

"GOLF RANGE SOLAR"

391 DURHAM LLC

391 DURHAM ROAD MADISON, CT 06443

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SITE INFORMATION

SITE NAME: "GOLF RANGE SOLAR"

SITE TYPE/DESCRIPTION: ADD (1) GROUND MOUNTED SINGLE AXIS TRACKER SOLAR ARRAY (3,820 MODULES, 695W-DC/EA, APPROX. POWER GENERATION 1.99 MW-AC) W/ ASSOCIATED EQUIPMENT ANDGRAVEL ACCESS ROAD.

391 DURHAM ROAD

ESSEX, CT 06426

(860) 552-2046

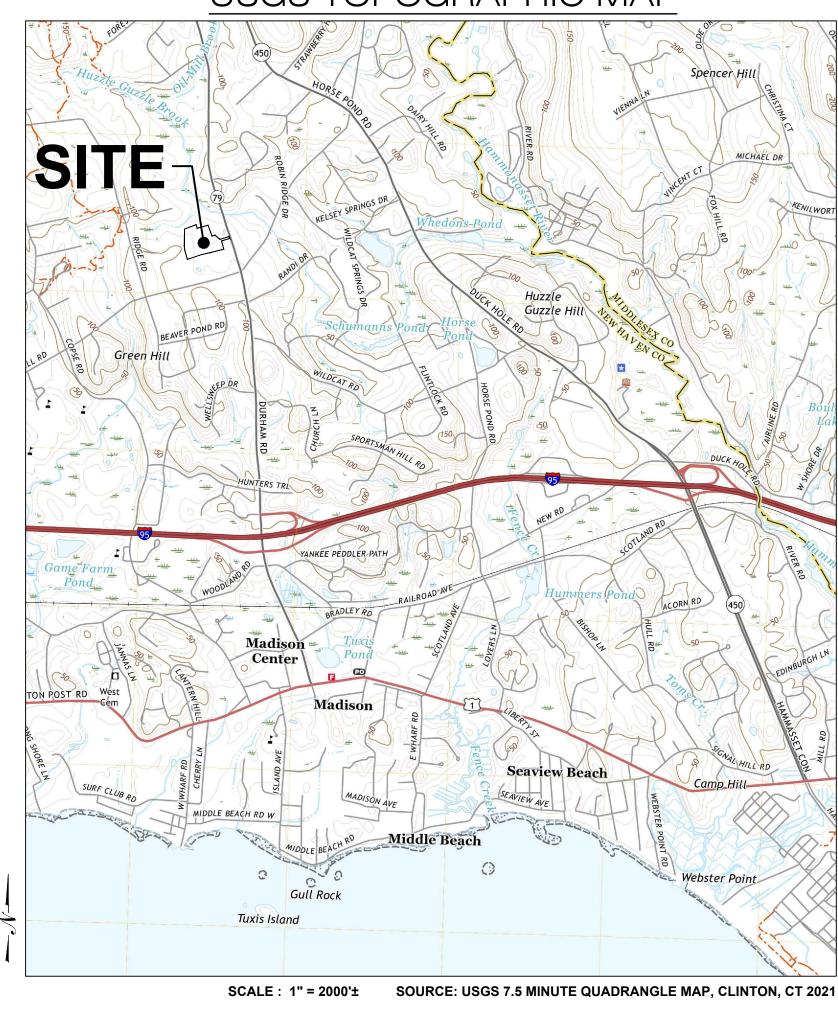
MBLU: 72/27

ZONE: RU-1

TOTAL DISTURBED AREA: 8.32± AC.

APPROX. VOLUME OF FILL: 0± CY

USGS TOPOGRAPHIC MAP



391 DURHAM LLC

9 NOVELTY LANE, UNIT 9B ESSEX, CT 06426 OFFICE: (860) 744-0012



567 VAUXHALL STREET EXTENSION - SUITE 311 WATERFORD, CT 06385 PHONE: (860)-663-1697 WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

PERMIT DOCUMENTS NO DATE REVISION 0 10/08/24 PCN SUBMITTAL 1 | 11/04/24 | ACCESS ROAD REVISION: UKA 2 | 11/25/24 | CSC SUBMITTAL



DESIGN PROFESSIONALS OF RECORD

PROF: THOMAS E. LITTLE, P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET **EXTENSION - SUITE 311** WATERFORD, CT 06385

OWNER: KLEIN PROPERTIES LLC

ADDRESS: 391 DURHAM ROAD MADISON, CT 06443

GOLF RANGE SOLAR

SITE ADDRESS:

391 DURHAM ROAD MADISON, CT 06443

APT FILING NUMBER: CT580120

DRAWN BY:UKA/ELZ DATE: 10/08/24 | CHECKED BY: TEL

SHEET TITLE:

TITLE SHEET

T-1

LOCATION: 391 DURHAM ROAD

MADISON, CT 06443

PROPERTY OWNER: KLEIN PROPERTIES LLC

APPLICANT: 391 DURHAM LLC 9 NOVELTY LANE - UNIT 9B

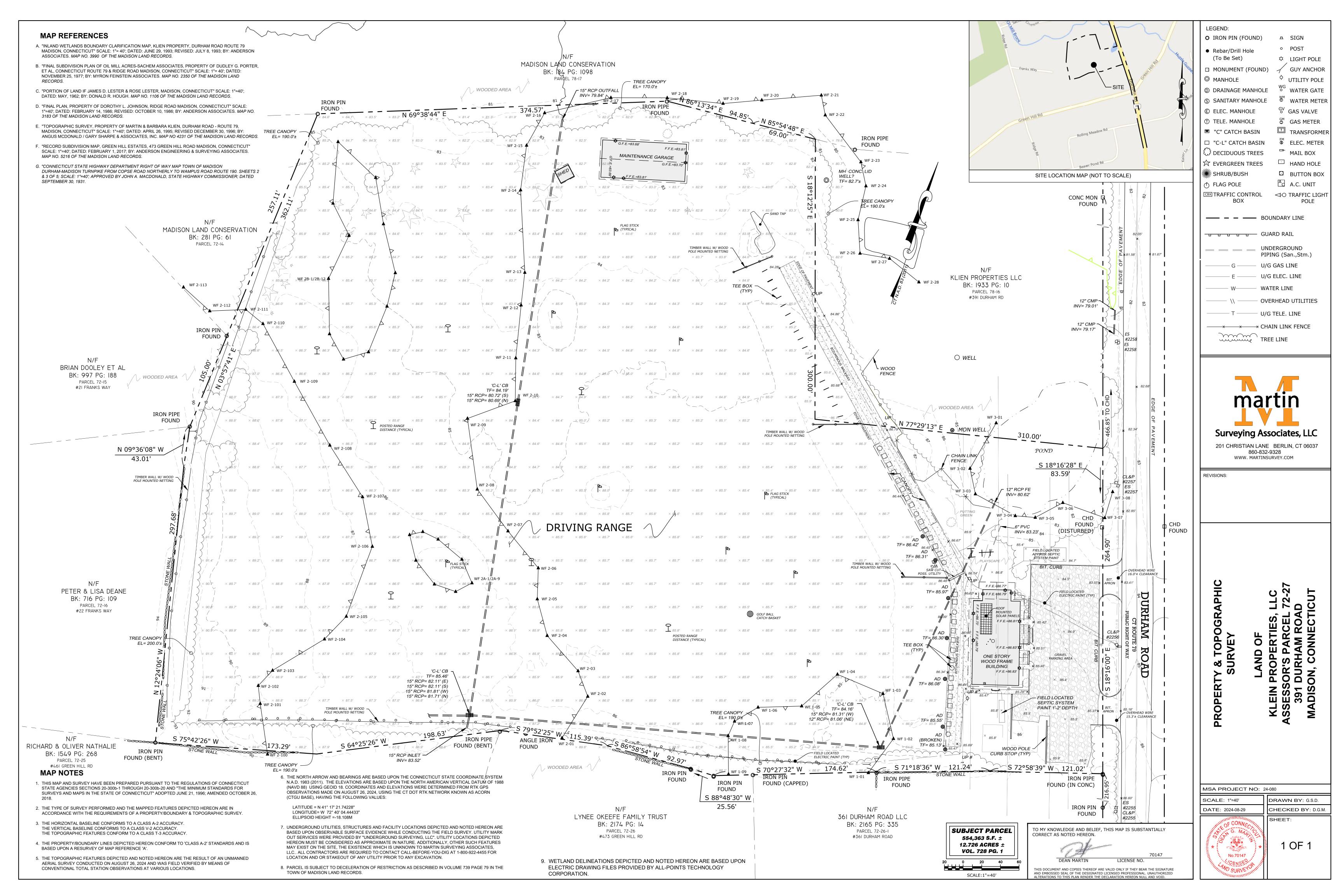
ENGINEER CONTACT: THOMAS E. LITTLE, P.E.

LATITUDE: 41.304785° N LONGITUDE: 72.6064799° W

TOTAL PROPERTY ACREAGE: 12.726± AC.

APPROX. VOLUME OF CUT: 1,216.6± CY

APPROX. NET VOLUME: 1,216.6± CY OF CUT



GENERAL NOTES

- . ALL CONSTRUCTION SHALL COMPLY WITH PROJECT DEVELOPER STANDARDS, TOWN OF MADISON STANDARDS, CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS IN THE ABOVE REFERENCED INCREASING HIERARCHY. IF SPECIFICATIONS ARE IN CONFLICT, THE MORE STRINGENT SPECIFICATION SHALL APPLY.
- 2. IF NO PROJECT CONSTRUCTION SPECIFICATION PACKAGE IS PROVIDED BY THE PROJECT DEVELOPER OR THEIR REPRESENTATIVE, THE CONTRACTOR SHALL COMPLY WITH THE MANUFACTURER, TOWN OF 3. MADISON, OR CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, AND BE IN ACCORDANCE WITH ALL APPLICABLE OSHA, FEDERAL, STATE AND LOCAL REGULATIONS.
- 3. THE PROJECT DEVELOPER IS RESPONSIBLE FOR OBTAINING ALL NECESSARY ZONING AND STORMWATER PERMITS REQUIRED BY GOVERNMENT AGENCIES PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL OBTAIN ALL TOWN OF MADISON CONSTRUCTION PERMITS. THE CONTRACTOR SHALL POST ALL BONDS, PAY ALL FEES, PROVIDE PROOF OF INSURANCE AND PROVIDE TRAFFIC CONTROL NECESSARY FOR THIS WORK.
- 4. REFER TO PLANS, DETAILS AND REPORTS PREPARED BY ALL-POINTS TECHNOLOGY CORPORATION FOR ADDITIONAL INFORMATION. THE CONTRACTOR SHALL VERIFY ALL SITE CONDITIONS IN THE FIELD AND CONTACT THE PROJECT DEVELOPER IF THERE ARE ANY QUESTIONS OR CONFLICTS REGARDING THE CONSTRUCTION DOCUMENTS AND/OR FIELD CONDITIONS SO THAT APPROPRIATE REVISIONS CAN BE MADE PRIOR TO BIDDING/CONSTRUCTION. ANY CONFLICT BETWEEN THE DRAWINGS AND SPECIFICATIONS SHALL BE CONFIRMED WITH THE PROJECT DEVELOPERS CONSTRUCTION MANAGER PRIOR TO CONSTRUCTION.
- 5. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS OF ALL PRODUCTS, MATERIALS PER PLANS, AND SPECIFICATIONS TO THE PROJECT DEVELOPER FOR REVIEW AND APPROVAL PRIOR TO FABRICATION OR DELIVERY TO THE SITE. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- 6. SHOULD ANY UNKNOWN OR INCORRECTLY LOCATED EXISTING PIPING OR OTHER UTILITY BE UNCOVERED DURING EXCAVATION, CONSULT THE PROJECT DEVELOPER IMMEDIATELY FOR DIRECTIONS BEFORE PROCEEDING FURTHER WITH WORK IN THIS AREA.
- 7. DO NOT INTERRUPT EXISTING UTILITIES SERVICING FACILITIES OCCUPIED AND USED BY THE PROJECT DEVELOPER OR OTHERS DURING OCCUPIED HOURS, EXCEPT WHEN SUCH INTERRUPTIONS HAVE BEEN AUTHORIZED IN WRITING BY THE PROJECT DEVELOPER AND THE LOCAL MUNICIPALITY. INTERRUPTIONS SHALL ONLY OCCUR AFTER ACCEPTABLE TEMPORARY SERVICE HAS BEEN PROVIDED.
- 8. THE CONTRACT LIMIT IS THE PROPERTY LINE UNLESS OTHERWISE SPECIFIED OR SHOWN ON THE CONTRACT DRAWINGS.
- 9. THE CONTRACTOR SHALL ABIDE BY ALL OSHA, FEDERAL, STATE AND LOCAL REGULATIONS WHEN OPERATING CRANES, BOOMS, HOISTS, ETC. IN CLOSE PROXIMITY TO OVERHEAD ELECTRIC LINES. IF CONTRACTOR MUST OPERATE EQUIPMENT CLOSE TO ELECTRIC LINES, CONTACT POWER COMPANY TO MAKE ARRANGEMENTS FOR PROPER SAFEGUARDS. ANY UTILITY COMPANY FEES SHALL BE PAID FOR BY THE CONTRACTOR.
- 10. THE CONTRACTOR SHALL COMPLY WITH OSHA CFR 29 PART 1926 FOR EXCAVATION TRENCHING AND TRENCH PROTECTION REQUIREMENTS.
- 11. THE ENGINEER IS NOT RESPONSIBLE FOR SITE SAFETY MEASURES TO BE EMPLOYED DURING CONSTRUCTION. THE ENGINEER HAS NO CONTRACTUAL DUTY TO CONTROL THE SAFEST METHODS OR MEANS OF THE WORK, JOB SITE RESPONSIBILITIES, SUPERVISION OF PERSONNEL OR TO SUPERVISE SAFETY AND DO NOT VOLUNTARILY ASSUME ANY SUCH DUTY OR RESPONSIBILITY.
- 12. THE CONTRACTOR SHALL RESTORE ANY DRAINAGE STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, LANDSCAPED AREAS OR SIGNAGE DISTURBED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER, AS APPROVED BY THE PROJECT DEVELOPER OR TOWN OF MADISON.
- 13. THE CONTRACTOR SHALL PROVIDE AS-BUILT RECORDS OF ALL CONSTRUCTION (INCLUDING UNDERGROUND UTILITIES) TO THE PROJECT DEVELOPER AT THE END OF CONSTRUCTION.
- 14. ALTERNATIVE METHODS AND PRODUCTS, OTHER THAN THOSE SPECIFIED, MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCY PRIOR TO INSTALLATION DURING THE BIDDING/CONSTRUCTION PROCESS.
- 15. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE SYSTEMS HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE SYSTEMS ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE AND THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE SYSTEMS INCLUDING SERVICES. PRIOR TO DEMOLITION OR CONSTRUCTION, THE CONTRACTOR SHALL CONTACT "CALL BEFORE YOU DIG" 72 HOURS BEFORE COMMENCEMENT OF WORK AT "811" AND VERIFY ALL UTILITY AND STORM DRAINAGE SYSTEM LOCATIONS.
- 16. NO CONSTRUCTION OR DEMOLITION SHALL BEGIN UNTIL APPROVAL OF THE FINAL PLANS AND PERMITS ARE GRANTED BY ALL GOVERNING AND REGULATORY AGENCIES.

SITE PLAN NOTES

- THE SURVEY WAS PROVIDED BY MARTIN SURVEYING COMPANY. DATED AUGUST 29, 2024.
- 2. THERE WILL BE MINIMAL GRADING ON SITE IN THE AREAS OF THE MINOR CLEARING, TO ENSURE THAT PROPER DRAINAGE IS MAINTAINED.
- THE CONTRACTOR SHALL FOLLOW THE RECOMMENDED SEQUENCE OF CONSTRUCTION NOTES PROVIDED ON THE EROSION CONTROL PLAN OR SUBMIT AN ALTERNATE PLAN FOR APPROVAL BY THE ENGINEER AND/OR PERMITTING AGENCIES PRIOR TO THE START CONSTRUCTION. ALLOW A MINIMUM OF 14 WORKING DAYS FOR REVIEW.
- 4. PROPER CONSTRUCTION PROCEDURES SHALL BE FOLLOWED ON ALL IMPROVEMENTS WITHIN THIS PARCEL SO AS TO PREVENT THE SILTING OF ANY WATERCOURSE OR BVWS IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. IN ADDITION, THE CONTRACTOR SHALL ADHERE TO THE "EROSION CONTROL PLAN" CONTAINED HEREIN. THE CONTRACTOR SHALL BE RESPONSIBLE TO POST ALL BONDS AS REQUIRED BY GOVERNMENT AGENCIES WHICH WOULD GUARANTEE THE PROPER IMPLEMENTATION OF THE PLAN.
- 5. ALL SITE WORK, MATERIALS OF CONSTRUCTION, AND CONSTRUCTION METHODS FOR EARTHWORK AND STORM DRAINAGE WORK, SHALL CONFORM TO THE SPECIFICATIONS AND DETAILS AND APPLICABLE SECTIONS OF THE PROJECT SPECIFICATIONS MANUAL. OTHERWISE THIS WORK SHALL CONFORM TO THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION AND PROJECT GEOTECHNICAL REPORT IF THERE IS NO PROJECT SPECIFICATIONS MANUAL. ALL FILL MATERIAL UNDER STRUCTURES AND PAVED AREAS SHALL BE PER THE ABOVE STATED APPLICABLE SPECIFICATIONS, AND/OR PROJECT GEOTECHNICAL REPORT, AND SHALL BE PLACED IN ACCORDANCE WITH THE APPLICABLE SPECIFICATIONS UNDER THE SUPERVISION OF A QUALIFIED PROFESSIONAL ENGINEER. MATERIAL SHALL BE COMPACTED IN 8" LIFTS TO 95% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY ASTM D 1557 AT 95% PERCENT OF OPTIMUM MOISTURE CONTENT
- 6. ALL DISTURBANCE INCURRED TO PUBLIC, MUNICIPAL, COUNTY, STATE PROPERTY DUE TO CONSTRUCTION SHALL BE RESTORED TO ITS PREVIOUS CONDITION OR BETTER, TO THE SATISFACTION OF THETOWN OF MADISON AND STATE OF CONNECTICUT.
- 7. IF IMPACTED OR CONTAMINATED SOIL IS ENCOUNTERED BY THE CONTRACTOR, THE CONTRACTOR SHALL SUSPEND EXCAVATION WORK OF IMPACTED SOIL AND NOTIFY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPER'S ENVIRONMENTAL CONSULTANT PRIOR TO PROCEEDING WITH FURTHER WORK IN THE IMPACTED SOIL LOCATION UNTIL FURTHER INSTRUCTED BY THE PROJECT DEVELOPER AND/OR PROJECT DEVELOPER'S ENVIRONMENTAL CONSULTANT.

UTILITY NOTES

- CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE TOWN OF MADISON TO SECURE CONSTRUCTION PERMITS AND FOR PAYMENT OF FEES FOR STREET CUTS AND CONNECTIONS TO EXISTING UTILITIES.
- 2. REFER TO DRAWINGS BY PROJECT DEVELOPER FOR THE ONSITE ELECTRICAL DRAWINGS AND INTERCONNECTION TO EXISTING ELECTRICAL GRID. SITE CONTRACTOR SHALL SUPPLY AND INSTALL PIPE ADAPTERS AS NECESSARY AT BUILDING CONNECTION POINT OR AT EXISTING UTILITY OR PIPE CONNECTION POINT. THESE DETAILS ARE NOT INCLUDED IN THESE PLANS.
- 3. UTILITY LOCATIONS AND PENETRATIONS ARE SHOWN FOR THE CONTRACTOR'S INFORMATION AND SHALL BE VERIFIED WITH THE ELECTRICAL ENGINEER AND THE PROJECT DEVELOPER'S CONSTRUCTION MANAGER PRIOR TO THE START OF CONSTRUCTION.
- 4. THE CONTRACTOR SHALL VISIT THE SITE AND VERIFY THE ELEVATION AND LOCATION OF ALL UTILITIES BY VARIOUS MEANS PRIOR TO BEGINNING ANY EXCAVATION. TEST PITS SHALL BE DUG AT ALL LOCATIONS WHERE PROP. SANITARY SEWERS AND WHERE PROP. STORM PIPING WILL CROSS EXISTING UTILITIES, AND THE HORIZONTAL AND VERTICAL LOCATIONS OF THE UTILITIES SHALL BE DETERMINED. THE CONTRACTOR SHALL CONTACT THE PROJECT DEVELOPER IN THE EVENT OF ANY DISCOVERED OR UNFORESEEN CONFLICTS BETWEEN EXISTING AND PROPOSED SANITARY SEWERS, STORM PIPING AND UTILITIES SO THAT AN APPROPRIATE MODIFICATION MAY BE MADE.
- 5. UTILITY CONNECTION DESIGN AS REFLECTED ON THE PLAN MAY CHANGE SUBJECT TO UTILITY PROVIDER AND GOVERNING AUTHORITY STAFF REVIEW.
- 6. THE CONTRACTOR SHALL ENSURE THAT ALL UTILITY PROVIDERS AND GOVERNING AUTHORITY STANDARDS FOR MATERIALS AND CONSTRUCTION METHODS ARE MET. THE CONTRACTOR SHALL PERFORM PROPER COORDINATION WITH THE RESPECTIVE UTILITY PROVIDER.
- 7. THE CONTRACTOR SHALL ARRANGE FOR AND COORDINATE WITH THE RESPECTIVE UTILITY PROVIDERS FOR SERVICE INSTALLATIONS AND CONNECTIONS. THE CONTRACTOR SHALL COORDINATE WORK TO BE PERFORMED BY THE VARIOUS UTILITY PROVIDERS AND SHALL PAY ALL FEES FOR CONNECTIONS, DISCONNECTIONS, RELOCATIONS, INSPECTIONS, AND DEMOLITION UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATIONS MANUAL AND/OR GENERAL CONDITIONS OF THE CONTRACT.
- 8. ALL EXISTING PAVEMENT WHERE UTILITY PIPING IS TO BE INSTALLED SHALL BE SAW CUT. AFTER UTILITY INSTALLATION IS COMPLETED, THE CONTRACTOR SHALL INSTALL TEMPORARY AND/OR PERMANENT PAVEMENT REPAIR AS DETAILED ON THE DRAWINGS OR AS REQUIRED BY THE TOWN OF MADISON
- 9. ALL PIPES SHALL BE LAID ON STRAIGHT ALIGNMENTS AND EVEN GRADES USING A PIPE LASER OR OTHER ACCURATE METHOD.
- 10. RELOCATION OF UTILITY PROVIDER FACILITIES, SUCH AS POLES, SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE UTILITY PROVIDER.
- 11. THE CONTRACTOR SHALL COMPACT PIPE BACKFILL IN 8" LIFTS ACCORDING TO THE PIPE BEDDING DETAILS. TRENCH BOTTOM SHALL BE STABLE IN HIGH GROUNDWATER AREAS. A PIPE FOUNDATION SHALL BE USED PER THE TRENCH DETAILS AND IN AREAS OF ROCK EXCAVATION.
- 12. CONTRACTOR TO PROVIDE STEEL SLEEVES AND ANNULAR SPACE SAND FILL FOR UTILITY PIPE AND CONDUIT CONNECTIONS UNDER FOOTINGS.
- 13. ALL UTILITY CONSTRUCTION IS SUBJECT TO INSPECTION FOR APPROVAL PRIOR TO BACKFILLING, IN ACCORDANCE WITH THE APPROPRIATE UTILITY PROVIDER REQUIREMENTS.
- 14. A ONE-FOOT MINIMUM VERTICAL CLEARANCE BETWEEN WATER, GAS, ELECTRICAL, AND TELEPHONE LINES AND STORM PIPING SHALL BE PROVIDED. A SIX-INCH MINIMUM CLEARANCE SHALL BE MAINTAINED BETWEEN STORM PIPING AND SANITARY SEWER. A 6-INCH TO 18-INCH VERTICAL CLEARANCE BETWEEN SANITARY SEWER PIPING AND STORM PIPING SHALL REQUIRE CONCRETE ENCASEMENT OF THE SANITARY PIPING.
- 15. THE CONTRACTOR SHALL RESTORE ANY UTILITY STRUCTURE, PIPE, CONDUIT, PAVEMENT, CURBING, SIDEWALKS, DRAINAGE STRUCTURE, SWALE OR LANDSCAPED AREAS DISTURBED DURING CONSTRUCTION, TO THEIR ORIGINAL CONDITION OR BETTER TO THE SATISFACTION OF THE PROJECT DEVELOPER AND TOWN OF MADISON.
- 16. INFORMATION ON EXISTING UTILITIES AND STORM DRAINAGE HAS BEEN COMPILED FROM AVAILABLE INFORMATION INCLUDING UTILITY PROVIDER AND MUNICIPAL RECORD MAPS AND/OR FIELD SURVEY, AND IS NOT GUARANTEED CORRECT OR COMPLETE. UTILITIES AND STORM DRAINAGE ARE SHOWN TO ALERT THE CONTRACTOR TO THEIR PRESENCE. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR DETERMINING ACTUAL LOCATIONS AND ELEVATIONS OF ALL UTILITIES AND STORM DRAINAGE INCLUDING SERVICES. CONTACT "CALL BEFORE YOU DIG" AT 811 72 HOURS PRIOR TO CONSTRUCTION AND VERIFY ALL UNDERGROUND AND OVERHEAD UTILITY AND STORM DRAINAGE LOCATIONS. THE CONTRACTOR SHALL EMPLOY THE USE OF A UTILITY LOCATING COMPANY TO PROVIDE SUBSURFACE UTILITY ENGINEERING CONSISTING OF DESIGNATING UTILITIES AND STORM PIPING ON PRIVATE PROPERTY WITHIN THE CONTRACT LIMIT AND CONSISTING OF DESIGNATING AND LOCATING WHERE PROP. UTILITIES AND STORM PIPING WITHIN THE CONTRACT LIMITS.
- 17. THE CONTRACTOR SHALL ARRANGE AND COORDINATE WITH UTILITY PROVIDERS FOR WORK TO BE PERFORMED BY UTILITY PROVIDERS. THE CONTRACTOR SHALL PAY ALL UTILITY FEES UNLESS OTHERWISE STATED IN THE PROJECT SPECIFICATION MANUAL AND GENERAL CONDITIONS, AND REPAIR PAVEMENTS AS NECESSARY.
- 18. ELECTRIC DRAWINGS AND REQUIREMENTS ARE NOT INCLUDED AS PART OF THIS DRAWING SET AND SHOULD BE OBTAINED FROM THE PROJECT DEVELOPER.
- 19. ALTERNATIVE METHODS AND PRODUCTS OTHER THAN THOSE SPECIFIED MAY BE USED IF REVIEWED AND APPROVED BY THE PROJECT DEVELOPER, ENGINEER, AND APPROPRIATE REGULATORY AGENCIES PRIOR TO INSTALLATION.
- 20. THE CONTRACTOR SHALL MAINTAIN ALL FLOWS AND UTILITY CONNECTIONS TO EXISTING BUILDINGS WITHOUT INTERRUPTION UNLESS/UNTIL AUTHORIZED TO DISCONNECT BY THE PROJECT DEVELOPER, TOWN OF MADISON, UTILITY PROVIDERS AND GOVERNING AUTHORITIES.

GENERAL LEGEND EXISTING PROPOSED PROPERTY LINE BUILDING SETBACK _ _ _ _ _ _ SOLAR SETBACK EASEMENT ______ ______ TREE LINE WETLAND WETLAND BUFFER VERNAL POOL VERNAL POOL BUFFER WATERCOURSE ___ · · · ___ · · · ___ WATERCOURSE BUFFER MAJOR CONTOUR - - - - -MINOR CONTOUR **UNDERGROUND ELECTRIC** OVERHEAD ELECTRIC GAS LINE WATER LINE ____ \// _____ \// ____ BASIN SWALE CHAIN LINK FENCE — ×— ×— CHAIN LINK FENCE w/ PRIVACY SLATS LIMIT OF DISTURBANCE ACCESS DRIVE SOLAR ARRAY OUTLINE LIMIT OF CLEARING —LCG— AND GRUBBING FILTER SOCK SILT FENCE WETLAND RESTORATION WETLAND

ENHANCEMENT

391 DURHAM LLC

9 NOVELTY LANE, UNIT 9B ESSEX, CT 06426 OFFICE: (860) 744-0012



WATERFORD, CT 06385 PHONE: (860)-663-1697 WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

567 VAUXHALL STREET EXTENSION - SUITE 311

	PERMIT DOCUMENTS				
NO	DATE	REVISION			
0	10/08/24	PCN SUBMITTAL			
1	11/04/24	ACCESS ROAD REVISION: UKA			
2	11/25/24	CSC SUBMITTAL			
3					
4					
5					
6					



DESIGN PROFESSIONALS OF RECORD

PROF: THOMAS E. LITTLE, P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET
EXTENSION - SUITE 311
WATERFORD. CT 06385

OWNER: KLEIN PROPERTIES LLC

ADDRESS: 391 DURHAM ROAD MADISON, CT 06443

GOLF RANGE SOLAR

SITE ADDRESS:

391 DURHAM ROAD MADISON, CT 06443

APT FILING NUMBER: CT580120

DRAWN BY:UKA/ELZ

SHEET TITLE:

GENERAL NOTES & LEGEND

DATE: 10/08/24 CHECKED BY: TEL

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GN-1

ENVIRONMENTAL NOTES

ENVIRONMENTAL NOTES - RESOURCES PROTECTION MEASURES

RARE SPECIES, WETLAND, AND WATERCOURSE PROTECTION PROGRAM

The proposed solar facility is located proximate to sensitive habitats including Huzzle Guzzle Brook, Oil Mill Brook, wetland resource areas, and rare species habitat. As a result, the following protective measures shall be followed to help avoid degradation of nearby wetland and watercourse resources and avoid incidental impact to rare species.

Wood Turtle (*Glyptemys insculpta*) and Eastern Box Turtle (*Terrapene c. carolina*), both State Special Concern species afforded protection under the Connecticut Endangered Species Act, are known to occur on or proximity to the proposed facility. These rare species protection measures have been approved by the Connecticut Department of Energy and Environmental Protection ("DEEP") Wildlife Division with issuance of a Natural Diversity Data Base Determination letter (Determination No. 202408844), dated September 6, 2024 that is valid until September 6, 2026.

It is of the utmost importance that the Contractor complies with the requirement for implementation of these protective measures and the education of its employees and subcontractors performing work on the project site. The wetland protection measures shall be implemented and maintained throughout the duration of construction activities until permanent stabilization of site soils has occurred.

Details of implementation measures to protect these various sensitive resources during construction and maintenance of the solar facility are provided below.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection measures are implemented properly. APT will provide an education session for the Contractor prior to the start of construction activities on nearby sensitive wetland resources/vernal pools resources and rare species that may be encountered. The Contractor shall contact Dean Gustafson, Senior Biologist at APT, at least 5 business days prior to the start of any construction activities to schedule a pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

This protection program consists of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective measures; periodic inspection of the construction project; and, reporting.

1. Contractor Education

- a. Prior to work on site and initial deployment/mobilization of equipment and materials, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT to emphasize the environmentally sensitive nature of the project, Huzzle Guzzle Brook, Oil Mill Brook, and the various wetland, and rare species resources, and the requirement to diligently follow the Protective Measures as described in sections below. Workers will also be provided information regarding the identification of other turtles, snakes, and common herpetofauna (e.g., amphibians and reptiles) that could be encountered. The meeting will further emphasize the non-aggressive nature of these species, the absence of need to destroy such animals and the need to follow Protective Measures as described in following sections. The Contractor will designate one of its workers as the "Project Monitor", who will receive more intense training on the identification and protection of Wood Turtles and Eastern Box Turtles.
- b. The education session will also focus on means to discriminate between the species of concern and other native species to avoid unnecessary "false alarms". Encounters with any species of turtles, snakes and amphibians will be documented.
- c. The Contractor will designate a member of its crew as the Project Monitor to be responsible for the periodic "sweeps" for herpetofauna within the construction zone each morning and for any ground disturbance work. This individual will receive more intense training from APT on the identification and protection of herpetofauna in order to perform sweeps. Any herpetofauna discovered would be translocated outside the work zone in the general direction the animal was oriented.
- d. The Contractor will be provided with cell phone and email contacts for APT personnel to immediately report any encounters with any rare species. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.
- e. APT will also post Caution Signs throughout the project site for the duration of the construction project providing notice of the environmentally sensitive nature of the work area, the potential for encountering various amphibians and reptiles and precautions to be taken to avoid injury to or mortality of these animals.
- f. If any rare species are encountered, the Contractor shall immediately cease all work, avoid any disturbance to the species, and contact APT.

2. Isolation Measures & Sedimentation and Erosion Controls

- a. Plastic netting used in a variety of erosion control products (i.e., erosion control blankets, fiber rolls [wattles], reinforced silt fence) has been found to entangle wildlife, including reptiles, amphibians, birds, and small mammals, but particularly snakes. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products will use either erosion control blankets and fiber rolls composed of processed fibers mechanically bound together to form a continuous matrix (netless) or netting composed of planar woven natural biodegradable fiber to avoid/minimize wildlife entanglement.
- b. Exclusionary fencing shall be at least 20 inches tall and must be secured to and remain in contact with the ground and be regularly maintained by the contractor (at least bi-weekly and after major weather events) to secure any gaps or openings at ground level that may let animal pass through.
- c. The extent of the erosion controls will be as shown on the site plans. The Contractor shall have additional sedimentation and erosion controls stockpiled on site should field or construction conditions warrant extending devices. In addition to the Contractor making these determinations, requests for additional controls will also be at the discretion of the Environmental Monitor.
- d. Installation of sedimentation and erosion controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing turtles, shall be performed by the Contractor following clearing activities and prior to any earthwork. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation to ensure the area is free of Wood Turtle (along with other amphibians and reptiles that may be encountered) and document barriers have been satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone and isolate it from nesting/foraging/migrating/dispersing turtles, snakes and other herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. Although the barriers may not completely isolate the work zone, they will be positioned to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with turtles, snakes and other herpetofauna.
- e. The Contractor is responsible for daily inspections of the sedimentation and erosion controls for tears or breeches and accumulation levels of sediment, particularly following storm events that generate a discharge. as defined by and in accordance with applicable local, state and federal regulations. The Contractor shall notify the Environmental Monitor within 24 hours of any breeches of the sedimentation and erosion controls and any sediment releases beyond the perimeter controls that impact wetlands, watercourses or within 100 feet of wetlands and watercourses. The Environmental Monitor will provide periodic inspections of the sedimentation and erosion controls throughout the duration of construction activities only as it pertains to their function as isolation measures for the protection of rare species. Such

inspections will generally occur once per month. The frequency of monitoring may increase depending upon site conditions, level of construction activities in proximity to sensitive receptors, or at the request of permittee or regulatory agencies. If the Compliance Monitor is notified by the Contractor of a sediment release, an inspection will be scheduled specifically to investigate and evaluate possible impacts to wetland and/or watercourse resources.

- f. Third party monitoring of sedimentation and erosion controls will be performed by other parties, as necessary, under applicable local, state and/or federal regulations and permit conditions.
- g. No equipment, vehicles or construction materials shall be stored outside of the sedimentation and erosion controls within 100 feet of wetlands or watercourses.
- h. Construction equipment washout areas shall be established a minimum of 50 feet from wetlands or watercourses. The washout stations shall be self-contained and no surface discharge of washout wastewaters shall occur.
- i. All sedimentation and erosion controls shall be removed within 30 days of completion of work and permanent stabilization of site soils so that reptile and amphibian movement between uplands and wetlands is not restricted. If fiber rolls/wattles, straw bales, or other natural material erosion control products are used, such devices will not be left in place to biodegrade and shall be promptly removed after soils are stable so as not to create a barrier to wildlife movement. Seed from seeding of soils should not spread over fiber rolls/wattles as it makes them harder to remove once soils are stabilized by vegetation.

3. Petroleum Materials Storage and Spill Prevention

- a. Certain precautions are necessary to store petroleum materials, refuel and contain and properly clean up any inadvertent fuel or petroleum (i.e., oil, hydraulic fluid, etc.) spill to avoid possible impact to nearby resources.
- b. The permittee or their representative is responsible for development and implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan for this project as per the requirements of 40 CFR 112, as applicable. Please refer to the SPCC for specific requirements. Basic requirements for petroleum materials storage and spill prevention are provided below. In the event these basic requirements contradict the SPCC, the Contractor shall rely on requirements provided in the SPCC.
- c. A spill containment kit consisting of a sufficient supply of absorbent pads and absorbent material will be maintained by the Contractor at the construction site throughout the duration of the project. In addition, a waste drum will be kept on site to contain any used absorbent pads/material for proper and timely disposal off site in accordance with applicable local, state, and federal laws.
- d. The following petroleum and hazardous materials storage and refueling restrictions and spill response procedures will be adhered to by the Contractor.

i. Petroleum and Hazardous Materials Storage and Refueling

- 1. Refueling of vehicles or machinery shall occur a minimum of 100 feet from wetlands and shall take place on an impervious pad with secondary containment designed to contain fuels.
- Any fuel or hazardous materials that must be kept on site shall be stored on an impervious surface utilizing secondary containment a minimum of 100 feet from wetlands.

ii. Initial Spill Response Procedures

- 1.Stop operations and shut off equipment.
- 2.Remove any sources of spark or flame.
- 3. Contain the source of the spill.4. Determine the approximate volume of the spill.
- 4. Determine the approximate volume of the spill.

 5. Identify the location of natural flow paths to prevent the release of the spill to
- sensitive nearby wetlands and vernal pool.
- 6. Ensure that fellow workers are notified of the spill.

iii. Spill Clean Up & Containment

- 1. Obtain spill response materials from the on-site spill response kit. Place absorbent materials directly on the release area.
- 2. Limit the spread of the spill by placing absorbent materials around the
- perimeter of the spill.3. Isolate and eliminate the spill source.
- 3. Isolate and eliminate the spill source.4. Contact appropriate local, state and/or federal agencies, as necessary.
- Contact a disposal company to properly dispose of contaminated materials.

iv. Reporting

1. Complete an incident report.

Submit a completed incident report to local, state and federal agencies, as necessary, including the Connecticut Siting Council.

4. Herbicide, Pesticide and Salt Limitations

- a. The use of herbicides and pesticides at the facility shall be minimized. In the event herbicides and/or pesticides are required at the facility, their use will be used in accordance with Integrated Pest Management ("IPM") principles with particular attention to minimize applications within 100 feet of wetland or watercourse resources. No applications of herbicides or pesticides are allowed within actual wetland or watercourse resources.
- a. Maintenance of the facility during the winter months shall minimize the application of chloride-based salt or similar products for melting snow or ice. Non-chloride based deicing products are recommended.

5. Turtle Protection Measures - Construction Phase

- a. Prior to construction and following installation of isolation barriers, the construction area will be swept by APT and any turtles occurring within the work area will be relocated to suitable habitat outside of the isolation barriers.
- b. Prior to the start of construction each day, the contractor shall search the entire work area for turtles.
- c. If a turtle is found during the active period, it shall be immediately moved, unharmed, by being carefully grasped in both hands, one on each side of the shell, between the turtle's forelimbs and the hind limbs, and placed just outside of the isolation barrier in the same approximate direction it was heading. These animals are protected by law and no turtles should be relocated from the property.
- d. Special care shall be taken by the contractor during early morning and evening hours so that possible basking or foraging turtles are not harmed by construction activities.
- e. The contractor shall be particularly diligent during the months of May and June when turtles are actively selecting nesting sites which results in an increase in turtle movement activity.
- f. No heavy machinery or vehicles may be parked in any turtle habitat.
- g. Avoid and limit any equipment use within 100 feet of wetlands and no heavy machinery or vehicles may be parked in any turtle habitat or within 100 feet of wetlands.
- h. Special precautions must be taken to avoid degradation of wetland habitats, particularly near

the northern portion of the Site that is proximate to Huzzle Guzzle Brook and Oil Mill Brook.

- a. Perform mowing during the turtle dormant period November 1st through March 31st when
- b. If mowing is required outside of the turtle dormant period, avoid mowing during May 15th through August 30th when turtles may be located within the facility (and away from forested habitat), if possible, understanding that some vegetation maintenance is necessary for operational and electrical safety purposes.

6. Turtle Protection Measures - Facility Maintenance (Mowing Recommendations)

- c. If mowing is required during the turtle active season (April 1st through October 31^{SL}), mowing should be performed as follows.
- i. Mowing style: Avoid flail mower heads with guide bars that ride along the ground. Sickle bar mowers will have the least impact if mowing every 1-5 years. In areas with more woody vegetation >1-2" diameter Brontosaurus-style mower will likely have the least impact on turtles
- ii. Mowing height: If mowing during active season, retention of mowing stubble to 7-12 inches will reduce mortality, reduce blade wear, and will leave important cover for animals.
- iii. Directionality: If mowing during the active season is necessary, start mowing from the center of the field and use a back-and-forth approach, or large circular pattern, to avoid concentrating fleeing animals where they may be killed or stranded. In addition, leave an un-mowed 30 ft strip around the perimeter of the field and mow this area last. Most turtles are found in these areas and this provides time for them to react to the mowing activity and move out of the area.
- iv. Mower Speed: Mowing in low gear or at slow speeds will allow turtles to react and move out of the field.
- v. Un-mowed Edge: Leave field edge in high turtle use areas unmowed until after September 15th. Wood turtles are often in field edges closest to nearby streams.

7. Reporting

- a. A Compliance Monitoring Report (brief narrative and applicable photos) documenting each APT inspection will be submitted by APT to the Permittee and its Contractor for compliance verification of these protection measures. These reports are not to be used to document compliance with any other permit agency approval conditions (i.e., DEEP Stormwater Permit monitoring, etc.). Any non-compliance observations of erosion control measures or evidence of erosion or sediment release will be immediately reported to the Permittee and its Contractor and included in the reports. Any observations of rare species, resource impacts, or corrective actions will be included in the reports.
- b. Following completion of the construction project, APT will provide a Final Compliance Monitoring Report to the permittee documenting implementation of this resources protection program and monitoring observations, including any observations of rare species. The permittee shall provide a copy of the Final Compliance Monitoring Report to the Connecticut Siting Council for compliance verification.
- c. Any observations of rare species will be reported to DEEP by APT on the appropriate special animal reporting form, with photo-documentation (if possible) and specific information on the location and disposition of the animal.

${\bf ENVIRONMENTAL\ NOTES-RESOURCES\ PROTECTION\ PROGRAM}$

BAT PROTECTION MEASURES

The proposed facility is located within sensitive habitat known to be used by northern long-eared bat ("NLEB"; Myotis septentrionalis), a Federally- and State-listed Endangered Species, and tricolored bat ("TCB"; Perimyotis subflavus), a Federally Proposed Endangered and State Endangered Species. In order to protect these bat species and prevent incidental take, protection measures are proposed during construction and operation of the facility.

It is of the utmost importance that the Contractor complies with the requirement for implementation of these protective measures and the education of its employees and subcontractors performing work on the project site.

All-Points Technology Corporation, P.C. ("APT") will serve as the Environmental Monitor for this project to ensure that these protection and conservation measures are implemented properly. APT will provide an education session for the Contractor prior to the start of construction activities on the potential presence of NLEB and TCB. The Contractor shall contact Dean Gustafson, Senior Biologist at APT, at least 5 business days prior to the start of any construction activities to schedule a pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552-2033 or via email at dgustafson@allpointstech.com.

This protection program consists of several components: education of all contractors and sub-contractors prior to initiation of work on the site; protective and conservation measures; periodic inspection of the construction project; and, reporting. Details of the NLEB and TCB protection measures to be implemented in association with construction and operation of the facility are provided below.

1. Contractor Education

- a. Prior to work on site, the Contractor shall attend an educational session at the pre-construction meeting with APT. This orientation and educational session will consist of an introductory meeting with APT to emphasize the environmentally sensitive nature of the project, the rare species resources, and the requirement to diligently follow the Protective and Conservation Measures as described in sections below.
- b. The Contractor will be provided with cell phone and email contacts for APT personnel to immediately report any encounters with any rare species. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.
- c. If any rare species are encountered, the Contractor shall immediately cease all work, avoid any disturbance to the species, and contact APT.

2. Bat Habitat - Tree Clearing Restriction

a. A time of year restriction ("TOYR") for tree clearing restricts tree removal to occur only between October 1st through April 14th, during the bat's inactive season, when NLEB and TCB would likely not be present in forested habitat on the subject property. <u>Do not remove trees between April 15th through September 30th.</u>

3. Reporting

- a. A Compliance Monitoring Report (brief narrative and applicable photos) documenting APT inspection verifying TOYR for tree removal was adhered to will be submitted by APT to the permittee for compliance verification. Any observations of bats will be included in the reports.
- b. Following completion of the construction project, APT will provide a Final Compliance Monitoring Report to the permittee documenting implementation of this NLEB and TCB protection program and any species observations. The permittee shall provide a copy of the Final Compliance Monitoring Report to the Connecticut Siting Council for compliance verification.
- c. Any observations of rare species will be reported to DEEP by APT on the appropriate special animal reporting form, with photo-documentation (if possible) and specific information on the location and disposition of the animal.

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1	11/04/24	ACCESS ROAD REVISION: U		
2	11/25/24	CSC SUBMITTAL		

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DESIGN PROFESSIONALS OF RECORD

PROF: THOMAS E. LITTLE, P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET
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OWNER: KLEIN PROPERTIES LLC

ADDRESS: 391 DURHAM ROAD MADISON, CT 06443

GOLF RANGE SOLAR

SITE ADDRESS:
391 DURHAM ROAD

MADISON, CT 06443

APT FILING NUMBER: CT580120

DRAWN BY:UKA/ELZ

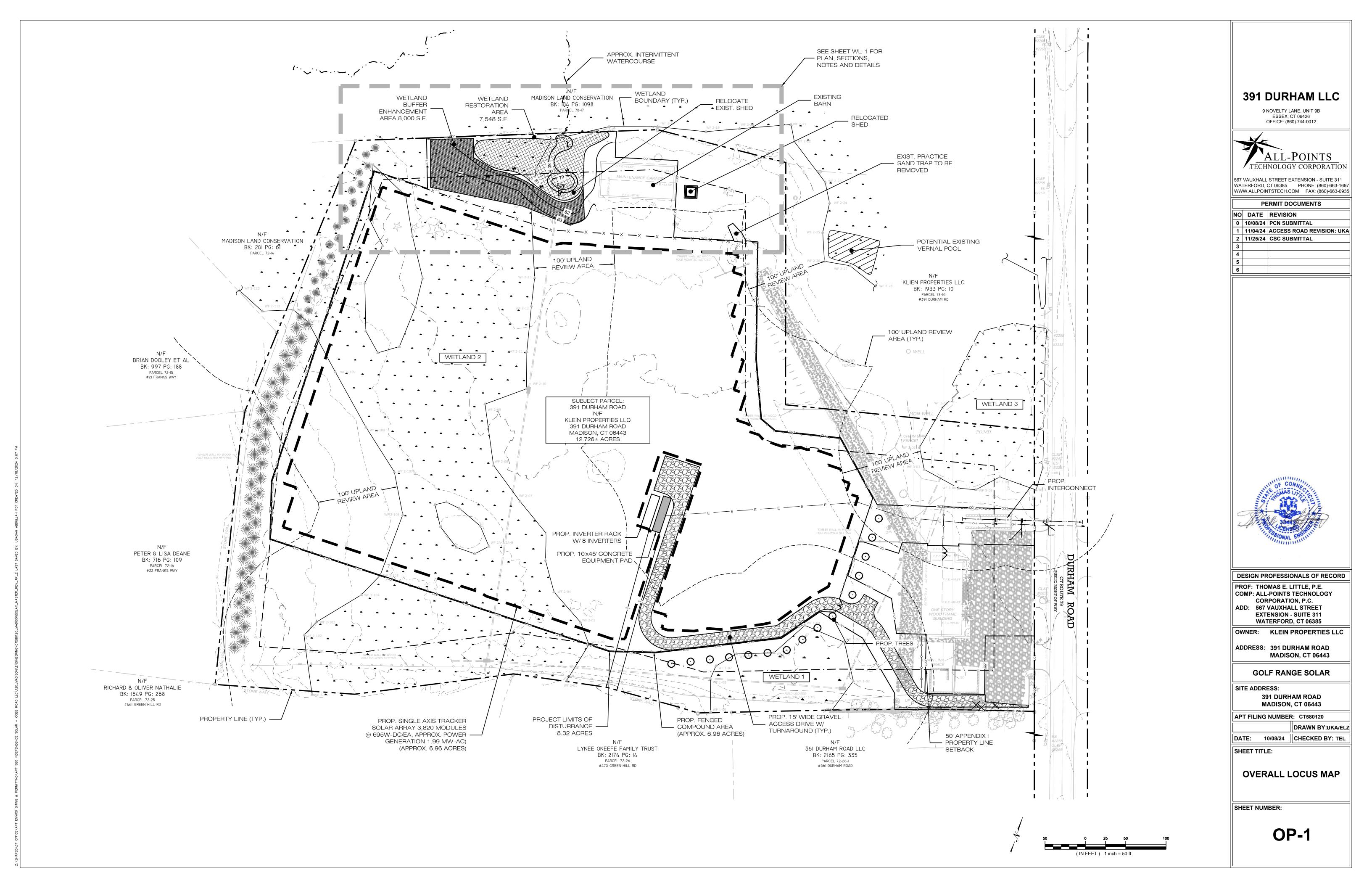
SHEET TITLE:

ENVIRONMENTAL NOTES

DATE: 10/08/24 CHECKED BY: TEL

SHEET NUMBER:

EN-1



EROSION CONTROL NOTES

EROSION AND SEDIMENT CONTROL PLAN NOTES

- 1. THE CONTRACTOR SHALL CONSTRUCT ALL SEDIMENT AND EROSION CONTROLS IN ACCORDANCE WITH THE 2002 CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, LATEST EDITION, IN ACCORDANCE WITH THE CONTRACT DOCUMENTS, AND AS DIRECTED BY THE TOWN OF MADISON, PERMITTEE, AND/OR SWPCP MONITOR. ALL PERIMETER SEDIMENTATION AND EROSION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CLEARING AND GRUBBING AND DEMOLITION OPERATIONS.
- 2. THESE DRAWINGS ARE ONLY INTENDED TO DESCRIBE THE SEDIMENT AND EROSION CONTROL MEASURES FOR THIS SITE. SEE CONSTRUCTION SEQUENCE FOR ADDITIONAL INFORMATION. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE EROSION & SEDIMENT CONTROL PLAN ARE SHOWN AS REQUIRED BY THE ENGINEER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT ALL EROSION CONTROL MEASURES ARE CONFIGURED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION OF SOILS AND PREVENT THE TRANSPORT OF SEDIMENTS AND OTHER POLLUTANTS TO STORM DRAINAGE SYSTEMS AND/OR WATERCOURSES. ACTUAL SITE CONDITIONS OR SEASONAL AND CLIMATIC CONDITIONS MAY WARRANT ADDITIONAL CONTROLS OR CONFIGURATIONS, AS REQUIRED, AND AS DIRECTED BY THE PERMITTEE AND/OR SWPCP MONITOR, REFER TO SITE PLAN FOR GENERAL INFORMATION AND OTHER CONTRACT PLANS FOR APPROPRIATE INFORMATION.
- 3. A BOND OR LETTER OF CREDIT MAY BE REQUIRED TO BE POSTED WITH THE GOVERNING AUTHORITY FOR THE EROSION CONTROL INSTALLATION AND MAINTENANCE.
- 4. THE CONTRACTOR SHALL APPLY THE MINIMUM EROSION & SEDIMENT CONTROL MEASURES SHOWN ON THE PLAN IN CONJUNCTION WITH CONSTRUCTION SEQUENCING, SUCH THAT ALL ACTIVE WORK ZONES ARE PROTECTED. ADDITIONAL AND/OR ALTERNATIVE SEDIMENT AND EROSION CONTROL MEASURES MAY BE INSTALLED DURING THE CONSTRUCTION PERIOD IF FOUND NECESSARY BY THE CONTRACTOR, OWNER, SITE ENGINEER, MUNICIPAL OFFICIALS, OR ANY GOVERNING AGENCY. THE CONTRACTOR SHALL CONTACT THE OWNER AND APPROPRIATE GOVERNING AGENCIES FOR APPROVAL IF ALTERNATIVE CONTROLS OTHER THAN THOSE SHOWN ON THE PLANS ARE PROPOSED BY THE CONTRACTOR.
- 5. THE CONTRACTOR SHALL TAKE EXTREME CARE DURING CONSTRUCTION SO AS NOT TO DISTURB UNPROTECTED WETLAND AREAS OR INSTALLED SEDIMENTATION AND EROSION CONTROL MEASURES. THE CONTRACTOR SHALL INSPECT ALL SEDIMENT AND EROSION CONTROLS WEEKLY AND WITHIN 24 HOURS OF A STORM WITH A RAINFALL AMOUNT OF 0.25 INCHES OR GREATER TO VERIFY THAT THE CONTROLS ARE OPERATING PROPERLY AND MAKE REPAIRS AS NECESSARY IN A
- 6. THE CONTRACTOR SHALL KEEP A SUPPLY OF EROSION CONTROL MATERIAL (SILT FENCE, COMPOST FILTER SOCK, EROSION CONTROL BLANKET, ETC.) ON-SITE FOR PERIODIC MAINTENANCE AND EMERGENCY REPAIRS.
- 7. ALL FILL MATERIAL PLACED ADJACENT TO ANY WETLAND AREA SHALL BE GOOD QUALITY, WITH LESS THAN 5% FINES PASSING THROUGH A #200 SIEVE (BANK RUN), SHALL BE PLACED IN MAXIMUM ONE FOOT LIFTS, AND SHALL BE COMPACTED TO 95% MAX. DRY DENSITY MODIFIED PROCTOR OR AS SPECIFIED IN THE CONTRACT SPECIFICATIONS.
- 8. PROTECT EXISTING TREES THAT ARE TO BE SAVED BY FENCING, ORANGE SAFETY FENCE, CONSTRUCTION TAPE, OR EQUIVALENT FENCING/TAPE. ANY LIMB TRIMMING SHOULD BE DONE AFTER CONSULTATION WITH AN ARBORIST AND BEFORE CONSTRUCTION BEGINS IN THAT AREA; FENCING SHALL BE MAINTAINED AND REPAIRED DURING CONSTRUCTION.
- 9. CONSTRUCTION ENTRANCES (ANTI-TRACKING PADS) SHALL BE INSTALLED PRIOR TO ANY SITE EXCAVATION OR CONSTRUCTION ACTIVITY AND SHALL BE MAINTAINED THROUGHOUT THE DURATION OF ALL CONSTRUCTION IF REQUIRED. THE LOCATION OF THE TRACKING PADS MAY CHANGE AS VARIOUS PHASES OF CONSTRUCTION ARE COMPLETED. CONTRACTOR SHALL ENSURE THAT ALL VEHICLES EXITING THE SITE ARE PASSING OVER THE ANTI-TRACKING PADS PRIOR TO EXITING.
- 10. ALL CONSTRUCTION SHALL BE CONTAINED WITHIN THE LIMIT OF DISTURBANCE, WHICH SHALL BE MARKED WITH SILT FENCE, SAFETY FENCE, HAY BALES. RIBBONS. OR OTHER MEANS PRIOR TO CLEARING. CONSTRUCTION ACTIVITY SHALL REMAIN ON THE UPHILL SIDE OF THE SEDIMENT BARRIER UNLESS WORK IS SPECIFICALLY CALLED FOR ON THE DOWNHILL SIDE OF THE BARRIER.
- 11. NO CUT OR FILL SLOPES SHALL EXCEED 2:1 EXCEPT WHERE STABILIZED BY ROCK FACED EMBANKMENTS OR EROSION CONTROL BLANKETS. ALL SLOPES SHALL BE SEEDED AND BANKS WILL BE STABILIZED IMMEDIATELY UPON COMPLETION OF FINAL GRADING UNTIL TURF IS ESTABLISHED.
- 12. DIRECT ALL DEWATERING PUMP DISCHARGE TO A SEDIMENT CONTROL DEVICE CONFORMING TO THE GUIDELINES WITHIN THE APPROVED LIMIT OF DISTURBANCE IF REQUIRED. DISCHARGE TO STORM DRAINS OR SURFACE WATERS FROM SEDIMENT CONTROLS SHALL BE CLEAR AND APPROVED BY THE PERMITTEE OR
- 13. THE CONTRACTOR SHALL MAINTAIN A CLEAN CONSTRUCTION SITE AND SHALL NOT ALLOW THE ACCUMULATION OF RUBBISH OR CONSTRUCTION DEBRIS ON THE SITE. PROPER SANITARY DEVICES SHALL BE MAINTAINED ON-SITE AT ALL TIMES AND SECURED APPROPRIATELY. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID THE SPILLAGE OF FUEL OR OTHER POLLUTANTS ON THE CONSTRUCTION SITE AND SHALL ADHERE TO ALL APPLICABLE POLICIES AND REGULATIONS RELATED TO SPILL PREVENTION AND RESPONSE/CONTAINMENT.
- 14. MINIMIZE LAND DISTURBANCES. SEED AND MULCH DISTURBED AREAS WITH TEMPORARY MIX AS SOON AS PRACTICABLE (2 WEEK MAXIMUM UNSTABILIZED PERIOD) USING PERENNIAL RYEGRASS AT 40 LBS PER ACRE. MULCH ALL CUT AND FILL SLOPES AND SWALES WITH LOOSE HAY AT A RATE OF 2 TONS PER ACRE. IF NECESSARY, REPLACE LOOSE HAY ON SLOPES WITH EROSION CONTROL BLANKETS OR JUTE CLOTH. MODERATELY GRADED AREAS, ISLANDS, AND TEMPORARY CONSTRUCTION STAGING AREAS MAY BE HYDROSEEDED WITH TACKIFIER.
- 15. SWEEP AFFECTED PORTIONS OF OFF SITE ROADS ONE OR MORE TIMES A DAY (OR LESS FREQUENTLY IF TRACKING IS NOT A PROBLEM) DURING CONSTRUCTION. FOR DUST CONTROL, PERIODICALLY MOISTEN EXPOSED SOIL SURFACES WITH WATER ON UNPAVED TRAVELWAYS TO KEEP THE TRAVELWAYS DAMP. CALCIUM CHLORIDE MAY ALSO BE APPLIED TO ACCESS ROADS. DUMP TRUCK LOADS EXITING THE SITE SHALL BE COVERED.
- 16. VEGETATIVE ESTABLISHMENT SHALL OCCUR ON ALL DISTURBED SOIL, UNLESS THE AREA IS UNDER ACTIVE CONSTRUCTION, IT IS COVERED IN STONE OR SCHEDULED FOR PAVING WITHIN 30 DAYS. TEMPORARY SEEDING OR NON-LIVING SOIL PROTECTION OF ALL EXPOSED SOILS AND SLOPES SHALL BE INITIATED WITHIN THE FIRST 7 DAYS OF SUSPENDING WORK IN AREAS TO BE LEFT LONGER THAN 30 DAYS.
- 17. MAINTAIN ALL PERMANENT AND TEMPORARY SEDIMENT CONTROL DEVICES IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. UPON COMPLETION OF WORK SWEEP CONCRETE PADS, CLEAN THE STORMWATER MANAGEMENT SYSTEMS AND REMOVE ALL TEMPORARY SEDIMENT CONTROLS ONCE THE SITE IS FULLY STABILIZED AND APPROVAL HAS BEEN RECEIVED FROM PERMITTEE OR THE MUNICIPALITY.
- 18. THE SITE WAS DESIGNED TO COMPLY WITH FEDERAL, STATE, AND, IF APPLICABLE, LOCAL STANDARDS, PLUS CURRENT ACCEPTED PRACTICES FOR THE INDUSTRY ADDITIONAL CONTROLS AND ACTIVITIES MAY BE DEEMED NECESSARY BY THE SWPCP MONITOR DURING CONSTRUCTION AS A RESULT OF UNFORESEEN CONDITIONS AND/OR MEANS AND METHODS. SUCH ITEMS MAY INCLUDE, BUT ARE NOT LIMITED TO: ADDITIONAL FOREBAYS, BASINS, OR UPSTREAM STRUCTURAL CONTROLS, THE USE OF FLOCCULANTS OF FLOCK LOGS TO DECREASE SEDIMENT, DISCHARGE MANAGEMENT SUCH AS ADDITIONAL ARMORING AND FILTERING MEASURES (I.E. STRAW BALES, WATTLES, ETC.), AND HYDROSEEDING WITH RAPIDLY GERMINATING SEED.
- 19. SEEDING MIXTURES SHALL BE NEW ENGLAND SEMI-SHADE GRASS AND FORBS MIX (SEE SITE DETAILS SHEET DN-1), OR APPROVED EQUAL BY OWNER.

	CONSTRUCTION OPERATION AND MAINTENANCE PLAN - BY CONTRACTOR				
E&S MEASURE	INSPECTION SCHEDULE	MAINTENANCE REQUIRED			
CONSTRUCTION ENTRANCE	DAILY	PLACE ADDITIONAL STONE, EXTEND THE LENGTH OR REMOVE AND REPLACE THE STONE. CLEAN PAVED SURFACES OF TRACKED SEDIMENT.			
COMPOST FILTER SOCK	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED.			
SILT FENCE	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR/REPLACE WHEN FAILURE OR DETERIORATION IS OBSERVED. REMOVE SILT WHEN IT REACHES 1/2 THE HEIGHT OF THE FENCE.			
TOPSOIL/BORROW STOCKPILES	DAILY	REPAIR/REPLACE SEDIMENT BARRIERS AS NECESSARY.			
TEMPORARY SEDIMENT BASIN (W/ BAFFLES)	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.5"	REMOVE SEDIMENT ONCE IT HAS ACCUMULATED TO ONE HALF OF MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATERING AS NEEDED. RESTORE TRAP TO ORIGINAL DIMENSIONS. REPAIR/REPLACE BAFFLES WHEN FAILURE OR DETERIORATION IS OBSERVED.			
TEMPORARY SEDIMENT TRAP (W/ BAFFLES)	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.5"	REMOVE SEDIMENT ONCE IT HAS ACCUMULATED TO ONE HALF OF MINIMUM REQUIRED VOLUME OF THE WET STORAGE, DEWATERING AS NEEDED. RESTORE TRAP TO ORIGINAL DIMENSIONS. REPAIR/REPLACE BAFFLES WHEN FAILURE OR DETERIORATION IS OBSERVED.			
TEMPORARY SOIL PROTECTION	WEEKLY & WITHIN 24 HOURS OF RAINFALL > 0.25"	REPAIR ERODED OR BARE AREAS IMMEDIATELY. RESEED AND MULCH.			

SEDIMENT & EROSION CONTROL NARRATIVE

- 1. THE PROJECT INVOLVES THE CONSTRUCTION OF A GROUND MOUNTED SOLAR PANEL FACILITY WITH ASSOCIATED EQUIPMENT, INCLUDING GRADING. OF APPROXIMATELY 8.32± ACRES OF EXISTING LOT.
- THE PROPOSED PROJECT INVOLVES THE FOLLOWING CONSTRUCTION:
- A. GRADING OF NORTHERN PORTION OF EXISTING LOT
- B. CONSTRUCTION OF 3,820 GROUND MOUNTED SOLAR PANELS AND ASSOCIATED EQUIPMENT.
- B. THE STABILIZATION OF DISTURBED AREAS WITH PERMANENT VEGETATIVE TREATMENTS.
- 2. FOR THIS PROJECT, THERE ARE APPROXIMATELY 8.32± ACRE OF THE SITE BEING DISTURBED WITH NEGLIGIBLE INCREASE IN THE IMPERVIOUS AREA OF THE SITE, AS ALL ACCESS THOUGH THE SITE WILL BE GRAVEL. IMPERVIOUS AREAS ARE LIMITED TO THE CONCRETE PADS FOR ELECTRICAL
- 3. THE PROJECT SITE, AS MAPPED IN THE SOIL SURVEY OF STATE OF CONNECTICUT (NRCS, VERSION 18, DEC 6, 2018), CONTAINS TYPE 4 (HYDROLOGIC SOIL GROUP B), 45B, 84B, AND 84C (HYDROLOGIC SOIL GROUP C), AND 3 (HYDROLOGIC SOIL GROUP D) SOILS. A GEOTECHNICAL ENGINEERING REPORT HAS NOT BEEN COMPLETED.
- 4. IT IS ANTICIPATED THAT CONSTRUCTION WILL BE COMPLETED IN APPROXIMATELY 3-4 MONTHS.
- 5. REFER TO THE CONSTRUCTION SEQUENCING AND EROSION AND SEDIMENTATION NOTES FOR INFORMATION REGARDING SEQUENCING OF MAJOR OPERATIONS IN THE ON-SITE CONSTRUCTION PHASES.
- 6. STORMWATER MANAGEMENT DESIGN CRITERIA UTILIZES THE APPLICABLE SECTIONS OF THE 2024 CONNECTICUT STORMWATER QUALITY MANUAL AND THE TOWN OF MADISON STANDARDS, TO THE EXTENT POSSIBLE AND PRACTICABLE FOR THIS PROJECT ON THIS SITE. EROSION AND SEDIMENTATION MEASURES ARE BASED UPON ENGINEERING PRACTICE, JUDGEMENT AND THE APPLICABLE SECTIONS OF THE CONNECTICUT EROSION AND SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, LATEST EDITION.
- 7. DETAILS FOR THE TYPICAL STORMWATER MANAGEMENT AND EROSION AND SEDIMENTATION MEASURES ARE SHOWN ON THE PLAN SHEETS OR PROVIDED AS SEPARATE SUPPORT DOCUMENTATION FOR REVIEW IN THIS PLAN.

8. CONSERVATION PRACTICES TO BE USED DURING CONSTRUCTION:

- A. STAGED CONSTRUCTION;
- B. MINIMIZE THE DISTURBED AREAS TO THE EXTENT PRACTICABLE DURING CONSTRUCTION;
- C. STABILIZE DISTURBED AREAS WITH TEMPORARY OR PERMANENT MEASURES AS SOON AS POSSIBLE, BUT NO LATER THAN 7-DAYS FOLLOWING DISTURBANCE;
- D. MINIMIZE IMPERVIOUS AREAS;
- E. UTILIZE APPROPRIATE CONSTRUCTION EROSION AND SEDIMENTATION MEASURES.
- 9. THE FOLLOWING SEPARATE DOCUMENTS ARE TO BE CONSIDERED A PART OF THE EROSION AND SEDIMENTATION PLAN: A. STORMWATER MANAGEMENT REPORT DATED SEPTEMBER 2024. B. SWPCP DATED NOVEMBER 2024.

SUGGESTED CONSTRUCTION SEQUENCE

THE FOLLOWING SUGGESTED SEQUENCE OF CONSTRUCTION ACTIVITIES IS PROJECTED BASED UPON ENGINEERING JUDGEMENT AND BEST MANAGEMENT PRACTICES. THE CONTRACTOR MAY ELECT TO ALTER THE SEQUENCING TO BEST MEET THE CONSTRUCTION SCHEDULE, THE EXISTING SITE ACTIVITIES AND WEATHER CONDITIONS. SHOULD THE CONTRACTOR ALTER THE CONSTRUCTION SEQUENCE OR ANY EROSION AND SEDIMENTATION CONTROL MEASURES THEY SHALL MODIFY THE STORMWATER POLLUTION CONTROL PLAN ("SWPCP") AS REQUIRED BY THE GENERAL PERMIT. MAJOR CHANGES IN SEQUENCING AND/OR METHODS MAY REQUIRE REGULATORY APPROVAL PRIOR TO IMPLEMENTATION.

- 1. THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION MEETING. PHYSICALLY FLAG THE LIMITS OF DISTURBANCE IN THE FIELD AS NECESSARY TO FACILITATE THE PRE-CONSTRUCTION MEETING.
- 2. CONDUCT A PRE-CONSTRUCTION MEETING TO DISCUSS THE PROPOSED WORK AND EROSION AND SEDIMENTATION CONTROL MEASURES. THE MEETING SHOULD BE ATTENDED BY THE OWNER, THE OWNER'S REPRESENTATIVE(S), THE GENERAL CONTRACTOR, DESIGNATED SUB-CONTRACTORS AND THE PERSON, OR PERSONS, RESPONSIBLE FOR THE IMPLEMENTATION, OPERATION, MONITORING AND MAINTENANCE OF THE EROSION AND SEDIMENTATION MEASURES. THE CONSTRUCTION PROCEDURES FOR THE ENTIRE PROJECT SHALL BE REVIEWED AT THIS MEETING.
- 3. NOTIFY CALL BEFORE YOU DIG AT 811, AS REQUIRED, PRIOR TO THE START OF CONSTRUCTION.
- 4. REMOVE EXISTING IMPEDIMENTS AS NECESSARY AND PROVIDE MINIMAL CLEARING AND GRUBBING TO INSTALL THE REQUIRED CONSTRUCTION
- 5. CLEAR ONLY AS NEEDED TO INSTALL THE PERIMETER EROSION AND SEDIMENTATION CONTROL MEASURES AND, IF APPLICABLE, TREE PROTECTION. ALL WETLAND AREAS SHALL BE PROTECTED BEFORE MAJOR CONSTRUCTION BEGINS.
- 6. INSTALL PERIMETER EROSION CONTROL AND INLET PROTECTION MEASURES.
- 7. INSTALL GRAVEL ACCESS ROAD.
- 8. INSTALL EROSION CONTROL BELOW EQUIPMENT AREA AND INSTALL CONCRETE EQUIPMENT PADS AND CONDUITS PROTECTED BY THESE CONTROLS.
- 9. INSTALL WETLAND RESTORATION/ENHANCEMENT AREAS AND ADJACENT EROSION AND SEDIMENT CONTROLS. SEE SHEET WL-1 FOR ADDITIONAL INFORMATION.
- 10. TEMPORARILY SEED DISTURBED AREAS NOT UNDER CONSTRUCTION FOR THIRTY (30) DAYS OR MORE
- 11. INSTALL REMAINING ELECTRICAL CONDUIT.
- 12. INSTALL RACKING POSTS FOR GROUND MOUNTED SOLAR PANELS.
- 13. INSTALL GROUND MOUNTED SOLAR PANELS, FENCING AND COMPLETE ELECTRICAL INSTALLATION.
- 14. AFTER SUBSTANTIAL COMPLETION OF THE INSTALLATION OF THE SOLAR PANELS, COMPLETE REMAINING SITE WORK, INCLUDING ANY REQUIRED LANDSCAPE SCREENING, AND STABILIZE ALL DISTURBED AREAS.
- 15. FINE GRADE, RAKE, SEED AND MULCH ALL REMAINING DISTURBED AREAS.
- 16. AFTER THE SITE IS STABILIZED AND WITH THE APPROVAL OF THE PERMITTEE AND CONSERVATION DISTRICT AGENT, REMOVE PERIMETER EROSION AND SEDIMENTATION CONTROLS.

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PERMIT	DOCUMENTS	

NO DATE REVISION 0 | 10/08/24 | PCN SUBMITTAL 1 11/04/24 ACCESS ROAD REVISION: UKA 2 | 11/25/24 | CSC SUBMITTAL



DESIGN PROFESSIONALS OF RECORD

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APT FILING NUMBER: CT580120

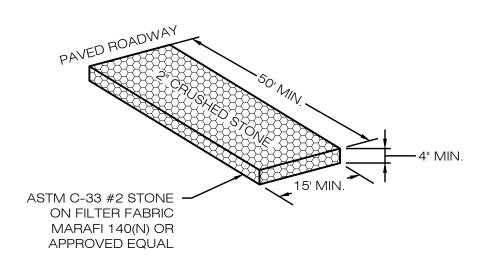
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DATE: 10/08/24 | CHECKED BY: TEL

SHEET TITLE:

SEDIMENTATION & **EROSION CONTROL NOTES**

SHEET NUMBER:



CONSTRUCTION **ENTRANCE DETAIL**

- STAKE 60" MIN.; 6' O.C. (TYP.)

COMMERCIAL TYPE 'C'

(W/ WIRE FENCING,

WHERE REQUIRED)

SILT FENCE SHALL BE LAPPED ONLY

MANUFACTURER RECOMMENDATIONS.

4 SILT FENCE DETAIL

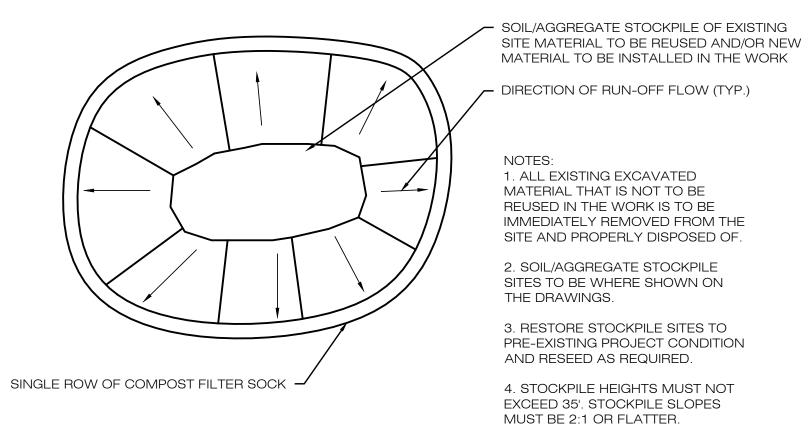
WHEN NECESSARY PER THE

UP-GRADIENT

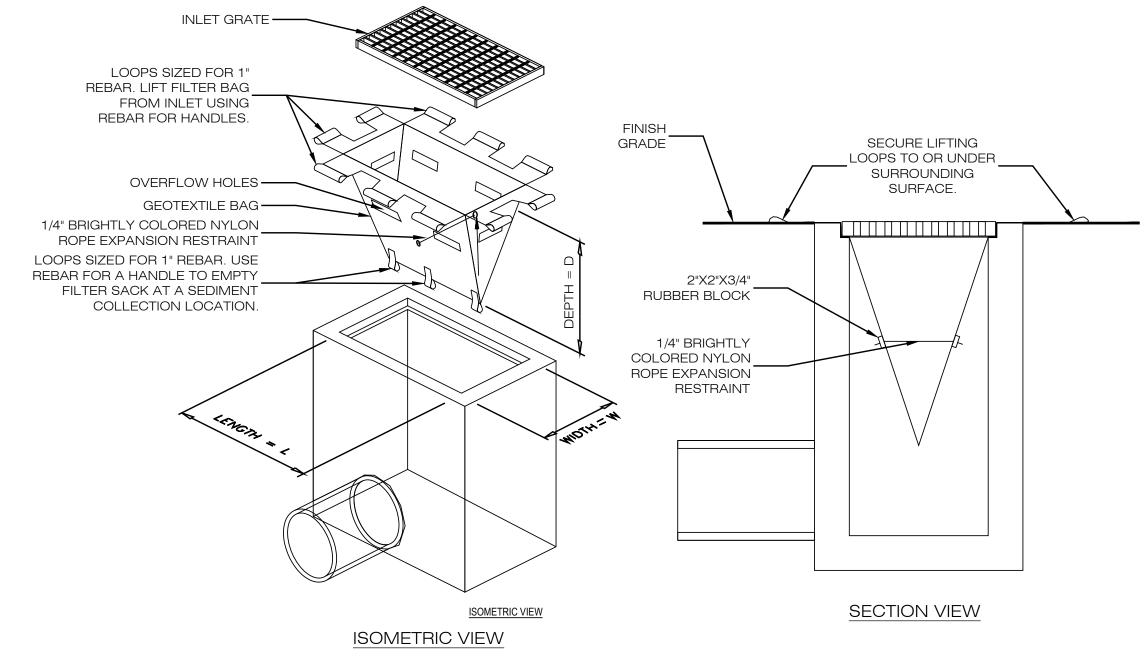
- COMPACTED BACKFILL

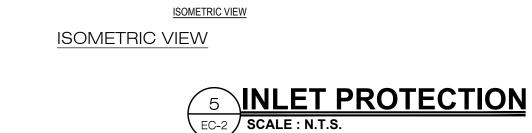
DEPTH

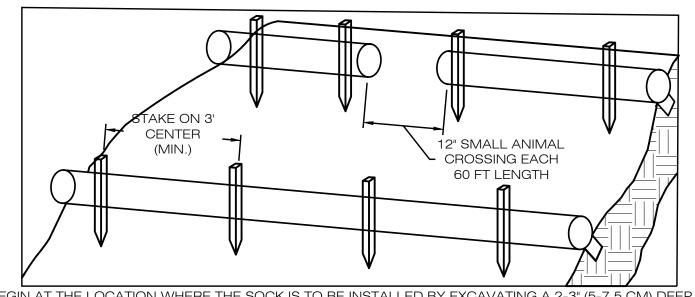
SILT FILTER FABRIC (TYP.)



MATERIALS STOCKPILE DETAIL





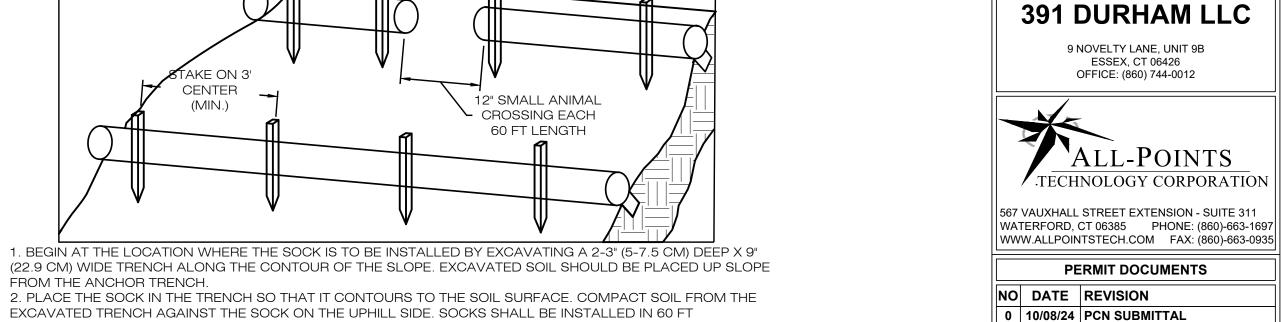


1. BEGIN AT THE LOCATION WHERE THE SOCK IS TO BE INSTALLED BY EXCAVATING A 2-3" (5-7.5 CM) DEEP X 9" (22.9 CM) WIDE TRENCH ALONG THE CONTOUR OF THE SLOPE. EXCAVATED SOIL SHOULD BE PLACED UP SLOPE FROM THE ANCHOR TRENCH.

EXCAVATED TRENCH AGAINST THE SOCK ON THE UPHILL SIDE. SOCKS SHALL BE INSTALLED IN 60 FT CONTINUOUS LENGTHS WITH ADJACENT SOCKS TIGHTLY ABUT. EVERY 60 FT THE SOCK ROW SHALL BE SPACED 12 INCHES CLEAR, END TO END, FOR AMPHIBIAN AND REPTILE TRAVEL. THE OPEN SPACES SHALL BE STAGGERED MID LENGTH OF THE NEXT DOWN GRADIENT SOCK.

3. SECURE THE SOCK WITH 18-24" (45.7-61 CM) STAKES EVERY 3-4' (0.9 -1.2 M) AND WITH A STAKE ON EACH END. STAKES SHOULD BE DRIVEN THROUGH THE MIDDLE OF THE SOCK LEAVING AT LEAST 2-3" (5-7.5 CM) OF STAKE EXTENDING ABOVE THE SOCK. STAKES SHOULD BE DRIVEN PERPENDICULAR TO THE SLOPE FACE.

COMPOST FILTER SOCK SEDIMENTATION CONTROL BARRIER EC-2 SCALE : N.T.S.



9 NOVELTY LANE, UNIT 9B ESSEX, CT 06426

OFFICE: (860) 744-0012

'ALL-POINTS

PERMIT DOCUMENTS

1 11/04/24 ACCESS ROAD REVISION: UKA

2 11/25/24 CSC SUBMITTAL

DESIGN PROFESSIONALS OF RECORD

PROF: THOMAS E. LITTLE, P.E. COMP: ALL-POINTS TECHNOLOGY CORPORATION, P.C. ADD: 567 VAUXHALL STREET **EXTENSION - SUITE 311** WATERFORD, CT 06385

OWNER: KLEIN PROPERTIES LLC

ADDRESS: 391 DURHAM ROAD MADISON, CT 06443

GOLF RANGE SOLAR

SITE ADDRESS:

391 DURHAM ROAD MADISON, CT 06443

APT FILING NUMBER: CT580120

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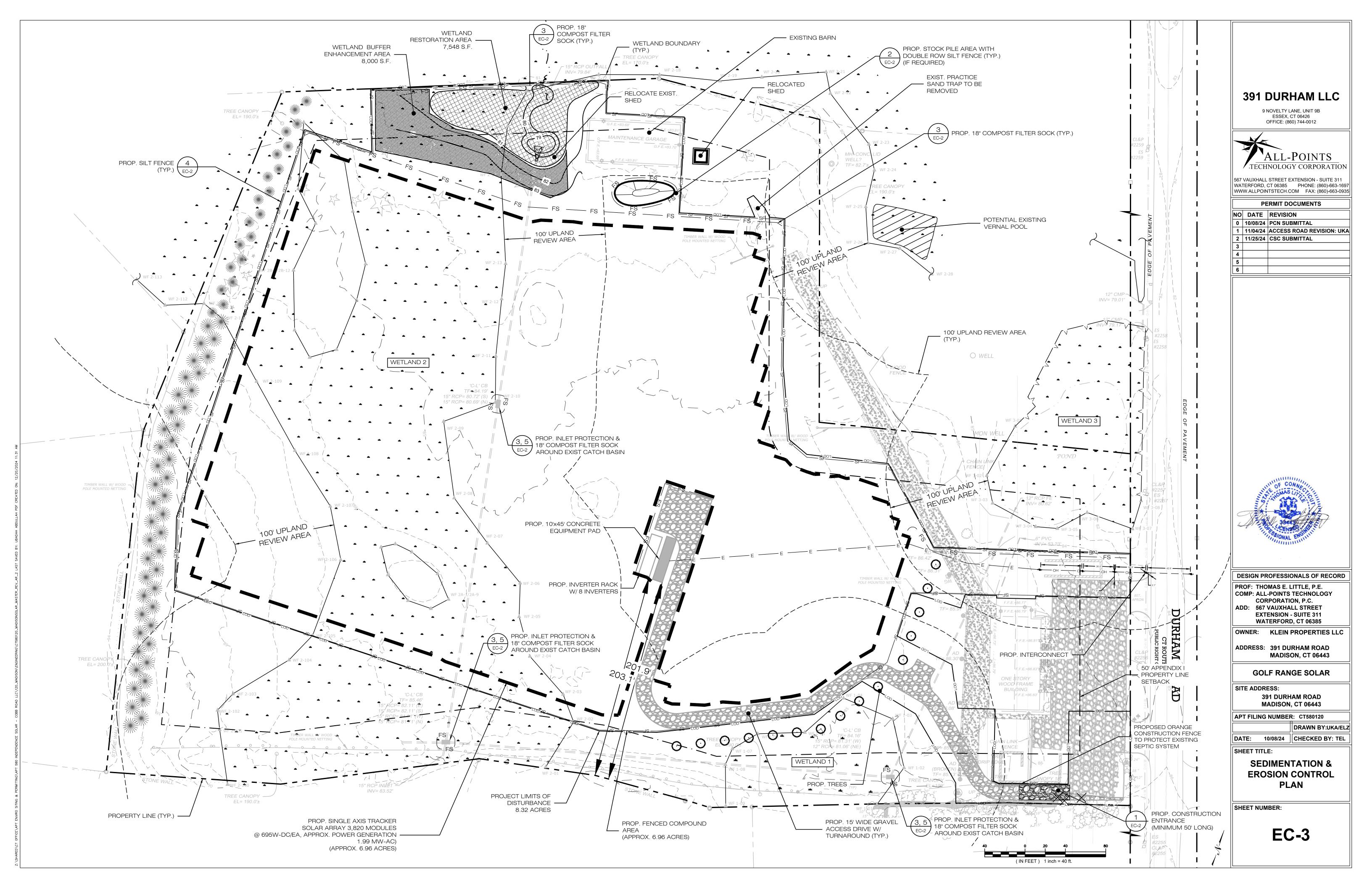
SHEET TITLE:

SEDIMENTATION & EROSION CONTROL DETAILS

DATE: 10/08/24 | CHECKED BY: TEL

SHEET NUMBER:

EC-2



WETLAND MITIGATION NOTES

WETLAND RESTORATION OBJECTIVES (GOALS & PURPOSE)

1) RESTORE A HISTORICALLY FILLED WETLAND AND INTERMITTENT WATERCOURSE TO CREATE NEW WETLAND HABITAT THAT ADJOINS AN EXISTING FORESTED WETLAND SYSTEM ON THE ADJACENT CONSERVATION PARCEL TO THE NORTH TO PROVIDE APPROPRIATE COMPENSATION FOR THE PROPOSED SOLAR PROJECT'S IMPACTS TO DEVELOPED WETLANDS.

2) CREATE NEW WETLAND HABITAT TO COMPENSATE FOR MINOR DIRECT WETLAND IMPACTS THAT ADD FUNCTION AND VALUE TO THE WETLAND SYSTEM.

3) RESTORE AND DAYLIGHT ±65 LN FT OF INTERMITTENT WATERCOURSE CHANNEL THROUGH REMOVAL OF ±55-FOOT OF EXISTING REINFORCED CONCRETE PIPE. CREATE 5-6 FOOT WIDE STREAM CHANNEL WITH SANDY/COBBLE BOTTOM THAT MATCHES CHARACTERISTICS OF STREAM ON ADJACENT PARCEL TO THE NORTH.

4) DEVELOP NATURAL MULTI-STRUCTURAL WETLAND HABITAT THAT ENHANCE IMPORTANT ECOLOGICAL FUNCTIONS AND SERVICES SUCH AS AESTHETICS, WATER QUALITY RENNOVATIONS, AND WILDLIFE HABITAT.

5)IMPROVE WETLAND FUNCTIONS WITH ENHANCEMENT OF LOW-FUNCTIONING MAINTAINED LAWN DEVELOPED BUFFER AREAS WITH PLANTINGS OF NATIVE TREES, SHRUBS, AND MEADOW SPECIES SURROUNDING THE PROPOSED WETLAND RESTORATION AREA.

6)INCREASING WILDLIFE HABITAT FUNCTION OF THE DEVELOPED WETLANDS WILL BE ACHIEVED THROUGH THE CONVERSION OF LOW-FUNCTIONING MAINTAINED LAWN DEVELOPED WETLANDS WITH NATIVE WET MEADOW HABITAT THAT INCORPORATES POLLINATOR FRIENDLY NATIVE PLANT SPECIES.

7) PLANT WETLAND MITIGATION AREAS WITH A SUFFICIENT DENSITY AND VARIETY OF NATIVE PLANTS, WITH A FOCUS OF CREATING A DIVERSITY OF WETLAND COVER TYPES TO SUPPORT A VARIETY OF FUNCTIONS AND VALUES WITH A PARTICULAR FOCUS ON WATER QUALITY RENNOVATION, WILDLIFE HABITAT FUNCTION, AND AESTHETICS.

GENERAL MITIGATION NOTES

1) THE PROJECT WETLAND SCIENTIST WITH EXPERTISE IN WETLAND MITIGATION WILL SUPERVISE ALL ELEMENTS OF THE MITIGATION PLAN. DEAN GUSTAFSON, SENIOR WETLAND SCIENTIST WITH ALL-POINTS TECHNOLOGY CORPORATION, P.C. WILL SERVE AS THE PROJECT WETLAND SCIENTIST TO ASSIST IN IMPLEMENTATION OF THIS MITIGATION PLAN; (860) 552-2033, DGUSTAFSON@ALLPOINTSTECH.COM.

2) ANY FOREIGN DEBRIS AND LITTER THAT HAS ACCUMULATED ON THE SURFACE OF THE MITIGATION AREA SHALL BE REMOVED AND PROPERLY DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

3) PLASTIC MESH SLEEVES, TREE SHELTERS AND DEER REPELLANTS WILL BE USED AS NECESSARY TO PROTECT PLANTED TREES AND SHRUBS FROM EXCESSIVE DEER DAMAGE. PLANTS WITH EXCESSIVE DAMAGE WILL BE REPLACED.

4)A PRE-CONSTRUCTION MEETING WILL BE HELD ON SITE BETWEEN THE PROJECT WETLAND SCIENTIST AND CONTRACTOR(S) PERFORMING ALL ASPECTS OF THE MITIGATION PLAN (E.G., WETLAND RESTORATION, ENHANCEMENTS, ETC.). THE PRIMARY INTENT OF THE PRE-CONSTRUCTION MEETING IS TO DISCUSS THE GOALS OF THE MITIGATION PLAN AND IMPLEMENTATION OF REQUIRED ELEMENTS NECESSARY TO ACHIEVE THESE GOALS AND SEQUENCE OF ELEMENTS.

PROPOSED WETLAND RESTORATION AREA

1) THE WETLAND RESTORATION AREA IS PROPOSED IN CLOSE PROXIMITY TO WETLANDS THAT EXISTING ON THE ADJOINING CONSERVATION PROPERTY TO THE NORTH. THE WETLAND RESTORATION AREA IS CURRENTLY COMPRISED OF EXISTING MAINTAINED LAWN THAT HAD HISTORICALLY BEEN SUBJECT TO FILLING AND DISTURBANCE FROM CURRENT AND HISTORIC DEVELOPMENT ACTIVITIES.

2) THE WETLAND RESTORATION AREA HAS BEEN POSITIONED ADJACENT TO EXISTING WETLANDS AND A PREVIOUS INTERMITTENT STREAM (CURRENTLY ENCASED IN AN UNDERGROUND CULVERT) TO ENSURE WETLAND HYDROLOGY CAN BE ACHIEVED AND ECOLOGICAL CONNECTIVITY TO THE LARGER WETLAND SYSTEM TO THE NORTH.

3) THE WETLAND RESTORATION AREA WILL INCLUDE SCRUB-SHRUB AND WET MEADOW COVER TYPES TO PROMOTE A DIVERSE VARIETY OF WETLAND HABITATS THAT WILL SUPPORT SEVERAL WETLAND FUNCTIONS AND VALUES AT PRINCIPAL OR SECONDARY LEVELS. CONSTRUCTION OF THE WETLAND RESTORATION AREA HAS BEEN DESIGNED TO MINIMIZE EROSION, PREVENT SEDIMENT FROM ENTERING ADJACENT WETLANDS AND WATERCOURSES, AND TO MAXIMIZE THE ESTABLISHMENT OF PLANTED VEGETATION. THE RESTORATION AREA WILL PROVIDE SIGNIFICANTLY HIGHER WETLAND FUNCTIONS AND VALUES THAN THE PROJECT'S SMALL AREA OF IMPACT TO DEVELOPED WETLANDS. THIS WETLAND RESTORATION PLAN HAS BEEN DEVELOPED IN GENERAL ACCORDANCE WITH THE U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT WETLAND MITIGATION PLAN GUIDANCE. THE WETLAND RESTORATION AREA WILL BE CONSTRUCTED PER THE FOLLOWING:

4) PRIOR TO ANY EARTHWORK, A SILT FENCE AND/OR COMPOST FILTER SOCK EROSION CONTROL BARRIER WILL BE INSTALLED AROUND THE PROPOSED WETLAND RESTORATION AREA TO ISOLATE THE WORK ZONE FROM SURROUNDING WETLANDS TO THE NORTH.

5)THE PROJECT WETLAND SCIENTIST SHALL BE NOTIFIED BY THE CONTRACTOR A MINIMUM OF SEVEN (7) BUSINESS DAYS PRIOR TO ANY PHASE OF THE MITIGATION PROJECT INCLUDING EXCAVATION AND GRADING, SOIL TRANSFER AND PLANTING, TO MONITOR AND OR SEE IMPLEMENTATION OF THE WETLAND MITIGATION PLAN.

6) MATURE TREES IMMEDIATELY ADJACENT TO THE MITIGATION AREA, WHICH ARE AT OR NEAR THE FINAL DESIGN ELEVATIONS OF THE AREA, WILL BE IDENTIFIED AND PRESERVED (WHERE POSSIBLE). EXCAVATION ACTIVITIES WILL BE MONITORED CLOSELY TO AVOID/LIMIT ROOT DAMAGE TO MATURE NATIVE TREES.

7) AS THE WETLAND RESTORATION AREA PRIMARILY CONSIST OF ±2 FEET OF FILL OVERLYING DISTURBED WETLAND SOILS WITH A SEASONAL HIGH GROUNDWATER TABLE, EXCAVATION ACTIVITIES WILL FIRST CONSIST OF REMOVAL AND DISPOSAL OF FILL MATERIAL. IN AREAS WHERE A SUFFICIENT DEPTH OF WETLAND TOPSOIL IS OBSERVED. THAT TOPSOIL WILL BE SEGREGATED INTO A DEDICATED STOCKPILE FOR REUSE IN THE WETLAND RESTORATION AREA ONCE FINAL SUBGRADE (1 FOOT BELOW FINAL GRADE) IS ACHIEVED. IN ORDER TO ACHIEVE THE FINAL SUBGRADE, WETLAND SUBSOIL WILL BE REMOVED TO 12 INCHES BELOW THE PROPOSED FINAL CONTOURS AS NOTED ON THE PROJECT SITE PLAN WETLAND RESTORATION SHEET. TWELVE INCHES OF WETLAND TOPSOIL WILL BE PLACED OVER THE FINAL SUBGRADE WITHIN THE WETLAND RESTORATION AREA, WHICH WILL CREATE VARING LEVELS OF SEASONAL SOIL SATURATION AND SHALLOW INUNDATION. MODIFICATIONS TO THIS GRADING PLAN MAY BE MADE IN THE FIELD AT THE DIRECTION OF THE PROJECT WETLAND SCIENTIST IN RESPONSE TO ACTUAL SUBSURFACE SOIL AND HYDROLOGIC CONDITIONS. THE PROJECT WETLAND SCIENTIST WILL INSPECT THE SUB-GRADE OF THE WETLAND RESTORATION AREA TO ENSURE THAT THE PROPER HYDROLOGY HAS BEEN ESTABLISHED PRIOR TO PLACEMENT OF WETLAND TOPSOIL.

8) THE WETLAND TOPSOIL WITHIN THE WETLAND RESTORATION AREA SHALL BE A MINIMUM OF 12 INCHES DEEP AND CONTAIN AT LEAST 12 PERCENT ORGANIC CARBON CONTENT BY WEIGHT. THE SEGREGATED WETLAND TOPSOIL WILL BE AMENDED WITH ADDITIONAL WETLAND TOPSOIL TO MEET THE REQUIREMENTS OF PLACEMENT OF 12 INCHES OF WETLAND TOPSOIL ACROSS THE ENTIRE WETLAND RESTORATION AREA. AMENDED WETLAND TOPSOIL SHALL CONSIST OF PREPARED WEED-FREE TOPSOIL MADE UP OF A 1: 1 MIXTURE (OR EQUAL VOLUMES) OF ORGANIC AND MINERAL MATERIALS THAT CONTAINS AT LEAST 12 PERCENT ORGANIC CARBON CONTENT BY WEIGHT. CLEAN COMPOSTED LEAF MOLD OR COMMERCIALLY AVAILABLE COMPOST FREE OF WEEDS OR INVASIVE SPECIES IS THE PREFERRED AMENDMENT TO ACHIEVE THIS STANDARD, THOUGH OTHER MATERIALS MAY BE USED IF APPROVED BY THE PROJECT WETLAND SCIENTIST.

9) THE WETLAND TOPSOIL WILL THEN BE GRADED TO ACHIEVE A SLIGHT HUMMOCK/HOLLOW MICROTOPOGRAPHY, SIMILAR TO THAT OF A NATURAL WETLAND SUBSTRATE. THE CONTRACTOR SHALL ENSURE THAT PROPER SOIL COMPACTION LEVELS (LOOSE TO FRIABLE) ARE MAINTAINED AND APPROPRIATE CORRECTION MEASURES (E.G., ROTOTILLING) MAY BE NECESSARY.

10) WETLAND RESTORATION AREA PLANTINGS SHALL TAKE PLACE ONCE THE ABOVE LISTED TASKS HAVE BEEN COMPLETED. THE WETLAND RESTORATION AREA WILL BE PLANTED WITH NATIVE TREES AND SHRUBS AS NOTED IN THE PLANTING SCHEDULE AND SOWN WITH A NATIVE NEW ENGLAND WET MEADOW SEED MIX (ERNMX-251 OR APPROVED EQUIVALENT) AFTER THE GRADING IS COMPLETED.

11) THE PROJECT WETLAND SCIENTIST SHALL INSPECT THE PLANTING STOCK SPECIMENS FOR HEALTH, PEST, AND SUITABLE FOR USE WITHIN THE WETLAND RESTORATION AREA. UNSUITABLE SPECIMENS WILL BE REJECTED AND REPLACED WITH SUITABLE SPECIMENS. ANY PLANTING SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT WETLAND SCIENTIST. ALL WOODY PLANT STOCK SHALL BE CONTAINER-GROWN OR BURLAP BALLED. PLANTING WITHIN THE WETLAND RESTORATION AREA WILL CONFORM TO THE PLANS OR WILL BE COMPLETED IN ACCORDANCE WITH DIRECTIONS PROVIDED IN THE FIELD BY THE PROJECT WETLAND SCIENTIST. ONLY PLANT MATERIALS NATIVE AND INDIGENOUS TO CONNECTICUT SHALL BE USED. INVASIVE PLANT SPECIES WILL NOT BE USED IN THE WETLAND RESTORATION AREA.

12) ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK SECTION 10: SEEDLING TREES AND SHRUBS" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

13)NO CULTIVARS OF NATIVE PLANTS IDENTIFIED IN THE PLANTING SCHEDULE SHALL BE USED UNLESS APPROVED BY THE PROJECT WETLAND SCIENTIST.

14)THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL INSTALLATION, MAINTENANCE (INCLUDING WATERING), AND ESTABLISHMENT OF THE PLANT MATERIAL IN THE WETLAND RESTORATION AREA. A MAINTENANCE SCHEDULE FOR IRRIGATION AND PRUNING (AS NECESSARY) WILL BE ESTABLISHED BY THE CONTRACTOR. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR TO REMAIN ALIVE AND HEALTHY FOR THE FULL TWELVE (12) MONTH PERIOD FOLLOWING THE DATE OF PLANTING.

15) ALL PLANTINGS TO BE SPACED GENERALLY AS NOTED ON THE PLANTING SCHEDULE WITH ASSISTANCE FROM THE PROJECT WETLAND SCIENTIST TO SIMULATE NATURAL GROWTH PATTERNS FOR WETLAND HABITATS.

16) ROCKS AND BOULDERS UNCOVERED DURING EXCAVATION MAY BE LEFT IN PLACE PROVIDED THAT THEY DO NOT SIGNIFICANTLY DECREASE THE PLANTABLE AREA OF THE WETLAND RESTORATION AREA; THESE MATERIALS MAY ALSO BE USED IN ESTABLISHING THE NEW INTERMITTENT WATERCOURSE CHANNEL. ROCKS AND BOULDERS WILL BE PLACED IN SUCH A WAY AS TO PROVIDE CREVICES AND CAVITIES SUITABLE FOR USE BY WILDLIFE. LOGS AND BRANCHES MAY ALSO BE PLACED WITHIN THE WETLAND RESTORATION AREA TO PROVIDE BENEFICIAL HABITAT COVER FEATURES FOR WILDLIFE. NO MORE THAN FIVE PERCENT OF THE WETLAND RESTORATION AREA WILL BE TREATED IN THIS MANNER.

17) THE EROSION CONTROL BARRIERS WILL BE DISASSEMBLED AND PROPERLY DISPOSED OF ONCE FINAL VEGETATIVE STABILIZATION IS ACHIEVED. ANY SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED AND DISPOSED OF IN A MANNER THAT PREVENTS EROSION AND TRANSPORT INTO WETLANDS. IF MINOR GRADING IS REQUIRED IN THIS ZONE TO PROVIDE SURFACE HYDROLOGIC CONNECTION BETWEEN THE WETLAND TRANSITION AREAS, IT WILL BE DONE BY HAND AND STABILIZED WITH MULCH.

PROPOSED WETLAND BUFFER ENHANCEMENT AREA

1) THE WETLAND BUFFER ENHACEMENT AREA IS LOCATED ADJACENT TO THE PROPOSED WETLAND RESTORATION AREA AND FORESTED WETLAND SYSTEM LOCATED ON THE CONSERVATION PROPERTY TO THE NORTH.

2) THIS EXISTING PRIMARILY MAINTAINED LAWN AREA WILL BE PLANTED WITH NATIVE TREES, SHRUBS, AND MEADOW SPECIES TO IMPROVE THE BUFFER FUNCTIONS AND ENHANCE THE PROPOSED WETLAND RESTORATION AREA AND ADJACENT WETLAND AND RIPARIAN HABITATS.

3) BUFFER ENHANCEMENTS WILL BE ISOLATED TO PLANTING AND MINIMAL SOIL DISTURBANCE WOULD RESULT FROM SUCH ACTIVITIES. SILT FENCE AND/OR COMPOST FILTER SOCK EROSION CONTROL BARRIER WILL BE INSTALLED AROUND THE PROPOSED BUFFER ENHACEMENT AREA AS NECESSARY BASED ON FIELD CONDITIONS.

4)MATURE TREES WITHIN AND IMMEDIATELY ADJACENT TO THE BUFFER ENHANCEMENT AREA WILL BE IDENTIFIED AND PRESERVED.

5) THE BUFFER ENHANCEMENT AREAS WILL BE PLANTED WITH NATIVE TREES AND SHRUBS AS NOTED IN THE PLANTING SCHEDULE AND SOWN WITH A NATIVE UPLAND POLLINATOR FRIENDLY WILDLIFE MEADOW SEED MIX (ERNMX-147 OR APPROVED EQUIVALENT).

6) THE PROJECT WETLAND SCIENTIST SHALL INSPECT THE PLANTING STOCK SPECIMENS FOR HEALTH, PEST, AND SUITABLE FOR USE WITHIN THE WETLAND BUFFER ENHANCEMENT AREA. UNSUITABLE SPECIMENS WILL BE REJECTED AND REPLACED WITH SUITABLE SPECIMENS. ANY PLANTING SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT WETLAND SCIENTIST. ALL WOODY PLANT STOCK SHALL BE CONTAINER-GROWN OR BURLAP BALLED. PLANTING WITHIN THE WETLAND BUFFER AREA WILL CONFORM TO THE PLANS OR WILL BE COMPLETED IN ACCORDANCE WITH DIRECTIONS PROVIDED IN THE FIELD BY THE PROJECT WETLAND SCIENTIST. ONLY PLANT MATERIALS NATIVE AND INDIGENOUS TO CONNECTICUT SHALL BE USED. INVASIVE PLANT SPECIES WILL NOT BE USED IN THE WETLAND BUFFER ENHANCEMENT

7) ALL PLANT MATERIALS INSTALLED SHALL MEET OR EXCEED THE SPECIFICATIONS OF THE "AMERICAN STANDARDS FOR NURSERY STOCK SECTION 10: SEEDLING TREES AND SHRUBS" BY THE AMERICAN ASSOCIATION OF NURSERYMEN.

8) NO CULTIVARS OF NATIVE PLANTS IDENTIFIED IN THE PLANTING SCHEDULE SHALL BE USED UNLESS APPROVED BY THE PROJECT WETLAND SCIENTIST.

9) THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL INSTALLATION, MAINTENANCE (INCLUDING WATERING), AND ESTABLISHMENT OF THE PLANT MATERIAL IN THE WETLAND BUFFER ENHANCEMENT AREA. A MAINTENANCE SCHEDULE FOR IRRIGATION AND PRUNING (AS NECESSARY) WILL BE ESTABLISHED BY THE CONTRACTOR. ALL PLANTS SHALL BE GUARANTEED BY THE CONTRACTOR TO REMAIN ALIVE AND HEALTHY FOR THE FULL TWELVE (12) MONTH PERIOD FOLLOWING THE DATE OF PLANTING.

10) ALL PLANTINGS TO BE SPACED GENERALLY AS NOTED ON THE PLANTING SCHEDULE WITH ASSISTANCE FROM THE PROJECT WETLAND SCIENTIST TO SIMULATE NATURAL GROWTH PATTERNS WITHIN WETLAND BUFFER HABITATS.

11)LOGS AND BRANCHES MAY BE PLACED WITHIN THE WETLAND BUFFER ENHANCEMENT AREA TO PROVIDE BENEFICIAL HABITAT COVER FEATURES FOR WILDLIFE. NO MORE THAN FIVE PERCENT OF THE BUFFER ENHACEMENT AREAS WILL BE TREATED IN THIS MANNER.

12) THE EROSION CONTROL BARRIERS WILL BE DISASSEMBLED AND PROPERLY DISPOSED OF ONCE FINAL VEGETATIVE STABILIZATION IS ACHIEVED. ANY SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED AND DISPOSED OF IN A MANNER THAT PREVENTS EROSION AND TRANSPORT TO WETLANDS. IF MINOR GRADING IS REQUIRED IN THIS ZONE TO PROVIDE SURFACE HYDROLOGIC CONNECTION BETWEEN THE WETLAND/UPLAND TRANSITION AREAS, IT WILL BE DONE BY HAND AND STABILIZED WITH MULCH.

PROPOSED WETLAND ENHANCEMENT AREAS

1) EXISTING MAINTAINED LAWN DEVELOPED WETLAND AREAS WILL BE RESTORED TO ENHANCE THE DIVERSITY AND STRUCTURE OF THESE COMPROMISED AREAS. THESE AREAS CONSIST OF EXISTING DEVELOPED MAINTAINED LAWN WETLANDS THAT CURRENTLY LACK NATIVE WETLAND VEGETATION AND DIVERSITY OF COVER TYPES.

2) THESE DEGRADED WETLAND AREAS WILL INCORPORATE NATIVE WET MEADOW AND POLLINATOR FRIENDLY SPECIES TO IMPROVE THE STRUCTURAL DIVERSITY OF THESE AREAS. THESE IMPROVEMENTS WILL BOTH MINIMIZE THE DISTURBANCE TO WETLAND SOILS AND SIGNFICANTLY ENHANCE WETLAND FUNCTIONS AND VALUES WITH A FOCUS ON WATER QUALITY RENNOVATION, WILDLIFE HABIAT, AND VISUAL QUALITY/AESTHETICS.

3) NATIVE WET MEADOW AND POLLINATOR FRIENDLY SEED MIX AS IDENTIFIED IN THE WETLAND MITIGAITON PLAN PLANTING SCHEDULE WILL BE INCORPORTED INTO THE EXSITNG MAINTAINED LAWN USING A SEED SLICING TECHNIQUE. A PIECE OF EQUIPMENT CALLED A SLICE SEEDER WILL BE USED THAT CREATES NARROW FURROWS WITH STEEL BLAES THAT DROPS THE SEED MIX INTO THE FURROWS. A CRISS-CROSS APPLICATION METHOD WILL BE EMPLOYED WITH THE SLICE SEEDER TO ENSURE COMPLETE AND EVEN INCORPORATION OF THE NATIVE SEED MIX. THIS TECHNIQUE TO INCORPORATE A DIVERSITY OF NATIVE GRASSES AND FORBS WILL RESULT IN MINIMAL SOIL DISTURBANCE.

4) THE DEVELOPED WETLAND LAWN AREAS PROPOSED FOR THIS ENHANCEMENT TREATMENT WILL FIRST BE EVALUATED TO DETERMINE IF THATCH BUILD-UP IS A PROBLEM. IF THATCH BUILD-UP IS DETERMINED TO BE A PROBLEM, THE AREA WILL BE DETHATCHED PRIOR TO THE SLICE SEEDING WORK.

5) THE PROJECT WETLAND SCIENTIST SHALL INSPECT THE PLANTING STOCK SPECIMENS FOR HEALTH, PEST, AND SUITABLE FOR USE WITHIN THE REPLICATION AREA. UNSUITABLE SPECIMENS WILL BE REJECTED AND REPLACED WITH SUITABLE SPECIMENS. ANY PLANTING SUBSTITUTIONS MUST BE APPROVED BY THE PROJECT WETLAND SCIENTIST. ALL WOODY PLANT STOCK SHALL BE CONTAINER-GROWN OR BURLAP BALLED

HERBICIDE USE NOTE

PROPERTY

LINE

1) THE USE OF HERBICIDES AND FERTILIZER IN THE WETLAND MITIGATION AREAS ARE RESTRICTED. HERBICIDE USAGE WILL ONLY OCCUR AS NECESSARY FOR THE CONTROL OF INVASIVE SPECIES WITHIN THE MITIGATION AREAS IN ACCORDANCE WITH THE NOTES HEREIN.

2) ALL FEDERAL, STATE AND LOCAL REGULATIONS REGARDING HERBICIDE USE, APPLICATOR PERMIT AND POSTING REQUIREMENTS SHALL BE FOLLOWED.

3) ALL HERBICIDE APPLICATIONS SHALL BE PERFORMED BY A STATE LICENSED INDIVIDUAL UNDER THE SUPERVISION OF THE PROJECT WETLAND SCIENTIST.

4) CERTIFICATIONS, LICENSES AND PERMITS SHALL BE PRODUCED BY THE LICENSED APPLICATOR PRIOR TO THE START OF WORK.

5) ALL HERBICIDES SHALL BE MIXED WITH A DYE APPROVED BY U.S. EPA FOR USE AS AN HERBICIDE ADJUVANT, SUCH AS TURFMARK@DYE OR EQUIVALENT, TO VERIFY SUFFICIENT APPLICATION OF HERBICIDE TO STUMP CUTS OF WOODY INVASIVE PLANTS HAS BEEN ACHIEVED.

6) ONLY NONIONIC SURFACTANTS SHALL BE ADDED TO THE SPECIFIED HERBICIDES.

7)INVASIVE WOODY SHRUBS AND VINES LOCATED WITHIN THE RIPARIAN ENHANCEMENT AREAS SHALL BE TREATED WITH A CUT-STUMP TREATMENT METHOD. SHRUBS AND VINES SHALL BE CUT NEAR THE STUMP LEVEL AND STUMPS SHALL RECEIVE A TRICLOPYR OR GLYPHOSATE HERBICIDE (GARLON, ACCESS, AQUAPRO, AQUANEAT, OR APPROVED EQUIVALENT FOR APPLICATION IN AQUATIC HABITATS) USING A HAND APPLICATOR METHOD (PAINT BRUSH, SPONGE, OR EQUIVALENT) OR LOW VOLUME HAND SPRAYER WITHIN ONE HOUR OF CUTTING TO AVOID OVERSPRAY OR DRIFT INTO OPEN WATER OR STREAM SYSTEMS.

PROTECT SILKY

BORING

LOCATIONS

8,000 S.F.

WETLAND BUFFER

ENHANCEMENT AREA -

WETLAND RESTORATION

7,548 S.F.

LONG-TERM MITIGATION MONITORING

1)LONG-TERM MONITORING OF THE WETLAND MITIGATION AREAS WILL BE CONDUCTED AS FOLLOWS. THE MITIGATION AREA WILL BE MONITORED THE FIRST THREE GROWING SEASONS FOLLOWING THEIR CONSTRUCTION. THE FIRST YEAR OF MONITORING WILL BE THE FIRST YEAR THAT THE SITE HAS BEEN THROUGH A FULL GROWING SEASON AFTER COMPLETION OF CONSTRUCTION AND PLANTING. FOR MONITORING PURPOSES, A GROWING SEASON STARTS NO LATER THAN MAY 31 AND ENDS NO EARLIER THAN NOVEMBER 15.

2) MONITORING REPORTS WILL BE SUBMITTED TO THE APPLICANT NO LATER THAN JANUARY 31 OF EACH YEAR FOLLOWING THE PREVIOUS YEAR OF MONITORING. THE REPORTS WILL PROVIDE DETAILS ON THE FOUR SUCCESS STANDARDS DESCRIBED BELOW WITH THE GOAL BEING THAT ALL SUCCESS STANDARDS ARE SATISFIED BY YEAR FIVE OF THE MONITORING PERIOD. PERMANENT PHOTO STATIONS WILL BE ESTABLISHED AT REPRESENTATIVE LOCATIONS WITH PHOTOGRAPHS FROM EACH STATION INCLUDED IN EACH ANNUAL REPORT TO TRACK PROGRESS. MONITORING REPORTS WILL INCLUDE THE PERCENT SURVIVAL OF PLANTED SHRUBS AND TREES AS WELL AS THE EXTENT OF WET MEADOW HABITAT. REPORTS WILL ALSO INCLUDE OBSERVATIONS OF VEGETATION DEVELOPMENT AND WILDLIFE USAGE.

3) REMEDIAL ACTIONS RECOMMENDED AND/OR COMPLETED DURING THE MONITORING PERIOD WILL ALSO BE PROVIDED IN THE REPORT.

4)PLANTS DETERMINED TO BE DEAD OR UNHEALTHY SHALL BE REPLACED IN KIND, AS NECESSARY, TO ACHIEVE THE SUCCESS STANDARDS NOTED BELOW. IF THERE ARE PROBLEMS THAT NEED TO BE ADDRESSED AND IF THE MEASURES TO CORRECT THEM REQUIRE PRIOR APPROVAL FROM THE CONNECTICUT SITING COUNCIL, THE PERMITTEE WILL CONTACT THE COUNCIL AS SOON AS THE NEED FOR CORRECTIVE ACTION IS DISCOVERED. IF FOLLOWING YEAR THREE OF THE MONITORING PERIOD NOT ALL OF THE SUCCESS STANDARDS ARE SATISFIED, RECOMMENDATIONS FOR ADDITIONAL MONITORING/CORRECTIVE ACTIONS WILL BE PROVIDED.

5)THE WETLAND MITIGATION AREAS WILL BE ASSESSED USING FOUR SUCCESS STANDARDS AS FOLLOWS. SUCCESS STANDARD 1: AT LEAST 75% OF THE SURFACE AREA, INCLUDING THE HERBACEOUS, SHRUB, AND FOREST STRATUMS, AS APPLICABLE, OF THE MITIGATION AREAS (COLLECTIVLEY THE PROPOSED WETLAND RESTORATION AND ENHANCEMENT AREAS, AND WETLAND BUFFER ENHANCEMENT AREA) SHOULD BE ESTABLISHED WITH INDIGENOUS NATIVE SPECIES WITHIN THREE GROWING SEASONS. SUCCESS STANDARD 2: VEGETATION SHOULD BE CHECKED TO ENSURE THAT NO MORE THAN 20% OF THE SURFACE AREA IS OCCUPIED BY NON-NATIVE WOODY INVASIVE SPECIES. SUCCESS STANDARD 3: SLOPES WITHIN AND ADJACENT TO THE PROPOSED WETLAND CREATION AREAS ARE STABILIZED. SUCCESS STANDARD 4: WETLAND RESTORATION AREA SUSTAINS SUFFICIENT HYDROLOGY TO SUPPORT 75% OR GREATER AERIAL DOMINANCE OF NATIVE WETLAND VEGETATION.

Common Name Scientific Name Sizing General Spacing Est. Quantity Shrubs Silky Dogwood Cornus amomum 3-4' 5 ft. on center 50 Winterberry Ilex verticillata 3-4' 5 ft. on center 25 Sweet Pepperbush Clethera alnifolia 3-4' 5 ft. on center 25 Arrowwood Viburnum dentatum 3-4' 5 ft. on center 50

Wetland Restoration Area

ATTOWWOOD	VIDUITIUIII GETILALUITI	J-4	J It. OII CEILLEI
Nannyberry	Viburnum lentago	3-4'	5 ft. on center
Trees			
Red Maple	Acer rubrum	4-6'	10 ft. on center
Black Gum	Nyssa sylvatica	4-6'	10 ft. on center
Herbaceous (low marsh)			

Notes:

Blue Flag Iris

Blue Vervain

1. Spacing of trees, shrubs, and herb plugs to simulate natural ecological communities at direction of Project Wetland Scientist.

2. Undersow wetland restoration area with native New England Wet Meadow Seed Mix (ERNMX-251).

2" plug 2 ft. on center

2" plug 2 ft. on center

3. Total plantable area = 7,500 SF with approximate distribution of 20% trees, 60% shrubs, and 20% wet mean
Wetland Ruffer Enhancement Area

Iris versicolor

Verbena hastata

	Wetland Buffer Enha	ancement i	<u>Area</u>	
Common Name	Scientific Name	Sizing	General Spacin Est. Quai	ntity
Shrubs				
Silky Dogwood	Cornus amomum	3-4'	6 ft. on center	25
Black Chokeberry	Aronia melanocarpa	3-4'	6 ft. on center	25
Serviceberry	Amelanchier canaden	3-4'	6 ft. on center	25
Nannyberry	Viburnum lentago	3-4'	6 ft. on center	25
Trees				
Pin Oak	Quercus palustris	4-6'	12 ft. on center	5
White Oak	Quercus alba	4-6'	12 ft. on center	5
River Birch	Betula nigra	4-6'	12 ft. on center	5

Upland Meadow Native Seed Mix Native Upland Wildlife Meadow Seed Mix (ERNMX-123)

General Notes:

Native upland meadow seed mix will be incorporated into existing lawns using a seed slicer to avoid soil disturbances.
 Spacing of shrubs and trees to simulate natural ecological communities at direction of Project Wetland Scientist.
 These native plantings are intended to create an ecological buffer between the solar development and wetland enhacement area enhancing functions supported by these resources.

4. Total plantable area = 8,000 SF with approximate distribution of 20% trees, 60% shrubs, and 20% meadow

Wetland Enhancement Areas

Wet Meadow Native Seed Mix ¹
New England Wet Meadow Seed Mix (ERNMX-251)

General Notes:

WETLAND BOUNDARY

TREE CANOPY

RELOCATE EXIST. SHED

1. Native seed mixes will be incorporated into existing wetland lawns using a seed slicer to avoid soil disturbances.

2. These maintained lawn developed wetlands will be restored to wet meadow ecological areas to improve water quality and wildlife habitat functions and aesthetic value.



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567 VAUXHALL STREET EXTENSION - SUITE 311

WATERFORD, CT 06385 PHONE: (860)-663-1697

WWW.ALLPOINTSTECH.COM FAX: (860)-663-0935

PERMIT DOCUMENTS

1 11/04/24 ACCESS ROAD REVISION: UKA

NO DATE REVISION

0 | 10/08/24 | PCN SUBMITTAL

2 | 11/25/24 | CSC SUBMITTAL

DESIGN PROFESSIONALS OF RECORD

PROF: THOMAS E. LITTLE, P.E.
COMP: ALL-POINTS TECHNOLOGY
CORPORATION, P.C.
ADD: 567 VAUXHALL STREET
EXTENSION - SUITE 311

OWNER: KLEIN PROPERTIES LLC

WATERFORD, CT 06385

ADDRESS: 391 DURHAM ROAD MADISON, CT 06443

GOLF RANGE SOLAR

SITE ADDRESS:

391 DURHAM ROAD MADISON, CT 06443

APT FILING NUMBER: CT580120

DATE: 10/08/24 CHECKED BY: TEL

SHEET TITLE:

WETLAND RESTORATION
/ ENHANCEMENT
PLAN, NOTES & DETAILS

SHEET NUMBER:

WL-1

1 PLAN
WL-1 SCALE: 1" = 30'

COMPOST FILTER

/ 15" RCP OUTFALL

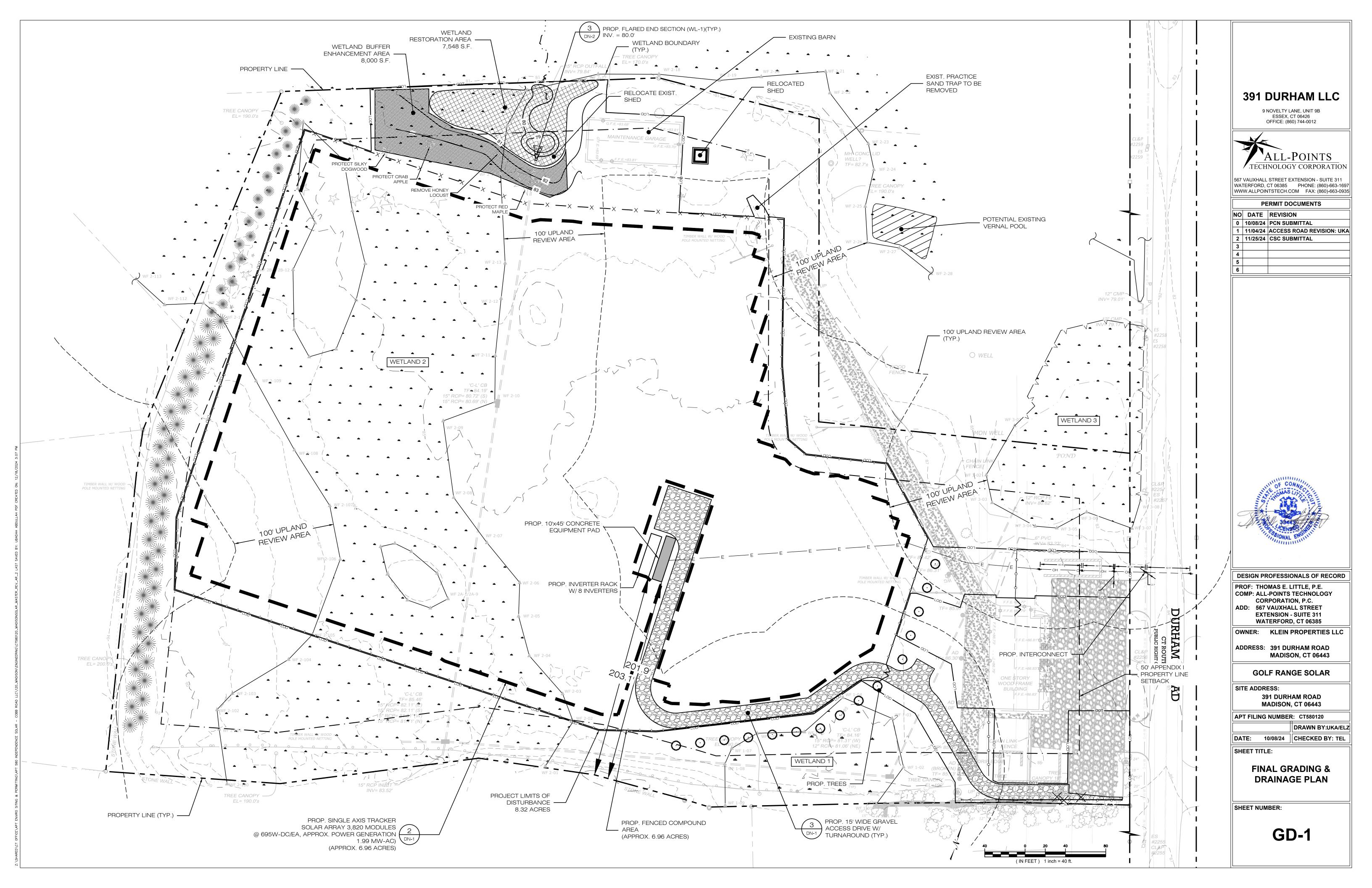
30 0 15 30 60 (IN FEET) 1 inch = 30 ft.

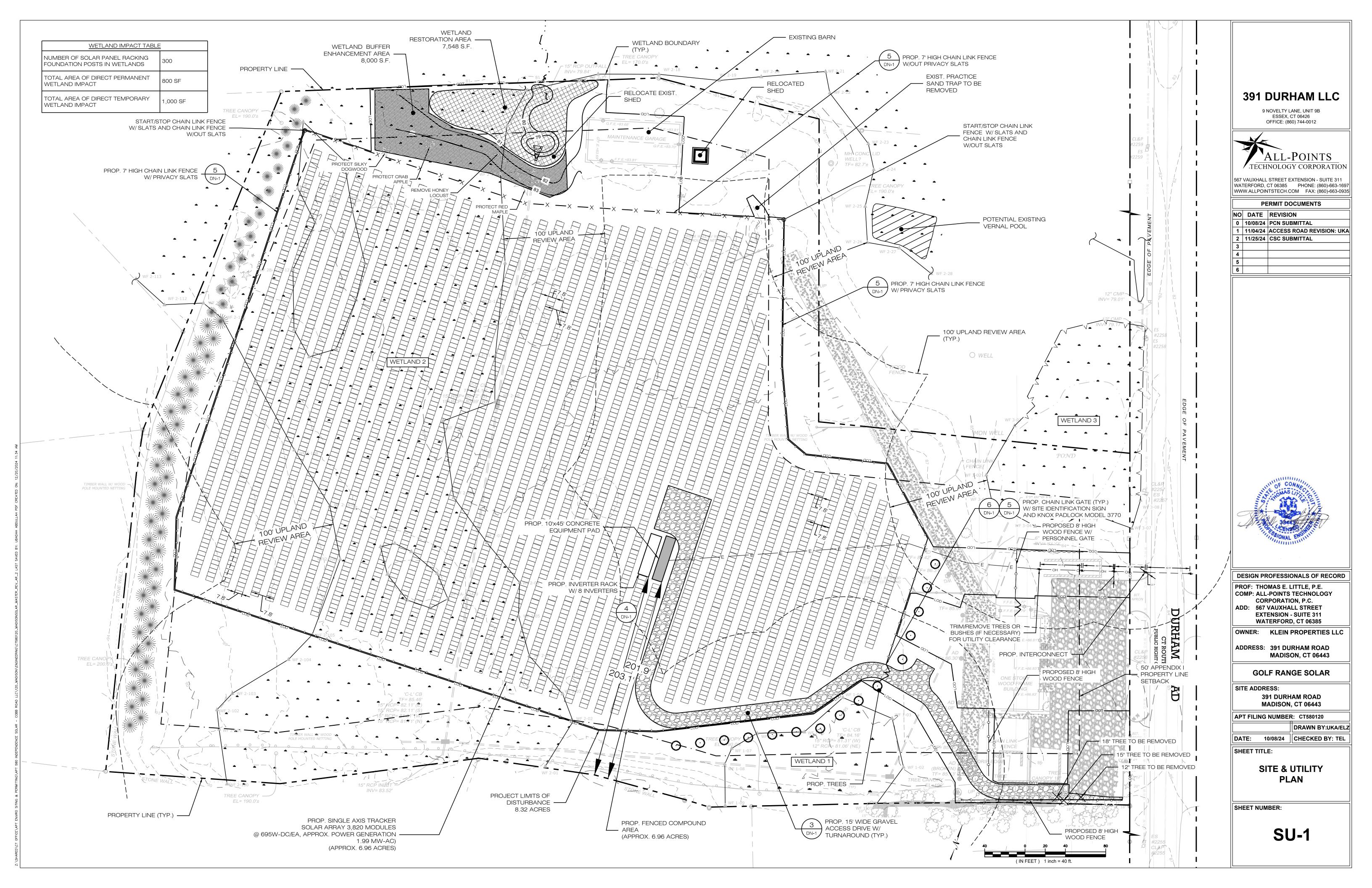
EXIST. PRACTICE

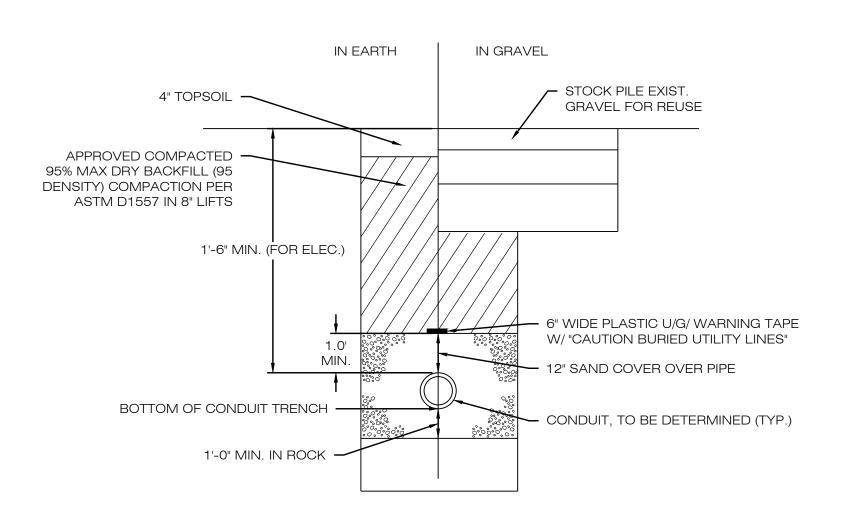
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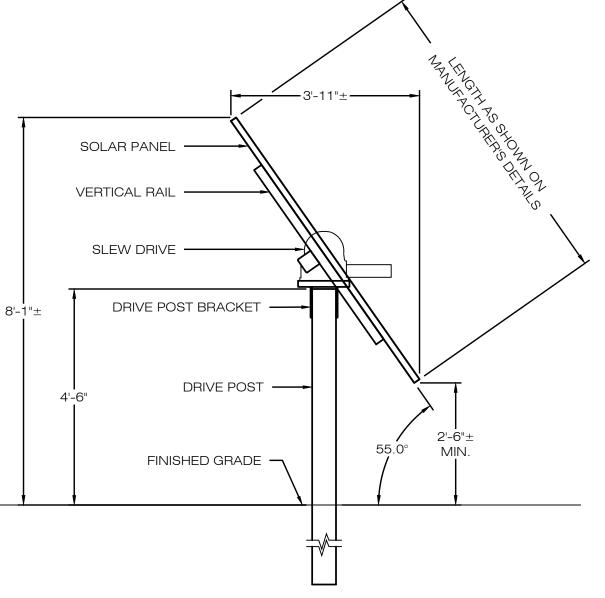
- SAND TRAP TO BE

RELOCATED









NOTES:
SEE MANUFACTURER'S DETAIL SHEETS FOR ADDITIONAL INFORMATION REGARDING
RACKING SYSTEM REQUIREMENTS AND INSTALLATION PROCEDURES. RACKING
SYSTEM TO BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.

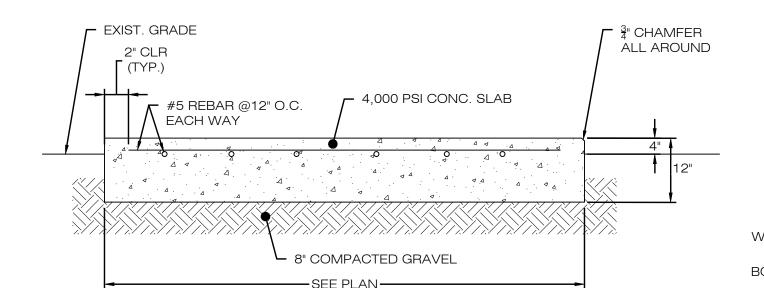
TYPICAL TRACKER POST MOUNTED RACKING SYSTEM

4" TOP COURSE - ROLLED BANK RUN GRAVEL CONFORMING TO CTDOT FORM 817 M.02.03 AND M.02.03 GRADATION "C" OR MATCH EXISTING -COMPACTED 11/4" PROCESSED GRADE TRAPROCK MIX 6" BINDER COURSE - ROLLED BANK RUN GRAVEL CONFORMING TO CTDOT FORM 817 M.02.03 AND M.02.06 GRADATION "A" COMPACTED SUITABLE SUBBASE GEOTEXTILE FABRIC (STRIP LOAM & ORGANICS) (MIRAFI 140N OR APPROVED EQUAL)

NOTES:

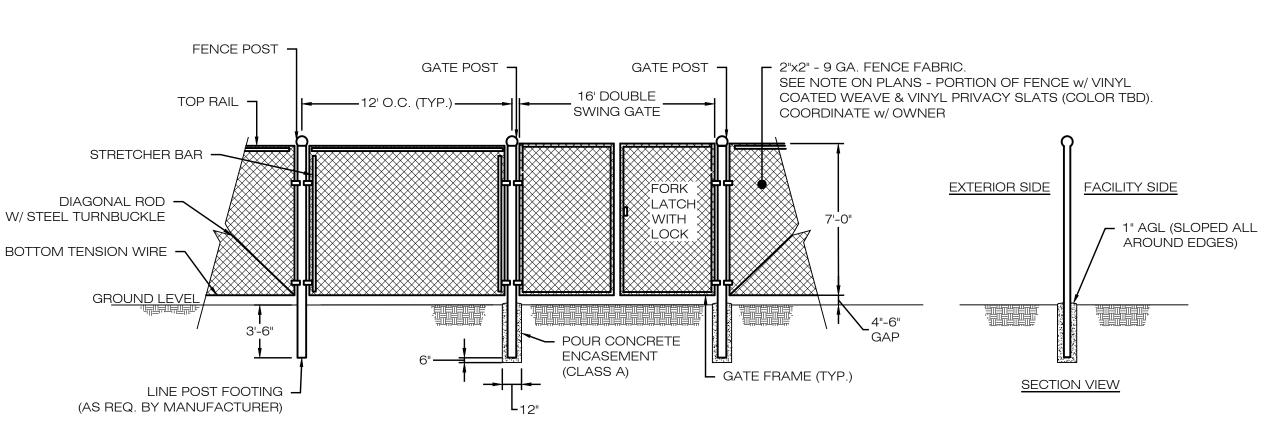
- 1. SUBBASE MAY CONSIST OF NATIVE MATERIALS IF FOUND ACCEPTABLE BY THE ENGINEER. SUBBASE TO BE COMPACTED TO 95% MAX DRY
- 2. SUBBASE IS TO BE FREE FROM DEBRIS AND UNSUITABLE MATERIALS.

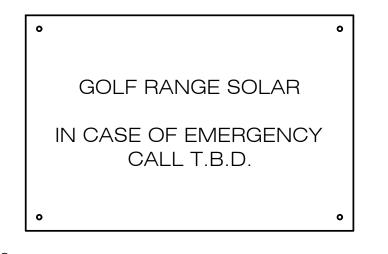




ELECTRICAL TRENCH DETAIL

4 CONCRETE EQUIPMENT PAD SCALE: N.T.S.

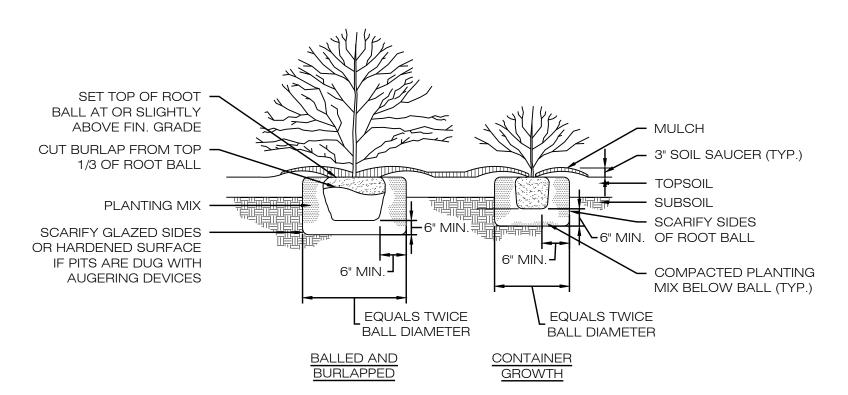




NOTES: EMERGENCY CALL NUMBER TO BE PROVIDED ONCE DETERMINED.

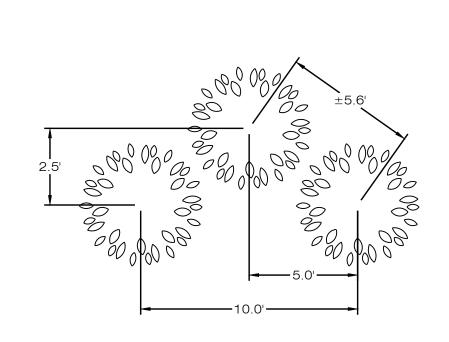
6 NOTIFICATION SIGN DETAIL
DN-1 SCALE: N.T.S.

5 CHAIN-LINK FENCE & GATE DETAIL DN-1 SCALE: N.T.S.

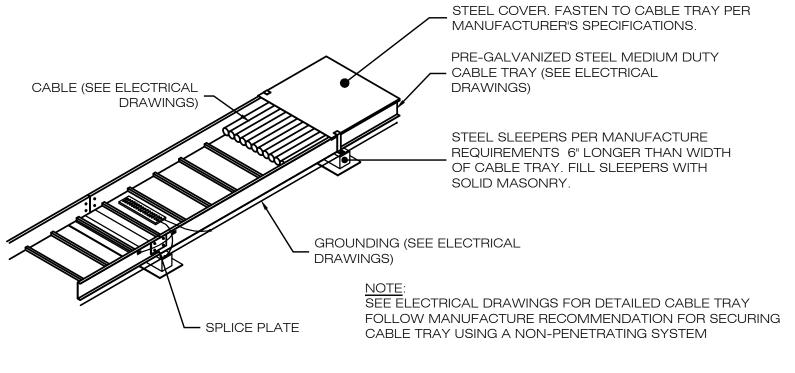


NOTES: IN AREAS OF MASS PLANTINGS, CONTINUOUSLY EXCAVATE AND MULCH ENTIRE BED.

7 TYPICAL PLANTING DETAIL
DN-1 SCALE: N.T.S.



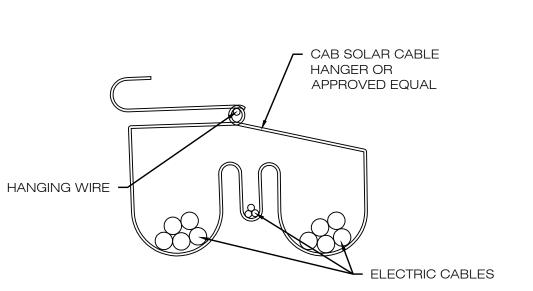
8 SCREENING TREE SPACING
DN-1 SCALE: N.T.S.



NOTES:

1. SEE ELECTRICAL DRAWINGS FOR ADDITIONAL DETAILS ON CABLE TRAY SYSTEM.





CABLE HANGERS

SCALE: N.T.S.

ALL-POINTS ECHNOLOGY CORPORATION

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67 VAUXHALL STREET EXTENSION - SUITE 311

	PERMIT DOCUMENTS				
NO	DATE	REVISION			
0	10/08/24	PCN SUBMITTAL			
1	11/04/24	ACCESS ROAD REVISION: UKA			
2	11/25/24	CSC SUBMITTAL			
3					
4					



DESIGN PROFESSIONALS OF RECORD

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COMP: ALL-POINTS TECHNOLOGY
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MADISON, CT 06443

GOLF RANGE SOLAR

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DRAWN BY:UKA/ELZ

DATE: 10/08/24 CHECKED BY: TEL

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

DN-1



Ernst Conservation Seeds

8884 Mercer Pike Meadville, PA 16335 (800) 873-3321 Fax (814) 336-5191 www.ernstseed.com

Date: September 19, 2024

0.40 % Zizia aurea, PA Ecotype 0.30 % Aster prenanthoides, PA Ecotype

0.10 % Asclepias syriaca, PA Ecotype

Fuzz & Buzz Mix - Premium - ERNMX-147

Zigzag Aster, PA Ecotype

Common Milkweed, PA Ecotype

	Botanical Name	Common Name
21.40 %	Lolium perenne, 'Crave', Tetraploid	Perennial Ryegrass, 'Crave', Tetraploid
17.20 %	Dactylis glomerata, Potomac	Orchardgrass, Potomac
15.00 %	Poa pratensis, 'Ginger'	Kentucky Bluegrass, 'Ginger' (pasture type)
12.00 %	Bromus biebersteinii, 'Fleet'	Meadow Brome, 'Fleet'
5.40 %	Trifolium hybridum	Alsike Clover
5.00 %	Agropyron trachycaulum	Slender Wheatgrass
5.00 %	Festuca elatior x Lolium perenne, Duo	Festulolium, 'Duo'
4.90 %	Trifolium incarnatum, Variety Not Stated	Crimson Clover, Variety Not Stated
4.50 %	Trifolium pratense, Medium, Variety Not Stated	Red Clover, Medium, Variety Not Stated
2.50 %	Bouteloua curtipendula, Butte	Sideoats Grama, Butte
2.00 %	Lotus corniculatus, 'Norcen'	Bird's Foot Trefoil, 'Norcen'
1.00 %	Coreopsis lanceolata	Lanceleaf Coreopsis
1.00 %	Linum perenne	Perennial Blue Flax
0.70 %	Solidago nemoralis, PA Ecotype	Gray Goldenrod, PA Ecotype
0.60 %	Cichorium intybus	Blue Chicory
0.50 %	Aster oblongifolius, PA Ecotype	Aromatic Aster, PA Ecotype
0.50 %	Chrysanthemum leucanthemum	Oxeye Daisy
0.40 %	Zizia aurea, PA Ecotype	Golden Alexanders, PA Ecotype

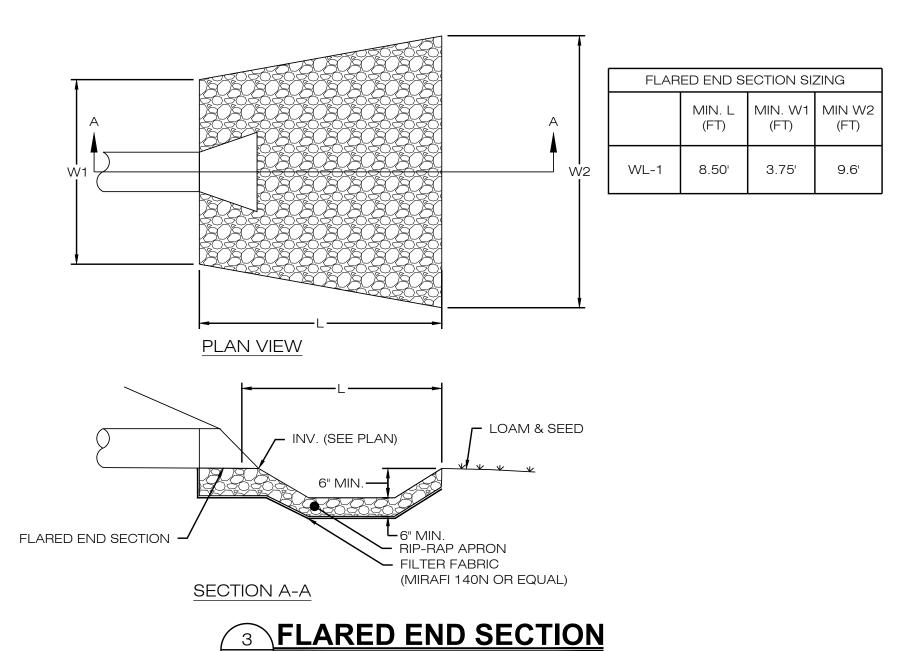
100.00 %

Seeding Rate: Expect to apply about 42 lbs per acre with a cover crop of annual ryegrass at 12 lbs/acre.

Forage & Pasture Sites; Forage & Pasture Sites - Herbaceous Perennial; Solar Sites

The Fuzz & Buzz Premium seed mix was developed to address the unique nutritional needs of sheep, while providing a low-growing, easily maintained and sustainable vegetation solution for solar installations. The plant species chosen with guidance from the American Solar Grazing Association (ASGA). The wildflowers in this mix support pollinators to a greater degree than ERNMX-146 (The Fuzz and Buzz Mix-Standard).

1 POLLINATOR-MEADOW SEED MIX DN-2 SCALE: N.T.S.





Ernst Conservation Seeds

8884 Mercer Pike Meadville, PA 16335 (800) 873-3321 Fax (814) 336-5191 www.ernstseed.com

	Botanical Name	Common Name	
29.50 %	Carex vulpinoidea, PA Ecotype	Fox Sedge, PA Ecotype	
	Elymus virginicus, Madison-NY Ecotype	Virginia Wildrye, Madison-NY Ecotype	
	Carex Iurida, PA Ecotype	Lurid Sedge, PA Ecotype	
	Carex scoparia, PA Ecotype	Blunt Broom Sedge, PA Ecotype	
	Panicum rigidulum, PA Ecotype	Redtop Panicgrass, PA Ecotype	
4.00 %	Chasmanthium latifolium, WV Ecotype	River Oats, WV Ecotype	
3.00 %	Juncus effusus	Soft Rush	
3.00 %	Verbena hastata, PA Ecotype	Blue Vervain, PA Ecotype	
2.00 %	Asclepias incarnata, PA Ecotype	Swamp Milkweed, PA Ecotype	
2.00 %	Heliopsis helianthoides, PA Ecotype	Oxeye Sunflower, PA Ecotype	
	Eupatorium perfoliatum, PA Ecotype	Boneset, PA Ecotype	
	Bidens cernua, PA Ecotype	Nodding Bur Marigold, PA Ecotype	
	Carex grayi, PA Ecotype	Gray's Sedge, PA Ecotype	
	Coreopsis lanceolata	Lanceleaf Coreopsis	
	Vernonia noveboracensis, PA Ecotype	New York Ironweed, PA Ecotype	
	Zizia aurea, PA Ecotype	Golden Alexanders, PA Ecotype	
	Glyceria striata, PA Ecotype	Fowl Mannagrass, PA Ecotype	
	Scirpus cyperinus, PA Ecotype	Woolgrass, PA Ecotype	
	Aster puniceus, PA Ecotype	Purplestem Aster, PA Ecotype	
	Lobelia siphilitica, PA Ecotype	Great Blue Lobelia, PA Ecotype	
	Aster novae-angliae	New England Aster	
	Aster prenanthoides, PA Ecotype	Zigzag Aster, PA Ecotype	
	Eupatorium fistulosum, PA Ecotype	Joe Pye Weed, PA Ecotype	
0.30 %	Ludwigia alternifolia, PA Ecotype	Seedbox, PA Ecotype	
00.00 %			
eding Rat	te: 20 lb per acre with a cover crop. For a crop use one of the following: grain rye 30 Apr; 30 lbs/acre), Japanese millet (1 31 Aug; 10 lbs/acre), or barnyard grass to 31 Aug; 10 lbs/acre).	(1 Sep to May to	
asses & Gr	ass-like Species - Herbaceous Perennial: Herb	aceous Flowering Species - Herbaceous Perennial; Wet N	4eadows &



391 DURHAM LLC

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DRAWN BY:UKA/ELZ DATE: 10/08/24 CHECKED BY: TEL

SHEET TITLE:

SITE DETAILS

SHEET NUMBER:

DN-2