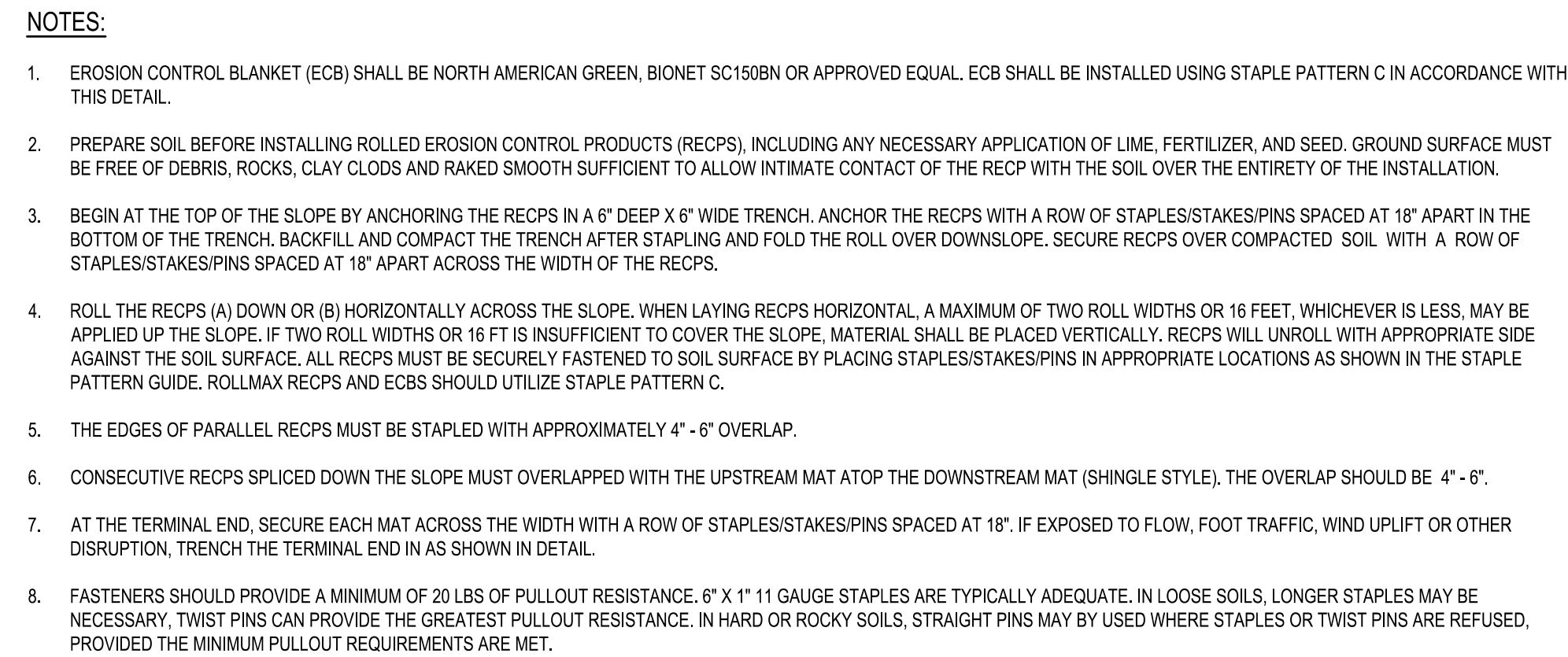
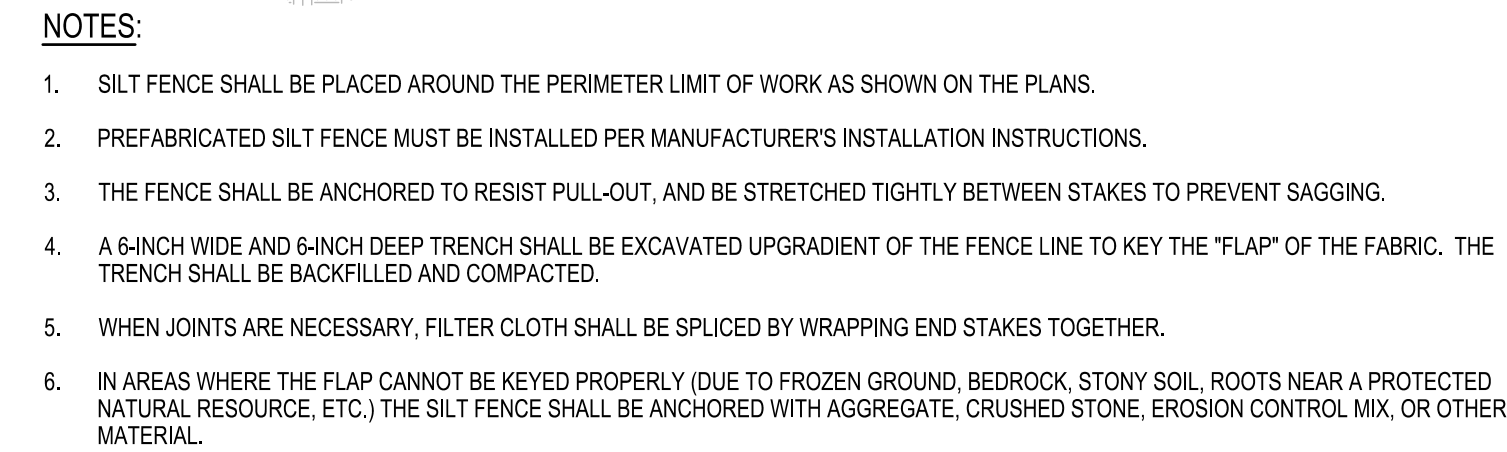
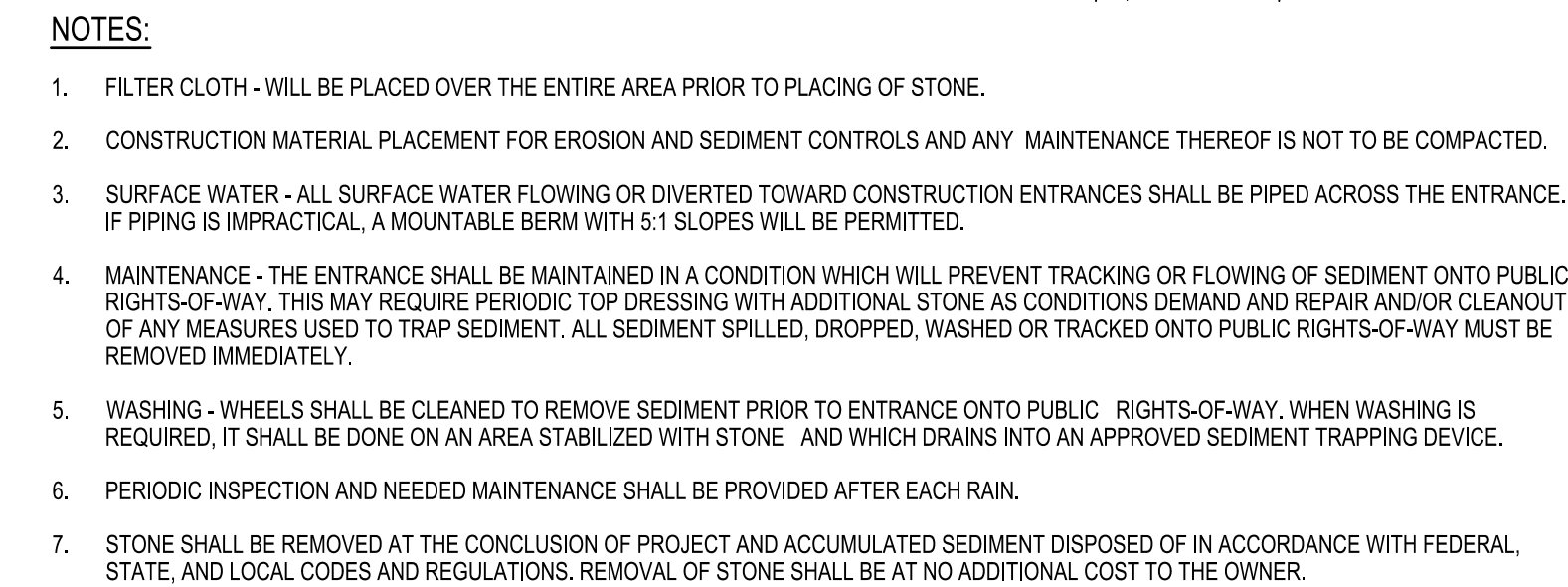
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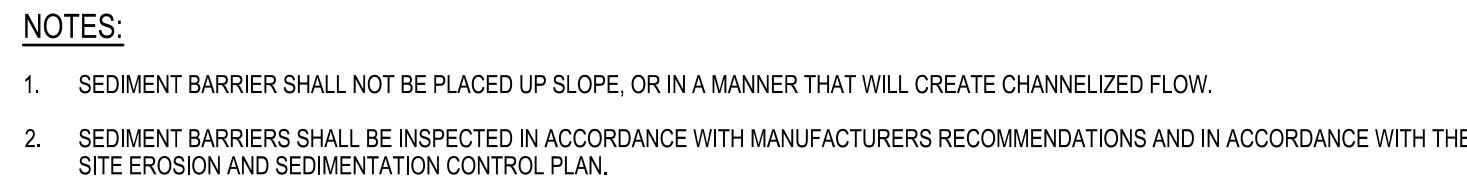
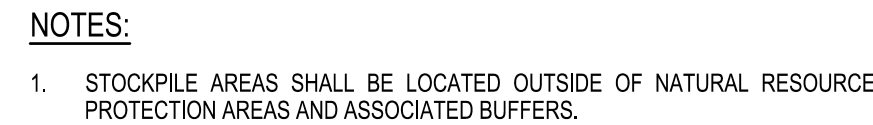
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SITE PLAN

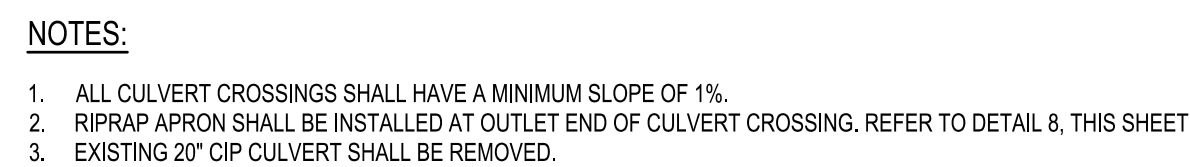
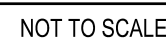
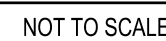
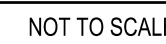
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NOT TO SCALE



NOT TO SCALE

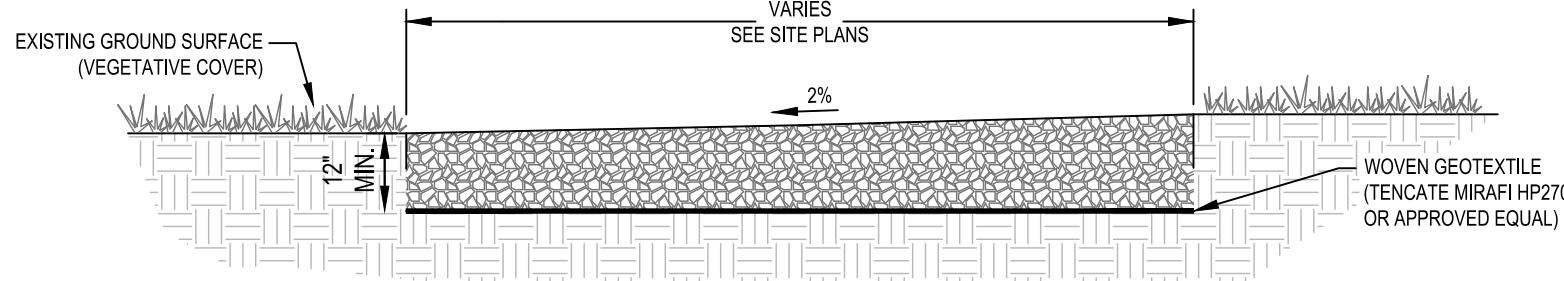


NOT TO SCALE



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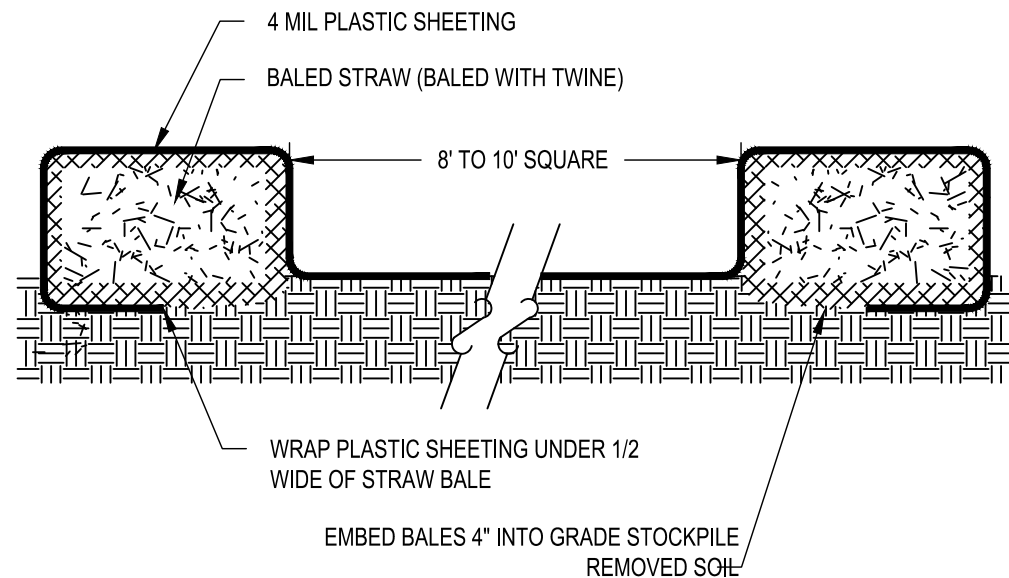
Sheet Number:
C501



- NOTES:
- ACCESS ROAD TO BE CONSTRUCTED OF A MINIMUM 12" OF GRAVEL BORROW. SEE G002 FOR MATERIAL SPECIFICATIONS.
 - WOVEN GEOTEXTILE TO BE PLACED BETWEEN THE GROUND SURFACE AND THE GRAVEL BORROW.
 - CRUSHED GRAVEL SHALL BE COMPACTED TO A FIRM AND NON-YIELDING CONDITION.
 - ROAD SHALL BE CONSTRUCTED SO THAT STORMWATER DOES NOT CONCENTRATE ON THE ROAD SURFACE AND IS DISTRIBUTED IN SHEET FLOW TO VEGETATED SHOULDERS WHERE AVAILABLE.

1 GRAVEL ACCESS ROAD

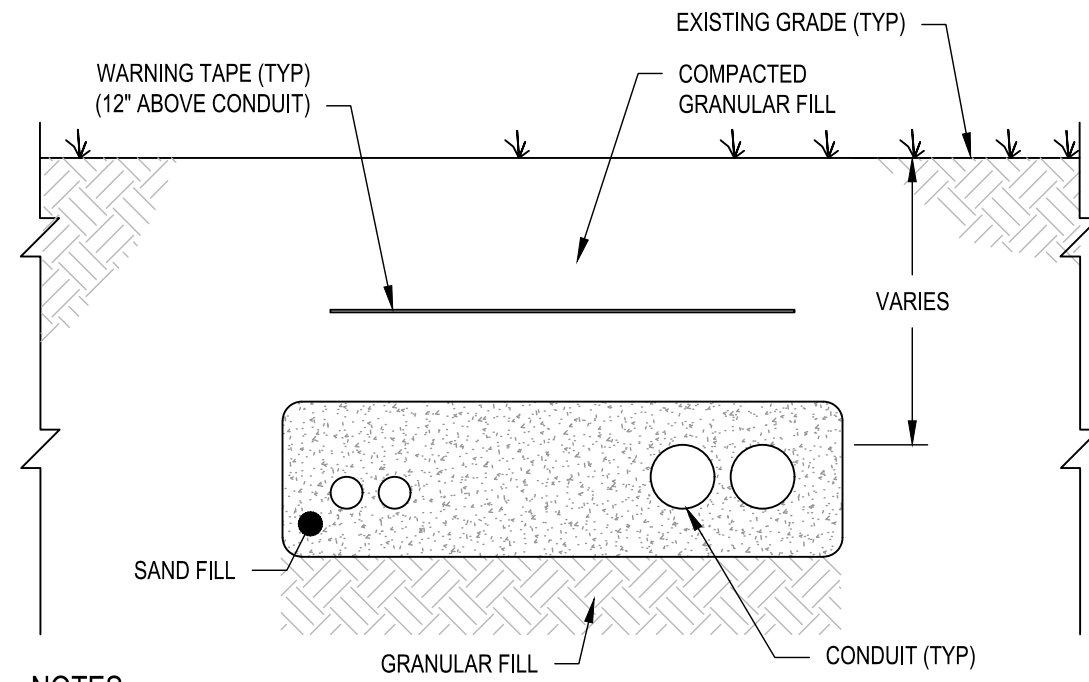
NOT TO SCALE



- NOTES:
- PLASTIC SHEETING SHALL BE FREE OF TEARS OR HOLES. AFTER BASIN IS USED, WASHWATER FROM WASHOUT BASIN SHALL EVAPORATE OR BE VACUUMED OUT. REMOVE REMAINING HARDENED SOLIDS. REPLACE PLASTIC SHEETING AND STRAWBALES AS REQUIRED.

2 CONCRETE WASHOUT BASIN

NOT TO SCALE

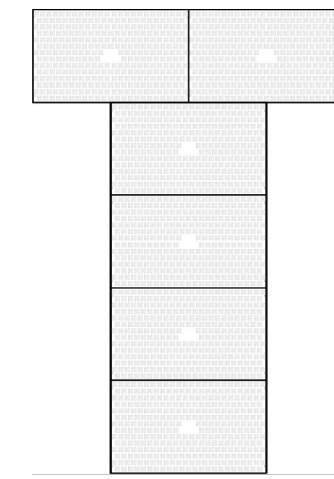


- NOTES:
- TRENCH SHOWN FOR ILLUSTRATIVE PURPOSES ONLY. ELECTRICAL DESIGN AND CONFORMANCE WITH ELECTRICAL CODE REQUIREMENTS BY ELECTRICAL ENGINEER OF RECORD.
 - ALL SIDES OF CONDUITS SHALL HAVE A MINIMUM OF 6" OF SAND BEDDING OFFSET FROM ALL SIDES.
 - FINAL DESIGN TO BE PROVIDED IN ELECTRICAL ENGINEERING PLAN SET.

3 BELOW GRADE CONDUIT (TYP)

NOT TO SCALE

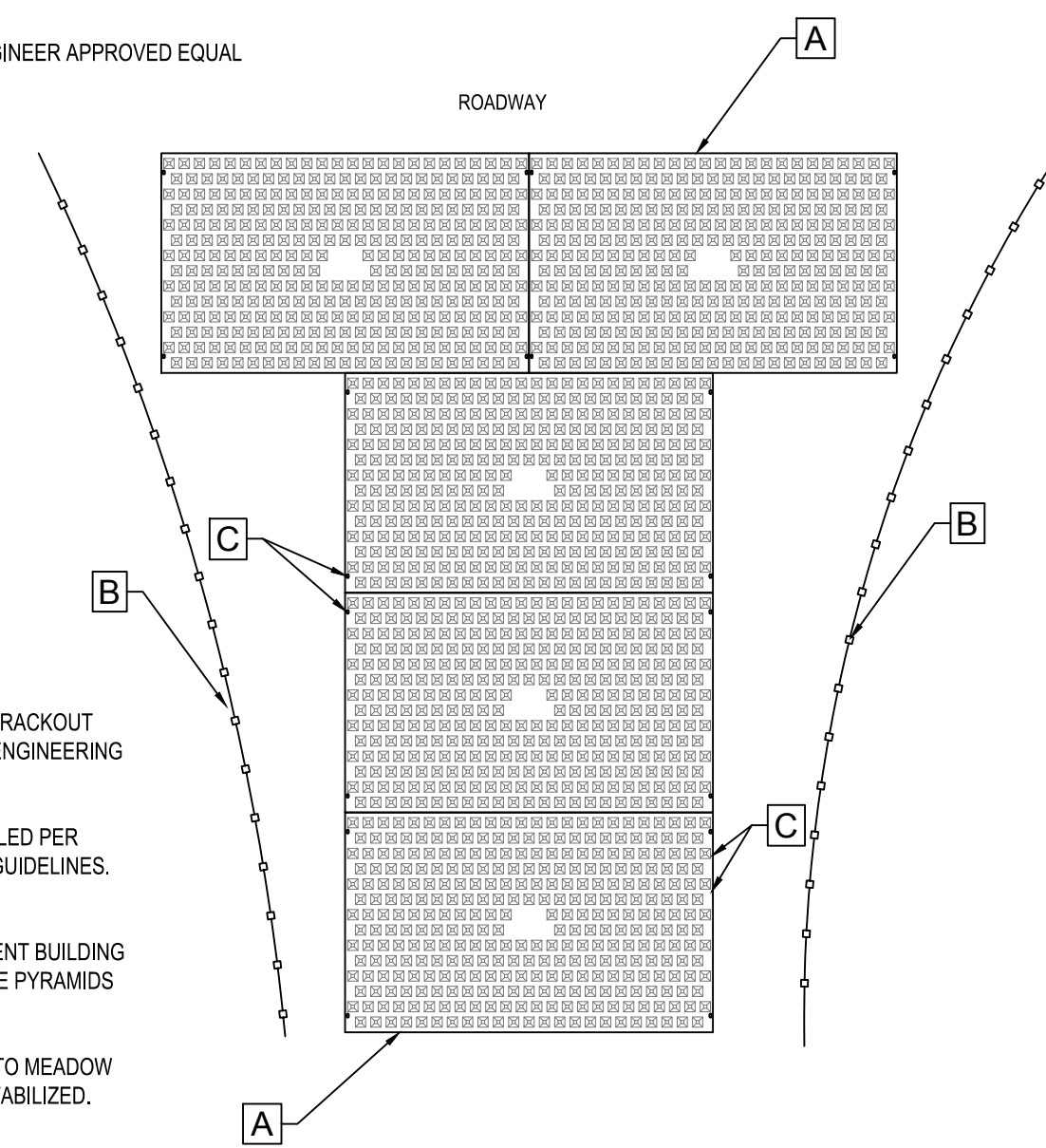
- LEGEND:
- FODS TRACKING CONTROL MAT OR ENGINEER APPROVED EQUAL
 - STRAW WATTLE
 - ANCHOR POINTS



- NOTES:
- ANTI-TRACKING MAT TO BE FODS TRACKOUT CONTROL MATS MODEL #1100 OR ENGINEERING APPROVED EQUAL.
 - ANTI-TRACKING MAT TO BE INSTALLED PER MANUFACTURER'S INSTALLATION GUIDELINES.
 - SEDIMENT TO BE REMOVED FROM ANTI-TRACKING MAT WHEN SEDIMENT BUILDING REACHES HALF THE HEIGHT OF THE PYRAMIDS WITHIN THE ANTI-TRACKING MAT.
 - SEDIMENT TO BE REINTRODUCED TO MEADOW AREAS AMONGST THE SITE AND STABILIZED.

4 ANTI-TRACKING MAT

NOT TO SCALE



# WIRE	NOMENCLATURE	LENGTH	WEIGHT
23	23/120/6	330'	492
20	20/96/6	165'	308
20	20/96/6	330'	295
20	20/96/6	500'	598
17	17/96/6	330'	355
17	17/75/6	330'	326
10	10/60/6	330'	210

# WIRE	NOMENCLATURE	LENGTH	WEIGHT
23	23/120/12	330'	343
20	20/96/12	330'	282
20	20/96/12	660'	564
17	17/96/12	330'	248
17	17/96/12	660'	496
17	17/75/12	330'	235
10	10/60/12	660'	294

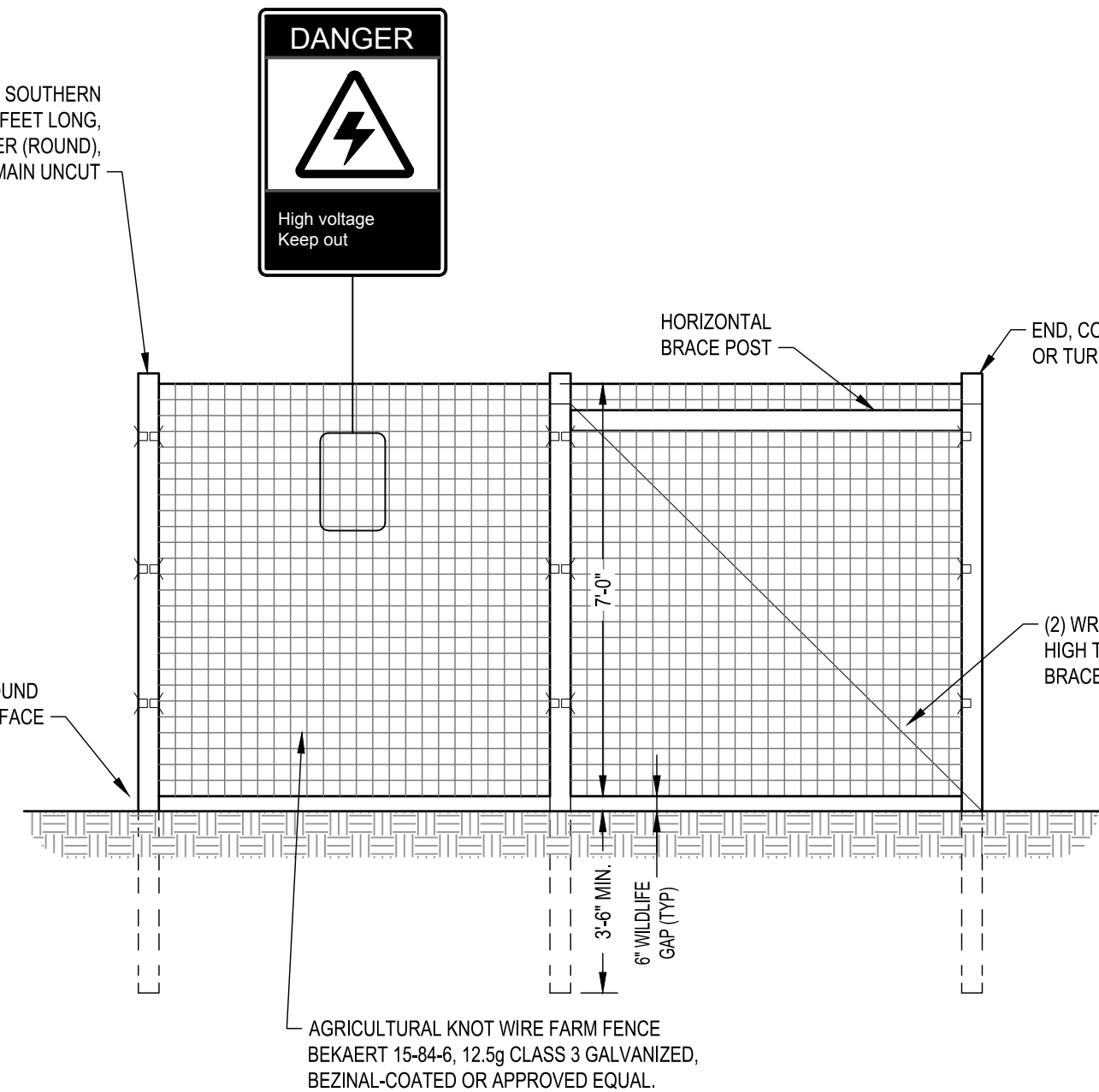
WIRE	GAUGE	TENSILE STRENGTH	BREAKING LOAD	GALVANIZATION
Line Wires	12	Hi-Tensile 190K-212K	1347 lbs-1687 lbs	.85 oz.-1.4 oz. per sq. ft.
Stay Wires	12	Med-Tensile 140K-170K*	1048 lbs-1273 lbs*	.85 oz.-1.4 oz. per sq. ft.
Knot Wires	13	Low Tensile 57K-76K	311 lbs-456 lbs	.85 oz.-1.4 oz. per sq. ft.

ORDER NOMENCLATURE

The first two numbers indicate the number or horizontal wires, while the second two numbers indicate the height of the fence. The last number is the distance between vertical stays.

Example: 20/96/12 is a roll with 20 horizontal wires, is 96" high, with vertical stays 12" apart.

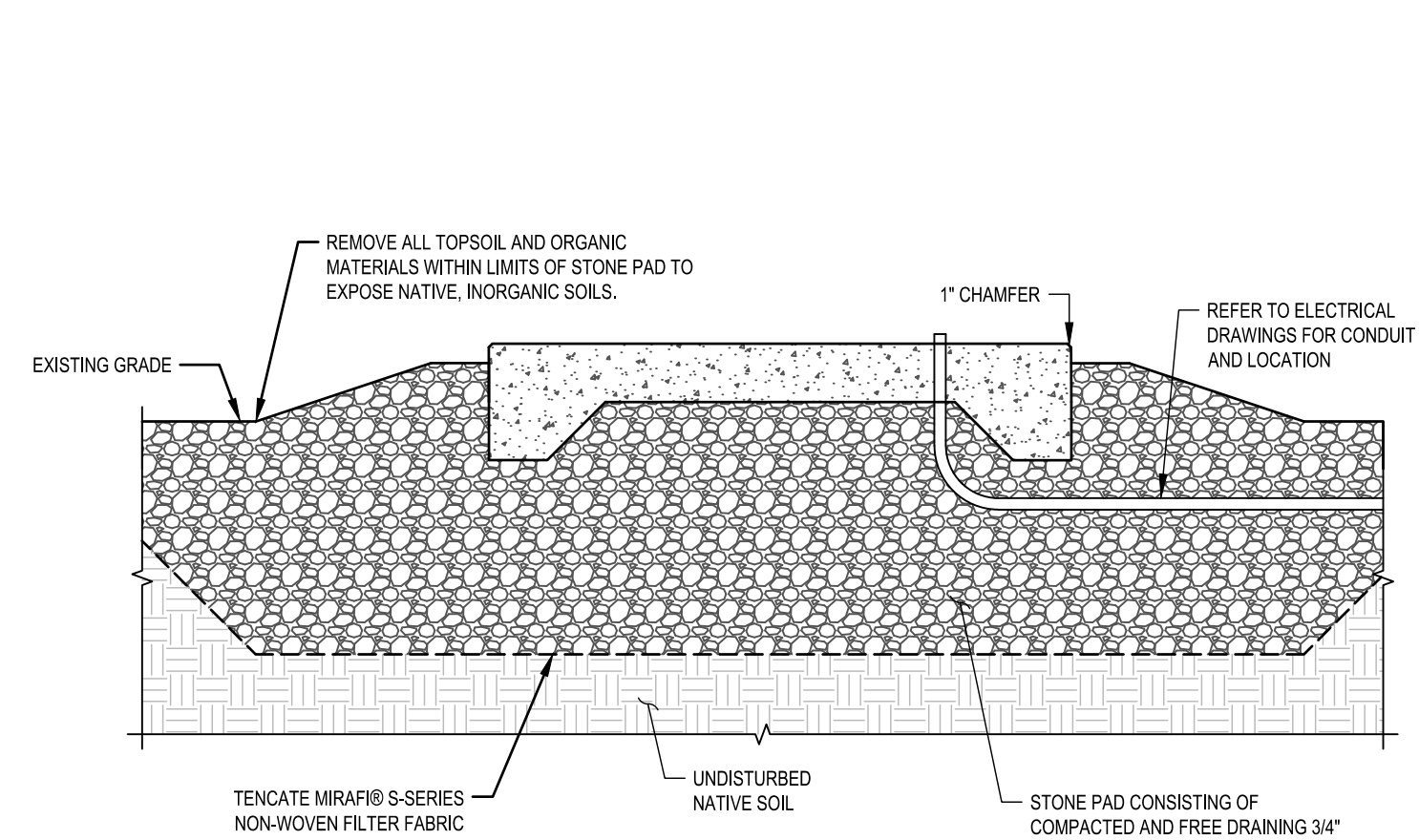
- Note new higher strength vertical stay wire spec.
- Other configurations available on special order basis



- NOTES:
- END, CORNER AND BRACE ASSEMBLIES PER BEKAERT SPECIFICATIONS

5 FIXED KNOT FARM FENCE

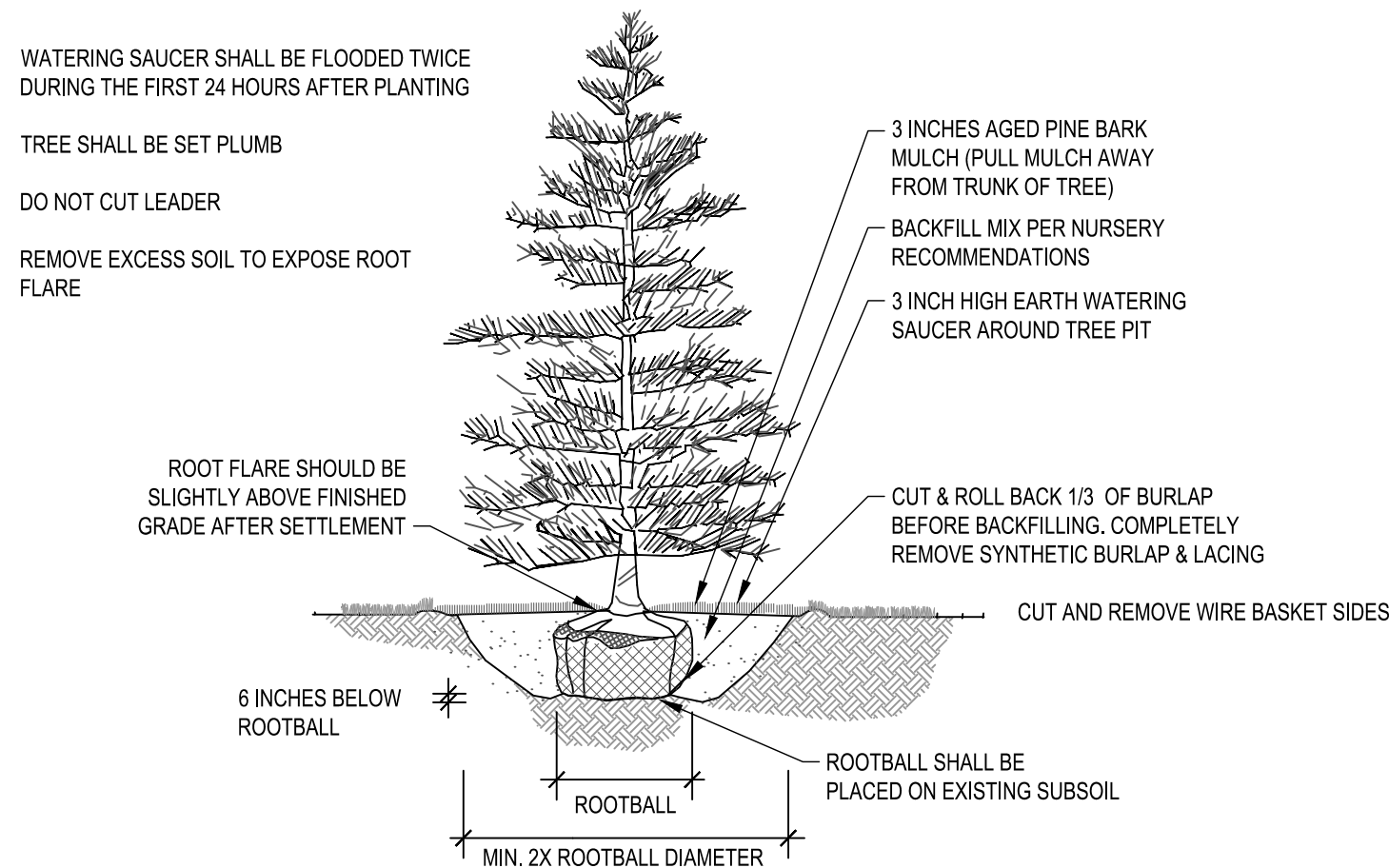
NOT TO SCALE



- NOTES:
- DETAIL SHOWN FOR ILLUSTRATIVE PURPOSES. FINAL EQUIPMENT PAD DESIGN TO BE PERFORMED BY OTHERS.

8 CONCRETE EQUIPMENT PAD SECTION (TYP)

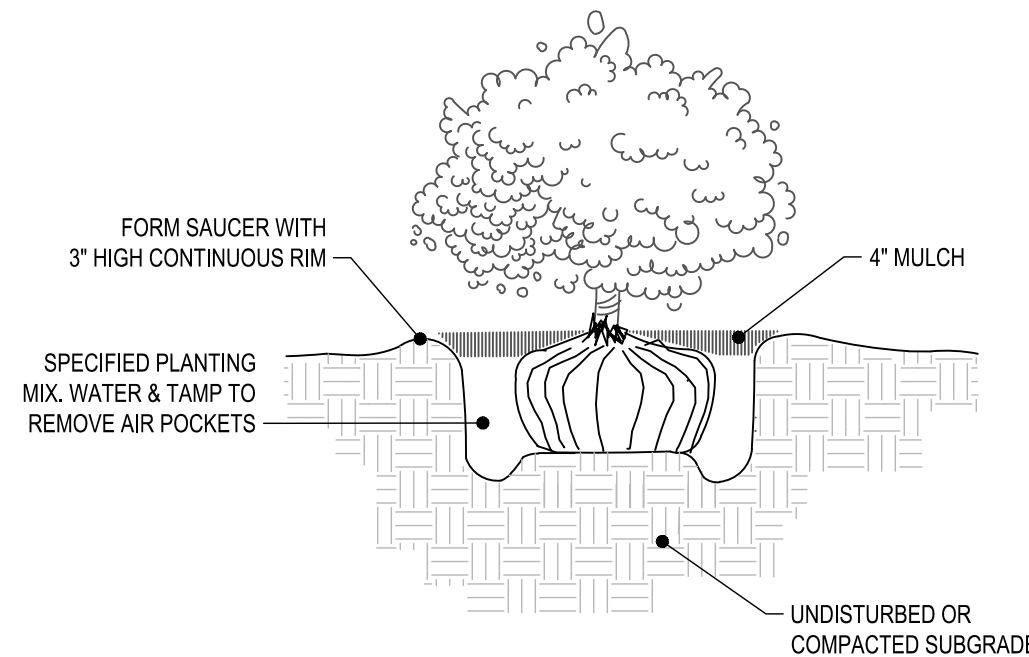
NOT TO SCALE



- NOTE:
- DETAIL PROVIDED TO SHOW PLANTING REQUIREMENTS.
 - PLANTING SCHEDULE INCLUDED ON C106.

9 VEGETATIVE SCREENING TREE

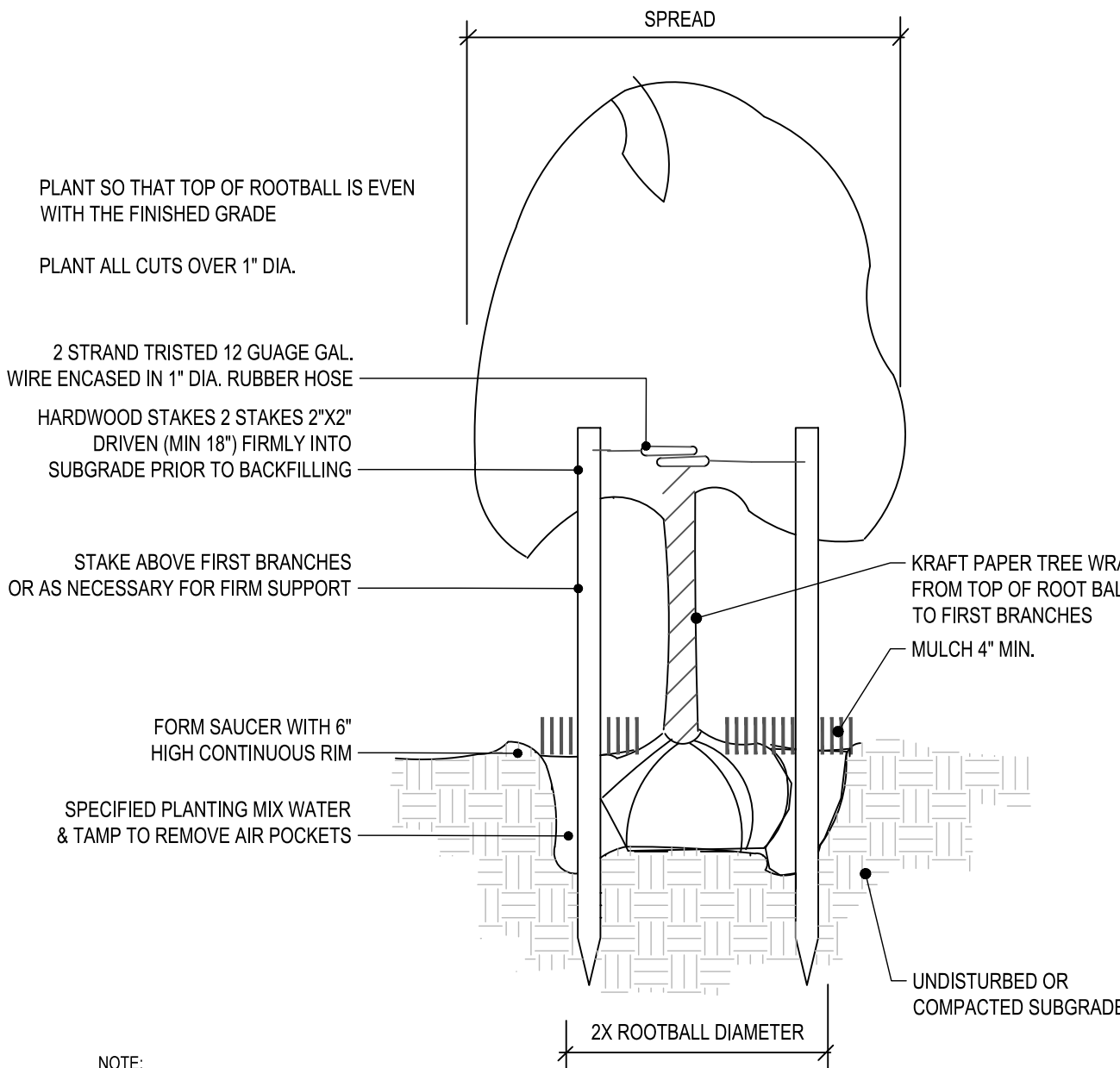
NOT TO SCALE



- NOTE:
- DETAIL PROVIDED TO SHOW PLANTING REQUIREMENTS.
 - PLANTING SCHEDULE INCLUDED ON C106.
 - STAKING AS REQUIRED

10 VEGETATIVE SCREENING SHRUB

NOT TO SCALE

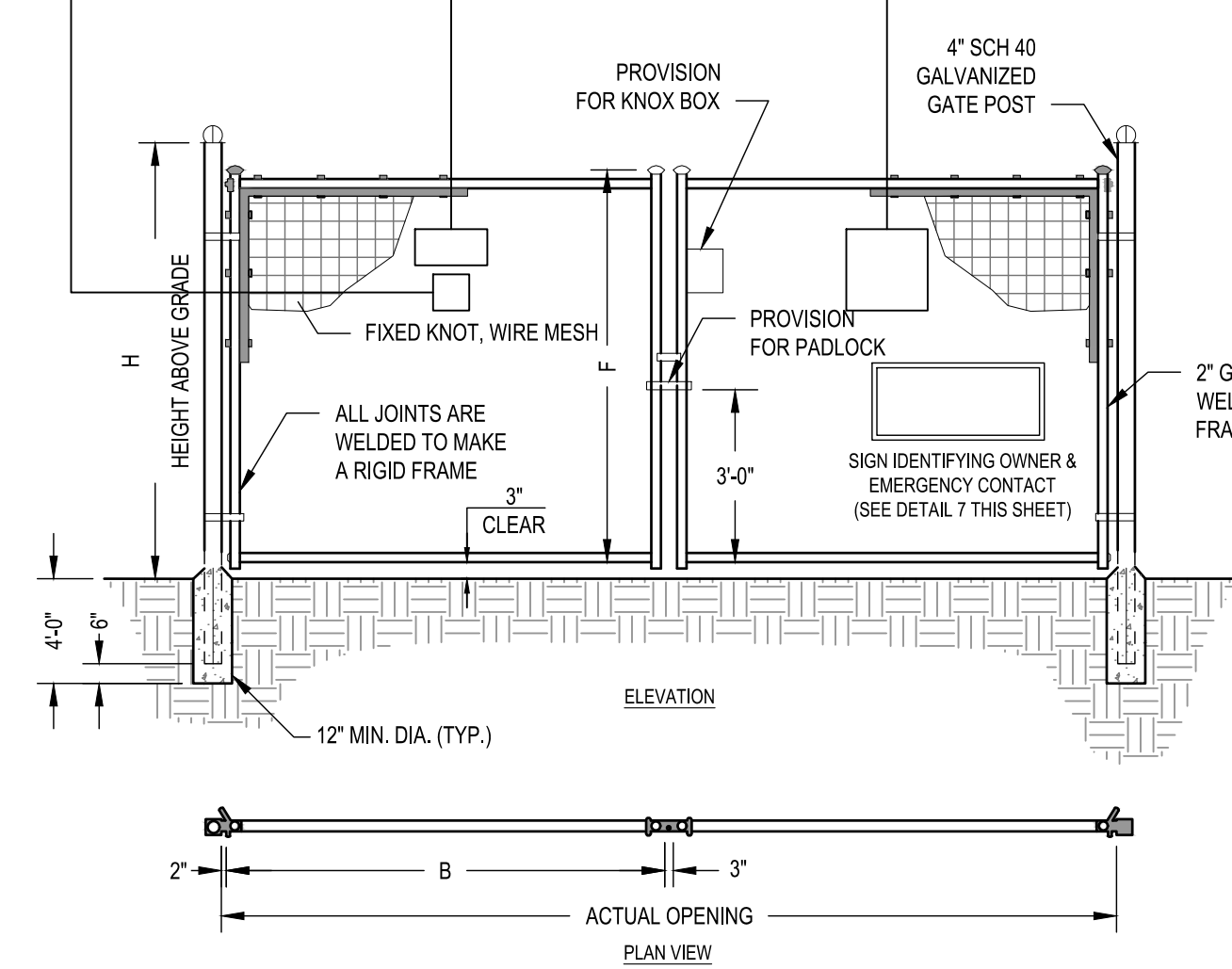
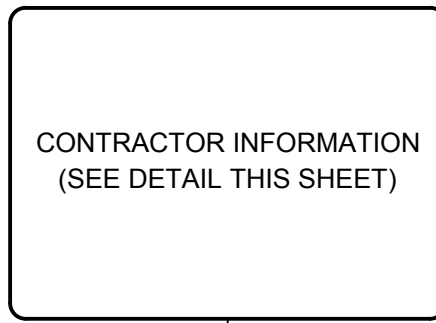
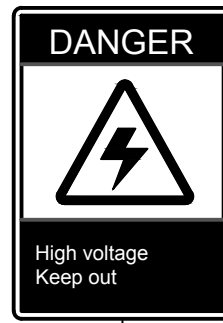


- NOTE:
- DETAIL PROVIDED TO SHOW PLANTING REQUIREMENTS.
 - PLANTING SCHEDULE INCLUDED ON C106.
 - STAKING AS REQUIRED

11 VEGETATIVE SCREENING TREE

NOT TO SCALE

NOT FOR CONSTRUCTION



- NOTES:
- ALL FENCING AND HARDWARE SHALL BE GALVANIZED.
 - CONCRETE ENCASEMENT AT END AND GATE POSTS ONLY.
 - FIXED KNOT WIRE MESH TO BE BEKAERT SOLIDLOCK (R) PRO 30 (2016-3), 12-SAWG-16 HIGH TENSILE FIXED KNOT GAME FENCE OR APPROVED EQUIVALENT, INSTALLED AND BRACED PER MANUFACTURERS RECOMMENDATIONS. NOT TO EXCEED 2" GAP ABOVE GRADE.
 - ENTRANCE GATE SHALL BE 24 FEET WIDE. GATE SHALL INCLUDE PROVISIONS FOR KNOX BOX OR SIMILAR LOCKING MECHANISM. LOCKING MECHANISM KEY SHALL BE GIVEN TO THE SOUTHAMPTON FIRE DEPARTMENT.
 - THE GATE POSTS SHALL BE GROUNDED IN ALL AREAS WHERE THE PV MODULES ARE LOCATED LESS THAN 10'-0" FROM THE FENCE TO LIMIT THE RISE OF HAZARDOUS VOLTAGE (IF APPLICABLE).

6 FIXED KNOT FARM FENCE DOUBLE GATE

NOT TO SCALE



- NOTE:
- CONTRACTOR TO VERIFY EMERGENCY CONTACT NUMBER

7 CONTRACTOR INFORMATION SIGN

NOT TO SCALE

Project:

MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON, MASSACHUSETTS 01073

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

MANHAN RIVER, LLC

116 Huntington Ave., Suite 601
Boston, MA 02116
Tel. (617) 209-3122 https://www.bluewave.energy/

811

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No.	Description	Date
4	PEER REVIEW COMMENTS	09/30/26
3	PEER REVIEW COMMENTS	05/29/26
2	PEER REVIEW COMMENTS	04/30/26
1	CONS COM / DEP COMMENTS	01/30/26
0	ISSUED FOR PERMITTING	11/25/25

Revisions

Seal:

MELINDA COSTELLO CIVIL No. 52956

Issued For:

PERMITTING

Issued Date: 11/25/2025

Scale: AS NOTED

Drawn By: RJR/KA

Reviewed By: NVG

Approved By: MRC

W&S Project No.: ENG24-0244

Drawing Title:

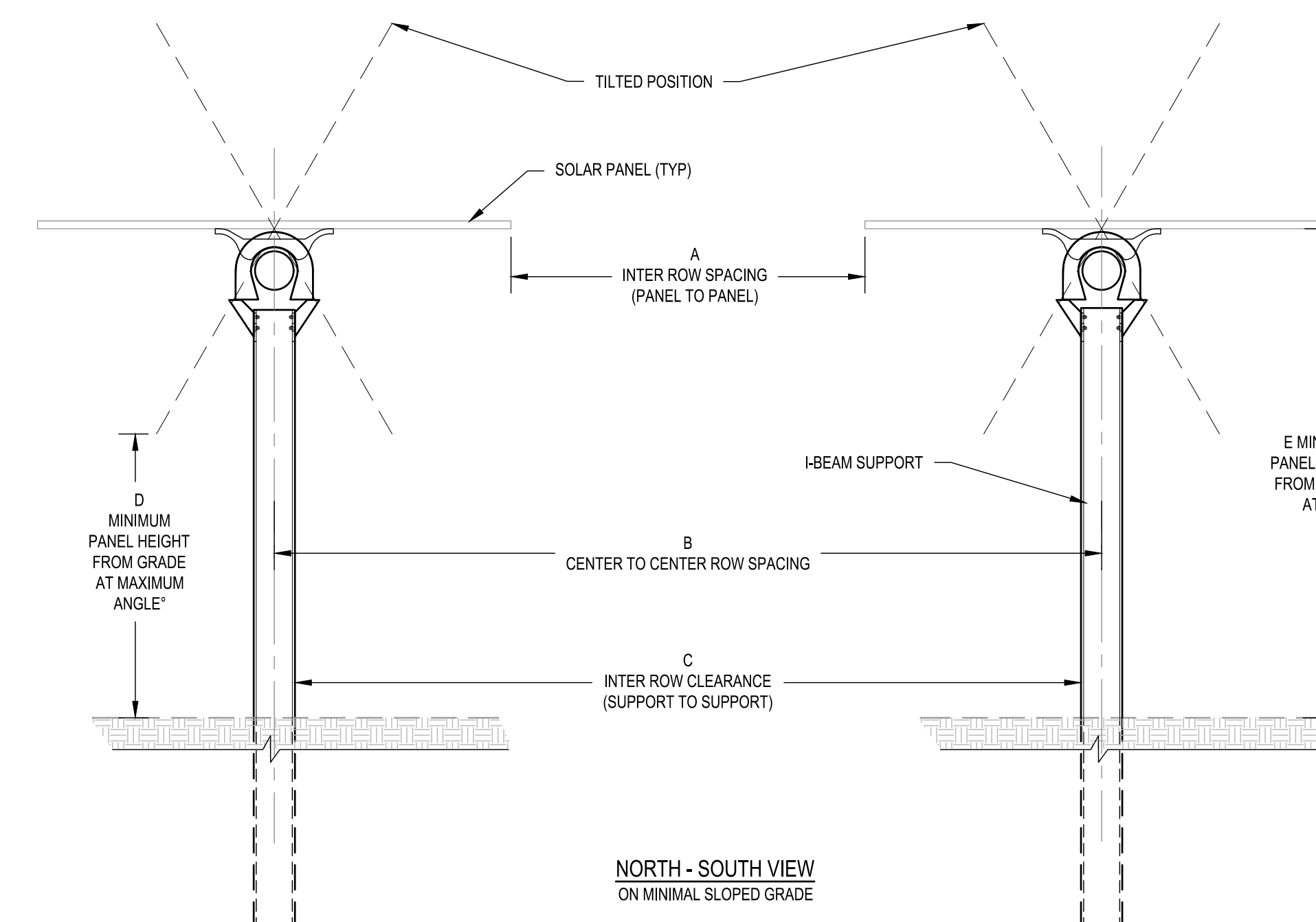
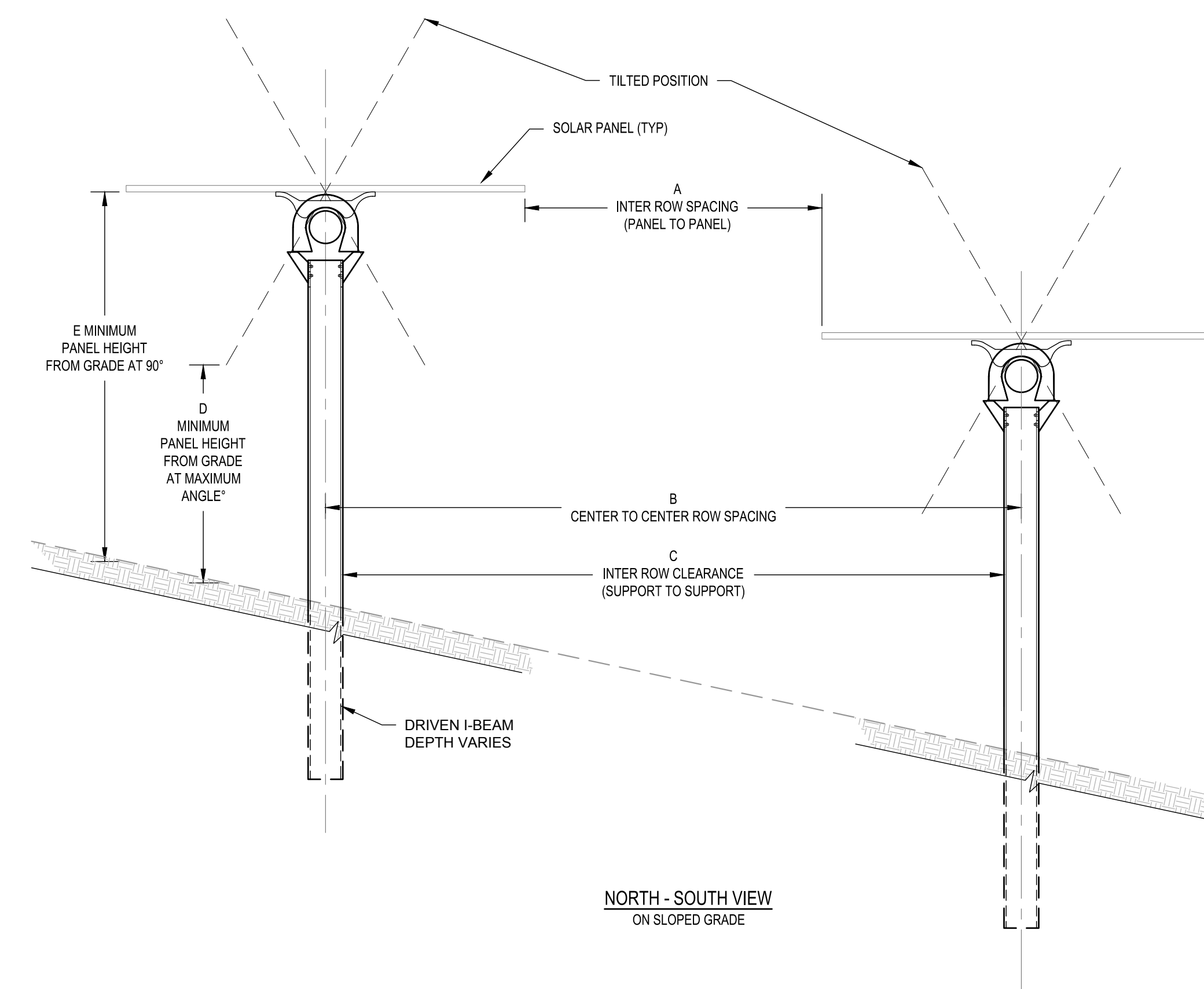
CIVIL DETAILS

Sheet Number:

C502

NOTES:

1. DETAIL SHOWN FOR ILLUSTRATION PURPOSES ONLY. RACKING DESIGN BY OTHERS.
2. REFER TO ELECTRICAL AND STRUCTURAL PLANS FOR FINAL RACKING DESIGN, CONFIGURATION, HEIGHT AND INTER ROW SPACING.



GENERAL ROW SPACING REQUIREMENTS

I-BEAM STYLE SUPPORT SYSTEM

Project: MANHAN RIVER, LLC

83 & 53 PLEASANT STREET, SOUTHAMPTON,
MASSACHUSETTS 01073

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

BLUEWAVE

116 Huntington Ave, Suite 601
Boston, MA 02116
T) 209-3122 <https://www.bluewave.energy/>

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No.	Description	Date

Issued For:

Issued Date: 11/25/2025

Scale: AS NOTED

Drawn By: RJR/AKA

Reviewed By: NVG

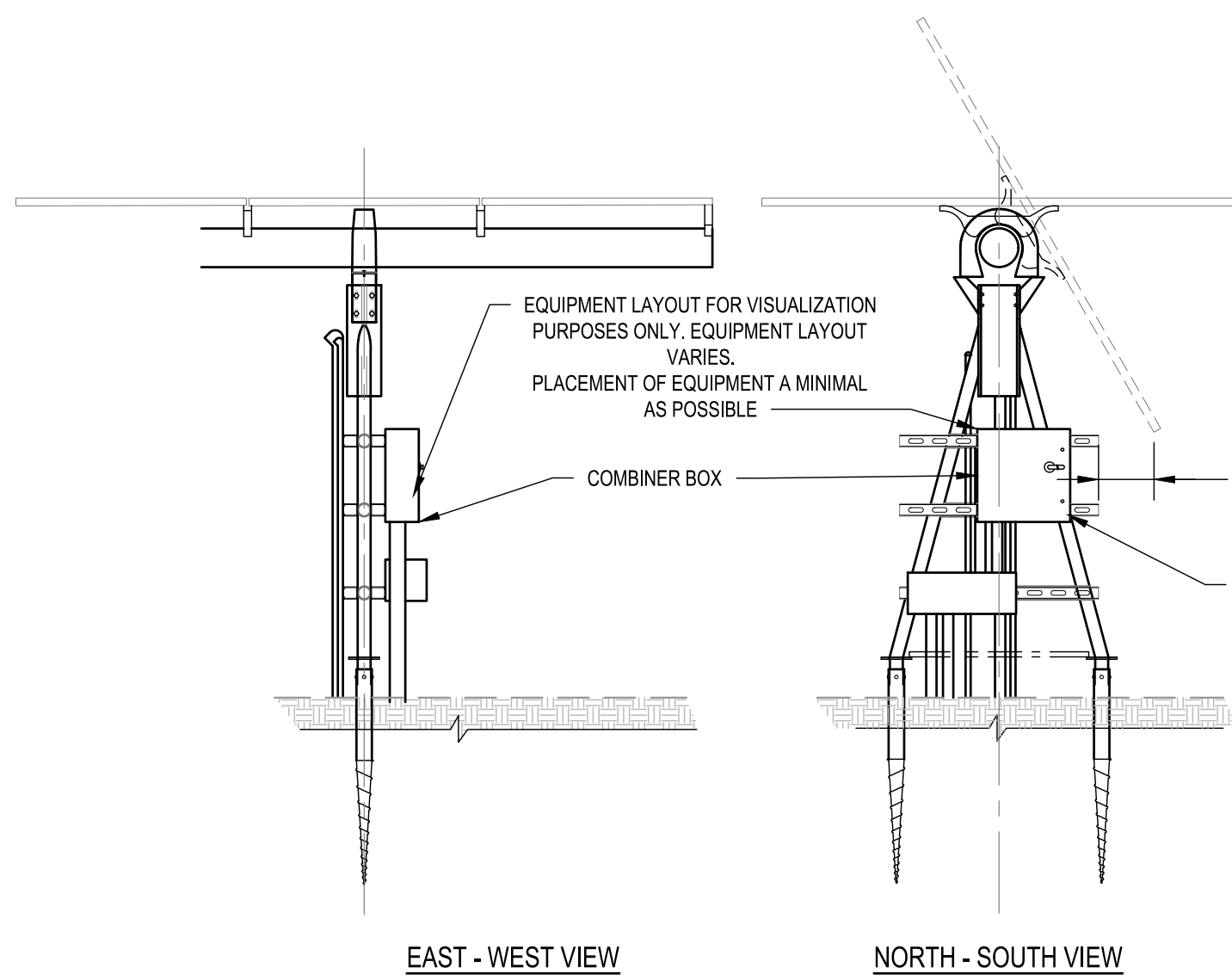
Approved By:	MRC
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V&S Project No.: FNG24-0244

Drawing Title:

Sheet Number:

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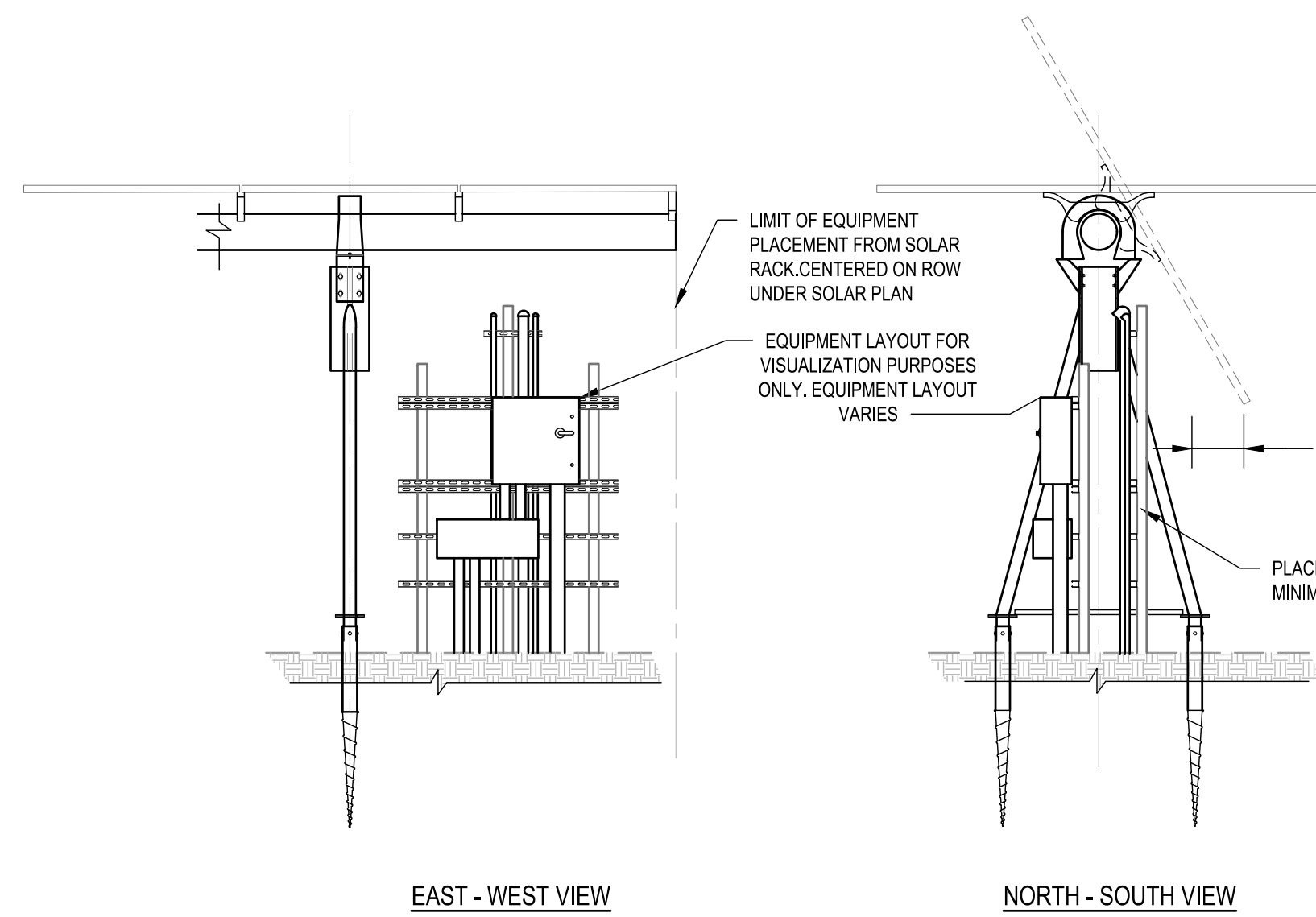


EAST - WEST VIEW

NORTH - SOUTH VIEW

A-FRAME RACK SYSTEM WITH EQUIPMENT MOUNTED ON THE A-FRAME SYSTEM

1
NOT TO SCALE

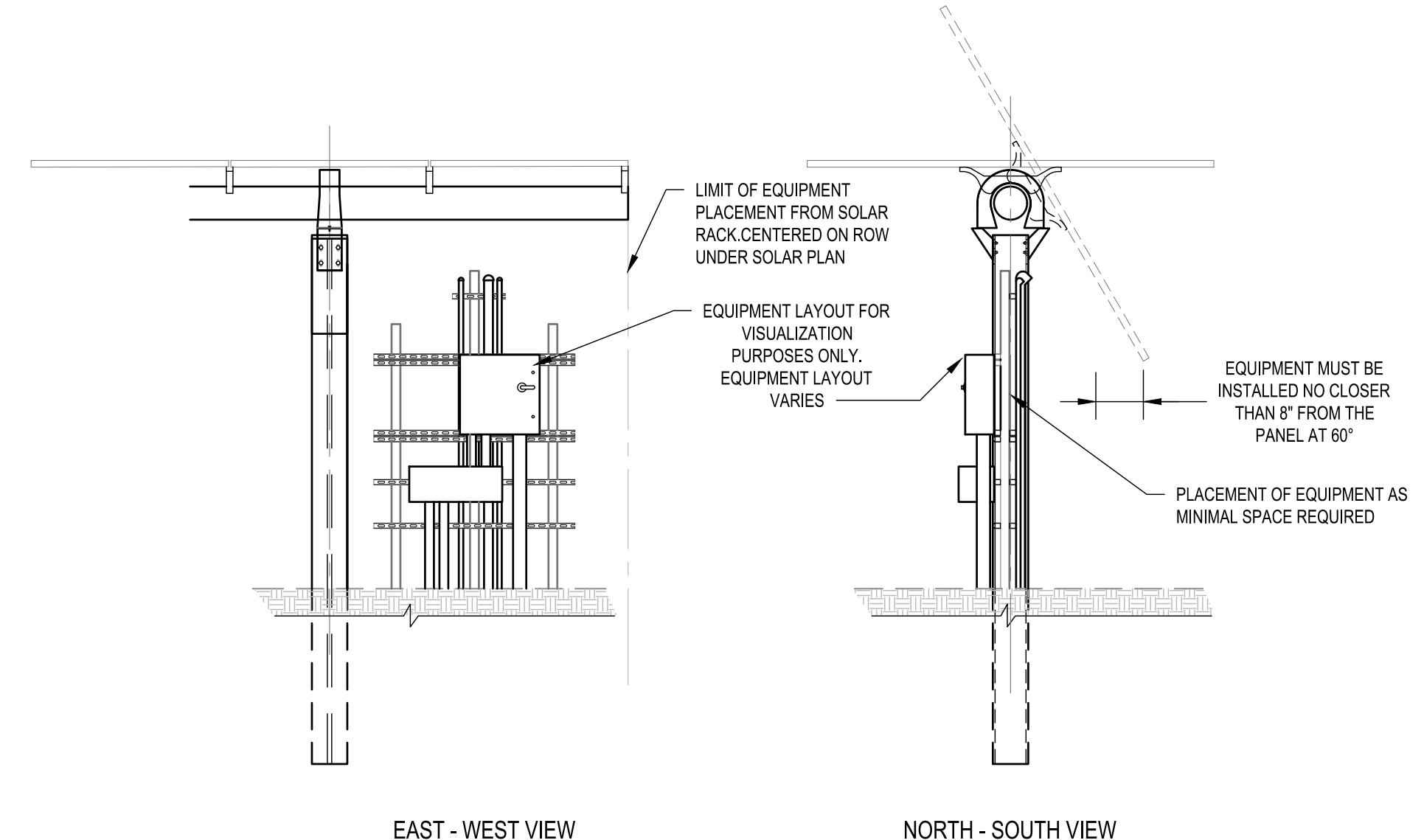


EAST - WEST VIEW

NORTH - SOUTH VIEW

A-FRAME RACK SYSTEM WITH EQUIPMENT PLACEMENT UNDER SOLAR PANELS

2
NOT TO SCALE

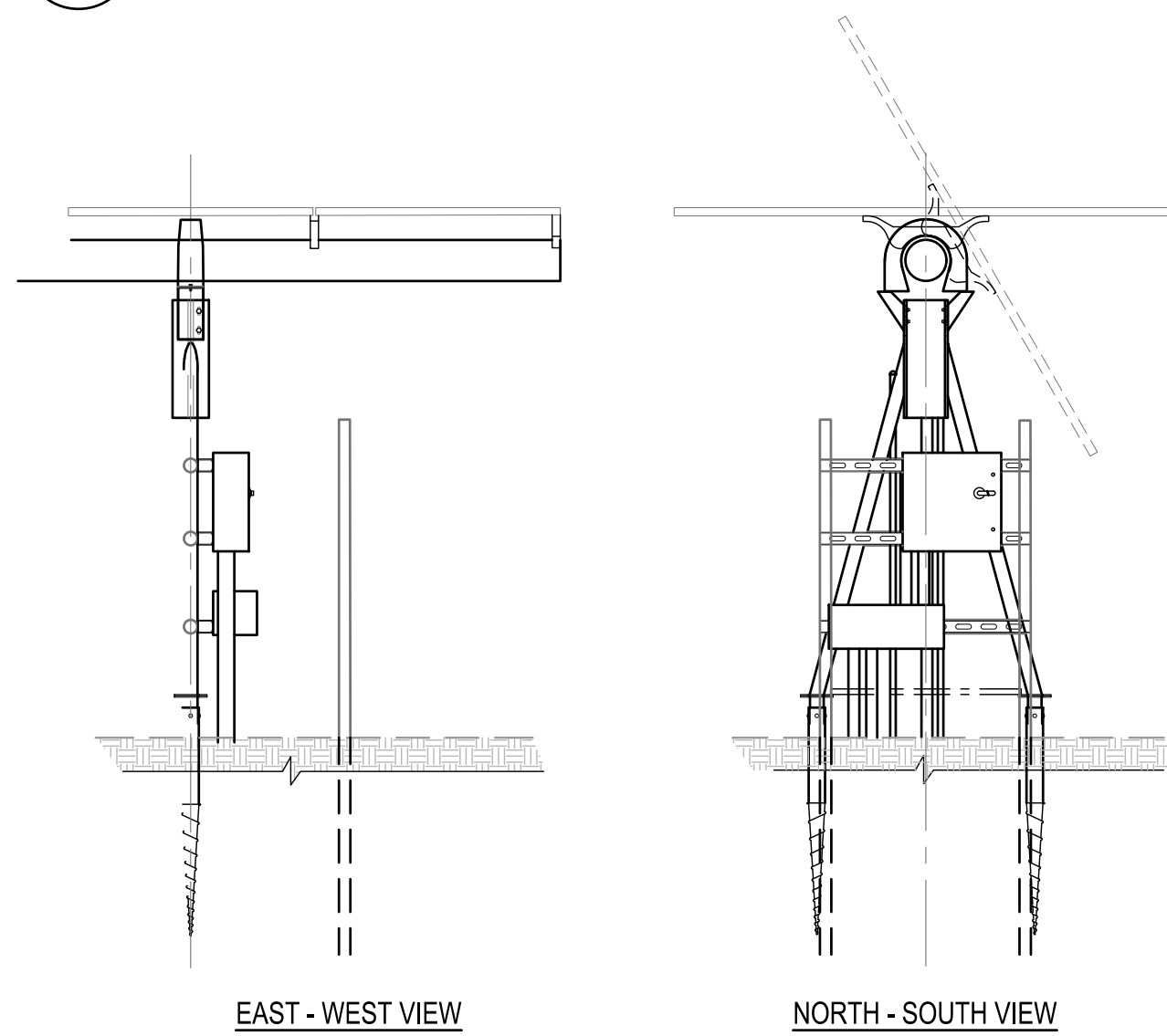


EAST - WEST VIEW

NORTH - SOUTH VIEW

I-BEAM RACK SYSTEM WITH EQUIPMENT PLACEMENT UNDER SOLAR PANELS

3
NOT TO SCALE

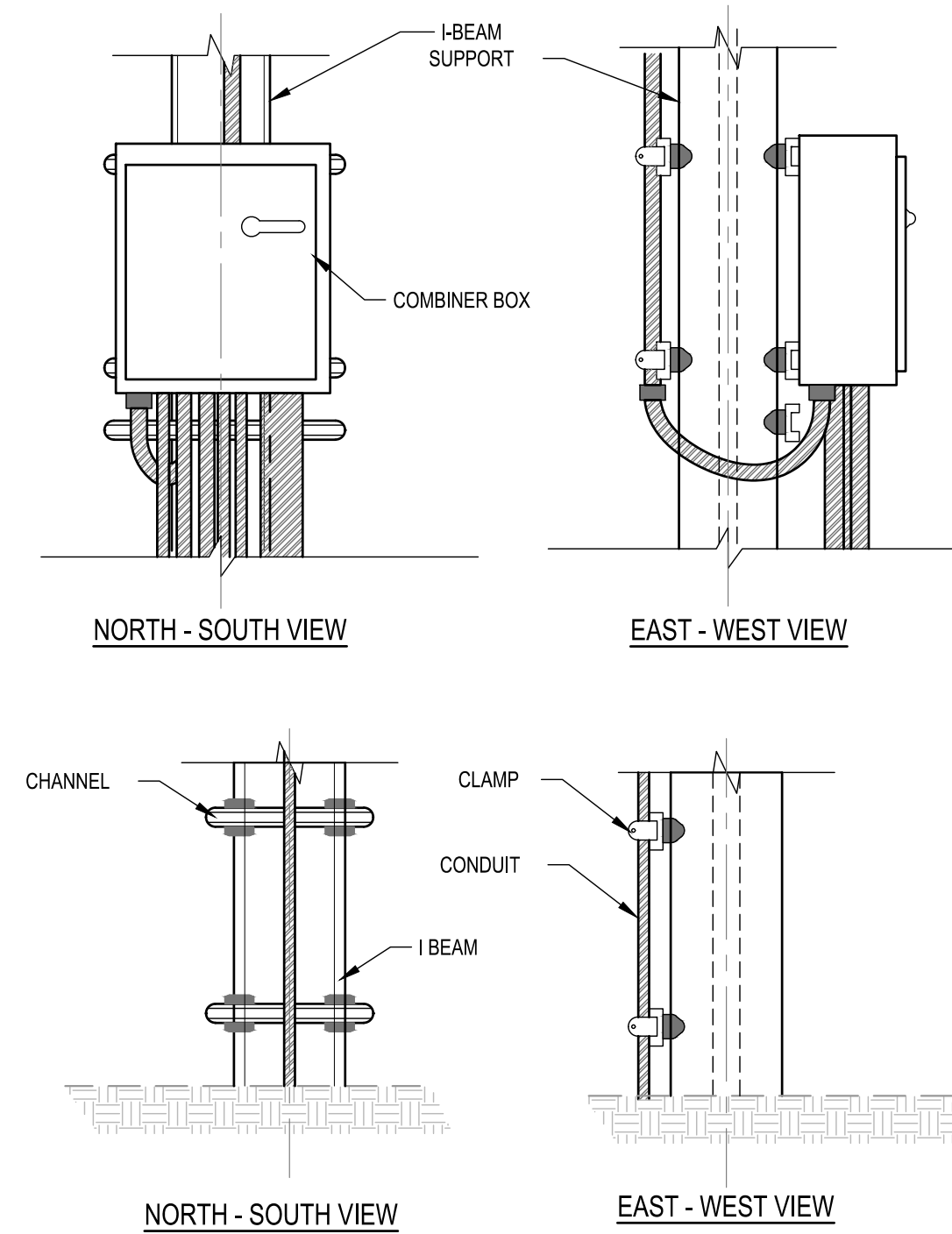


EAST - WEST VIEW

NORTH - SOUTH VIEW

STEEL POST PROTECTION

4
NOT TO SCALE

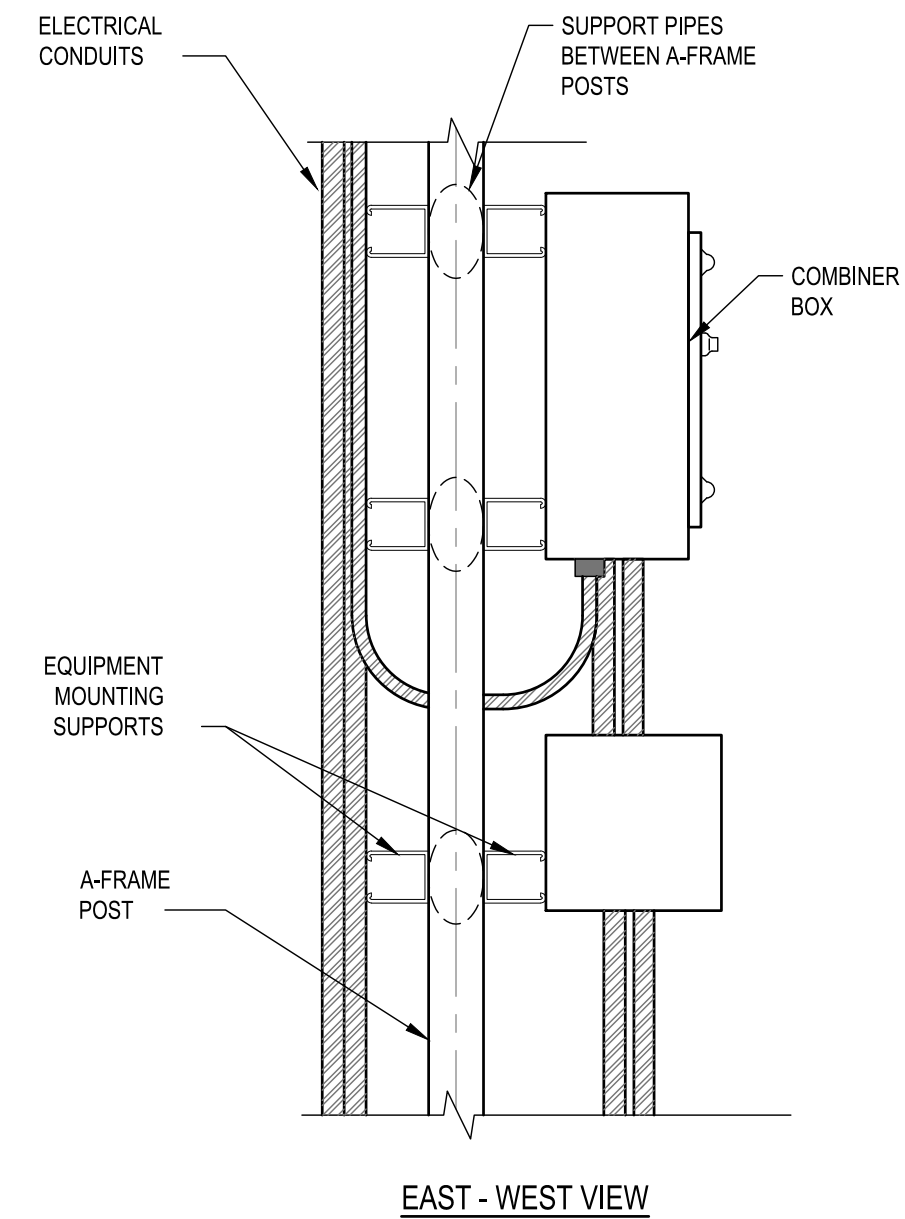


NORTH - SOUTH VIEW

EAST - WEST VIEW

NORTH - SOUTH VIEW

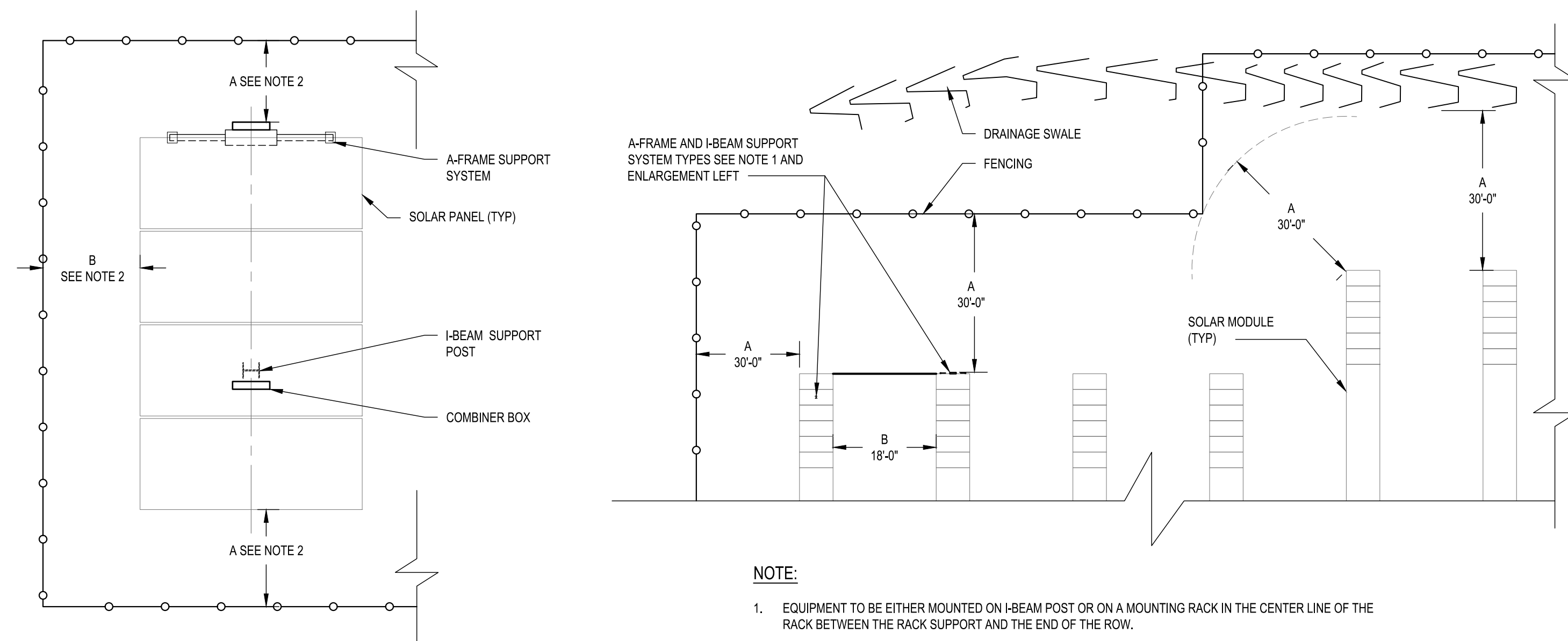
EAST - WEST VIEW



EAST - WEST VIEW

A-FRAME MOUNTED EQUIPMENT ENLARGEMENT

6
NOT TO SCALE



NOTE:

- EQUIPMENT TO BE EITHER MOUNTED ON I-BEAM POST OR ON A MOUNTING RACK IN THE CENTER LINE OF THE RACK BETWEEN THE RACK SUPPORT AND THE END OF THE ROW.
- DISTANCE BETWEEN ANY OBSTRUCTION NOT TO BE LESS THAN A OR B.

FENCE AND ROW BUFFERS

7
NOT TO SCALE

Project: MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON, MASSACHUSETTS 01073

Weston & Sampson

Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:

BLUEWAVE

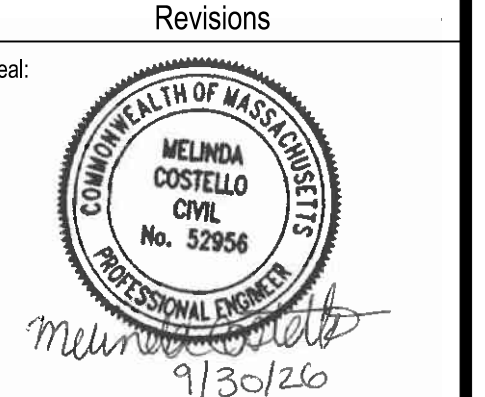
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Issued Date: 11/25/2025
Scale: AS NOTED
Drawn By: RJR/KA
Reviewed By: NVG
Approved By: MRC
W&S Project No.: ENG24-0244

Drawing Title:

DUAL USE SOLAR
STANDARD
AGRICULTURAL
DETAILS

Sheet Number:

C504

NOT FOR CONSTRUCTION

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Appendix B – Interconnection Service Agreement



Exhibit G - Interconnection Service Agreement

1. Parties. This Interconnection Service Agreement ("Agreement"), dated as of 5/1/2026 is entered into, by and between **NSTAR Electric d/b/a Eversource Energy**, a Massachusetts corporation with a principal place of business at **247 Station Drive, Westwood, MA 02090** (hereinafter referred to as the Company"), and **BlueWave Origination, LLC** a corporation with a principal place of business at **116 Huntington Ave, Suite 601, Boston MA 02116** ("Interconnecting Customer"). (The Company and Interconnecting Customer are collectively referred to as the "Parties"). Terms used herein without definition shall have the meanings set forth in Section 1.2 of the Interconnection Tariff which is hereby incorporated by reference.

Project Number #	ESMAEX-02171
Maximo WO #	12475560
Project Size	4980 kW
Has Storage	Yes
Storage Type	DC-Coupled
Storage Size (AC)	0 kW
Storage Size (DC)	1750 kW
Existing Facility Capacity	
Limited Export Max Size	4980
Total Facility Capacity	4,980.00 kW

2. Basic Understandings. This Agreement provides for parallel operation of an Interconnecting Customer's Facility with the Company EPS to be installed and operated by the Interconnecting Customer at **43 & 53 Pleasant St, SOUTHAMPTON MA 01073 Acct#** . A description of the Facility is located in Attachment 1. If the Interconnecting Customer is not the Customer, an Agreement between the Company and the Company's Retail Customer, attached as Exhibit H to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement. If neither the Interconnecting Customer nor the Customer is the Landowner of the property where the Facility is sited, a Landowner Consent Agreement, attached as Exhibit I to the Interconnection Tariff, must be signed and included as an Attachment to this Agreement, unless the Company, in its sole discretion, waives this requirement. The Interconnecting Customer has the right to operate its Facility in parallel with the Company EPS immediately upon successful completion of the protective relays testing as witnessed by the Company and receipt of written notice from the Company that interconnection with the Company EPS is authorized ("Authorization Date").

3. Term. This Agreement shall become effective as of the Effective Date. The Agreement shall continue in full force and effect until terminated pursuant to Section 4 of this Agreement.

4. Termination.

4.1. This Agreement may be terminated under the following conditions.

4.1 a) The Parties agree in writing to terminate the Agreement.

4.1 b) The Interconnecting Customer may terminate this agreement at any time by providing sixty (60) days written notice to Company.

4.1 c) The Company may terminate this Agreement upon the occurrence of an Event of Default by the Interconnecting Customer as provided in Section 18 of this Agreement.

4.1 d) The Company may terminate this Agreement if the Interconnecting Customer either:
(1) fails to energize the Facility within 12 months of the Authorization Date; or,
(2) permanently abandons the Facility. Failure to operate the Facility for any consecutive 12-month period after the Authorization Date shall constitute permanent abandonment unless otherwise agreed to in writing between the Parties.

4.1 e) The Company, upon 30 day's notice, may terminate this Agreement if there are any changes in Department regulations or state law that have a material adverse effect on the Company's ability to perform its obligations under the terms of this Agreement.

4.2. Survival of Obligations. The termination of this Agreement shall not relieve either Party of its liabilities and obligations owed or continuing at the time of termination. Sections 5, 10, 12, 13, and 25 as it relates to disputes pending or for wrongful termination of this Agreement shall survive the termination of this Agreement.

4.3. Related Agreements. Any agreement attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing. If the Interconnection Service Agreement is signed prior to a Detailed Study (if applicable), the System Modifications construction schedule from the Detailed Study when finalized shall be deemed a part of the signed Interconnection Service Agreement.

5. General Payment Terms. The Interconnecting Customer shall be responsible for the System Modification costs and payment terms identified in Attachment 3 of this Agreement and any approved cost increases pursuant to the terms of the Interconnection Tariff. The Interconnecting Customer shall also be directly responsible to the Affected System Operator and/or Affected System Owner of any potentially Affected System for all costs of any additional studies required to evaluate the impact of the interconnection on the potentially Affected Systems and any resulting Affected System costs for its requirements, including, without limitation, modifications to the electric power system of the Affected System and operation and maintenance costs; provided, however, the Company may, in its sole discretion, elect to include the additional Affected System study and/or system modification costs known at the time of this Agreement in the Company's costs and payment terms identified in Attachment 3 of this Agreement, and the Interconnecting Customer will pay such costs to the Company (and will be responsible for any and all actual costs thereof). Where the Company includes the Affected System costs in this Agreement, the costs will be collected by the Company and passed-through to the Affected System Operator(s). Interconnecting Customer shall not be required to pay any costs related to Company infrastructure upgrades or System Modifications upon execution of the Interconnection Service Agreement (or once the Interconnecting Customer receives the construction schedule). Interconnecting Customers shall have 60 Business Days from the date of the Interconnecting Customer's execution of an Interconnection Service Agreement to pay 25 percent of those costs; if an Interconnecting Customer pays such cost within the 60 Business Day Time Frame, the Interconnecting Customer shall have an additional 120 Business Days from the earlier of the date of receipt of the first payment or 60 Business Days from the date of the Interconnecting Customer's execution of an Interconnection Service Agreement to pay the remainder of the costs. If the Company fails to sign this Interconnection Service Agreement within 15 Business Days after receipt of the first installment payment by the Interconnecting Customer, this Interconnection Service Agreement shall be deemed accepted by the Company on the 15th Business Day after receipt of the first installment payment. If the system modifications exceed [REDACTED], the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties, within the Time Frames for payment of such costs under the Interconnection Service Agreement in Section 3.6.2. Any such payment plan shall be set forth in Attachment 3. The payment plan may include a payment schedule different than the 60 Business Day payment schedule requirements set forth in this paragraph above, but shall not exceed 180 Business Days.

Construction estimates are valid for 60 Business Days from when they are delivered to the Interconnecting Customer. If an Interconnecting Customer payment is not received within 60 Business Days of receiving the Interconnection Service Agreement in the Expedited Process, or the Impact Study in the Standard Process, the Company has the right to reassess construction costs and Time Frames. In the event that the Interconnecting Customer fails to pay the Company within the Time Frame required by this provision, the Interconnecting Customer's interconnection application and this Interconnection Service Agreement will be cancelled, and its interconnection queue position will be lost. Further, any fees paid will not be refunded. The construction schedule will commence once the Interconnecting Customer's financial payment has been made in full or as otherwise provided in Attachment 3. The Company's obligation to the construction schedule (as it appears in either the

Interconnection Service Agreement or the Detailed Study, if the Interconnecting Customer has opted to sign the Interconnection Service Agreement without a Detailed Study) begins on the next Business Day after the Company receives full payment for such construction or as otherwise provided in Attachment 3. The Interconnecting Customer shall be responsible for the System Modification costs and payment terms identified in Attachment 3 of this Agreement and any approved cost increases pursuant to the terms of the Interconnection Tariff. Interconnecting Customers shall not be required to pay any costs related to Company infrastructure upgrades or System Modifications upon execution of the Interconnection Service Agreement (or once the Interconnecting Customer receives the construction schedule). Interconnecting Customers shall have 60 Business Days from the date of execution of an Interconnection Service Agreement to pay 25 percent of those costs; if an Interconnecting Customer pays such cost within the 60 Business Day Time Frame, the Interconnecting Customer shall have an additional 120 Business Days from the date of first payment to pay the remainder of the costs. If the system modifications exceed [REDACTED], the Interconnecting Customer is eligible for a payment plan, including a payment and construction schedule with milestones for both parties, and any such payment plan shall be set forth in Attachment 3. The payment plan may include a payment schedule different than the 120 Business Day payment schedule requirements set forth in this paragraph above.

5.1. Cost or Fee Adjustment Procedures.

The Company will, in writing, advise the Interconnecting Customer in advance of any cost increase for work to be performed up to a total amount of increase of 10% only. Interconnecting Customers who elected to execute an Interconnection Services Agreement following the completion of the Impact Study but prior to the commencement of any required Detailed Study, pursuant to Section 3.4(g) of the Interconnection Tariff, shall be responsible for any System Modifications costs, $\pm 25\%$, as identified by the Company in the Impact Study. All costs that exceed the above caps will be borne solely by the Company. Any such changes to the Company's costs for the work shall be subject to the Interconnecting Customer's consent. The Interconnecting Customer shall, within thirty (30) Business Days of the Company's notice of increase, authorize such increase and make payment in the amount up to the above caps, or the Company will suspend the work and the corresponding agreement will terminate.

5.2. Final Accounting.

An Interconnecting Customer may request a final accounting report of any difference between (a) Interconnecting Customer's cost responsibility under this Agreement for the actual cost of the System Modifications, and (b) Interconnecting Customer's previous aggregate payments to the Company under the Interconnection Service Agreement for such System Modifications within 120 Business days after completion of the construction and installation of the System Modifications described in an attached exhibit to the Interconnection Service Agreement. Upon receipt of such a request from an Interconnecting Customer, the Company shall have 120 Business days to provide the requested final accounting report to the Interconnecting Customer. To the extent that Interconnecting Customer's cost responsibility in the Interconnection Service Agreement exceeds Interconnecting Customer's previous aggregate payments, the Company shall invoice Interconnecting Customer and Interconnecting Customer shall make payment to the Company within 45 Business Days. To the extent that Interconnecting Customer's previous aggregate payments exceed Interconnecting Customer's cost responsibility under this agreement, the Company shall refund to Interconnecting Customer an amount equal to the difference within forty-five (45) Business Days of the provision of such final accounting report.

6. Operating Requirements.

6.1. General Operating Requirements.

Interconnecting Customer shall operate and maintain the Facility in accordance with the applicable manufacturer's recommended maintenance schedule, in compliance with all aspects of the Company's Interconnection Tariff. The Interconnecting Customer will continue to comply with all applicable laws and requirements after interconnection has occurred. In the event the Company has reason to believe that the Interconnecting Customer's installation may be the source of problems on the Company EPS, the Company has the right to install monitoring equipment at a mutually agreed upon location to determine the source of the problems. If the Facility is determined to be the source of the problems, the Company may require

disconnection as outlined in Section 7.0 of this Interconnection Tariff. The cost of this testing will be borne by the Company unless the Company demonstrates that the problem or problems are caused by the Facility or if the test was performed at the request of the Interconnecting Customer.

6.2. No Adverse Effects; Non-interference.

Company shall notify Interconnecting Customer if there is evidence that the operation of the Facility could cause disruption or deterioration of service to other Customers served from the same Company EPS or if operation of the Facility could cause damage to Company EPS or Affected Systems. The deterioration of service could be, but is not limited to, harmonic injection in excess of IEEE Standard 1547-2003, as well as voltage fluctuations caused by large step changes in loading at the Facility. Each Party will notify the other of any emergency or hazardous condition or occurrence with its equipment or facilities which could affect safe operation of the other Party's equipment or facilities. Each Party shall use reasonable efforts to provide the other Party with advance notice of such conditions.

The Company will operate the EPS in such a manner so as to not unreasonably interfere with the operation of the Facility. The Interconnecting Customer will protect itself from normal disturbances propagating through the Company EPS, and such normal disturbances shall not constitute unreasonable interference unless the Company has deviated from Good Utility Practice. Examples of such disturbances could be, but are not limited to, single-phasing events, voltage sags from remote faults on the Company EPS, and outages on the Company EPS. If the Interconnecting Customer demonstrates that the Company EPS is adversely affecting the operation of the Facility and if the adverse effect is a result of a Company deviation from Good Utility Practice, the Company shall take appropriate action to eliminate the adverse effect.

6.3. Safe Operations and Maintenance.

Each Party shall operate, maintain, repair, and inspect, and shall be fully responsible for, the facility or facilities that it now or hereafter may own unless otherwise specified in this Agreement. Each Party shall be responsible for the maintenance, repair and condition of its respective lines and appurtenances on their respective side of the PCC. The Company and the Interconnecting Customer shall each provide equipment on its respective side of the PCC that adequately protects the Company's EPS, personnel, and other persons from damage and injury.

6.4. Access.

The Company shall have access to the disconnect switch of the Facility at all times.

6.4 a) Company and Interconnecting Customer Representatives.

Each Party shall provide and update as necessary the telephone number that can be used at all times to allow either Party to report an emergency.

6.4 b) Company Right to Access Company-Owned Facilities and Equipment.

If necessary, for the purposes of the Interconnection Tariff and in the manner, it describes, the Interconnecting Customer shall allow the Company access to the Company's equipment and the Company's facilities located on the Interconnecting Customer's or Customer's premises. To the extent that the Interconnecting Customer does not own all or any part of the property on which the Company is required to locate its equipment or facilities to serve the Interconnecting Customer under the Interconnection Tariff, the Interconnecting Customer shall secure and provide in favor of the Company the necessary rights to obtain access to such equipment or facilities, including easements if the circumstances so require. In addition to any rights and easements required by the Company in accordance with the above provision, the Interconnecting Customer shall obtain an executed Landowner Consent Agreement (Exhibit I) from the Landowner, unless the Company, in its sole discretion, waives this requirement.

6.4 c) Right to Review Information.

The Company shall have the right to review and obtain copies of Interconnecting Customer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Interconnecting Customer's Facility or its interconnection with the Company EPS. This information will be treated as customer-confidential and only used for the purposes of meeting the requirements of Section 4.2.4 in the Interconnection Tariff.

7. Disconnection

7.1. Temporary Disconnection

7.1 a) Emergency Conditions. Company shall have the right to immediately and temporarily disconnect the Facility without prior notification in cases where, in the reasonable judgment of Company, continuance of such service to Interconnecting Customer is imminently likely to (i) endanger persons or damage property or (ii) cause a material adverse effect on the integrity or security of, or damage to, Company EPS or to the electric systems of others to which the Company EPS is directly connected. Company shall notify Interconnecting Customer promptly of the emergency condition. Interconnecting Customer shall notify Company promptly when it becomes aware of an emergency condition that affects the Facility that may reasonably be expected to affect the Company EPS. To the extent information is known, the notification shall describe the emergency condition, the extent of the damage or deficiency, or the expected effect on the operation of both Parties' facilities and operations, its anticipated duration and the necessary corrective action.

7.1 b) Routine Maintenance, Construction and Repair. Company shall have the right to disconnect the Facility from the Company EPS when necessary for routine maintenance, construction and repairs on the Company EPS. The Company shall provide the Interconnecting Customer with a minimum of seven calendar days planned outage notification consistent with the Company's planned outage notification protocols. If the Interconnecting Customer requests disconnection by the Company at the PCC, the Interconnecting Customer will provide a minimum of seven day's notice to the Company. Any additional notification requirements will be specified by mutual agreement in the Interconnection Service Agreement. Company shall make an effort to schedule such curtailment or temporary disconnection with Interconnecting Customer.

7.1 c) Forced Outages. During any forced outage, Company shall have the right to suspend interconnection service to effect immediate repairs on the Company EPS; provided, however, Company shall use reasonable efforts to provide the Interconnecting Customer with prior notice. Where circumstances do not permit such prior notice to Interconnecting Customer, Company may interrupt Interconnection Service and disconnect the Facility from the Company EPS without such notice.

7.1 d) Non-Emergency Adverse Operating Effects. The Company may disconnect the Facility if the Facility is having an adverse operating effect on the Company EPS or other Customers that is not an emergency, and the Interconnecting Customer fails to correct such adverse operating effect after written notice has been provided and a maximum of 45 days to correct such adverse operating effect has elapsed.

7.1 e) Modification of the Facility. Company shall notify Interconnecting Customer if there is evidence of a material modification to the Facility and shall have the right to immediately suspend interconnection service in cases where such material modification has been implemented without prior written authorization from the Company.

7.1 f) Re-connection. Any curtailment, reduction or disconnection shall continue only for so long as reasonably necessary. The Interconnecting Customer and the Company shall cooperate with each other to restore the Facility and the Company EPS, respectively, to their normal operating state as soon as

reasonably practicable following the cessation or remedy of the event that led to the temporary disconnection.

7.2. Permanent Disconnection.

The Interconnecting Customer has the right to permanently disconnect at any time with 30 days written notice to the Company.

~~7.2~~ a) The Company may permanently disconnect the Facility upon termination of the Interconnection Service Agreement in accordance with the terms thereof.

8. Metering. Metering of the output from the Facility shall be conducted pursuant to the terms of the Interconnection Tariff.

9. Assignment. Except as provided herein, Interconnecting Customer shall not voluntarily assign its rights or obligations, in whole or in part, under this Agreement without Company's written consent. Any assignment Interconnecting Customer purports to make without Company's written consent shall not be valid. Company shall not unreasonably withhold or delay its consent to Interconnecting Customer's assignment of this Agreement. Notwithstanding the above, Company's consent will not be required for any assignment made by Interconnecting Customer to an Affiliate or as collateral security in connection with a financing transaction. In all events, the Interconnecting Customer will not be relieved of its obligations under this Agreement unless, and until the assignee assumes in writing all obligations of this Agreement and notifies the Company of such assumption.

10. Confidentiality. Company shall maintain confidentiality of all Interconnecting Customer confidential and proprietary information except as otherwise required by applicable laws and regulations, the Interconnection Tariff, or as approved by the Interconnecting Customer in the Simplified or Expedited/Standard Application form or otherwise.

11. Insurance Requirements.

11.1. General Liability.

11.1 a) In connection with Interconnecting Customer's performance of its duties and obligations under the Interconnection Service Agreement, Interconnecting Customer shall maintain, during the term of the Agreement, general liability insurance with a combined single limit of not less than:

- Five million dollars (\$5,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than five (5) MW.
- Two million dollars (\$2,000,000) for each occurrence and five million dollars (\$5,000,000) in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one (1) MW and less than or equal to five (5) MW;
- One million dollars (\$1,000,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than one hundred (100) kW and less than or equal to one (1) MW;
- Five hundred thousand dollars (\$500,000) for each occurrence and in the aggregate if the Gross Nameplate Rating of Interconnecting Customer's Facility is greater than ten (10) kW and less than or equal to one hundred (100) kW, except for as provide below in subsection 11.1(b).

11.1 b) Pursuant to 220 CMR §18.03(2), no insurance is required for Interconnecting Customers with facilities eligible for Class 1 Net Metering (facilities less than or equal to sixty (60) kW. However, the Company recommends that the Interconnecting Customer obtain adequate insurance to cover potential liabilities.

11.1 c) Any combination of General Liability and Umbrella/Excess Liability policy limits can be used to satisfy the limit requirements stated above.

11.1 d) The general liability insurance required to be purchased in this Section 11 may be purchased for the direct benefit of the Company and shall respond to third party claims asserted against the Company (hereinafter known as "Owners Protective Liability"). Should this option be chosen, the requirement of Section 11.2(a) will not apply but the Owners Protective Liability policy will be purchased for the direct benefit of the Company and the Company will be designated as the primary and "Named Insured" under the policy.

11.1 e) The insurance hereunder is intended to provide coverage for the Company solely with respect to claims made by third parties against the Company.

11.1 f) In the event the Commonwealth of Massachusetts, or any other governmental subdivision thereof subject to the claims limits of the Massachusetts Tort Claims Act, G.L. c. 258 (hereinafter referred to as the "Governmental Entity") is the Interconnecting Customer, any insurance maintained by the Governmental Entity shall contain an endorsement that strictly prohibits the applicable insurance company from interposing the claims limits of G.L. c. 258 as a defense in either the adjustment of any claim, or in the defense of any lawsuit directly asserted against the insurer by the Company. Nothing herein is intended to constitute a waiver or indication of an intent to waive the protections of G.L. c. 258 by the Governmental Entity.

11.1 g) Notwithstanding the requirements of section 11.1(a) through (f), insurance for certain Governmental Entity facilities may be provided as set forth in section 11.1(g)(i) and (ii) below. Nothing herein changes the provision in subsection 11.1(a)(iv) that exempts Class I Net Metering facilities (less than or equal to 60 kW) from the requirement to obtain insurance. In addition, nothing shall prevent the Governmental Entity from obtaining insurance consistent with the provisions of subsection 11.1(a) through (f), if it is able and chooses to do so. i) For solar photovoltaic (PV) facilities with a Gross Nameplate Rating in excess of 60 kW up to 500 kW, the Governmental Entity is not required to obtain liability insurance. Any liability costs borne by the Company associated with a third-party claim for damages in excess of the claims limit of the Massachusetts Tort Claims Act, M.G.L. c. 258, and market-based premium related costs, if any, borne by the Company associated with insurance for such third-party claims shall be recovered annually on a reconciling basis in Company rates in a manner that shall be reviewed and approved by the Department. ii) For (a) PV facilities with a Gross Nameplate Rating in excess of 500 kW up to 5 MW, (b) wind facilities with a Gross Nameplate Rating in excess of 60 kW up to 5 MW, and (c) highly efficient combined heat and power facilities with a Gross Nameplate Rating of in excess of 60 kW up to 5 MW, the Governmental Entity is not required to obtain liability insurance, subject to the requirements of the following paragraph. The Company shall either self-insure for any risk associated with possible third-party claims for damages in excess of the Massachusetts Tort Claims Act limit, or obtain liability insurance for such third-party claims, and the Company is authorized to charge and collect from the Governmental Entity its pro-rata allocable share of the cost of so doing, plus all reasonable administrative costs. The coverage and cost may vary with the size and type of facility, and may change (increase or decrease) over time, based on insurance market conditions, and such cost shall be added to, and paid for as part of the Governmental Entity's electric bill.

11.2. Insurer Requirements and Endorsements.

All required insurance shall be carried by reputable insurers qualified to underwrite insurance in MA having a Best Rating of at least "A-". In addition, all insurance shall, (a) include Company as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that Company shall not incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to Company prior to cancellation, termination, or material change of such insurance; provided that to the extent the Interconnecting Customer is satisfying the requirements of subpart (d) of this paragraph by means of a presently existing insurance policy, the Interconnecting

Customer shall only be required to make good faith efforts to satisfy that requirement and will assume the responsibility for notifying the Company as required above.

If the requirement of clause (a) in the paragraph above prevents Interconnecting Customer from obtaining the insurance required without added cost or due to written refusal by the insurance carrier, then upon Interconnecting Customer's written Notice to Company, the requirements of clause (a) shall be waived.

11.3. Evidence of Insurance.

Evidence of the insurance required shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by Interconnecting Customer.

The Interconnecting Customer is responsible for providing the Company with evidence of insurance in compliance with the Interconnection Tariff on an annual basis.

Prior to the Company commencing work on System Modifications, and annually thereafter, the Interconnecting Customer shall have its insurer furnish to the Company certificates of insurance evidencing the insurance coverage required above. The Interconnecting Customer shall notify and send to the Company a certificate of insurance for any policy written on a "claims-made" basis. The Interconnecting Customer will maintain extended reporting coverage for three years on all policies written on a "claims-made" basis.

In the event that an Owners Protective Liability policy is provided, the original policy shall be provided to the Company.

11.4. Self Insurance.

If Interconnecting Customer has a self-insurance program established in accordance with commercially acceptable risk management practices. Interconnecting Customer may comply with the following in lieu of the above requirements as reasonably approved by the Company:

- Interconnecting Customer shall provide to Company, at least thirty (30) calendar days prior to the Date of Initial Operation, evidence of such program to self-insure to a level of coverage equivalent to that required.
- If Interconnecting Customer ceases to self-insure to the standards required hereunder, or if Interconnecting Customer is unable to provide continuing evidence of Interconnecting Customer's financial ability to self-insure, Interconnecting Customer agrees to promptly obtain the coverage required under Section 11.1

This section shall not allow any Governmental Entity to self-insure where the existence of a limitation on damages payable by a Government Entity imposed by the Massachusetts Tort Claims Act, G.L. c. 258, or similar law, could effectively limit recovery (by virtue of a cap on recovery) to an amount lower than that required in Section 11.1(a).

11.5. All insurance certificates, statements of self-insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

Eversource

Attention: DG Group, SW 340

247 Station Dr,

Westwood, MA 02090-9230

12. Indemnification. Except as the Commonwealth is precluded from pledging credit by Section 1 of Article 62 of the Amendments to the Constitution of the Commonwealth of Massachusetts, and except as the Commonwealth's cities and towns are precluded by Section 7 of Article 2 of the Amendments to the Massachusetts Constitution from pledging their credit without prior legislative authority, Interconnecting Customer and Company shall each indemnify, defend and hold the other, its directors, officers, employees and agents (including, but not limited to, Affiliates and contractors and their employees), harmless from and against all liabilities, damages, losses, penalties, claims, demands, suits and proceedings of any nature whatsoever for personal injury (including death) or property damages to unaffiliated third parties that arise out of or are in any manner connected with the performance of this

Agreement by that Party except to the extent that such injury or damages to unaffiliated third parties may be attributable to the negligence or willful misconduct of the Party seeking indemnification.

13. Limitation of Liability. Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including court costs and reasonable attorney's fees, relating to or arising from any act or omission in its performance of this Agreement, shall be limited to the amount of direct damage or liability actually incurred. In no event shall either Party be liable to the other Party for any indirect, incidental, special, consequential, or punitive damages of any kind whatsoever.

14. Amendments and Modifications. No amendment or modification of this Agreement shall be binding unless in writing and duly executed by both Parties.

15. Permits and Approvals. Interconnecting Customer shall obtain all environmental and other permits lawfully required by governmental authorities for the construction and operation of the Facility. Prior to the construction of System Modifications, the Interconnecting Customer will notify the Company that it has initiated the permitting process. Prior to the commercial operation of the Facility the Interconnecting Customer will notify the Company that it has obtained all permits necessary. Upon request the Interconnecting Customer shall provide copies of one or more of the necessary permits to the Company.

16. Force Majeure. For purposes of this Agreement, "Force Majeure Event" means any event:

- a) that is beyond the reasonable control of the affected Party; and
- b) that the affected Party is unable to prevent or provide against by exercising commercially reasonable efforts, including the following events or circumstances, but only to the extent they satisfy the preceding requirements: acts of war or terrorism, public disorder, insurrection, or rebellion; floods, hurricanes, earthquakes, lightning, storms, and other natural calamities; explosions or fire; strikes, work stoppages, or labor disputes; embargoes; and sabotage. If a Force Majeure Event prevents a Party from fulfilling any obligations under this Agreement, such Party will promptly notify the other Party in writing, and will keep the other Party informed on a continuing basis of the scope and duration of the Force Majeure Event. The affected Party will specify in reasonable detail the circumstances of the Force Majeure Event, its expected duration, and the steps that the affected Party is taking to mitigate the effects of the event on its performance. The affected Party will be entitled to suspend or modify its performance of obligations under this Agreement, other than the obligation to make payments then due or becoming due under this Agreement, but only to the extent that the effect of the Force Majeure Event cannot be mitigated by the use of reasonable efforts. The affected Party will use reasonable efforts to resume its performance as soon as possible. In no event, will the unavailability or inability to obtain funds constitute a Force Majeure Event.

17. Notices.

17.1. Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given on the date actually delivered in person or five (5) Business Days after being sent by certified mail, e-mail or fax with confirmation of receipt to the person specified below:

If to Company	
Name	Eversource
Attention	247 Station Dr, SW340 Westwood, MA 02090-9230
Email	Matthew.Secovich@eversource.com

If to Interconnecting Customer	
Name	Manhan River, LLC
Attention	Interconnection Team
Address	116 Huntington Ave, Suite 601, Boston MA 02116
Phone	(617) 209-3122
Email	ixteam@bluwavesolar.com

17.2. A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 17.1.

17.3. The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, email addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

18. Default and Remedies.

18.1. Defaults. Any one of the following shall constitute "An Event of Default."

- i. One of the Parties shall fail to pay any undisputed bill for charges incurred under this Agreement or other amounts which one Party owes the other Party as and when due, and such failure shall continue for a period of thirty (30) days after written notice of nonpayment from the affected Party to the defaulting Party, or
- ii. One of the Parties fails to comply with any other provision of this Agreement or breaches any representation or warranty in any material respect and fails to cure or remedy that default or breach within sixty (60) days after notice and written demand by the affected Party to cure the same or such longer period reasonably required to cure (not to exceed an additional 90 days unless otherwise mutually agreed upon), provided that the defaulting Party diligently continues to cure until such failure is fully cured.

18.2. Remedies. Upon the occurrence of an Event of Default, the affected Party may at its option, in addition to any remedies available under any other provision herein, do any, or any combination, as appropriate, of the following:

- a) Continue to perform and enforce this Agreement;
- b) Recover damages from the defaulting Party except as limited by this Agreement;
- c) By written notice to the defaulting Party terminate this Agreement;
- d) Pursue any other remedies it may have under this Agreement or under applicable law or in equity.

19. Entire Agreement. This Agreement, including any attachments or appendices, is entered into pursuant to the Interconnection Tariff. Together the Agreement and the Interconnection Tariff represent the entire understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each Party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the Company's Interconnection Tariff.

20. Supercedence. In the event of a conflict between this Agreement, the Interconnection Tariff, or the terms of any other tariff, Exhibit or Attachment incorporated by reference, the terms of the Interconnection Tariff, as the same may be amended from time to time, shall control. In the event that the Company files a revised tariff related to interconnection for Department approval after the effective date of this Agreement, the Company shall, not later than the date of such filing, notify the signatories of this Agreement and provide them a copy of said filing.

21. Governing Law. This Agreement shall be interpreted, governed, and construed under the laws of the Commonwealth of Massachusetts without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.

22. Non-waiver. None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a

waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

23. Counterparts. This Agreement may be signed in counterparts.

24. No Third Party Beneficiaries. This Agreement is made solely for the benefit of the Parties hereto. Nothing in the Agreement shall be construed to create any rights in or duty to, or standard of care with respect to, or any liability to, any person not a party to this Agreement.

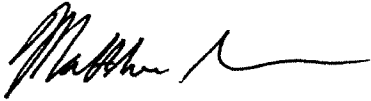
25. Dispute Resolution. Unless otherwise agreed by the Parties, all disputes arising under this Agreement shall be resolved pursuant to the Dispute Resolution Process set forth in the Interconnection Tariff.

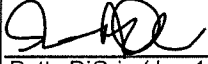
26. Severability. If any clause, provision, or section of this Agreement is ruled invalid by any court of competent jurisdiction, the invalidity of such clause, provision, or section, shall not affect any of the remaining provisions herein.

27. By signing this certification, Interconnecting Customer certifies that they will set and operate the Facility in accordance with the aggregate export/import limit on this Facility as stated herein. The installed Facility will have the limit install per the Interconnecting Customer's Installer Application or WEB Portal. Any future modifications to the aggregate power export/import limit stated herein must be reported to the Company prior to making any modifications to the Facility settings as stated herein. Future modifications cannot be implemented to the Facility until an updated permission to operate is issued by the Company. Notwithstanding the foregoing, the Company maintains the right to further curtail or disconnect the Facility consistent with Section 7 of the Interconnection Tariff, M.D.P.U. No. 55A, as amended from time to time. Any and all costs associated with the damage to the Company's EPS resulting from the failure of or unauthorized modification to the Facility's curtailment limit as stated herein will be the Interconnecting Customer's sole responsibility.

28. Signatures.

IN WITNESS WHEREOF, the Parties hereto have caused two (2) originals of this Agreement to be executed under seal by their duly authorized representatives.

Eversource Company	
Name	Matthew Secovich
Title	Account Executive
Signature	
Date	5/1/2026

Interconnecting Customer	
Customer Name	Manhan River, LLC
Title	Authorized Signatory
Signature	 Patty DiOrio (Jun 10, 2026 14:20:09 EDT)
Date	Jun 10, 2026

The following attachments will be included as appropriate for each specific Interconnection Service Agreement:

Attachment 1: Description of Facilities, including demarcation of Point of Common Coupling

Refer the Design Document & One-Line Diagram on the Power Clerk Portal under the attachment section.

Attachment 2: Description of System Modifications

The interconnection of this distributed generation application is queued behind other applicants which may require system upgrades to the Eversource system, and the cost for those upgrades has been included as a requirement in their respective Interconnection Services Agreement(s). If a prior applicant should dequeue or withdraw for any reason, the system conditions permitting the interconnection of succeeding applicant(s) may

change. Upon the withdrawal of previously queued applicants, succeeding applicant(s) may become responsible some or all of the system upgrades that were required for the prior applicants, and Eversource may have to reassess system conditions to determine if the applicant currently under study would trigger the same upgrades

If you are planning to participate in the Net Metering Program three configurations pursuant to which paired systems are eligible to participate in the net metering program:

- (1) the ESS charges only from the net metering facility and cannot export
- (2) the ESS charges only from the net metering facility and can export
- (3) the ESS charges either from the grid or the net metering facility and cannot export

The Department also sets forth certain other requirements related to the eligibility of paired systems to net meter and a process through which the host customer of a paired system must self-certify compliance with all net metering rules and regulations. Including inadvertent export which is defined as “the unscheduled and uncompensated export of real power from a generating facility for a limited duration, not to exceed 30 seconds.”

For SMART Metering Work Orders:

SMART Metering and Wiring Installation Guidelines to be Adhered to: [Click here](#)

All metering must comply with Eversource Bluebook Standards, specifically regarding hot sequence and cold sequence.

The following distribution upgrades are currently required for this DG Interconnection Application:

WO # 12475560	Description	Cost
Point of Interconnection	Replace the estimated 0.85 miles of overhead single phase 1/0 ASCR conductor from pole #14/40 to pole #32/52S with three phase 556 ALTW One 22.8 kV lateral tap, recloser, primary metering package, and primary disconnect at the point of common coupling (PCC) An Eversource-owned 3350 Gateway. The proposed Solectria XGI 1500-166 inverters supports the Instantaneous voltage tripping also known as Self Protection Overvoltage (SPOV). It is required that the inverters must have the SPOV function enabled and set to trip at 1.3 p.u within 1 ms as listed in the manufacturer provided letter. Project inverters are required to enable the anti-islanding protection.	

The following transmission upgrades are currently required for this DG Interconnection Application:

Special Note

N/A

Attachment 3: Costs of System Modifications and Payment Terms.

The **Eversource** cost summary is shown below:

Project Cost / Fees: Project Work Order Number **12475560**

The enclosed total cost of [REDACTED] regarding Project Work Order Number **12475560**, must all be paid in full to move the project forward into final design and construction.

Eversource's and the Applicant will mutually agree upon a construction schedule which will take be required to consider inclement weather and customer outages for completion. This will be established upon the **Eversource** construction final design. Note: For customers with multiple projects, **Eversource** will require a priority listing of those projects and timeframe for completion to sufficiently order materials and to determine the projected construction schedule.

The following check off items will be required, prior to commencement of final design for system modifications and construction:

- Payment in full prior to beginning of any construction work by **Eversource**
- Final site plan, alter survey and final ISD must be completed before final design
- Approved final electrical wiring inspection - 1800-880-2433
- Approved final customer relay/protection settings for Recloser, if applicable
- Signed easement and/or rights documents, if applicable.
- For projects involving work coordinated with Verizon, please note that any associated costs are managed directly between the customer or developer and Verizon. These costs are not included in the estimate provided within the Eversource Interconnection Service Agreement (ISA) and must be paid directly to Verizon by the customer or developer during the post-ISA construction phase.
- Verizon operates as an independent entity and maintains its own separate application and approval process. It is the sole responsibility of the customer or developer to engage with Verizon and complete all necessary steps related to Verizon's portion of the project.
- Signed agreements to operate within **Eversource** Right-of-Ways, if applicable
- All Required Closeout Documents per Checklist
- If the customer requires a disconnect/reconnect to contact 800-880-2433 and request a disconnect/reconnect WO.

Your Witness Test for Final Commissioning can then take place once you have completed the check-off steps as part of the Interconnection Agreement and that the solar array is connected (energized) to Eversource's distribution system.

Please mail your payment, made payable to **Eversource** as shown below. Please reference the **Eversource** Electric Work Order # **12475560** on the check. This cost is valid for Ninety (90) calendar days from the date of this letter. Note: the customer is responsible for all costs on private property.

Once final customer design, permits are secured and upon the full payment, Eversource will then schedule the final engineering and design to be completed.

This may take up to 2 – 3 months for review and approval based on the complexity of the Work Order. If a single customer has multiple projects Eversource may ask them to provide a priority.

Eversource
ATTN: DG Group, WO# 12475560
247 Station Dr, SW340
Westwood, MA 02090-9230

Attachment 4: Special Operating Requirements

General Clause: The Customer acknowledges and agrees to certain operating constraints required by the Company so that its Facility does not adversely affect the Company's electric power system, or the quality of power delivered by it.

As indicated in the SIS report under Appendix A, all applicable system modifications and/or Capital upgrades must be completed before the Permission to Operate (PTO) letter is issued ensuring the safe and reliable operation of the System. Furthermore, please refer to this Section in understanding any field limitations related to the operation of Battery Energy Storage Systems (BESS) if applicable along with any other restrictive operation to the operating parameters and the activation of any Protective elements as identified throughout the review of the Oonline and the SIS report analysis must be programmed and witness tested before the official PTO is awarded. Any subsequent design changes upon the issuance of ISA that may require modification to any of the above mentioned clause would require an amended ISA reflecting those impactful changes in ensuring that we deliver the safe and reliable service to our Customers.

General Off-unity power factor operation (for facilities of 500kW or greater):

The Customer's Facility must be capable of operating at power factors within ± 0.95 , and the Customer must adjust the Facility's control parameters to output at power factors within that range at the request of the Company in order to mitigate voltage deviations or other power quality phenomenon on the circuits that interconnect the Facility. Any such requests will be issued to the Customer in writing. The Company may consult with the Customer in order to determine a control methodology that will provide adequate mitigation that is consistent with the control capabilities of the Facility and are of least impact to the Customer; however, the requirements will ultimately be determined at the sole discretion of the Company. Should the Company determine that the Customer is operating its Facility contrary to this requirement; the Company will disconnect the Facility and will not allow re-connection until the Company is satisfied that the customer has implemented appropriate changes to its controls and/or settings to achieve the required performance. Inverters must have adjustable power factor. The Company has the right to go back and request off unity output from the DG interconnection.

This facility will be tripped offline via an Eversource recloser when the normal electrical Feed is not in operation. This includes when the area is fed from another feeder which is not the normal electrical feed. The facility will not be allowed on-line until the normal electrical feed is restored to service.

By signing this certification, Interconnecting Customer certifies that they will set and operate the Facility in accordance with the aggregate export/import limit on this Facility as stated herein. The installed Facility will have the limit install per the Interconnecting Customer's Installer Application or WEB Portal. Any future modifications to the aggregate power export/import limit stated herein must be reported to the Company prior to making any modifications to the Facility settings as stated herein. Future modifications cannot be implemented to the Facility until an updated permission to operate is issued by

the Company. Notwithstanding the foregoing, the Company maintains the right to further curtail or disconnect the Facility consistent with Section 7 of the Interconnection Tariff, M.D.P.U. No. 55A, as amended from time to time. Any and all costs associated with the damage to the Company's EPS resulting from the failure of or unauthorized modification to the Facility's curtailment limit as stated herein will be the Interconnecting Customer's sole responsibility.

Attachment 5: Agreement between the Company and the Company's retail Customer (Exhibit H)

Agreement between the Company and the Company's retail Customer (to be signed by the Company's retail Customer where DG installation and interconnection will be placed, when retail Customer is not the owner and/or operator of the distributed generation facility).

3rd Party Agreement Required - No

Document References – Refer the **3rd Party Agreement (Unsigned)** on the Power Clerk Portal under the attachment section.

Attachment 6: Landowner Consent Agreement (Exhibit I)

Landowner Consent Agreement (to be signed by the Landowner where the Facility will be located when the Landowner is neither the Customer nor Interconnecting Customer --Exhibit I)

Landowner Agreement Required - Yes

Document References – Refer the **Landowner Agreement (Unsigned)** on the Power Clerk Portal under the attachment section.

Attachment 7: System Modifications construction schedule. If the Interconnection Service

Agreement is signed prior to a Detailed Study (if applicable), the System Modifications construction schedule from the Detailed Study when finalized shall be deemed a part of the signed Interconnection Service Agreement.

26-0609 MA Southampton 43 Pleasant St ISA Agreement

Final Audit Report

2026-06-10

Created:	2026-06-09
By:	Eric Ibarra (eibarra@bluewavesolar.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAAZSYRBDSsa1V6o5KMSZKC5D-cFCJ4ffsy

"26-0609 MA Southampton 43 Pleasant St ISA Agreement" History

 Document created by Eric Ibarra (eibarra@bluewavesolar.com)
2026-06-09 - 1:27:25 PM GMT

 Document emailed to Patty DiOrio (patty.diorio@bluewave.energy) for signature
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 Document e-signed by Patty DiOrio (patty.diorio@bluewave.energy)
Signature Date: 2026-06-10 - 6:20:09 PM GMT - Time Source: server - Signature Appearance Selected: DRAW

 Agreement completed.
2026-06-10 - 6:20:09 PM GMT

Appendix C – Revised Decommissioning Estimate

43 & 53 Pleasant Street, Southampton, MA 01073
5.49 MW (DC) Agrivoltaic Solar Development & Battery Energy Storage System (BESS) Facility
Manhan River, LLC
Decommissioning Plan and Estimate

Timeline:

Decommissioning of the system will occur within 150 days following the end of the lease term or if found to have fallen into disuse.

Assumptions:

Key assumptions include the following:

- 1) Fencing, electrical cabinetry, solar racks, solar panels, wiring and all other equipment are 100% recyclable.
- 2) The primary cost of decommissioning is the labor to dismantle and load the equipment plus trucking.
- 3) Concrete pads will be demolished on-site and transported to an ABC recycling facility where it will be accepted at no charge.
- 4) All other recyclables will be transported to the nearest Transfer Station that accepts the material.
- 5) Costs are based on NYSERDA Solar Guidebook for Local Governments. Estimates below are based on the Massachusetts solar market.
- 6) Stabilization or re-vegetation of the site will occur as necessary to minimize erosion.

Decommissioning Tasks:

Task	Cost
1) Remove Panels The panels are bolted in. A laborer needs to unbolt the panel and remove the panel off the rack.	\$7,785
2) Remove Rack Wiring The panels are plugged together in the same manner as an electrical cord from a light is plugged into a wall socket. A laborer needs only to reach over and pull the plug. The string wires typically lie in a sling. A laborer needs only to reach into the sling and remove the strands of wire.	\$7,814
3) Dismantle Racks Racks will be dismantled and stockpiled for removal.	\$39,244
4) Remove Electrical Equipment (Inverters, Transformers, Switchgear, Storage Containers) Equipment will be removed from the equipment pads.	\$5,879
5) Break Up Concrete Pads Concrete will be broken up using an excavator and jackhammer.	\$4,767
6) Remove Racks Racks will be removed and stockpiled.	\$24,786
7) Remove Cable Cables will be removed and stockpiled.	\$20,655
8) Remove Foundation Posts and Utility Poles Posts and poles will be removed from the ground using appropriate equipment.	\$44,011
9) Remove Battery Energy Storage System (see breakdown next page) Battery Energy Storage System shall be removed and transported to an off site licensed facility.	\$155,768
10) Remove Fence Fencing and posts will be removed.	\$15,730
11) Grading Graded areas (e.g., stormwater basins) will be returned to pre-construction conditions.	\$12,711
12) Seed Disturbed Areas Any graded areas will be seeded to promote revegetation.	\$794
13) Trucking Costs All stockpiled equipment and materials will be removed from the site.	\$7,150
Total Decommissioning Cost Estimate (Year 1)	\$347,093
2.5% Escalator	
Total Decommissioning Cost Estimate (Year 20)	\$554,880

43 & 53 Pleasant Street, Southampton, MA 01073
5.49 MW (DC) Agrivoltaic Solar Development & Battery Energy Storage System (BESS) Facility
Manhan River, LLC
Decommissioning Plan and Estimate

Timeline:

Decommissioning of the BESS portion system will occur within 365 days following the end of the lease term or if found to have fallen into disuse.

Assumptions:

Key assumptions include the following:

- 1) Utilized BESS are comprised of Lithium-Ion Batteries or similar chemical composition with no recyclable value
- 2) The primary cost of BESS decommissioning is the transportation and disposal of the batteries.
- 3) Concrete pads will be demolished on-site and transported to an ABC recycling facility where it will be accepted at no charge.
- 4) All other recyclables will be transported to the nearest Transfer Station that accepts the material.
- 5) Costs are based on current market averages for battery weights and disposal costs.

Decommissioning Tasks:

Task	Cost
1) Remove Battery Racks Batteries are inserted as racks into the storage container. Batteries will need to be removed and palletized for transportation and disposal.	\$21,600
2) Remove and Dispose HVAC Equipment & Ancillary Wiring HVAC Fluids will be drained, and HVAC equipment and ancillary wiring will be removed and disposed.	\$21,982
3) Load And Dispose Battery Racks At Licensed Facility Equipment will be removed from the equipment pads.	\$92,904
4) Remove Containers Containers will be removed from pads & transported off site.	\$3,082
5) Break Up & Dispose Concrete Pads / Footings Concrete will be broken up using an excavator and jackhammer. Conduits greater than 3' in depth will be buried in place.	\$16,200
Total Decommissioning Cost Estimate	\$155,768

Appendix D – Material Safety Data Sheets



中国认可
国际互认
检验
INSPECTION
CNAS IB0551



Report No.:
报告编号: CCB20230810MSDS01

MATERIAL SAFETY DATA SHEET

材料安全数据表

Product 产品	Lithium-ion Cell 锂离子电芯
Type/Model 型号	LFP71173207/314Ah
Issue Date 签发日期	2023-09-13
Validity 有效期	2023-09-13 ~ 2023-12-31
Compiler 编写	Jin Xing Liao
Reviewer 审核	Oliver Huang
Approver 批准	Hongbin Xu

广州邦禾检测技术有限公司

Guangzhou MCM Certification & Testing Co., Ltd.

Material Safety Data Sheet

材料安全数据表

SECTION 1 - CHEMICAL AND COMPANY IDENTIFICATION	
第1节—化学品和公司标识	
Product 产品	Lithium-ion Cell 锂离子电芯
Type/Model: 型号	LFP71173207/314Ah
Parameter 参数	3.2V, 314Ah, 1004.8Wh
Usage 用途	☐ Used in Portable Equipment 用于便携式设备 ☐ Used in Electric Vehicle 用于电动车辆 ☒ Used in Energy Storage System 用于储能系统 ☒ Others 其他
Company 公司	Xiamen Hithium Energy Storage Technology Co., Ltd. 厦门海辰储能科技股份有限公司
Address 地址	201-1, Comprehensive Building 5, No. 11, Butang Middle Road, Industrial Base Of Xiamen Torch High Tech Zone (Tongxiang), Xiamen, Fujian, P.R. China 中国福建厦门火炬高新区(同翔)产业基地布塘中路11号5#综合楼201-1
Fax 传真	/
Zip code 邮编	361100
E-mail 电子邮箱	Bob@hithium.cn
Emergency Telephone 紧急联系电话	0592-5513735
Manufacturer 制造单位	Xiamen Hithium Energy Storage Technology Co., Ltd. 厦门海辰储能科技股份有限公司
Address 制造单位地址	201-1, Comprehensive Building 5, No. 11, Butang Middle Road, Industrial Base Of Xiamen Torch High Tech Zone (Tongxiang), Xiamen, Fujian, P.R. China 中国福建厦门火炬高新区(同翔)产业基地布塘中路11号5#综合楼201-1
Factory 生产单位	Xiamen Hithium Energy Storage Technology Co., Ltd. 厦门海辰储能科技股份有限公司
Address 生产单位地址	Northwest of the intersection of Guoshan south 2nd Road and Tongxiang Avenue, 12-12 Hongtang north area, Tongxiang high tech industrial base, Tong'an District, Xiamen City, Fujian, P.R. China 中国福建省厦门市同安区同翔高新技术产业基地12-12洪塘北片区郭山南二路与同翔大道交叉口西北侧地

SECTION 2 - HAZARDS IDENTIFICATION	
第2节—危害识别	
Classification 分类: This chemical is not considered hazardous by the Regulation (EC) No 1272/2008 (CLP). This product is an article which is a sealed battery and as such does not require an SDS per the Regulation (EC) No 1272/2008 (CLP) unless ruptured. The hazards indicated are for a ruptured battery. 该化学品不被法规(EC) No.1272/2008 (CLP)认为是危险的。本产品为密封电池,因此,除非破裂,不需要SDS (EC) No.1272/2008 (CLP)。以下提到的危险是电池破裂造成的。	
Acute toxicity – Oral 急性毒性-口服	Category 4 第4类
Acute toxicity - Dermal 急性毒性-皮肤	Category 4 第4类

Skin corrosion/irritation 皮肤腐蚀/刺激	Category 1B 第1B类
Serious eye damage/eye irritation 严重眼睛损失/眼睛刺激	Category 2 第2类
Skin sensitization 皮肤致敏	Category 1 第1类
Carcinogenicity 致癌性	Category 1B 第1B类
Carcinogenicity 致癌性	Category 1A 第1A类
Carcinogenicity 致癌性	Category 2 第2类
Specific target organ toxicity (repeated exposure) 特异性靶器官毒性（重复暴露）	Category 1 第1类

Label elements 标签要素:

Hazard pictograms 危害象形图



This product is an article which contains a chemical substance. Safety information is given for exposure to the article as solid. Intended use of the product should not result in exposure to the chemical substance, This is a battery. In case of rupture: the above hazards exist.

这个产品是一种含有化学物质的物品。安全信息是为了固体物质的暴露而提供。这是一个电池，本产品的预期用途不应导致化学物质暴露。万一破裂，上述危害存在。

Signal Word 信号词:

Danger 危险

Hazard Statements 风险声明

H302	Harmful if swallowed. 吞食有害
H312	Harmful in contact with skin. 与皮肤接触有害
H314	Causes severe skin burns and eye damage 会造成严重的皮肤灼伤和眼睛损伤
H332	Harmful if inhaled. 吸入有害
H318	Causes serious eye damage. 对眼睛造成严重损害
H317	May cause an allergic skin reaction. 可能导致皮肤过敏反应
H350	May cause cancer. 可能致癌
H351	Suspected of causing cancer 涉嫌致癌
H371	May cause damage to organs. 可能对器官造成损害
H372	Causes damage to organs 对器官造成损害
H335	May cause respiratory irritation. 可能引起呼吸道刺激

Precautionary Statements – Prevention**预防说明—预防**

P201	Obtain special instructions before use. 在使用前获得特殊说明
P202	Do not handle until all safety precautions have been read and understood. 阅读和理解安全注意事项后再操作
P281	Use personal protective equipment as required. 按要求使用个人防护装备
P264	Wash face, hands and any exposed skin thoroughly after handling. 处理后彻底清洗脸、手和任何暴露的皮肤
P272	Contaminated work clothing should not be allowed out of the workplace. 不应让受污染的工作服离开工作场
P210	Keep away from heat/sparks/open flames/hot surfaces –no smoking. 远离热源/火花/明火/热表面——禁止吸烟
P270	Do not eat, drink or smoke when using this product. 使用本品时请勿吃、喝、吸烟

Precautionary Statements – Response**预防声明—响应**

P301+ P330+ P308	If exposed or connected: Get medical advice/attention. Specific treatment (see supplemental first aid/instruction on this label). 如果暴露或接触: 求医/就医。特殊治疗 (见标签上的补充急救/说明)
	Skin: If on skin: wash with plenty of soap and water. Take off contaminated clothing and water before reuse, if skin irritation or rash occurs: get medical advice/attention if feel unwell. 皮肤: 如不慎接触皮肤, 请用大量清水和肥皂冲洗。如果出现皮肤刺激或皮疹, 在重复使用前脱下受污染的衣服和水: 如果感觉不适, 请就医/就诊。
	Eye: If in eyes: Rinse cautiously with water for several minutes, remove contact lenses, if present and easy to do, Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell. 眼睛: 如不慎入眼, 请马上用清水冲洗几分钟, 取下隐形眼镜, 如果存在且容易做到, 继续冲洗: 如果你感觉不舒服, 打电话给中毒中心或医生/医生
	Inhalation: If inhalation: if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician if you feel unwell. 吸入: 如不慎吸入, 并出现呼吸困难, 请将患者转移到空旷位置, 并保持舒适的姿势以呼吸新鲜空气: 如果出现呼吸道症状, 如果感觉不适, 呼叫解毒中心或医生/内科医生。
	Ingestion: If swallowed: rinse mouth, do not induce vomiting, Call a POISON CENTER or doctor/physician if you feel unwell. 食入: 如不慎吞食, 请马上冲洗口腔并不要引起呕吐。如果感觉不适, 呼叫解毒中心或医生/内科医生。

Precautionary Statements – Storage**预防声明—存储**

P405	Store locked up 加锁存储
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Precautionary Statements – Disposal**预防声明—处置**

P501	Dispose of contents/container to an approved waste disposal plant. 内容物/容器处理到经批准的废物处理工厂
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Hazards not otherwise classified (HNOC) 未分类的危险

Not applicable 不适用

Other information 其他信息

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
对水生生物有害, 可能对水生环境造成长期不利影响。

Interactions with other chemicals 与其他化学物质的相互作用

Use of alcoholic beverages may enhance toxic effect.
使用酒精饮料可能会增强毒性作用

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENT
第3节—成分信息

Ingredient 成分	Molecular formula 分子式	CAS No. CAS 号	Weigh 含量
Graphite /石墨	C ₂₄ X ₁₂	7782-42-5	10~25%
Lithium Iron Phosphate /磷酸铁锂	LiFePO ₄	15365-14-7	35~50%
Lithium Hexafluorophosphate /六氟磷酸锂	LiPF ₆	21324-40-3	0~5%
Acetylene Black /乙炔黑	C	1333-86-4	0~5%
4-Fluoro-1,3-Dioxolan-2-One /氟代碳酸乙烯酯	C ₃ H ₃ FO ₃	114435-02-8	0~5%
Ethyl Methyl Carbonate /碳酸甲乙酯	C ₄ H ₈ O ₃	623-53-0	0~20%
Ethylene Carbonate /碳酸乙烯酯	C ₃ H ₄ O ₃	96-49-1	0~20%
Dimethyl Carbonate /碳酸二甲酯	C ₃ H ₆ O ₃	616-38-6	0~20%

SECTION 4 - FIRST AID MEASURES
第4节—急救措施
Eye Exposure 眼睛接触:

In case of contact with eyes, flush with copious of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

如果与眼睛接触, 用大量的水冲洗至少15分钟。用手指分开眼睑, 确保充分的冲洗。寻求医生。

Skin Exposure 皮肤接触:

If the internal battery materials of an opened battery cell come into contact with skin, immediately flush with plenty of water or soap.

如果打开的电池的內部电池材料接触到皮肤, 立即用大量的水或肥皂冲洗。

Inhalation Exposure 吸入:

In case of inhaling gas volatilized from inside of the battery, seek immediate medical attention.

如果吸入了电池内部挥发的气体, 请立即就医。

Ingestion Exposure 吞咽:

If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

如果吞咽, 请就医。除非医务人员指示, 否则不要催吐。

SECTION 5 - FIRE FIGHTING MEASURES**第5节—消防措施****Danger characteristic 危险特性:**

Exposure to excessive heat can cause venting of the liquid electrolyte.

暴露在过热的环境中会导致液体电解质的释放。

Battery may burst and release hazardous decomposition products when exposed to a fire situation.

当暴露在火灾环境中时, 电池可能会爆裂并释放出危险的分解产物。

Hazardous combustion products 有害危险产物:

Corrosive and toxic gas may be emitted during fire.

着火期间可能会排放腐蚀性和有毒气体。

Fire-Fighting method 灭火措施:

The staff must equip with filtermask (full mask) or isolated breathing apparatus.

员工必须配备过滤器面罩或隔离式呼吸器。

The staff must wear the clothes which can defense the fire in the upwind direction.

工作人员必须穿能在逆风方向防火的衣服。

Remove the container to the open space as soon as possible.

尽快将容器移到空地上。

Spray water on the containers in the fireplace to keep them cool until finish extinguishment.

把水喷在壁炉里的容器上, 使其降温, 直到熄灭。

Fire-Fighting media 灭火介质:

Plenty of water, dry chemical powder or carbon dioxide.

大量的水, 干粉或二氧化碳。

SECTION 6 - ACCIDENTAL RELEASE MEASURES**第6节—意外泄漏措施****Emergency treatment 紧急处理:**

If the battery material is released, remove personnel from area until the batteries cool down and fumes dissipate.

如果电池材料被释放, 请将人员从该区域撤离, 直到电池冷却和烟雾消散。

Provide maximum ventilation to clear out hazardous gases and avoid skin and eye contact or inhalation of vapors.

提供最大的通风以清除有害气体和避免皮肤和眼睛接触或吸入蒸汽。

Remove spilled liquid with absorbent and incinerate waste.

用吸收剂除去溢出的液体并焚烧废物。

SECTION 7 - HANDLING AND STORAGE**第7节—处理和储存****Handling 处理:**

1. Do not allow battery terminates to contact each other, or contact with other metals.

不要让电池端子相互接触或与其他金属接触。

2. Do not put the cell or battery into a fire or heat it. Do not solder the cell directly. Do not use or leave the cell or battery in a place near fire or heaters.

不要将电芯或电池放入火中或加热。不要直接焊接电池。不要将电芯或电池放在靠近火源或加热器等地方。

3. Do not expose the battery to excessive physical shock or vibration.

不要让电池受到过度的物理冲击或振动。

4. Do not immerse, throw, and wet a battery in water.

不要将电池浸入水中、投掷或弄湿。

5. Short-circuiting should be avoided. Short circuit will reduce the life of the battery and can lead to ignition of surrounding materials. Physical contact with to short- circuited battery can cause skin burn.

应避免短路。短路会降低蓄电池的寿命, 并可能导致周围材料着火。与短路电池的物理接触会导致皮肤灼伤。

6. The batteries should not be opened, destroyed or incinerate, since they may leak or rupture and release to

the environment the ingredients that they contain in the hermetically sealed container.

不应打开、销毁或焚烧电池，因为电池可能泄漏或破裂，并将密封容器中的成分释放到环境中。

7. Place the cell beyond the child packing and container.

将电池放置在儿童触及不到的地方。

8. Do not connect the battery directly to an electric outlet or cigarette socket in a car.

不要将电池直接连接到汽车的电源插座或香烟插座上。

9. Be sure to use the specified charger for battery, and follow the charging instructions correctly.

请务必使用指定的蓄电池充电器，并正确遵循充电说明。

10. Do not mix old and new batteries together, neither with Ni-Cd, dry batteries or another manufacturer batteries or product.

不要将新旧电池混合在一起使用，也不要与镍镉电池、干电池或其他制造商的电池或产品混合使用。

Storage 储存:

1. Batteries should be separated from other materials and stored in a noncombustible, well ventilated, sprinkler-protected structure with sufficient clearance between walls and battery stacks.

电池应与其他材料分开，并存放在不燃、通风良好、有洒水装置保护的结构中，墙壁和电池堆之间应有足够的间隙。

2. Keep the sample in the cool, dry and well-ventilated place (temperature: -20~30 °C, humidity: 45~85%). Do not exposure to direct sunlight for long periods. Keep away from fire and heating sources. Don't keep the samples with oxidizer and acid.

将样品置于阴凉、干燥、通风良好的地方（温度-20~30℃，湿度：45~85%）。不要长时间暴露在阳光直射下。远离火源和热源。不要用氧化剂和酸保存样品。

3. Equip with relevant types and quantities of the extinguishment instruments. The storage place should be equipped with suitable shelter materials for divulgence handling.

配备相应种类和数量的灭火器材。储存场所应配备适当的掩蔽材料，以便进行泄漏处理。

4. For rechargeable battery, charge the battery every 6 months to the amount specified by the manufacture, even if the battery is not used.

对于可充电电池，即使不使用电池，也应每6个月将电池充电至制造商规定的电量。

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION

第8节—暴露控制与个人防护措施

Engineering Control 工程控制:

Keep away from heat and open flame. Supply with sufficient partial air exhaust. Store in a cool, dry place.

远离热源和明火。提供足够的局部排气。存放在阴凉干燥的地方。

Respiratory Protection 呼吸保护:

Not necessary under conditions of normal use. Wear self-contained breathing filtermask if the density exceed in the air. Wear breathing apparatus under the condition of emergency rescue or evacuation.

在正常使用条件下不需要。如果环境内气体密度超过空气中的密度，请佩戴自给式呼吸过滤器。在紧急救援或疏散的情况下，佩戴呼吸器。

Eyes Protection 眼睛保护:

Not necessary under conditions of normal use. Wear protective glasses if handling a leaking or ruptured battery.

在正常使用条件下不需要。如果处理泄漏或破裂的电池，请戴上防护眼镜。

Skin and Body Protection 皮肤和身体保护:

Not necessary under conditions of normal use. Wear fireproofing, gas defense clothes in case of handling a leaking or ruptured battery.

在正常使用条件下不需要。在处理泄漏或破裂的电池时，穿上防火防毒服。

Hands Protection 手部保护:

Not necessary under conditions of normal use. Wear chemical resistant rubber glove.

在正常使用条件下不需要。耐磨耐化学腐蚀橡胶手套。

Other Protections 其他保护:

No smoking, dining and drinking water in the workplace. Keep good habit of hygiene.
工作场所禁止吸烟、就餐和饮水。保持良好的卫生习惯。

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**第9节—理化性质**

Appearance 外观:	Blue 蓝色
Physical state 状态:	Solid 固体
Form 形状:	Prismatic 棱柱形
Odor 气味:	Odorless 无味
Solubility 溶解度:	Insoluble in water 不溶于水

SECTION 10 - STABILITY AND REACTIVITY**第10节—稳定性与反应性****Stability 稳定性:**

Stable under normal temperature and pressure.
常温常压下稳定。

Distribution of Ban 禁配物:

Explosives, inflammables, strong oxidants and corrosives.
爆炸品、易燃物、强氧化剂和腐蚀剂。

Conditions to Avoid 应避免的条件:

Fire source, heating source, disassemble, external short circuit, crushes, deformation, high temperature above 100°C, direct sunlight and high humidity, immerse in water or overcharge.
火源、热源、拆卸、外部短路、压碎、变形、100°C 以上高温、阳光直射、高湿度、浸水或过充。

Hazardous Polymerization 危险聚合:

Will not occur.
不会发生。

Hazardous Decomposition Products 有害分解产物:

Metal oxides, carboxyl compound such as CO, CO₂, etc.
金属氧化物, 碳化合物例如一氧化碳、二氧化碳, 等等。

SECTION 11 - TOXICOLOGICAL INFORMATION**第11节—毒理学信息****Acute Toxicity 急性毒性:**

No information is available.
没有可用的信息。

Sub-acute and Chronic Toxicity 亚急性和慢性毒性:

No information is available.
没有可用的信息。

Irritation Data 刺激性数据:

The internal battery materials may cause irritation to eyes and skin.
电池内部材料可能会对眼睛和皮肤造成刺激。

Sensitization 致敏作用:

The liquid in the battery may cause sensitization to some person.
电池中的液体可能会对某些人造成敏化。

Mutagenicity 致突变性:

No information is available.

没有可用的信息。

Carcinogenicity 致癌性:

No information is available.

没有可用的信息。

Others 其他:

Since the materials in this battery are sealed in the can, the potential for exposure to the components of the battery is negligible, when the battery is used as directed. However technical or electrical abuse of the battery may result in the release of battery contents.

由于该电池中的材料密封在罐体中，当按照指示使用电池时，接触电池组件的可能性可以忽略不计。但是，电池的技术或电气滥用可能会导致蓄电池内容物的释放。

SECTION 12 - ECOLOGICAL INFORMATION

第12节—生态信息

Eco-toxicity 生态毒性:

No information is available.

没有可用的信息。

Biodegradable 生物降解性:

No information is available.

没有可用的信息。

Mobility in soil 土壤流动性:

No information is available.

没有可用的信息。

Bioconcentration or biological accumulation 生物浓缩或生物积累:

No information is available.

没有可用的信息。

Other harmful effects 其他有害影响:

Don't abandon the battery into environment, may cause water or soil pollution.

不要将电池扔进环境中，可能造成水或土壤污染。

SECTION 13 - DISPOSAL CONSIDERATIONS

第13节—处置注意事项

Appropriate Method of Substance 物质处理方法:

The battery should be completely discharged prior to disposal in order to prevent short circuit.

为了防止短路，在处理前应将蓄电池完全放电。

The battery contains recyclable materials, and it is suggested recycle.

电池含有可回收材料，建议回收利用。

Refer to National or Local regulations before handling.

操作前请参阅国家或地方法规。

Disposal of the battery should be performed by permitted, professional disposal firms knowledgeable in National or Local regulations of hazardous waste treatment and hazardous waste transportation.

电池的处理应由获得国家或地方法规的许可的具有危险废物处理和危险废物运输的专业处理公司进行。

SECTION 14 - TRANSPORT INFORMATION

第14节—运输信息

The battery has passed the test items of UN Manual of Test and Criteria Section 38.3, and Report No.: CCB20230810U01.

电池已通过联合国《试验和标准手册》第38.3节的测试项目，报告编号：CCB20230810U01。

General packaging requirement 一般包装要求:

- The cells or batteries must be protected so as to prevent short circuits.
电芯或电池必须加以保护，以防止短路。
- The cells or batteries or equipment must be packed in suitable strong outer packaging.
电芯或电池或设备必须包装在合适的坚固的外包装中。
If batteries contained in equipment, equipment must be secured against movement within the outer packaging and be packed so as to prevent accidental activation.
如果电池包含在设备中，设备必须在外包装内固定，防止移动，并进行包装，以防止意外激活。
- packaging and be packed so as to prevent accidental activation.

No. 序号	UN numbers & Proper Shipping Name, if applicable 联合国编号及运输专用名，如适用		
(1)	UN 3480, LITHIUM ION BATTERIES UN 3480, 锂离子电池组		
(2)	UN 3481, LITHIUM ION BATTERIES PACKED WITH EQUIPMENT UN 3481, 锂离子电池组同设备包装在一起		
(3)	UN 3481, LITHIUM ION BATTERIES CONTAINED IN EQUIPMENT UN 3481, 锂离子电池安装在设备中		
(4)	UN 3171, BATTERY-POWERED VEHICLE UN 3171, 电池驱动的车辆		
(5)	UN 3166, VEHICLE, FLAMMABLE LIQUID POWERED UN 3166, 易燃液体驱动的车辆		
No. 序号	Hazard Class 危险等级	Packing Group 包装组	Packaging requirement 包装要求
☒	Air transportation, according to IATA-DGR 64 th Edition (Effective 1 January-31 December 2023) 空运，依据IATA-DGR第64版（2023年1月1日至12月31日生效）		
(1)	Class 9	II	PACKING INSTRUCTION 965, section IA 包装说明965 IA节
(2)~(5)	--	--	--
☒	Maritime transportation, according to IMO IMDG Code (Amend 41-2022) 海运，依据IMO IMDG Code (Amend 41-2022)		
(1)	Class 9	II	Package instruction P903 包装说明P903
(2)~(5)	--	--	--
☒	Road transportation, according to ADR-2023 公路运输，依据ADR-2023		
(1)	Class 9	II	Package instruction P903 包装说明P903
(2)~(5)	--	--	--
Remark 备注	In "Hazard Class", "Class 9" means "Class 9 dangerous goods", and "Not restricted" means that they are not restricted “危险等级”中“Class 9”表示“第九类危险货物”，“Not restricted”表示不受限制 In "Packing Group", "II" means "Packing Group II" and "NIL" means "No requirement" “包装组”中“II”表示“二级包装”，“NIL”表示“无要求”		

SECTION 15 - REGULATORY INFORMATION**第15节—监管信息***Dangerous Goods Regulation (DGR)**Recommendations on the Transport of Dangerous Goods Model Regulations**International Maritime Dangerous Goods (IMDG)**Occupational Safety and Health Act (OSHA)**Toxic Substances Control Act (TSCA)**Code of Federal Regulations (CFR)**Technical Instructions for the Safe Transport of Dangerous Goods**California Proposition 65**Superfund Amendments and Reauthorization Act Title III (302/311/312/313) (SARA)**Globally Harmonized System of Classification and Labeling of Chemicals(GHS)*

In accordance with all Federal, State and local laws. 符合所有联邦、州和地方法律。

SECTION 16 - ADDITIONAL INFORMATION**第16节—附加信息****Accordinging standard 标准依据:***GB/T 16483-2008 Safety data sheet for chemical products Content and order of sections**ISO 11014:2009(E) Safety data sheet for chemical products – Content and order of sections***Editing date 编辑日期:**

2023-09-06

Department 编写机构:

Guangzhou MCM Certification & Testing Co., Ltd.

广州邦禾检测技术有限公司

Building 2 No. 45 Zhong Er Section of Shiguang Road, Zhongcun Street, Panyu District, Guangzhou City, Guangdong Province, China

中国 广东省广州市番禺区钟村街市广路钟二路段 45 号 2 栋

Tel.: +86-20-3477 7662 或 0086-020-3477 7662

WEB: <https://www.mcmtek.com>Email: service@mcmtek.com**Other Information 其他信息:**

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Sample Reference Photo

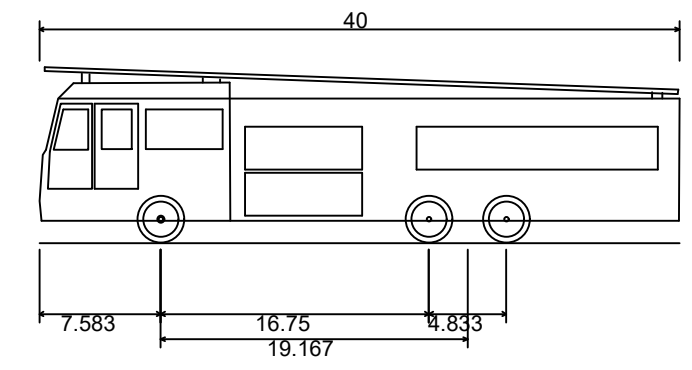
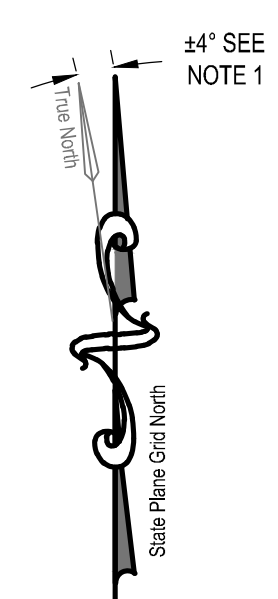
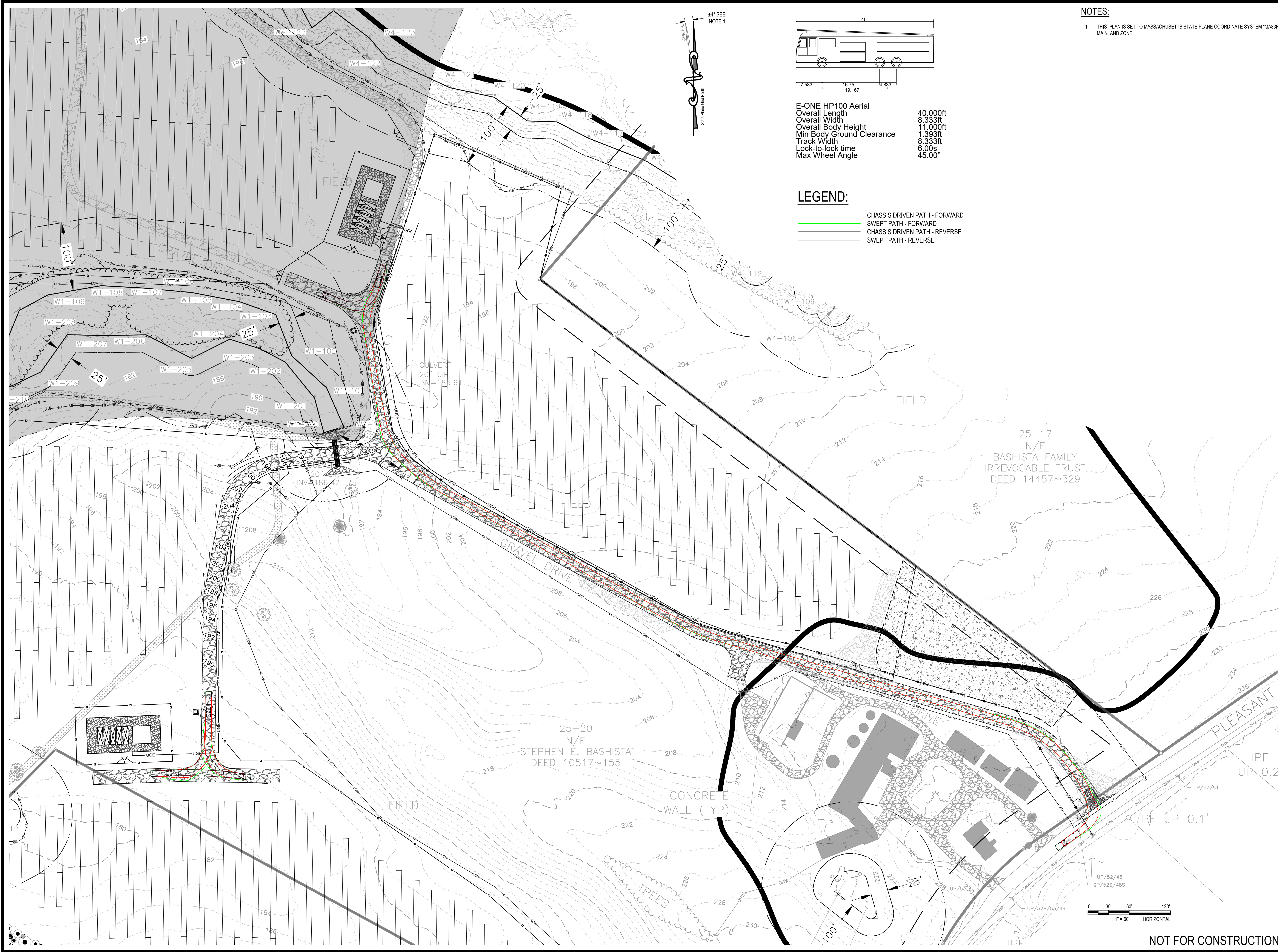
样品照片

Model: LFP71173207/314Ah, 3.2V, 314Ah, 1004.8Wh



--End of the report/ 报告结束--

Appendix E – Firetruck Vehicle Turning Analysis



E-ONE HP100 Aerial
Overall Length 40.000ft
Overall Width 8.333ft
Overall Body Height 11.000ft
Min Body Ground Clearance 1.393ft
Track Width 8.333ft
Lock-to-lock time 6.00s
Max Wheel Angle 45.00°

LEGEND:

- CHASSIS DRIVEN PATH - FORWARD
- SWEPT PATH - FORWARD
- CHASSIS DRIVEN PATH - REVERSE
- SWEPT PATH - REVERSE

NOTES:
1. THIS PLAN IS SET TO MASSACHUSETTS STATE PLANE COORDINATE SYSTEM "MA83P" MAINLAND ZONE.

Project:
MANHAN RIVER, LLC

43 & 53 PLEASANT STREET, SOUTHAMPTON,
MASSACHUSETTS 01073

Weston & Sampson
Weston & Sampson Engineers, Inc.
55 Walkers Brook Drive, Suite 100
Reading, MA 01867
978.532.1900 800.SAMPSON

Client:
BLUEWAVE
MANHAN RIVER, LLC
116 Huntington Ave, Suite 601
Boston, MA 02116
Tel: (617) 209-3122 <https://www.bluewaveenergy.com/>

811
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0	ISSUED FOR PERMITTING	11/25/25
No.	Description	Date
Revisions		
Seal:		
Issued For:		
PERMITTING		
Issued Date:	11/25/2025	
Scale:	SCALE	
Drawn By:	RJR	
Reviewed By:	NVG	
Approved By:	MRC	
W&S Project No.:	ENG24-0244	

Drawing Title:
**FIRETRUCK VEHICLE
TURNING ANALYSIS**

Sheet Number:
EXH-3

Appendix F – Noise Analysis

MEMORANDUM

TO: Michael Zhe, Senior Director - Project Development

FROM: Andrew Hamel, Project Manager
Melinda Costello, PE, Senior Team Leader

DATE: September 22, 2026

SUBJECT: Sound Pressure Calculations
Manhan River, LLC
43 & 53 Pleasant Street, Southampton MA

Weston & Sampson Engineers, Inc. (Weston & Sampson), is pleased to provide Manhan River, LLC with the attached sound calculations for the proposed solar photovoltaic (PV) and battery energy storage system (BESS) project located on Pleasant Street, Southampton MA (the site). As proposed, the site is a 5.49 MW (DC) solar array coupled with BESS. This memo and corresponding calculations have been updated in response to Peer Review Comments received by the Towns' Third-Party Engineer.

Massachusetts Department of Environmental Protection (MassDEP) Policy 310 CMR 7.10 outlines that sounds for proposed projects may not increase sound conditions by more than 10 weighted decibels (dBA) above ambient background noises and prevents "pure tone" conditions measured at the property line and nearest inhabited residence.

As proposed, there are two equipment areas on site, each of which includes 15 inverters, a transformer, and one pad mounted BESS container. Manhan River, LLC provided Weston & Sampson with specification sheets for the associated equipment (refer to Appendix H in the Site Plan Review Application).

By using the Inverse Square Law, the standards set by ISO9613-2: 2024 – Attenuation of Sound During Propagation Outdoors, and the associated decibel ratings for the proposed equipment, we calculated the drop in decibels to the closest adjacent property line / right of way in the four cardinal directions for each equipment pad area. These have been designated as "North Equipment Pad" and "South Equipment Pad". The calculated sound levels were then compared to ambient noise levels, which were collected in the field by Weston & Sampson on February 18, 2026.

The following tables summarize the sound-emitting equipment, as well as the anticipated decibel rating at the closest property line. As a factor of safety, a 5 dB noise penalty was added to account for potential discrepancies between theoretical calculations and real-world scenarios.

Table 1. North Equipment Pad Sound-Emitting Equipment					
Equipment	Listed Sound Pressure (dBA)	Number of Equipment Units	Distance of Observed Sound Level (meters, m)	Total Approximate Sound Pressure (dBA)	Equipment Pad Area Total Approximate Sound Pressure (dBA)
Transformer	62	1	1	62	88.4
Inverter	73	15	1	85	
BESS	75	1	1	75	

Table 2. South Equipment Pad Sound-Emitting Equipment					
Equipment	Listed Sound Pressure (dBA)	Number of Equipment Units	Distance of Observed Sound Level (meters, m)	Total Approximate Sound Pressure (dBA)	Equipment Pad Area Total Approximate Sound Pressure (dBA) ¹
Transformer	62	1	1	62	88.4
Inverter	73	15	1	85	
BESS	75	1	1	75	

Table 3. North Equipment Pad Sound-Emitting Equipment Calculation Summary ²			
Direction ³	Distance to Property Line (m)	Equipment Noise Level (dBA) at Property Line ⁴	Average Ambient Measured Noise Level (dBA)
East (Receiver-1)	75.4	39.1	52
North (Receiver-2)	327.7	25.6	52
South (Receiver-3)	426.7	23.1	52
West (Receiver-4)	427.0	23.1	52

¹ Shown Total Approximate Sound Pressure is greater than calculated, as the shown number accounts for temperature, relative humidity (20°C, 70% RH), and broadband level frequency per ISO9613-2.

² Calculations were performed based on noise level specifications from typical equipment, which are subject to change based on equipment selected during procurement and construction of the project, if approved.

³ (Receiver-#) correlates to the data point referenced in the Noise Mapping Results Report

⁴ Values shown include a 5 dB factor of safety compared to the noise level referenced in the Noise Mapping Results Report (Attachment B)

Table 4. South Equipment Pad Sound-Emitting Equipment Calculation Summary ⁵			
Direction ⁶	Distance to Property Line (m)	Equipment Noise Level (dBA) at Property Line ⁷	Average Ambient Measured Noise Level (dBA)
East (Receiver-1)	193.0	30.4	52
South (Receiver-2)	224.0	29.1	52
North (Receiver-3)	226.0	25.8	52
West (Receiver-4)	321.0	28.9	52

In summary, with a 5 dB factor of safety increase included, the proposed equipment noise levels will be less than a 10 dBA increase from ambient measured noise levels at the property line. Also, the performed calculations do not account for additional sound dampening that can be associated with vegetation or other structures, therefore these calculations are assumed to be a theoretical maximum.

Attachment:

Attachment A - Equipment Area Decibel Calculations

Attachment B - Noise Mapping Results Report

Attachment C - Noise Mapping Report – Calculations

⁵ Calculations were performed based on noise level specifications from typical equipment, which are subject to change based on equipment selected during procurement and construction of the project, if approved.

⁶ (Receiver-#) correlates to the data point referenced in the Noise Mapping Results Report

⁷ Values shown include a 5 dB factor of safety compared to the noise level referenced in the Noise Mapping Results Report (Attachment B)

Attachment A – Equipment Area Decibel Calculations

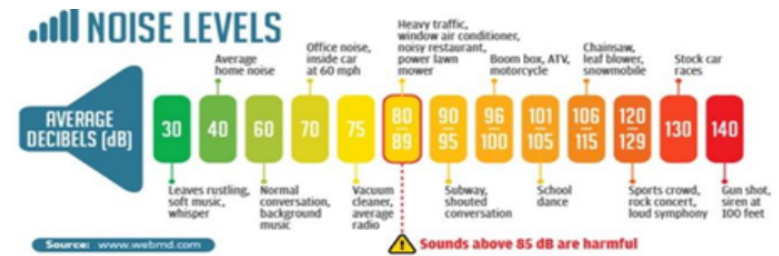
**Southampton - Pleasant Street
5.49 MW (DC) With Coupled BESS
Manhan River, LLC
Sound Pressure Calculations**

BESS				
Noise Source (dB)	W	Total W	Total dB	
75	3.1623E-05	3.16228E-05	75	

Invertor				
Noise Source (dB)	Power (W)	Total W	Total dB	
73	1.9953E-05	0.000299289	84.76	
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			

Transformer				
Noise Source (dB)	W	Total W	Total dB	
62	1.5849E-06	1.58489E-06	62	

Equipment Area 1 Sum				
Noise Source (dB)	Power (W)	Total W	Total dB	
75	3.1623E-05	0.000332434	85.21706	
84.76	0.00029923			
62	1.5849E-06			



Average Maximum Ambient
Sound Pressure Reading
collected on 2/17/2026 between
1:50-3:30pm = 52 dBA



Ambient
reading
recording
location

**Southampton - Pleasant Street
5.49 MW (DC) With Coupled BESS
Manhan River, LLC
Sound Pressure Calculations**

BESS				
Noise Source (dB)	W	Total W	Total dB	
75	3.1623E-05	3.16228E-05	75	

Invertor				
Noise Source (dB)	Power (W)	Total W	Total dB	
73	1.9953E-05	0.000299289	84.76	
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			
73	1.9953E-05			

Transformer				
Noise Source (dB)	W	Total W	Total dB	
62	1.5849E-06	1.58489E-06	62	

Equipment Area 2 Sum				
Noise Source (dB)	Power (W)	Total W	Total dB	
75	3.1623E-05	0.000332434	85.21706	
84.76	0.00029923			
62	1.5849E-06			



Average Maximum Ambient
Sound Pressure Reading
collected on 2/17/2026 between
1:50-3:30pm = 52 dBA



Ambient
reading
recording
location

Attachment B – Noise Mapping Results Report

Noise Mapping Results

--- Receiver Results - Summary ---

Receiver	N Height (m)	Total dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Receiver	1.5	34.07				34.07				
Receiver-2	1.5	20.6				20.6				
Receiver-3	1.5	18.12				18.12				
Receiver-4	1.5	18.11				18.11				

--- Receiver Results - Sources Analysis ---

Receiver	N Height (m)	Total dB(A)	Point
Receiver	1.5	34.07	34.07 East
Receiver-2	1.5	20.6	20.6 North
Receiver-3	1.5	18.12	18.12 South
Receiver-4	1.5	18.11	18.11 West

--- Receiver Results - Full Detail ---

Receiver	N Source Na	Distance t	Height inc	Source hei	Frequency Lw	Ad	Aa	Ag	Ab (total)	Ab (top ed)	Ab (lateral)	Ab (lateral)	Adjustmen	Weighting	Lp
Receiver	Point	75.4	1.5	1.5	500	88.4	-48.55	-0.21	-2.37	0	0		0	-3.2	34.07
Receiver-2	Point	327.66	1.5	1.5	500	88.4	-61.31	-0.91	-2.38	0	0		0	-3.2	20.6
Receiver-3	Point	426.72	1.5	1.5	500	88.4	-63.6	-1.19	-2.29	0	0		0	-3.2	18.12
Receiver-4	Point	427	1.5	1.5	500	88.4	-63.61	-1.19	-2.29	0	0		0	-3.2	18.11

--- Sources ---

Source Na	Height (m)	Total dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Point	1.5	85.2				88.4				

--- Objects ---

Receivers	x	y	Height
Receiver	75.4	0	-
Receiver-2	327.66	0	-
Receiver-3	426.72	0	-
Receiver-4	427	0	-

Point Sour	x	y	Height	Lw	Hz
Point	0	0	1.5	88.4	500

--- Configuration ---

General Calculation Method: ISO9613-2:2024
0.50G Ground Factor
20.0°C Temperature
70% Humidity
Results are A-weighted
Second order reflections are included
Vertical edges (lateral paths) are included. Limited to convex paths. Lateral paths have distance limit applied (ISO17534-3)

--- Key ---

Lw	Sound Power Level (dB)
Lp	Sound Pressure Level (dB)
Ad	Distance attenuation
Ab	Barrier attenuation
Ag	Ground effect
Aa	Air absorption

Attachment C – Noise Mapping Report – Calculations

Noise Mapping Results

--- Receiver Results - Summary ---

Receiver Name	Height (m)	Total dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Receiver	1.5	25.38				25.38				
Receiver-2	1.5	24.05				24.05				
Receiver-3	1.5	20.79				20.79				
Receiver-4	1.5	23.97				23.97				

--- Receiver Results - Sources Analysis ---

Receiver Name	Height (m)	Total dB(A)	Point
Receiver	1.5	25.38	25.38 East
Receiver-2	1.5	24.05	24.05 South
Receiver-3	1.5	20.79	20.79 North
Receiver-4	1.5	23.97	23.97 West

--- Receiver Results - Full Detail ---

Receiver Name	Source Na	Distance t	Height incl	Source hei	Frequency Lw	Ad	Aa	Ag	Ab (total)	Ab (top ed)	Ab (lateral)	Ab (lateral)	Adjustmen	Weighting	Lp
Receiver	Point	193.01	1.5	1.5	500	88.4	-56.71	-0.54	-2.57	0	0		0	-3.2	25.38
Receiver-2	Point	224.01	1.5	1.5	500	88.4	-58.01	-0.63	-2.52	0	0		0	-3.2	24.05
Receiver-3	Point	321	1.5	1.5	500	88.4	-61.13	-0.9	-2.39	0	0		0	-3.2	20.79
Receiver-4	Point	226	1.5	1.5	500	88.4	-58.08	-0.63	-2.52	0	0		0	-3.2	23.97

--- Sources ---

Source Name	Height (m)	Total dB(A)	63 Hz	125 Hz	250 Hz	500 Hz	1 kHz	2 kHz	4 kHz	8 kHz
Point	1.5	85.2				88.4				

--- Objects ---

Receivers	x	y	Height
Receiver	193.01		0 -
Receiver-2	224.01		0 -
Receiver-3	321		0 -
Receiver-4	226		0 -

Point Sources	x	y	Height	Lw	Hz
Point		0	0	1.5	88.4 500

--- Configuration ---

General Calculation Method: ISO9613-2:2024
0.50G Ground Factor
20.0°C Temperature
70% Humidity
Results are A-weighted
Second order reflections are included
Vertical edges (lateral paths) are included. Limited to convex paths. Lateral paths have distance limit applied (ISO17534-3)

--- Key ---

Lw	Sound Power Level (dB)
Lp	Sound Pressure Level (dB)
Ad	Distance attenuation
Ab	Barrier attenuation
Ag	Ground effect
Aa	Air absorption

Appendix G – Glare Analysis

April 23, 2026

55 Walkers Brook Drive, Reading, MA 01867 (HQ)
Tel: 978.532.1900

Mr. Michael Zhe, Senior Director, Project Development
Manhan River, LLC
116 Huntington Avenue, Suite 601
Boston, MA 02116

Re: Solar Glare Hazard Analysis
Manhan River, LLC
Town of Southampton, Massachusetts

Dear Mr. Zhe,

Weston & Sampson Engineers, Inc. (Weston & Sampson) is pleased to provide BlueWave (d/b/a Manhan River, LLC) with this letter which assesses the potential for solar glare associated with the placement of ground mounted solar agrivoltatic (AG) arrays at the above referenced project.

Project Description

The proposed project consists of the installation of a 5.49 megawatt (MW) direct current (DC) single axis tracking dual use AG solar array and associated battery energy storage system (BESS). The total project area encompasses approximately 22 acres of the 40-acre site located at 43 and 53 Pleasant Street in Southampton, Massachusetts. Based on the layout in the Permit Drawings dated November 25, 2025, revised on January 30, 2026 issued by Weston & Sampson, the project can be divided into four distinct array areas, with the following boundary conditions:

Table 1. PV Array Locations

Array Area	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Elevation (feet)	Vertices ID
1	42.23449°	-72.7092°	201	1
	42.23449°	-72.709°	202	2
	42.23326°	-72.7079°	200	3
	42.23261°	-72.7066°	208.54	4
	42.23248°	-72.7066°	208.35	5
	42.23205°	-72.7068°	204.64	6
	42.23199°	-72.7071°	201.43	7
	42.23204°	-72.7092°	197.16	8
2	42.2323249°	-72.7059846	210.78	1
	42.2322676°	-72.7055725	208.36	2
	42.2318867°	-72.7055733	206.28	3
	42.2316683°	-72.7053822	208.40	4
	42.2313709°	-72.704617	216.71	5
	42.2308805°	-72.7037565	225.28	6
	42.2306084°	-72.703757	225.35	7
	42.2305266°	-72.703864	224.61	8
	42.2306546°	-72.704552	223.44	9
	42.2311006°	-72.7056998	213.26	10
	42.2312981°	-72.7060823	204.85	11
	42.2315049°	-72.7061776	200.00	12
	42.2319135°	-72.7061798	203.49	13
3	42.2298178°	-72.7081077°	191.00	1
	42.2298526°	-72.7067383°	196.14	2
	42.2293683°	-72.7056863°	203.43	3
	42.2291407°	-72.7053996°	204.76	4
	42.2288686°	-72.7054001°	207.39	5
	42.2284901°	-72.7055923°	211.20	6

Array Area	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Elevation (feet)	Vertices ID
	42.2284164°	-72.7057028°	213.91	7
	42.2292819°	-72.7079173°	195.44	8
	42.2294866°	-72.7082998°	192.13	9
	42.229623°	-72.7082995°	190.51	10
4	42.2312478°	-72.7082532°	198.25	1
	42.2312258°	-72.7072667°	204.36	2
	42.2309537°	-72.7072673°	213.15	3
	42.2304144°	-72.707364°	198.83	4
	42.2302957°	-72.7078429°	196.55	5
	42.229777°	-72.709184°	187.15	6
	42.2300513°	-72.7097871°	183.89	7
	42.2303234°	-72.7097865°	182.98	8
	42.2304237°	-72.7096906°	183.73	9
	42.2304779°	-72.7093741°	187.17	10

Each of the four arrays are ground mounted, single axis tracking arrays that use backtracking as a method of shade prevention. The tracking axis orientation is 179 degrees and the panels rotate in the east-west direction. The maximum tracking angle is 55 degrees with a resting angle of 0 degrees, and the ground coverage ratio is 0.31. In order to allow agricultural use of the land beneath the panels, the panels are proposed to be raised to a minimum height of 10 feet above ground.

Issue: Solar Glare

Discussion: PV glare can be hazardous for pilots, motorists, and other observers. Solar glare is a phenomenon produced by sunlight from reflective surfaces of the solar array. The glare analysis has been prepared to review the potential for glare along the abutting residential properties to the east of the proposed development.

Sandia National Laboratories, a wholly owned subsidiary of Honeywell International, Inc., as a contractor for the U.S. Department of Energy, developed a Solar Glare Hazard Analysis Tool (SGHAT) and methodology to evaluate potential glint/glare hazards associated with solar energy installations. The tool provides a quantified assessment of when and where glare will occur, as well as information about potential ocular impacts. The tool can also be used for design optimization (tilt and orientation) to evaluate alternative configurations, orientations, and locations of solar installations that not only mitigate the impacts of glint/glare but also optimize energy production. The model also has the ability to model fixed, single-axis, and dual-axis photovoltaic tracking systems. The model is offered commercially by Forge Solar.

The commercially available SGHAT predicts the occurrence and intensity of glare caused by a user-specified solar panel array when viewed from one or more observation points. An interactive mapping interface is used to determine the latitude, longitude and elevation of the array and observation points. This tool determines when and where solar glare can occur throughout the year from a user-specified PV array as viewed from user-prescribed observation points. The potential ocular impact from the observed glare is also determined, along with a prediction of the annual energy production. Configurations can be quickly modified (e.g., tilt, orientation, shape, location) to identify a design that mitigates glare while maximizing energy production.

We analyzed 13 discrete observation points as part of this glare hazard analysis. The observation points represent structures, property lines, and driveways of abutting properties. Figure 1 below illustrates the proposed array, nearby observation points, and obstructions, shown as an orange line, included in this analysis. Figures 2 and 3 below illustrate a closer view of the observation points and obstructions.

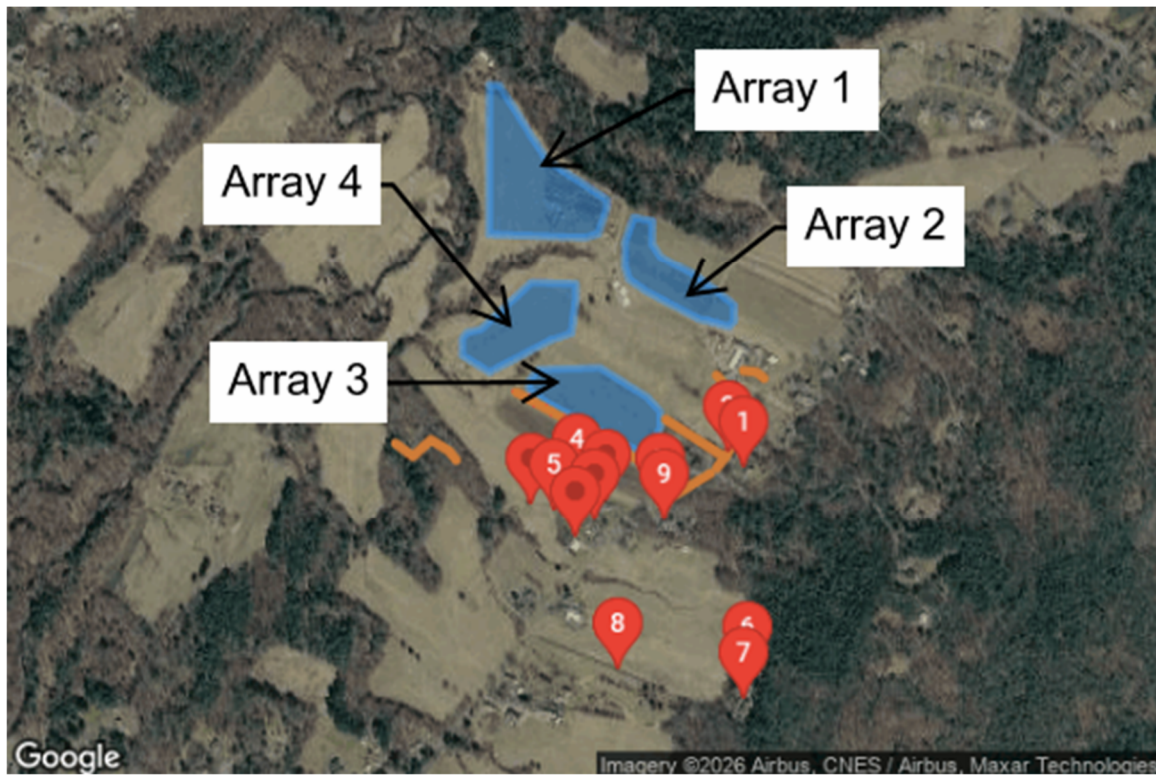


Figure 1 – Array area, observation points, and vegetative obstructions.

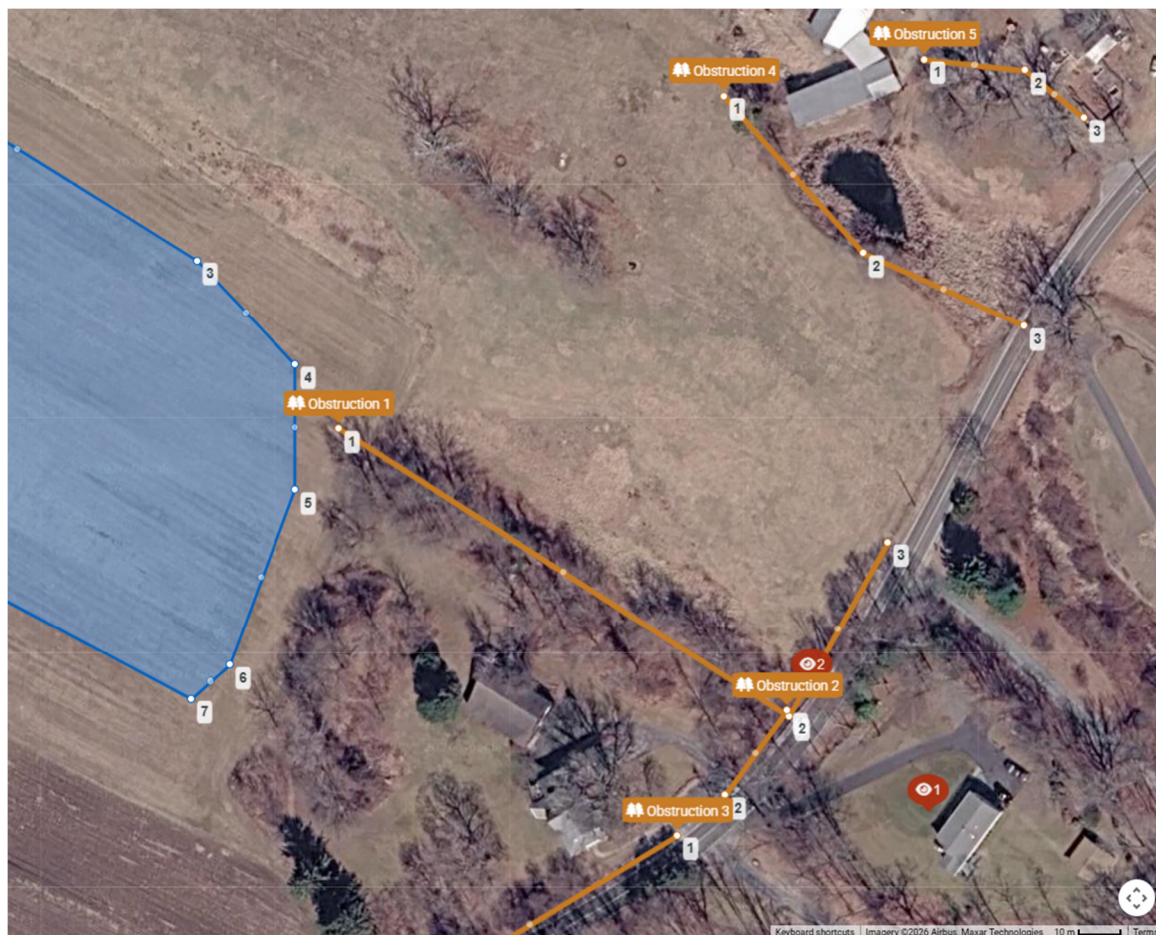


Figure 2 – Observation points and existing vegetative obstructions.



Figure 3 – Observation points and existing vegetative obstructions.

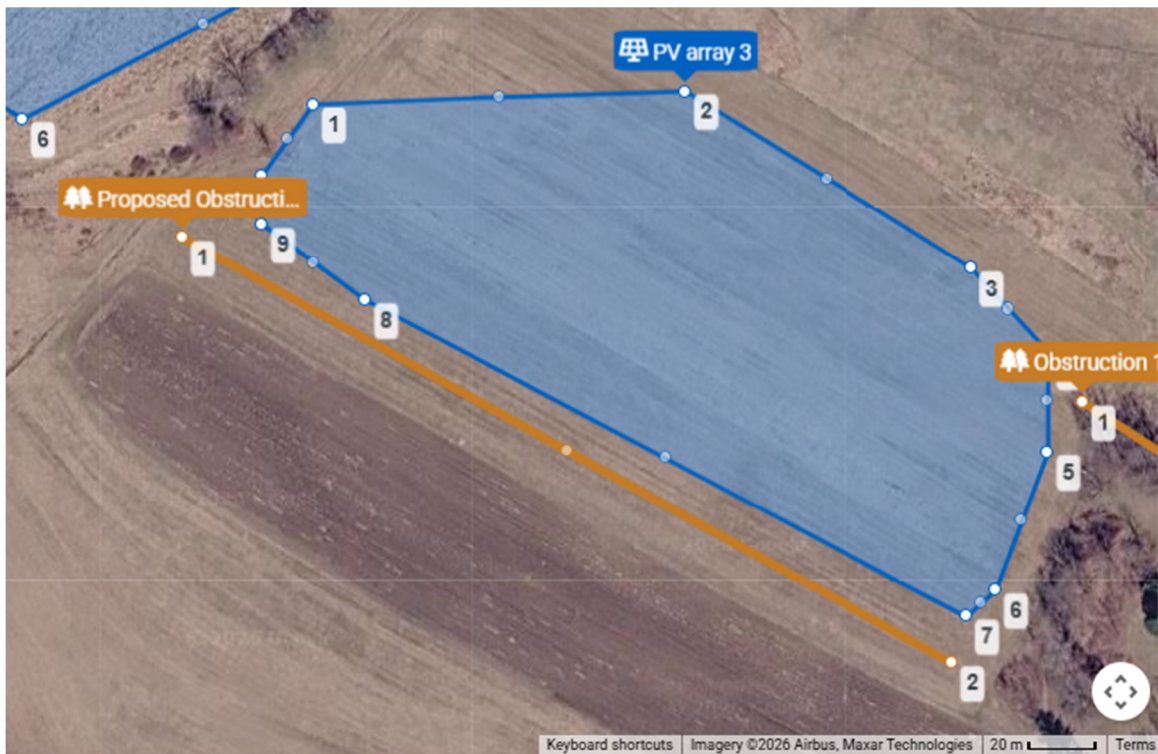


Figure 4 – Proposed vegetative obstruction.

Determination of glare occurrence requires knowledge of sun position, observer location, tilt, orientation, obstructions, location, extent, and optical properties of the modules in the solar array. Vector algebra is used to determine if glare is visible from the prescribed observation points. The model output for glare occurrence is given in three categories: green, yellow, and red glare.

According to Forge Solar, "Glint is typically defined as a momentary flash of bright light, often caused by a reflection off a moving source. A typical example of glint is a momentary solar reflection from a moving car. Glare is defined as a continuous source of bright light. Glare is generally associated with stationary objects, which, due to the slow relative movement of the sun, reflect sunlight for a longer duration. The difference between glint and glare is **duration**.

Industry-standard glare analysis tools evaluate the occurrence of glare on a minute-by-minute basis; accordingly, they generally refer to solar hazards as 'glare'. The ocular impact of solar glare is quantified into three categories (Ho, 2011):

- Green - low potential to cause after-image (flash blindness)
- Yellow - potential to cause temporary after-image
- Red - potential to cause retinal burn (permanent eye damage)

These categories assume a typical blink response in the observer. Note that retinal burn is typically not possible for PV glare since PV modules do not focus reflected sunlight. Green glare represents low potential for temporary after image. Yellow indicates a potential for temporary after image. Red indicates a potential for permanent eye damage. The ocular impact of glare can be visualized with a Glare Hazard Plot. The following plot displays the ocular impact as a function of glare subtended source angle and retinal irradiance. Each minute of glare is displayed on the chart as a small circle in its respective hazard zone, and is given below:"

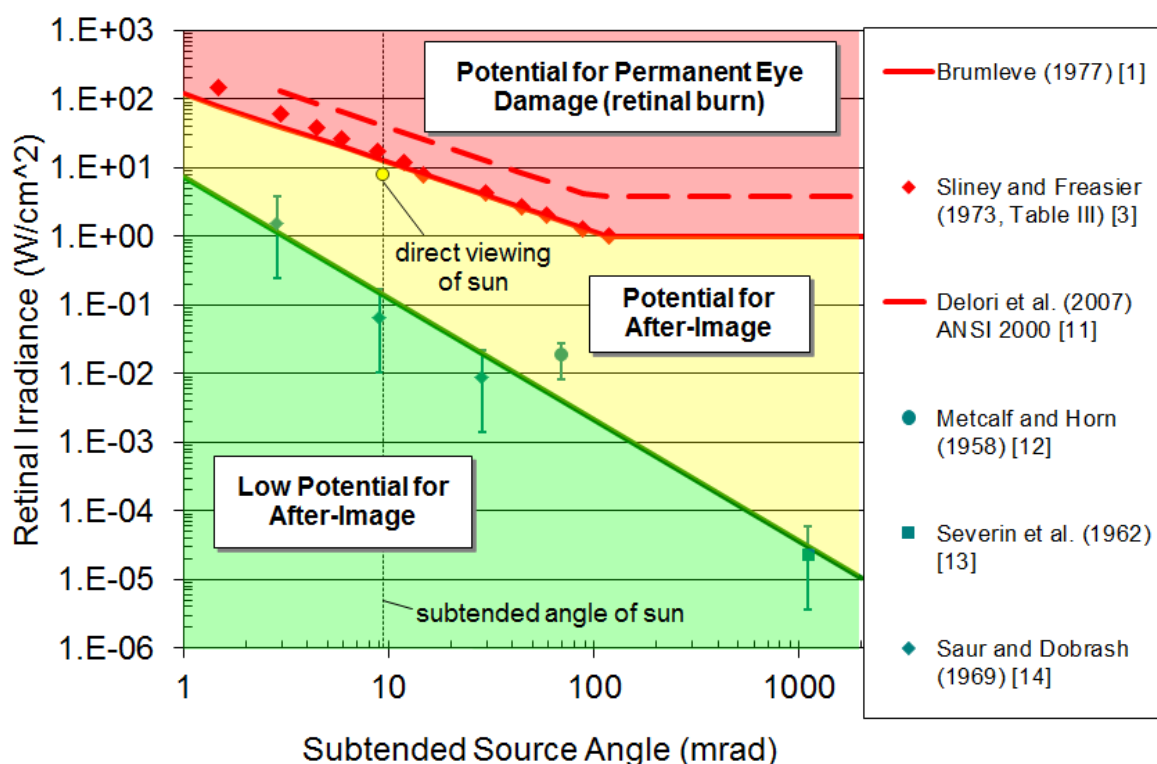


Figure 5 – Glare Hazard Plot.

Source: Forge Solar

As identified in Figures 1, 2, and 3 above, we selected thirteen observation points (OP) which represent viewing locations at abutting parcels. A height of five feet was selected for the analysis at the observation points. There are sparse areas to the southeast and southwest of the array areas that contain vegetative buffers, which are considered obstructions that would block the occurrence of glare, if it were to be produced, near ground level. A height of 40 feet was selected for the obstructions of the vegetative area.

Results and Opinion

The proposed solar array development will produce some green and yellow glare, but no red glare at any of the observation points modeled. The model output report indicates that without obstructions, green and yellow glare would be visible at two of the thirteen observation points. When considering the existing and proposed obstructions between the observation points and the solar array, green and yellow glare would not be visible at any of the thirteen observation points. Table 2 below summarizes the description of each observation point and the type of glare observed with existing and proposed obstructions, if any. Modeling output reports both with and without obstructions are attached.

Table 2. Observation Points with Existing and Proposed Obstructions

Observation Point	Location Description	Green Glare (hour)	Yellow Glare (hour)
1	46 Pleasant Street	0.0	0.0
2	46 Pleasant Street	0.0	0.0
3	40 Pleasant Street	0.0	0.0
4	39 Pleasant Street	0.0	0.0
5	39 Pleasant Street	0.0	0.0
6	26 Pleasant Street	0.0	0.0
7	26 Pleasant Street	0.0	0.0
8	26 Pleasant Street	0.0	0.0
9	40 Pleasant Street	0.0	0.0
10	39 Pleasant Street	0.0	0.0
11	37 Pleasant Street	0.0	0.0
12	37 Pleasant Street	0.0	0.0
13	37 Pleasant Street	0.0	0.0

We appreciate the opportunity to present Manhan River, LLC with this solar glare hazard analysis. If you have any questions or require any additional information, please do not hesitate to contact us.

Sincerely,

WESTON & SAMPSON ENGINEERS, INC.

Tara Garani, PE
Engineer

Melinda Costello, PE
Senior Team Leader

Attachment: Attachment A - Solar Glare Hazard Analysis Report

Reference: ForgeSolar, Background and Theory Regarding Solar Glare and Regulatory Policies, 2025

FORGESOLAR GLARE ANALYSIS

Project: **BlueWave Pleasant Street, Southampton, MA**

Proposed solar development and BESS facility located off of Pleasant Street in Southampton, MA.

Site configuration: **Requested - With Obstructions**

Calculated via ForgeSolar Radiometric Physics Engine v3.1.2

Created 22 Apr, 2026

Updated 22 Apr, 2026

Time-step 1 minute

Timezone offset UTC-5

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 1 MW to 5 MW

Site ID 176663.28324

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad



Summary of Results No glare predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.234491	-72.709187	191.00	10.00	201.00
2	42.234491	-72.708966	192.00	10.00	202.00
3	42.233262	-72.707915	190.00	10.00	200.00
4	42.232614	-72.706576	198.54	10.00	208.54
5	42.232478	-72.706577	198.35	10.00	208.35
6	42.232055	-72.706770	194.64	10.00	204.64
7	42.231994	-72.707056	191.43	10.00	201.43
8	42.232044	-72.709191	187.16	10.00	197.16

Name: PV array 2

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.232325	-72.705985	200.78	10.00	210.78
2	42.232268	-72.705573	198.36	10.00	208.36
3	42.231887	-72.705573	196.28	10.00	206.28
4	42.231668	-72.705382	198.40	10.00	208.40
5	42.231371	-72.704617	206.71	10.00	216.71
6	42.230880	-72.703756	215.28	10.00	225.28
7	42.230608	-72.703757	215.35	10.00	225.35
8	42.230527	-72.703864	214.61	10.00	224.61
9	42.230655	-72.704552	213.44	10.00	223.44
10	42.231101	-72.705700	203.26	10.00	213.26
11	42.231298	-72.706082	194.85	10.00	204.85
12	42.231505	-72.706178	190.00	10.00	200.00
13	42.231913	-72.706180	193.49	10.00	203.49

Name: PV array 3

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.229818	-72.708108	181.00	10.00	191.00
2	42.229853	-72.706738	186.14	10.00	196.14
3	42.229368	-72.705686	193.43	10.00	203.43
4	42.229141	-72.705400	194.76	10.00	204.76
5	42.228869	-72.705400	197.39	10.00	207.39
6	42.228490	-72.705592	201.20	10.00	211.20
7	42.228416	-72.705703	203.91	10.00	213.91
8	42.229282	-72.707917	185.44	10.00	195.44
9	42.229487	-72.708300	182.13	10.00	192.13
10	42.229623	-72.708299	180.51	10.00	190.51

Name: PV array 4

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.231248	-72.708253	188.25	10.00	198.25
2	42.231226	-72.707267	194.36	10.00	204.36
3	42.230954	-72.707267	203.15	10.00	213.15
4	42.230414	-72.707364	188.83	10.00	198.83
5	42.230296	-72.707843	186.55	10.00	196.55
6	42.229777	-72.709184	177.15	10.00	187.15
7	42.230051	-72.709787	173.89	10.00	183.89
8	42.230323	-72.709787	172.98	10.00	182.98
9	42.230424	-72.709691	173.73	10.00	183.73
10	42.230478	-72.709374	177.17	10.00	187.17

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	42.228187	-72.703545	243.26	5.00
OP 2	2	42.228457	-72.703886	226.44	5.00
OP 3	3	42.227582	-72.705383	206.13	5.00
OP 4	4	42.227900	-72.707225	210.07	5.00
OP 5	5	42.227516	-72.707725	192.31	5.00
OP 6	6	42.224829	-72.703450	287.09	5.00
OP 7	7	42.224412	-72.703509	285.26	5.00
OP 8	8	42.224903	-72.706309	204.35	5.00
OP 9	9	42.227351	-72.705279	211.36	5.00
OP 10	10	42.227658	-72.706580	198.76	5.00
OP 11	11	42.227042	-72.707283	188.91	5.00
OP 12	12	42.227328	-72.706832	197.21	5.00
OP 13	13	42.227610	-72.708237	182.26	5.00

Obstruction Components

Name: Obstruction 1

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.229001	-72.705272	195.05
2	42.228377	-72.703952	226.85
3	42.228755	-72.703662	231.46

Name: Obstruction 2

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.228389	-72.703957	225.66
2	42.228207	-72.704140	226.39

Name: Obstruction 3

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.228119	-72.704279	225.06
2	42.227734	-72.705143	207.29

Name: Obstruction 4

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.229725	-72.704143	214.30
2	42.229383	-72.703736	217.68
3	42.229224	-72.703264	226.27

Name: Obstruction 5

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.229804	-72.703556	220.03
2	42.229780	-72.703261	225.52
3	42.229677	-72.703089	224.72

Name: Obstruction 6

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.228609	-72.711267	160.81
2	42.228398	-72.710881	158.85
3	42.228669	-72.710479	157.32
4	42.228486	-72.710076	159.25
5	42.228339	-72.709921	162.08

Name: Proposed Obstruction

Top height: 40.0 ft



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)
1	42.229451	-72.708590	178.82
2	42.228291	-72.705752	203.79

Glare Analysis Results

Summary of Results No glare predicted

PV Array	Tilt	Orient	Annual Green Glare		Annual Yellow Glare		Energy
	°	°	min	hr	min	hr	kWh
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 4	SA tracking	SA tracking	0	0.0	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV: PV array 3 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 3 and OP 1

No glare found

PV array 3 and OP 2

No glare found

PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV: PV array 4 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 4 and OP 1

No glare found

PV array 4 and OP 2

No glare found

PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

Random number computations are utilized by various steps of the annual hazard analysis algorithm. Predicted minutes of glare can vary between runs as a result. This limitation primarily affects analyses of Observation Point receptors, including ATCTs. Note that the SGHAT/ ForgeSolar methodology has always relied on an analytical, qualitative approach to accurately determine the overall hazard (i.e. green vs. yellow) of expected glare on an annual basis.

The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

The ocular hazard predicted by the tool depends on a number of environmental, optical, and human factors, which can be uncertain. We provide input fields and typical ranges of values for these factors so that the user can vary these parameters to see if they have an impact on the results. The speed of SGHAT allows expedited sensitivity and parametric analyses.

The system output calculation is a DNI-based approximation that assumes clear, sunny skies year-round. It should not be used in place of more rigorous modeling methods.

Hazard zone boundaries shown in the Glare Hazard plot are an approximation and visual aid based on aggregated research data. Actual ocular impact outcomes encompass a continuous, not discrete, spectrum.

Glare locations displayed on receptor plots are approximate. Actual glare-spot locations may differ.

Refer to the Help page at www.forgesolar.com/help/ for assumptions and limitations not listed here.

Default glare analysis parameters and observer eye characteristics (for reference only):

- Analysis time interval: 1 minute
- Ocular transmission coefficient: 0.5
- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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This analysis was conducted using the best available radiometric modeling at the time of generation. Future updates to the modeling methodology may yield different results.

FORGESOLAR GLARE ANALYSIS

Project: **BlueWave Pleasant Street, Southampton, MA**

Proposed solar development and BESS facility located off of Pleasant Street in Southampton, MA.

Site configuration: **Requested - Without Obstructions**

Calculated via ForgeSolar Radiometric Physics Engine v3.1.2

Created 22 Apr, 2026

Updated 22 Apr, 2026

Time-step 1 minute

Timezone offset UTC-5

Minimum sun altitude 0.0 deg

DNI peaks at 1,000.0 W/m²

Category 1 MW to 5 MW

Site ID 176664.28324

Ocular transmission coefficient 0.5

Pupil diameter 0.002 m

Eye focal length 0.017 m

Sun subtended angle 9.3 mrad



Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	462	7.7	129	2.1	-
PV array 4	SA tracking	SA tracking	605	10.1	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	601	10.0	57	0.9
OP 2	466	7.8	72	1.2
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

Component Data

PV Arrays

Name: PV array 1

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.234491	-72.709187	191.00	10.00	201.00
2	42.234491	-72.708966	192.00	10.00	202.00
3	42.233262	-72.707915	190.00	10.00	200.00
4	42.232614	-72.706576	198.54	10.00	208.54
5	42.232478	-72.706577	198.35	10.00	208.35
6	42.232055	-72.706770	194.64	10.00	204.64
7	42.231994	-72.707056	191.43	10.00	201.43
8	42.232044	-72.709191	187.16	10.00	197.16

Name: PV array 2

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.232325	-72.705985	200.78	10.00	210.78
2	42.232268	-72.705573	198.36	10.00	208.36
3	42.231887	-72.705573	196.28	10.00	206.28
4	42.231668	-72.705382	198.40	10.00	208.40
5	42.231371	-72.704617	206.71	10.00	216.71
6	42.230880	-72.703756	215.28	10.00	225.28
7	42.230608	-72.703757	215.35	10.00	225.35
8	42.230527	-72.703864	214.61	10.00	224.61
9	42.230655	-72.704552	213.44	10.00	223.44
10	42.231101	-72.705700	203.26	10.00	213.26
11	42.231298	-72.706082	194.85	10.00	204.85
12	42.231505	-72.706178	190.00	10.00	200.00
13	42.231913	-72.706180	193.49	10.00	203.49

Name: PV array 3

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.229818	-72.708108	181.00	10.00	191.00
2	42.229853	-72.706738	186.14	10.00	196.14
3	42.229368	-72.705686	193.43	10.00	203.43
4	42.229141	-72.705400	194.76	10.00	204.76
5	42.228869	-72.705400	197.39	10.00	207.39
6	42.228490	-72.705592	201.20	10.00	211.20
7	42.228416	-72.705703	203.91	10.00	213.91
8	42.229282	-72.707917	185.44	10.00	195.44
9	42.229487	-72.708300	182.13	10.00	192.13
10	42.229623	-72.708299	180.51	10.00	190.51

Name: PV array 4

Axis tracking: Single-axis rotation

Backtracking: Shade

Tracking axis orientation: 179.0°

Max tracking angle: 55.0°

Resting angle: 0.0°

Ground Coverage Ratio: 0.31

Rated power: -

Panel material: Smooth glass without AR coating



Vertex	Latitude (°)	Longitude (°)	Ground elevation (ft)	Height above ground (ft)	Total elevation (ft)
1	42.231248	-72.708253	188.25	10.00	198.25
2	42.231226	-72.707267	194.36	10.00	204.36
3	42.230954	-72.707267	203.15	10.00	213.15
4	42.230414	-72.707364	188.83	10.00	198.83
5	42.230296	-72.707843	186.55	10.00	196.55
6	42.229777	-72.709184	177.15	10.00	187.15
7	42.230051	-72.709787	173.89	10.00	183.89
8	42.230323	-72.709787	172.98	10.00	182.98
9	42.230424	-72.709691	173.73	10.00	183.73
10	42.230478	-72.709374	177.17	10.00	187.17

Discrete Observation Point Receptors

Name	ID	Latitude (°)	Longitude (°)	Elevation (ft)	Height (ft)
OP 1	1	42.228187	-72.703545	243.26	5.00
OP 2	2	42.228457	-72.703886	226.44	5.00
OP 3	3	42.227582	-72.705383	206.13	5.00
OP 4	4	42.227900	-72.707225	210.07	5.00
OP 5	5	42.227516	-72.707725	192.31	5.00
OP 6	6	42.224829	-72.703450	287.09	5.00
OP 7	7	42.224412	-72.703509	285.26	5.00
OP 8	8	42.224903	-72.706309	204.35	5.00
OP 9	9	42.227351	-72.705279	211.36	5.00
OP 10	10	42.227658	-72.706580	198.76	5.00
OP 11	11	42.227042	-72.707283	188.91	5.00
OP 12	12	42.227328	-72.706832	197.21	5.00
OP 13	13	42.227610	-72.708237	182.26	5.00

Glare Analysis Results

Summary of Results Glare with potential for temporary after-image predicted

PV Array	Tilt °	Orient °	Annual Green Glare		Annual Yellow Glare		Energy kWh
			min	hr	min	hr	
PV array 1	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 2	SA tracking	SA tracking	0	0.0	0	0.0	-
PV array 3	SA tracking	SA tracking	462	7.7	129	2.1	-
PV array 4	SA tracking	SA tracking	605	10.1	0	0.0	-

Total glare received by each receptor; may include duplicate times of glare from multiple reflective surfaces.

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	601	10.0	57	0.9
OP 2	466	7.8	72	1.2
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV: PV array 1 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 1 and OP 1

No glare found

PV array 1 and OP 2

No glare found

PV array 1 and OP 3

No glare found

PV array 1 and OP 4

No glare found

PV array 1 and OP 5

No glare found

PV array 1 and OP 6

No glare found

PV array 1 and OP 7

No glare found

PV array 1 and OP 8

No glare found

PV array 1 and OP 9

No glare found

PV array 1 and OP 10

No glare found

PV array 1 and OP 11

No glare found

PV array 1 and OP 12

No glare found

PV array 1 and OP 13

No glare found

PV: PV array 2 no glare found

Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	0	0.0	0	0.0
OP 2	0	0.0	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 2 and OP 1

No glare found

PV array 2 and OP 2

No glare found

PV array 2 and OP 3

No glare found

PV array 2 and OP 4

No glare found

PV array 2 and OP 5

No glare found

PV array 2 and OP 6

No glare found

PV array 2 and OP 7

No glare found

PV array 2 and OP 8

No glare found

PV array 2 and OP 9

No glare found

PV array 2 and OP 10

No glare found

PV array 2 and OP 11

No glare found

PV array 2 and OP 12

No glare found

PV array 2 and OP 13

No glare found

PV: PV array 3 potential temporary after-image

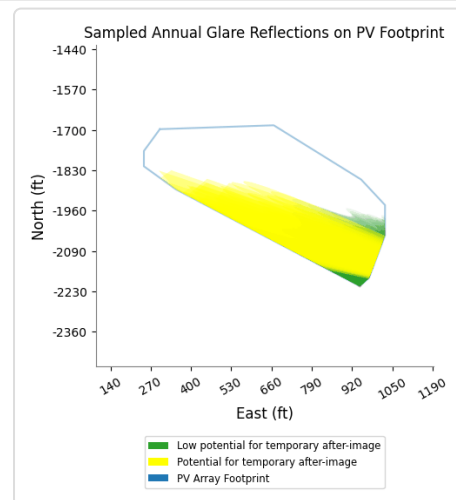
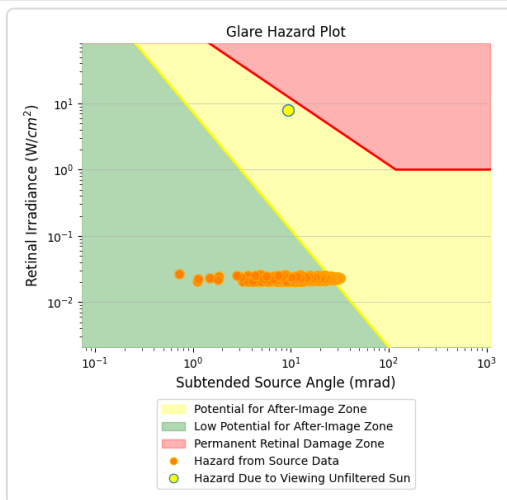
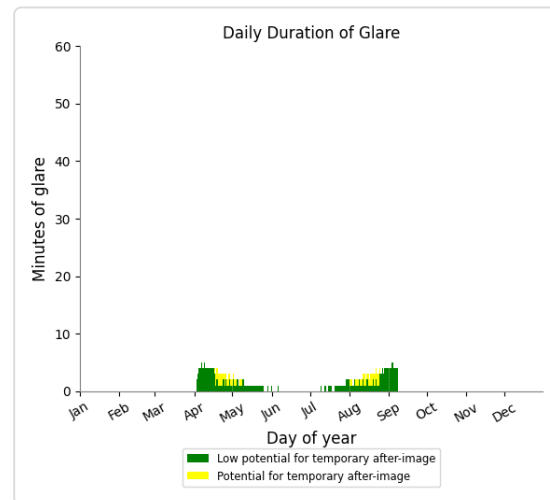
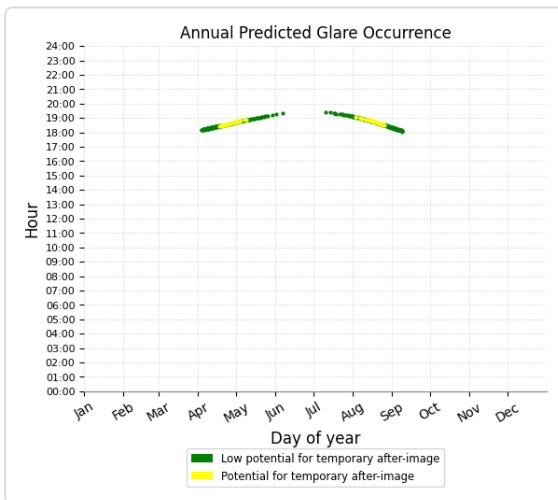
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	214	3.6	57	0.9
OP 2	248	4.1	72	1.2
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 3 and OP 1

Yellow glare: 57 min.

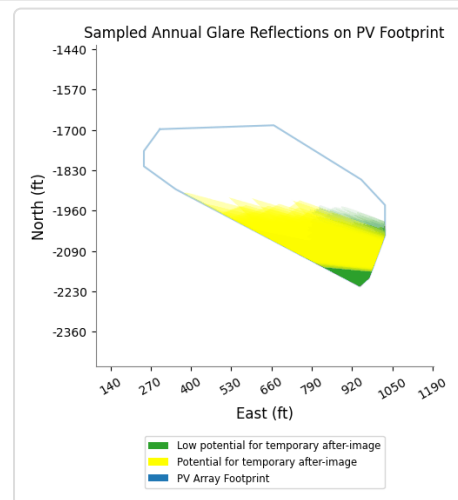
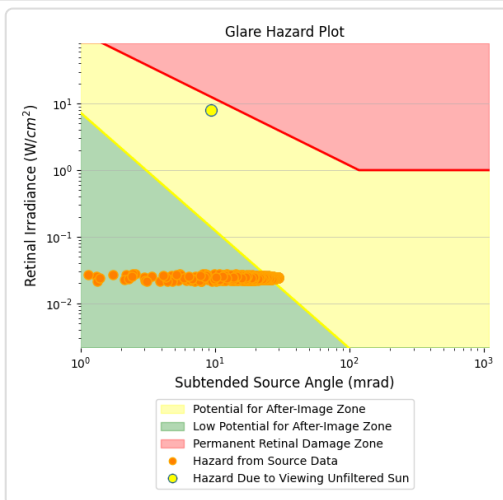
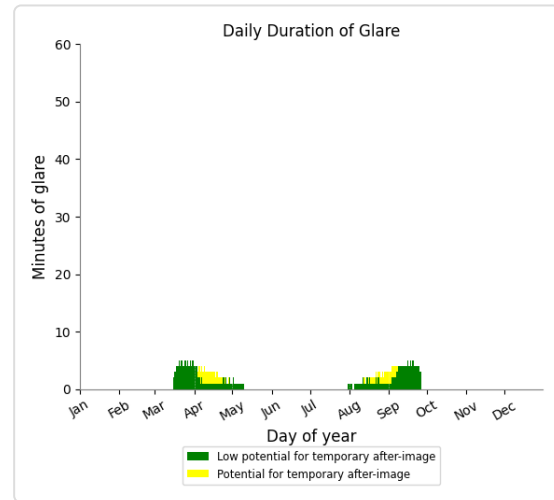
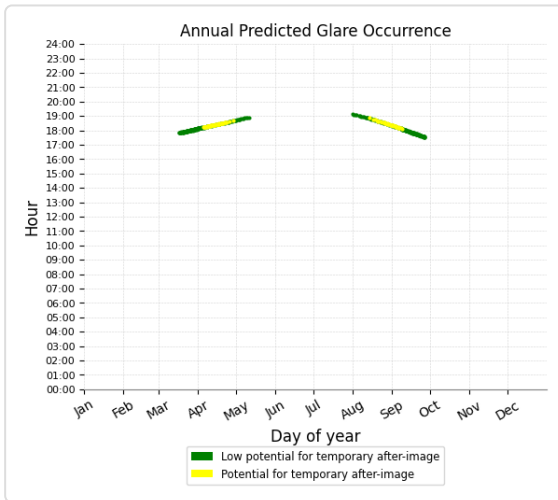
Green glare: 214 min.



PV array 3 and OP 2

Yellow glare: 72 min.

Green glare: 248 min.



PV array 3 and OP 3

No glare found

PV array 3 and OP 4

No glare found

PV array 3 and OP 5

No glare found

PV array 3 and OP 6

No glare found

PV array 3 and OP 7

No glare found

PV array 3 and OP 8

No glare found

PV array 3 and OP 9

No glare found

PV array 3 and OP 10

No glare found

PV array 3 and OP 11

No glare found

PV array 3 and OP 12

No glare found

PV array 3 and OP 13

No glare found

PV: PV array 4 low potential for temporary after-image

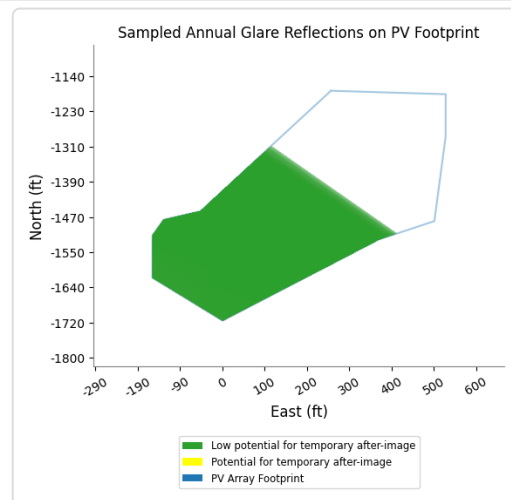
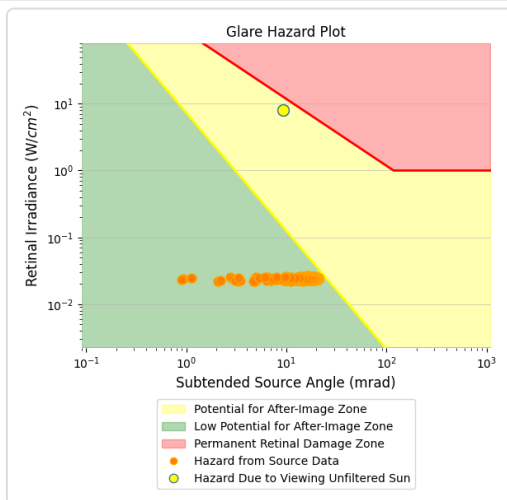
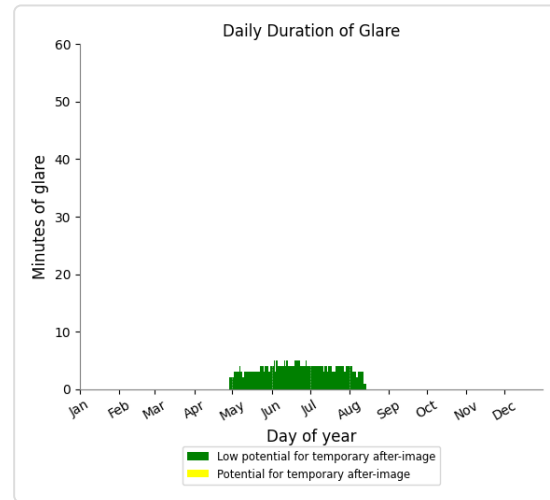
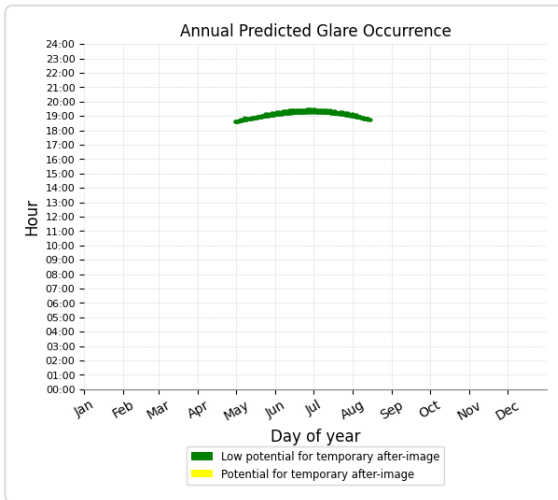
Receptor results ordered by category of glare

Receptor	Annual Green Glare		Annual Yellow Glare	
	min	hr	min	hr
OP 1	387	6.5	0	0.0
OP 2	218	3.6	0	0.0
OP 3	0	0.0	0	0.0
OP 4	0	0.0	0	0.0
OP 5	0	0.0	0	0.0
OP 6	0	0.0	0	0.0
OP 7	0	0.0	0	0.0
OP 8	0	0.0	0	0.0
OP 9	0	0.0	0	0.0
OP 10	0	0.0	0	0.0
OP 11	0	0.0	0	0.0
OP 12	0	0.0	0	0.0
OP 13	0	0.0	0	0.0

PV array 4 and OP 1

Yellow glare: none

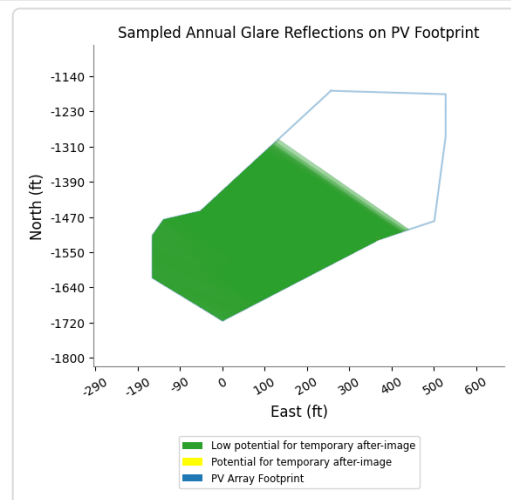
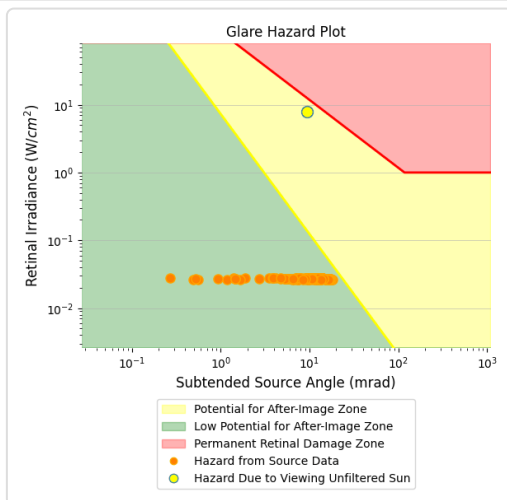
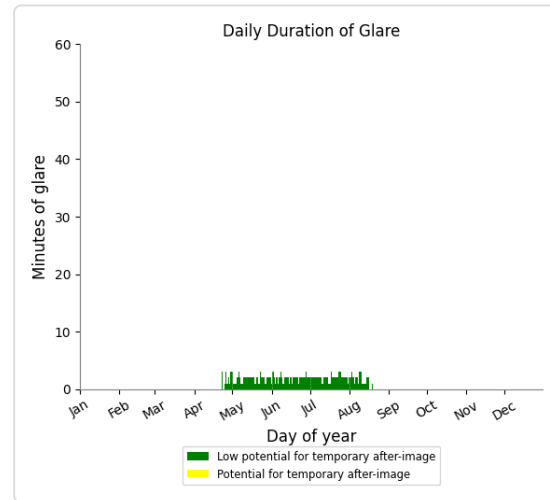
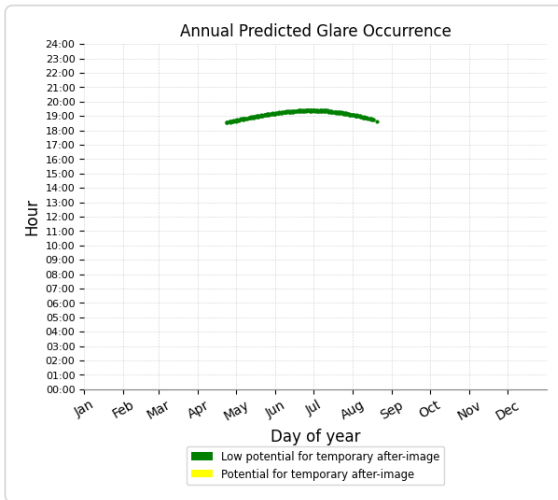
Green glare: 387 min.



PV array 4 and OP 2

Yellow glare: none

Green glare: 218 min.



PV array 4 and OP 3

No glare found

PV array 4 and OP 4

No glare found

PV array 4 and OP 5

No glare found

PV array 4 and OP 6

No glare found

PV array 4 and OP 7

No glare found

PV array 4 and OP 8

No glare found

PV array 4 and OP 9

No glare found

PV array 4 and OP 10

No glare found

PV array 4 and OP 11

No glare found

PV array 4 and OP 12

No glare found

PV array 4 and OP 13

No glare found

Assumptions

"Green" glare is glare with low potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

"Yellow" glare is glare with potential to cause an after-image (flash blindness) when observed prior to a typical blink response time.

Times associated with glare are denoted in Standard time. For Daylight Savings, add one hour.

The algorithm does not rigorously represent the detailed geometry of a system; detailed features such as gaps between modules, variable height of the PV array, and support structures may impact actual glare results. However, we have validated our models against several systems, including a PV array causing glare to the air-traffic control tower at Manchester-Boston Regional Airport and several sites in Albuquerque, and the tool accurately predicted the occurrence and intensity of glare at different times and days of the year.

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The analysis does not automatically consider obstacles (either man-made or natural) between the observation points and the prescribed solar installation that may obstruct observed glare, such as trees, hills, buildings, etc.

The subtended source angle (glare spot size) is constrained by the PV array footprint size. Partitioning large arrays into smaller sections will reduce the maximum potential subtended angle, potentially impacting results if actual glare spots are larger than the sub-array size. Additional analyses of the combined area of adjacent sub-arrays can provide more information on potential glare hazards. (See previous point on related limitations.)

The variable direct normal irradiance (DNI) feature (if selected) scales the user-prescribed peak DNI using a typical clear-day irradiance profile. This profile has a lower DNI in the mornings and evenings and a maximum at solar noon. The scaling uses a clear-day irradiance profile based on a normalized time relative to sunrise, solar noon, and sunset, which are prescribed by a sun-position algorithm and the latitude and longitude obtained from Google maps. The actual DNI on any given day can be affected by cloud cover, atmospheric attenuation, and other environmental factors.

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- Pupil diameter: 0.002 meters
- Eye focal length: 0.017 meters
- Sun subtended angle: 9.3 milliradians

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This analysis was conducted using the best available radiometric modeling at the time of generation. Future updates to the modeling methodology may yield different results.