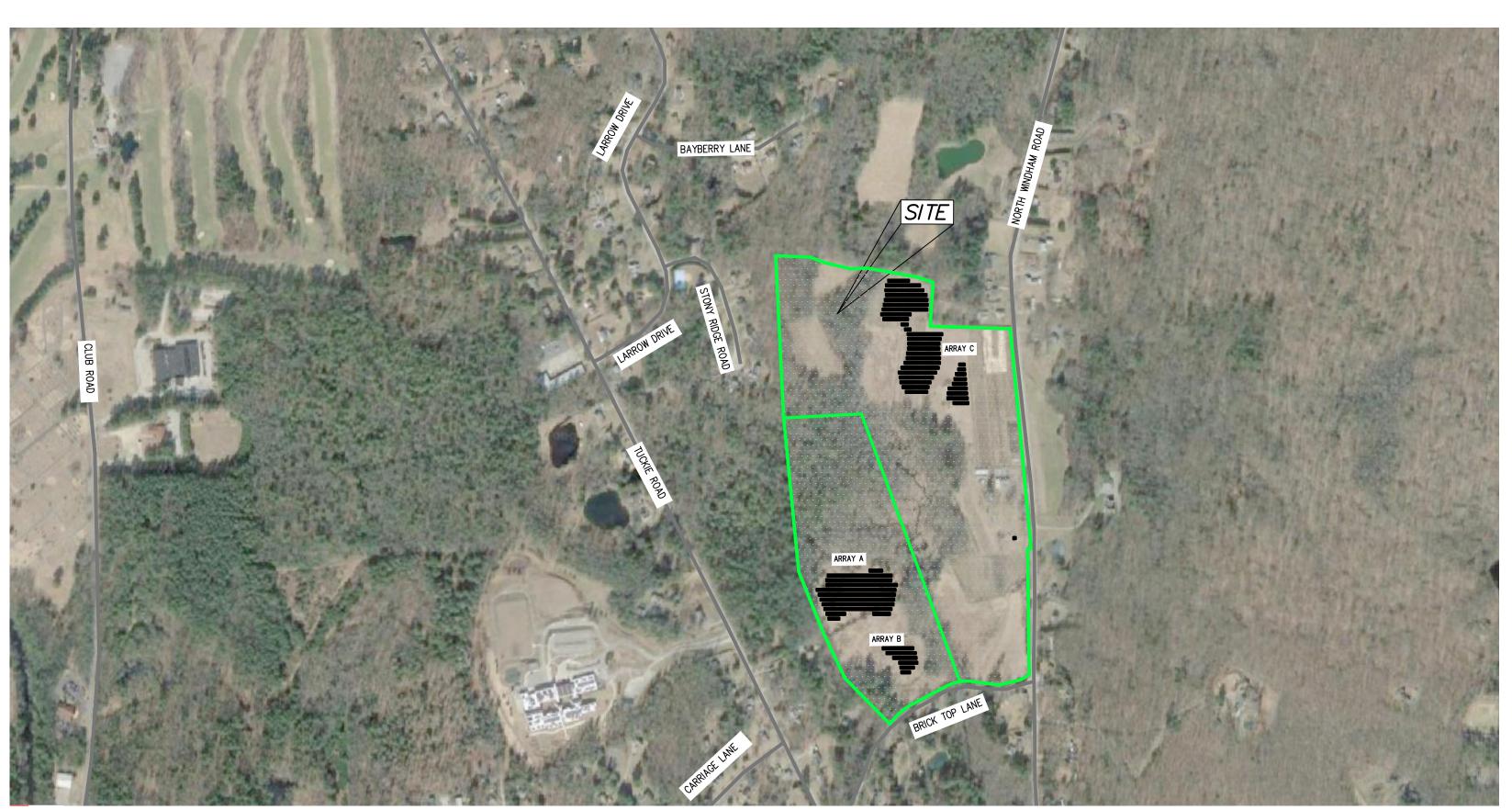
PARCEL A BRICK TOP LANE & 163 NORTH WINDHAM ROAD

PERMITTING DRAWINGS WINDHAM, CONNECTICUT

ASSESSOR'S MAP 6-5, LOT 236-21



APPLICANT

LSE HOROLOGIUM LLC 40 TOWER LANE AVON, CT

OWNER

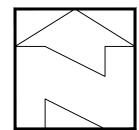
CONCKLIN TRUSTEES 163 NORTH WINDHAM ROAD WINDHAM, CT

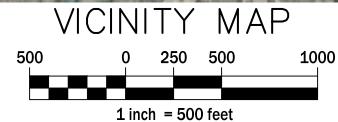
ENVIRONMENTAL CONSULTANT

ALL-POINTS TECHNOLOGY CORPORATION, P.C. 567 VAUXHALL STREET EXTENSION, SUITE 311 WATERFORD, CT

ENGINEER

CIVIL 1 43 SHERMAN HILL ROAD, SUITE D-101WOODBURY, CT



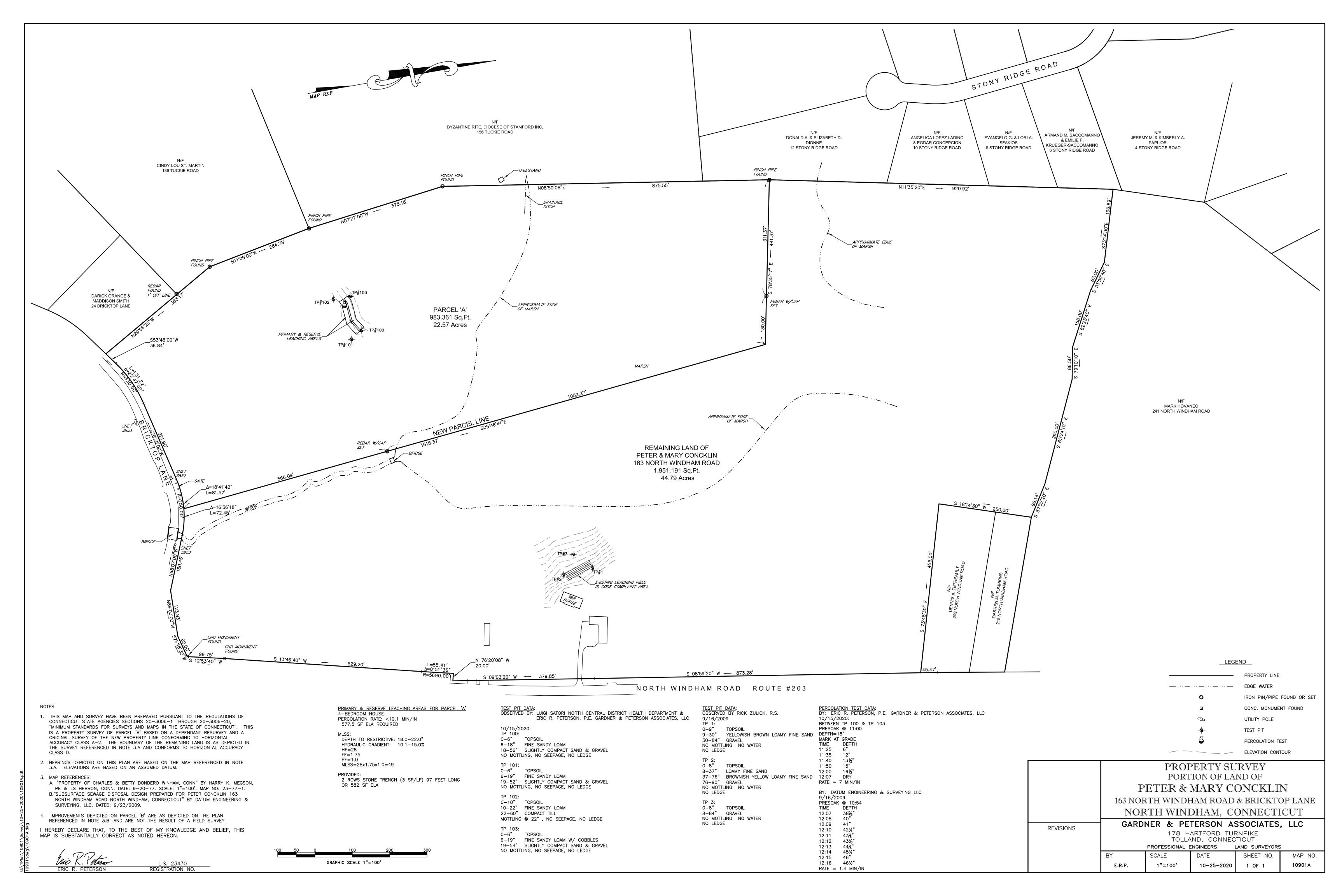


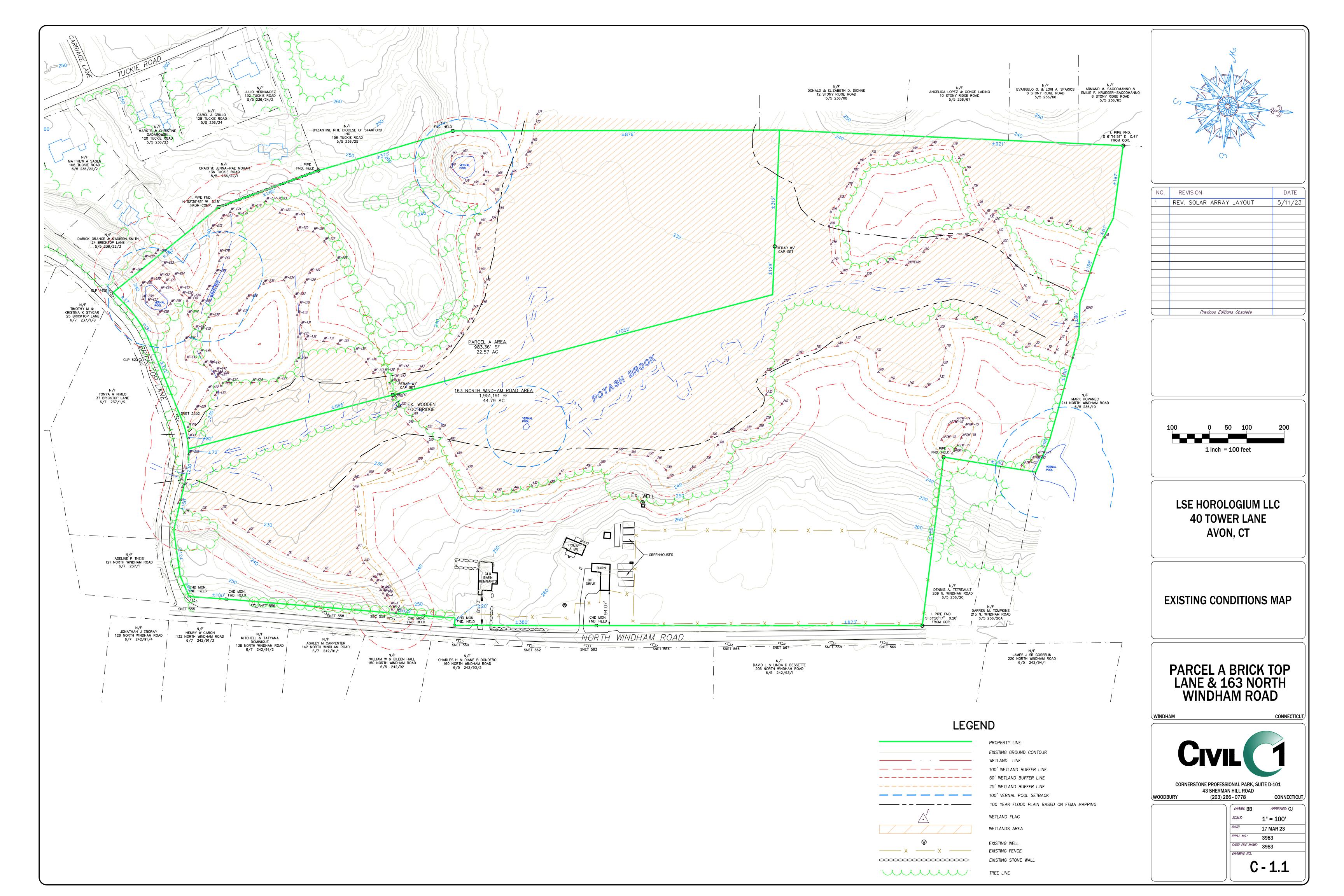


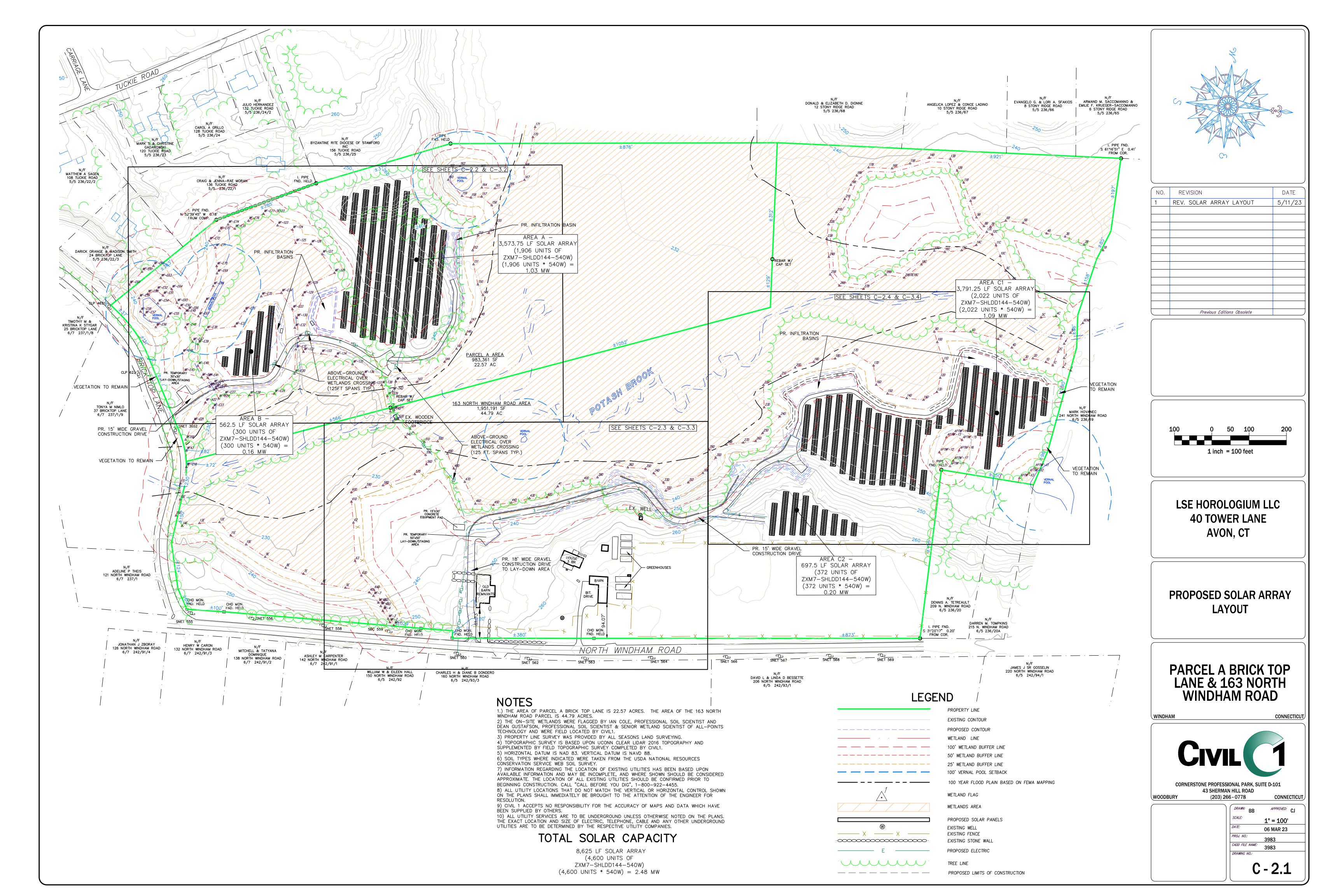
CORNERSTONE PROFESSIONAL PARK, SUITE D-101 43 SHERMAN HILL ROAD (203) 266 - 0778

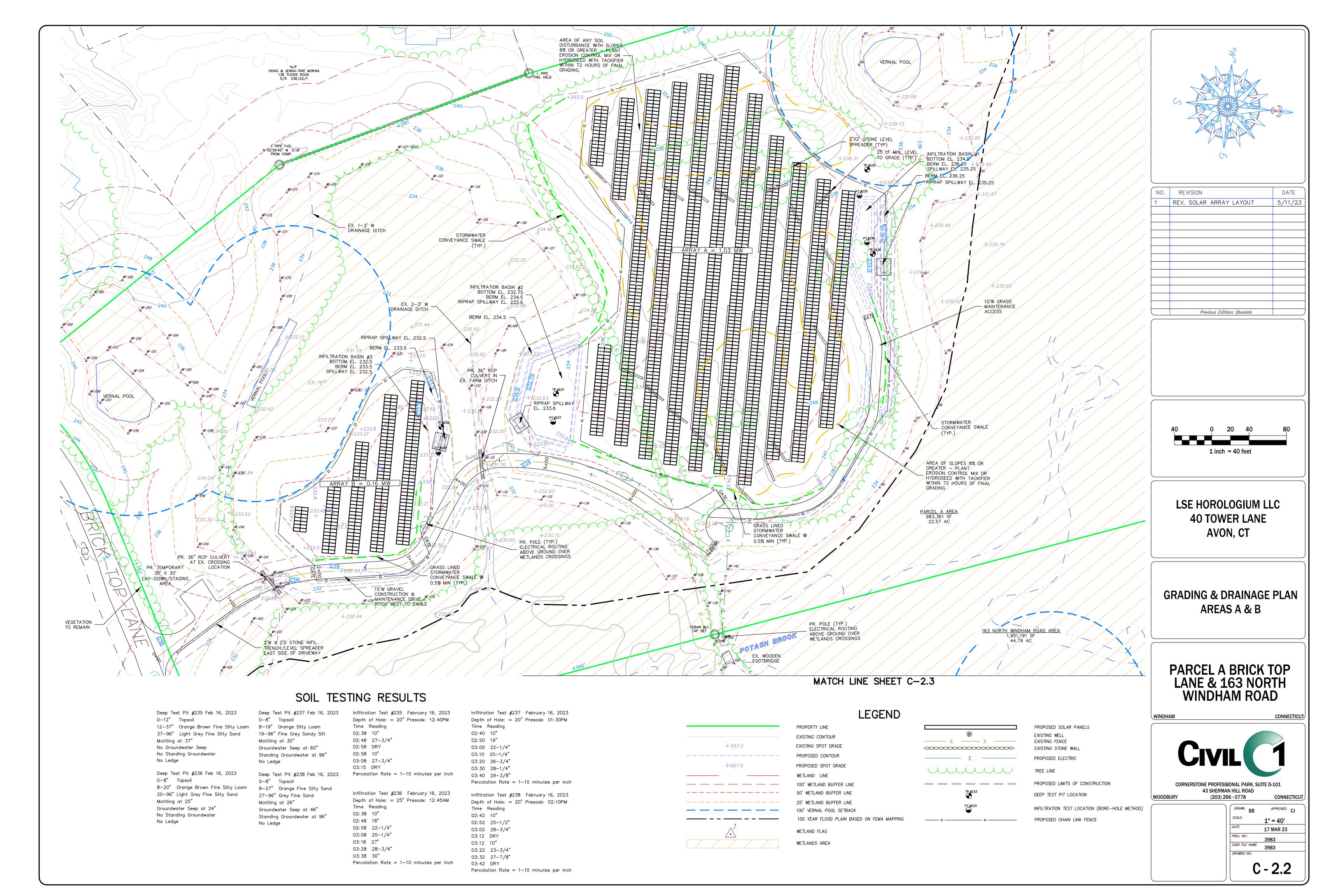
> MARCH 17, 2023 REVISED MAY 31, 2023

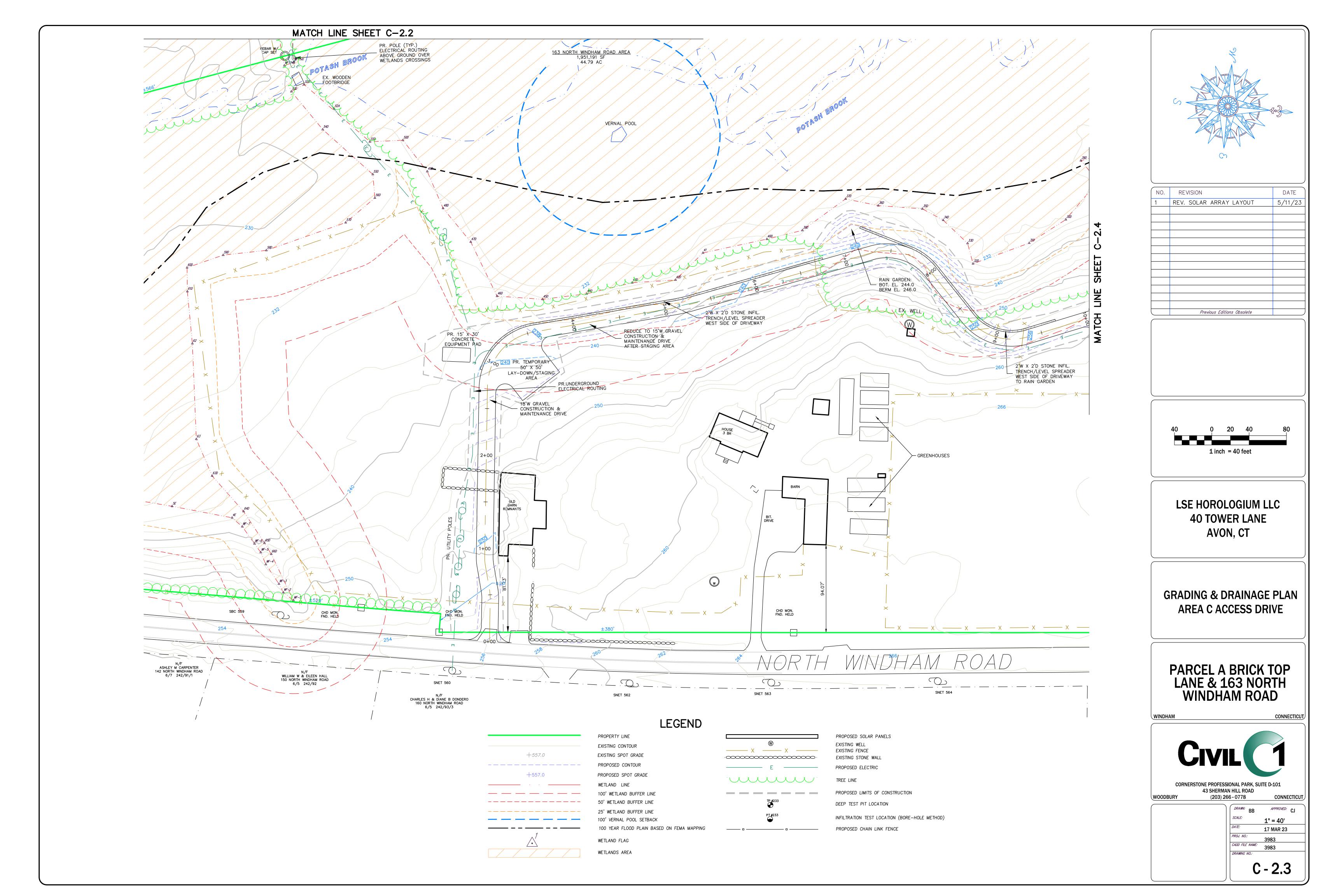
SHEET	NUMBER	DESCRIPTION
1	OF 1	ZONING LOCATION SURVEY
С	- 1.1	EXISTING CONDITIONS MAP
С	- 2.1	PROPOSED SOLAR ARRAY LAYOUT
С	- 2.2	GRADING & DRAINAGE PLAN - AREAS A & B
С	- 2.3	GRADING & DRAINAGE PLAN - AREA C ACCESS DRIVE
С	- 2.4	GRADING & DRAINAGE PLAN - AREA C
С	- 3.2	EROSION CONTROL PLAN - AREAS A & B
С	- 3.3	EROSION CONTROL PLAN - AREA C ACCESS DRIVE
С	- 3.4	EROSION CONTROL PLAN - AREA C
С	- 4.1	NORTHERN ACCESS DRIVE PROFILE
С	- 4.2	SOUTHERN ACCESS DRIVE PROFILE & WETLANDS CROSSINGS
С	- 5.1	DETAILS
С	- 5.2	DETAILS
С	- 6.1	GENERAL NOTES AND EROSION CONTROL NOTES
С	- 6.2	ENVIRONMENTAL PROTECTION NOTES

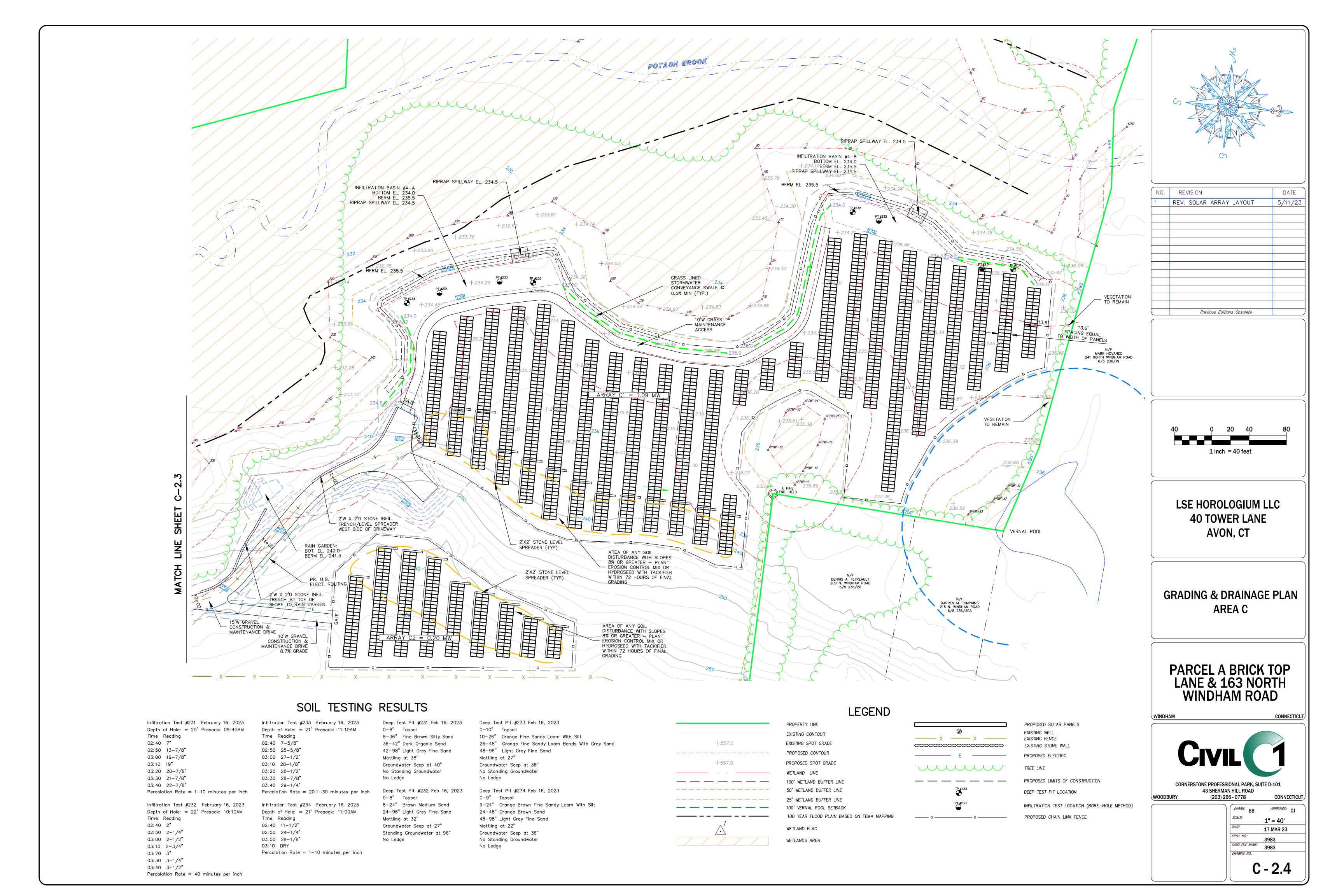


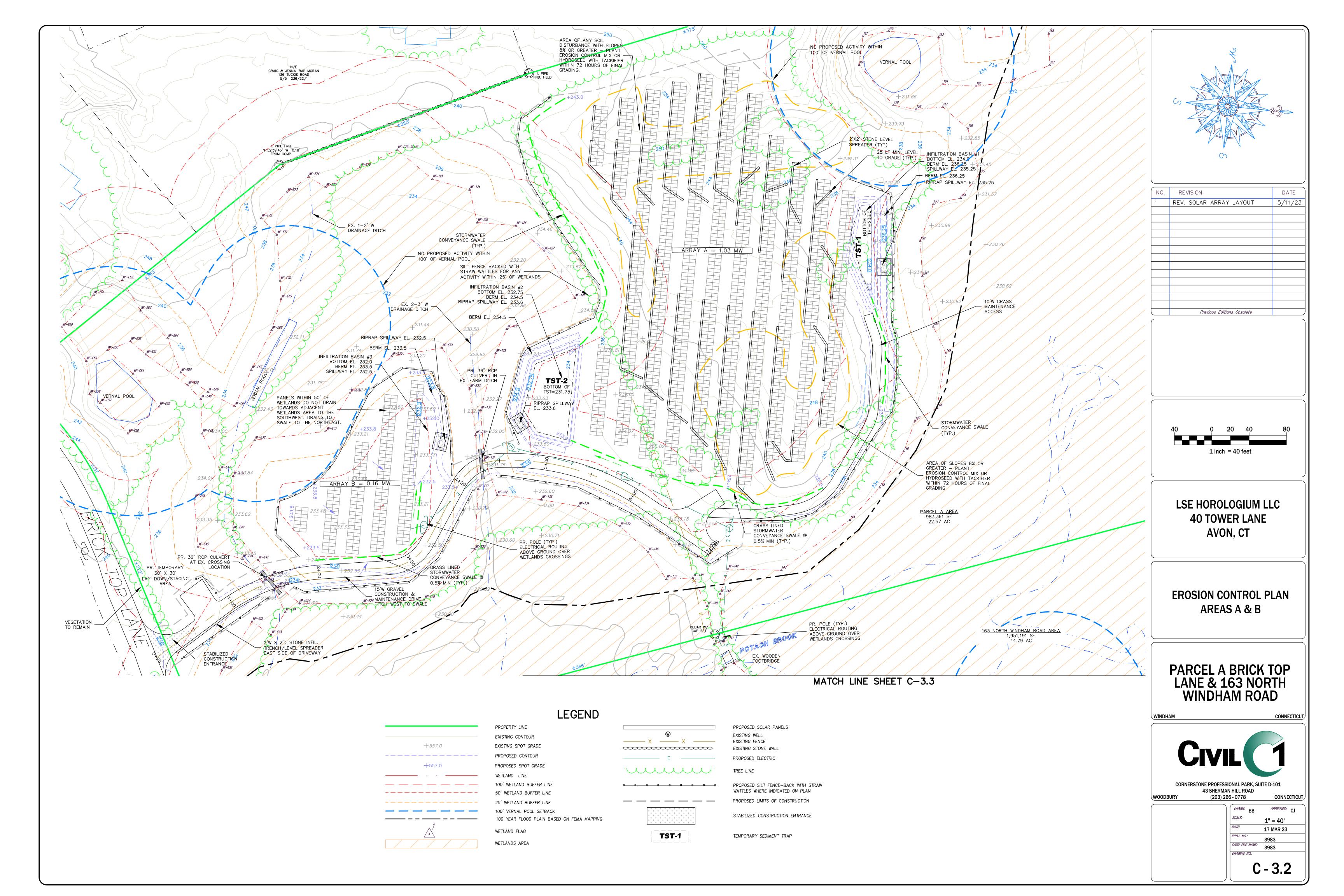


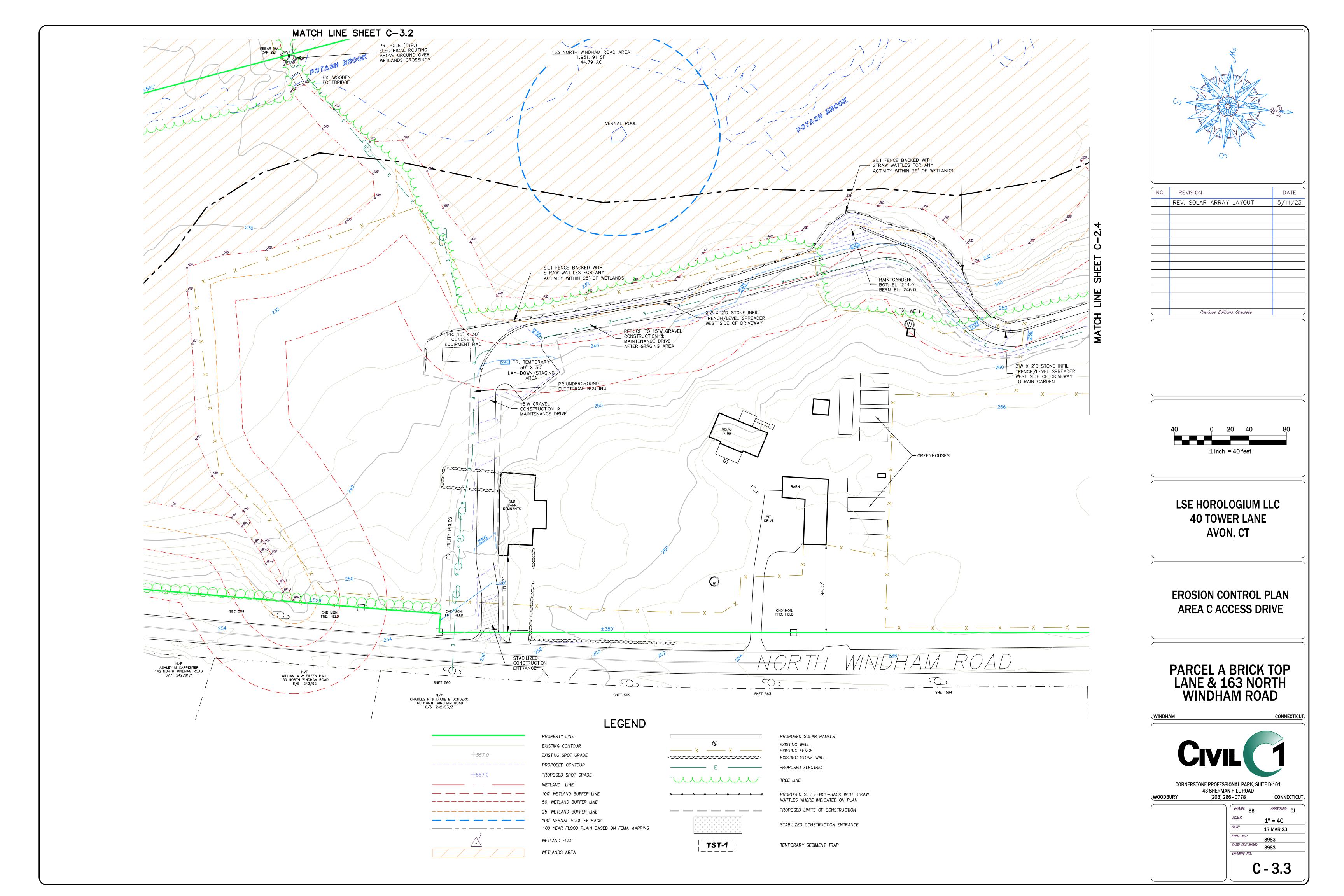


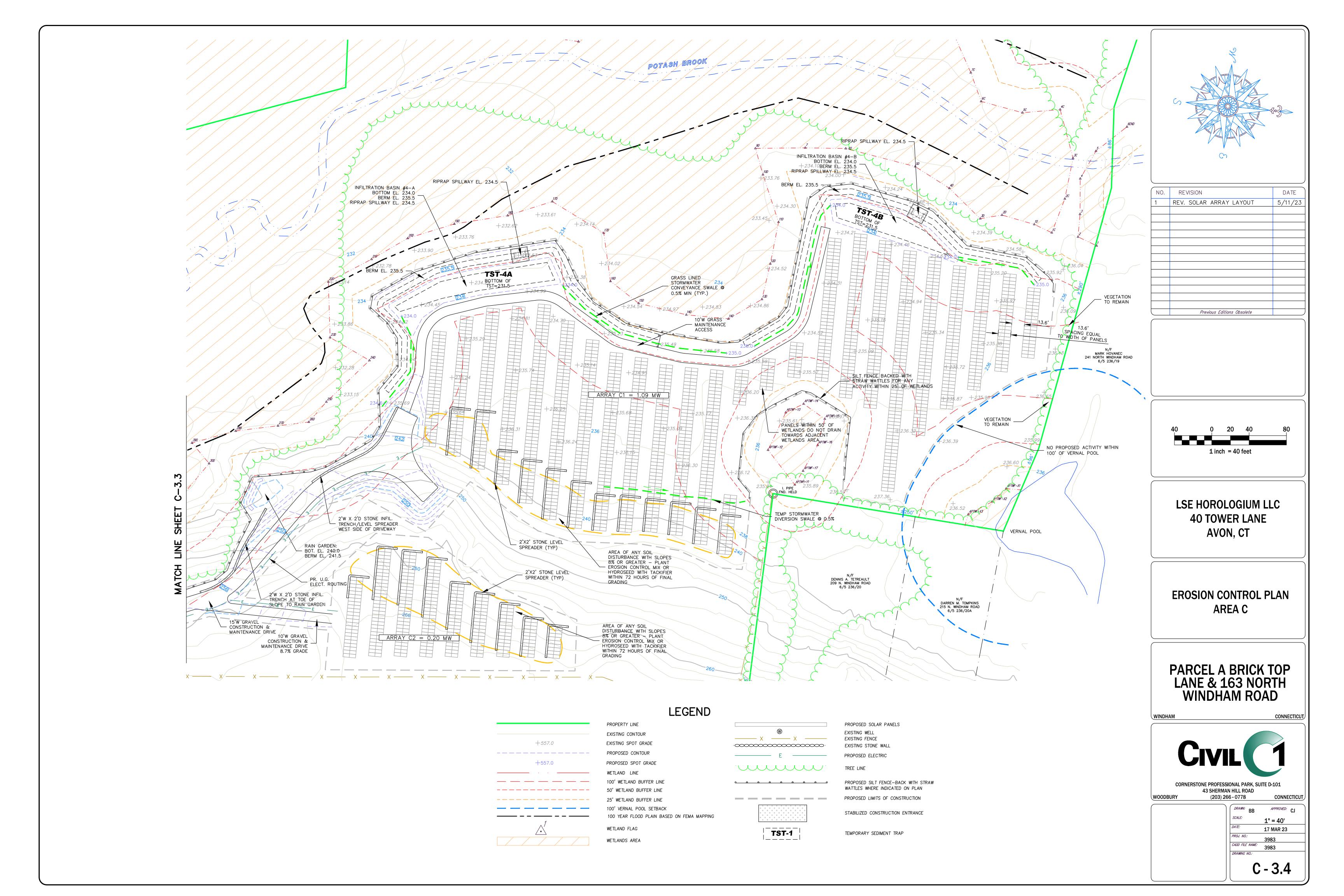


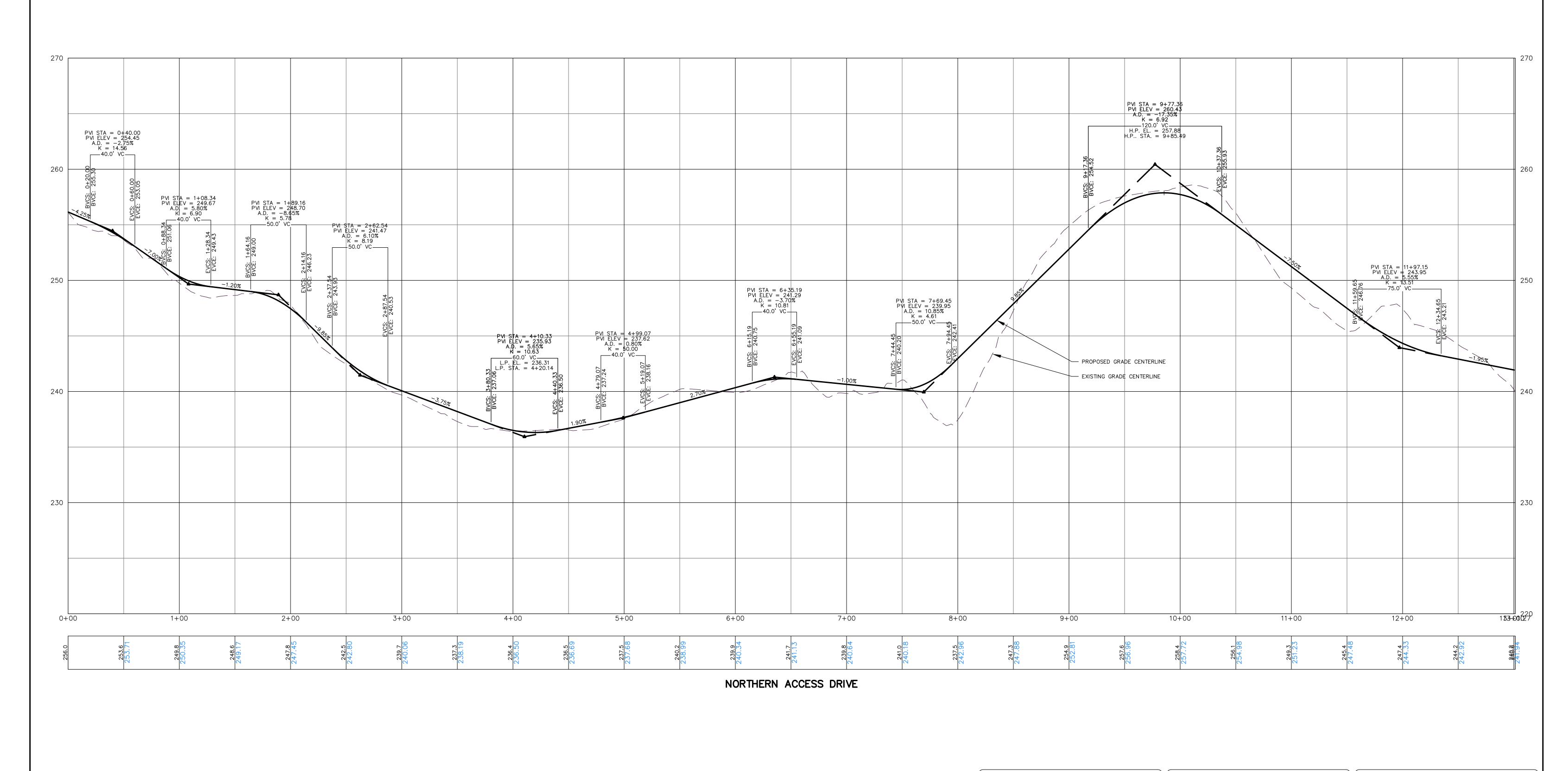


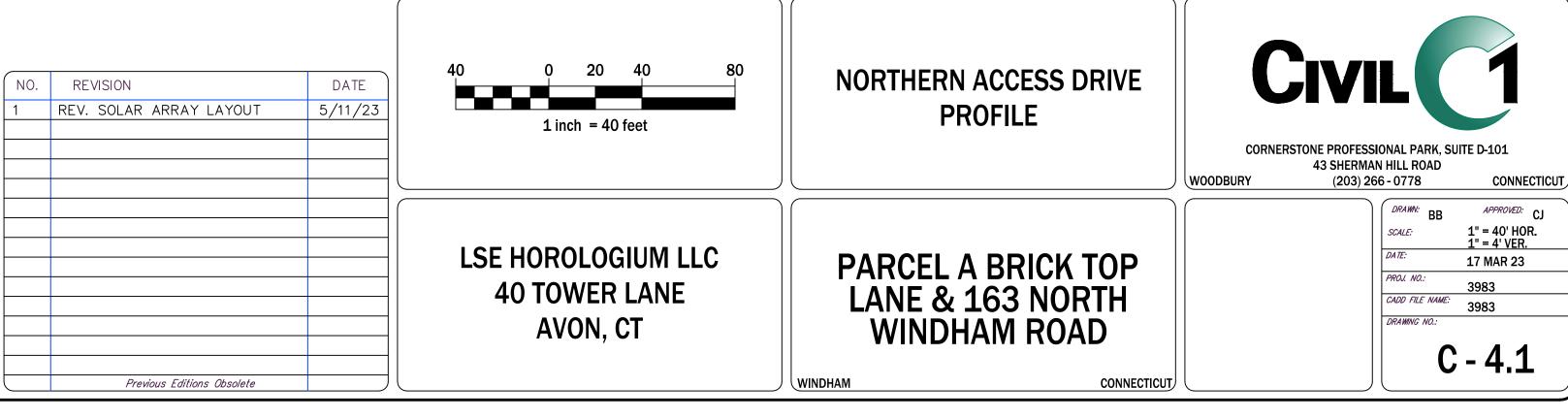


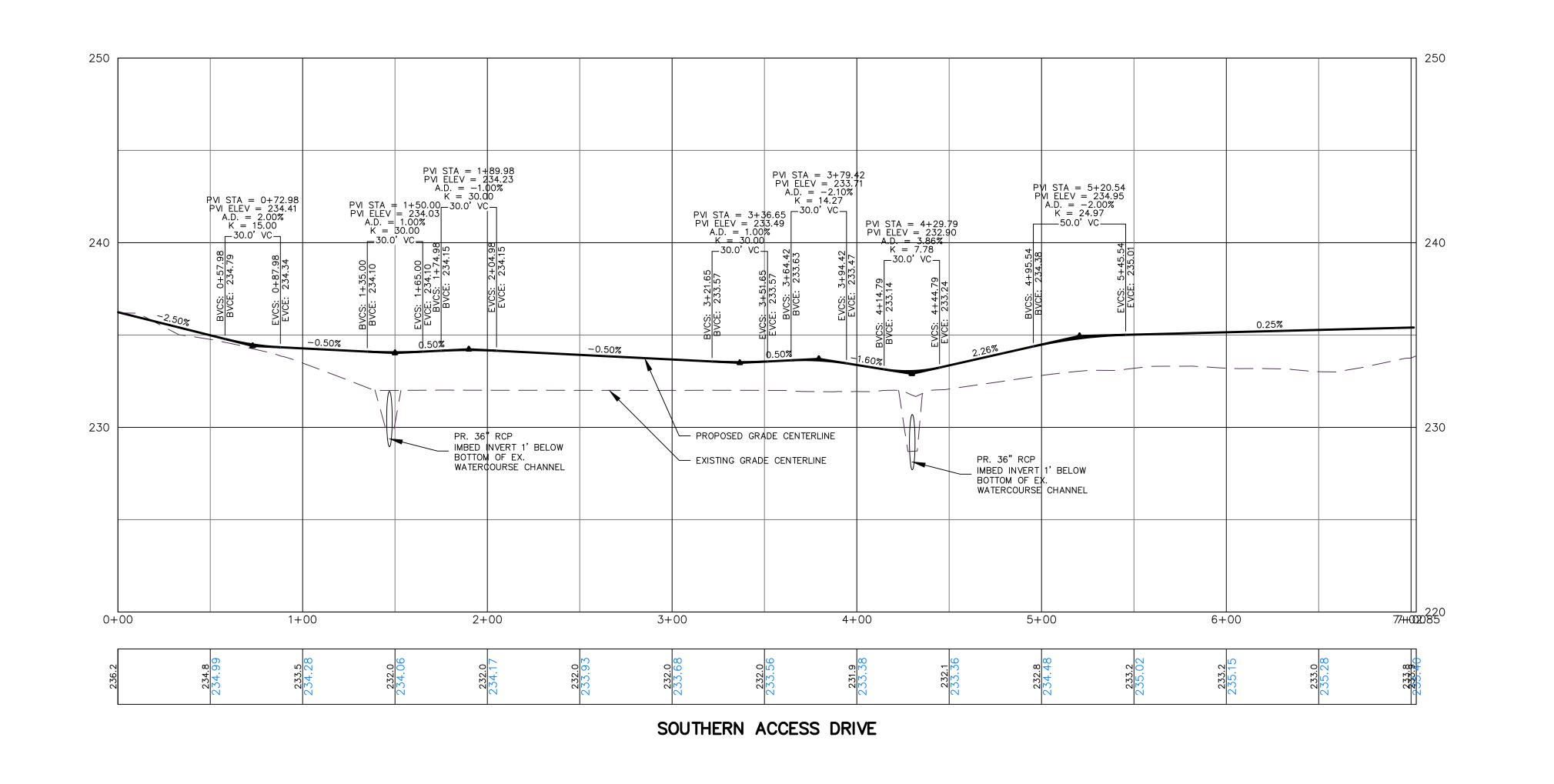


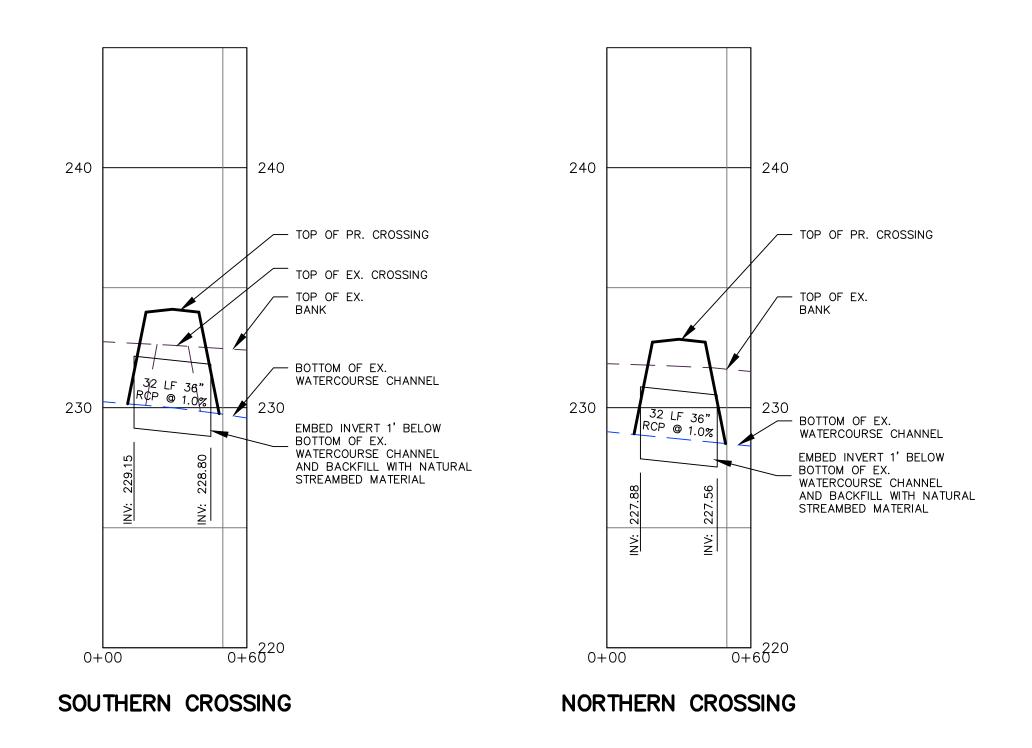


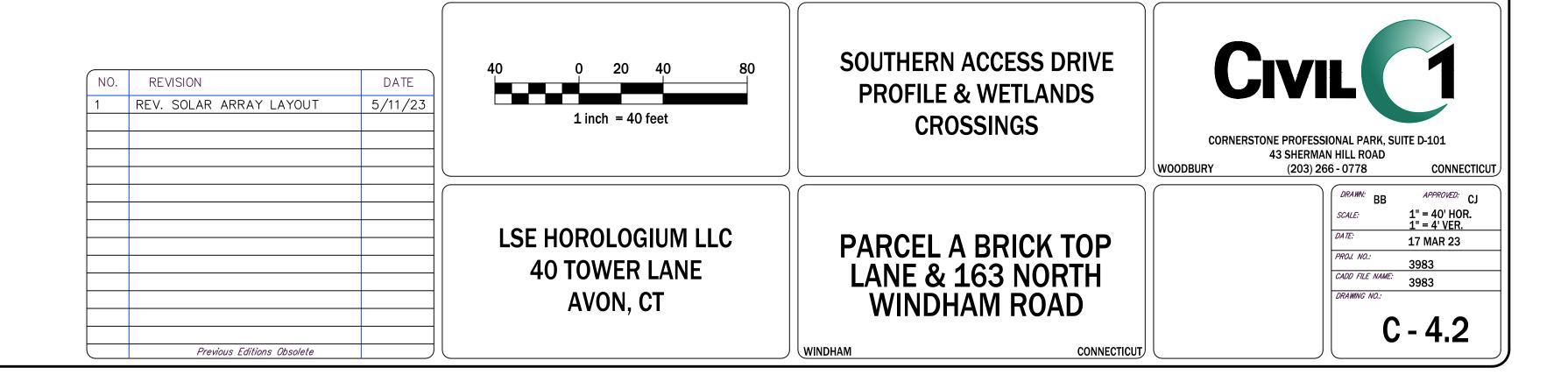


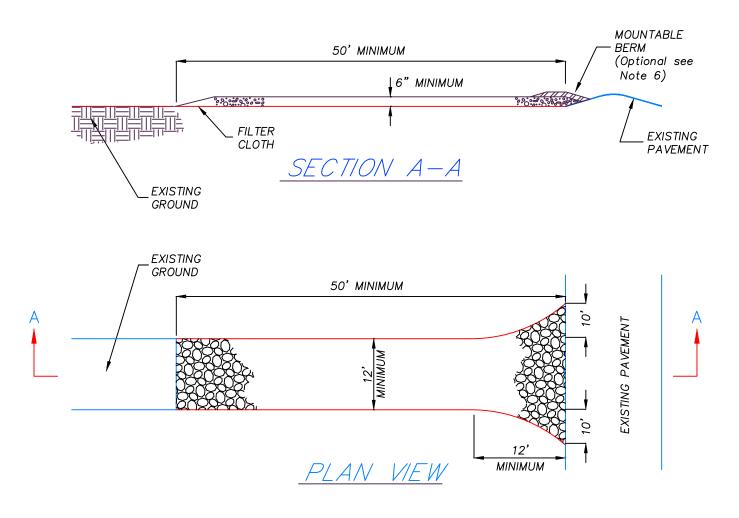












- HEIGHT VARIES BASED UPON

PORTRAIT - 25° TILT ANGLE

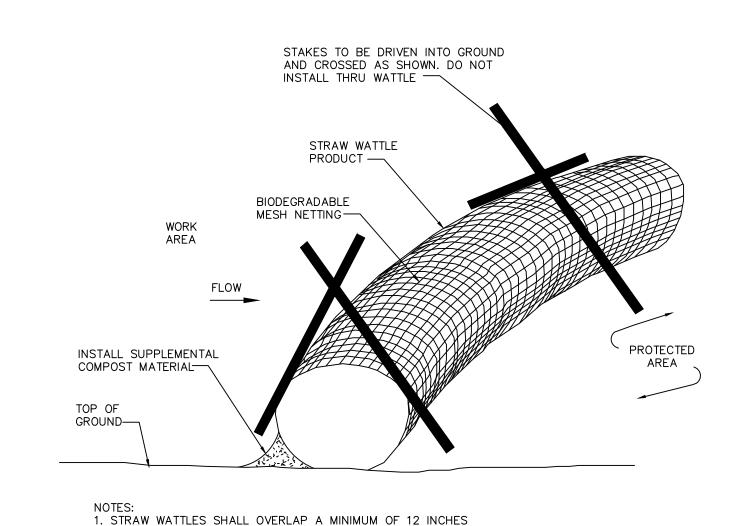
SYSTEM

-FOUNDATION POST

TOPOGRAPHY

- 1. STONE SIZE USE 1" 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT. 2. LENGTH — AS REQUIRED, BUT NOT LESS THAN 50 FEET.
- 3. THICKNESS NOT LESS THAN SIX (6) INCHES. 4. WIDTH - 12 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24 FOOT MINIMUM IF SINGLE ENTRANCE TO SITE.
- 5. FILTER CLOTH TO BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. 6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A
- MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED. 7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OF FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURE USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DRIPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8. WASHING WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING
- 9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

STABILIZED CONSTRUCTION ENTRANCE



2. STRAW WATTLES SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS, AND REPAIR OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED.

STRAW WATTLE

N. T. S.

RACKING SYSTEM, AND FOUNDATION POSTS TO BE DETERMINED PENDING BEST AVAILABLE TECHNOLOGY AT TIME OF CONSTRUCTION AND STRUCTURAL

±2' MINIMUM

CLEARANCE-

±13.6" FOOTPRINT

CROSS SECTION OF FIXED-TILT PANEL ARRAY

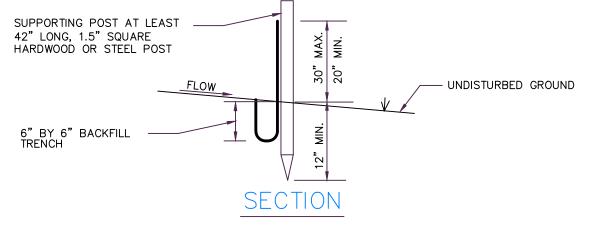
TWO ZNSHINESOLAR ZXM7-SHLDD144 SERIES 540W PANELS IN

±13.6" CLEAR SPACING

GROUND ---

SLOPES VARY

- CLOTH ABOVE GROUND, 30" MAXIMUM, 20" MINIMUM PERSPECTIVE VIEW SUPPORTING POST AT LEAST 42" LONG, 1.5" SQUARE HARDWOOD OR STEEL POST



CONSTRUCTION NOTES FOR SILT FENCE

1. EXCAVATE A TRENCH A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE ON THE UP SIDE OF THE

2. DRIVE SUPPORT POSTS ON THE DOWN SLOPE SIDE OF THE TRENCH TO A DEPTH OF AT LEAST 12 INCHES INTO ORIGINAL GROUND.

3. STAPLE OR SECURE THE GEOTEXTILE TO THE SUPPORT POSTS PER MANUFACTURER'S INSTRUCTIONS SUCH THAT AT LEAST 6 INCHES OF GEOTEXTILE LIES WITHIN THE TRENCH.

4. BACKFILL THE TRENCH WITH TAMPED SOIL OR AGGREGATE OVER THE GEOTEXTILE.

SILT FENCE DETAIL



POSTS: 1.5" SQUARE HARDWOOD OR STEEL

FILTER CLOTH: MIRAFI 100X, ENVIROFENCE

- SUPPORTING POST AT LEAST 42" LONG, 1.5" SQUARE HARDWOOD OR STEEL POST

HEIGHT OF FILTER

OR APPROVED EQUAL

FUTERRA F4 NETLESS CONTROL BLANKET -OR APPROVED EQUAL APPLY FERTILIZER AND SEED PRIOR TO AREA ADJACENT TO CHANNEL TO BE BROUGHT INSTALLING BLANKET

STOCKPILE MANAGEMENT PER 2002 CT GUIDELINES FOR E & S CONTROL:

6. AFTER STOCKPILE HAS BEEN REMOVED, THE SITE SHOULD BE GRADED AND PERMANENTLY STABILIZED.

4. THE SIDE SLOPES OF STOCKPILED MATERIAL SHOULD BE NO STEEPER THAN 2:1.

1. LOCATE STOCKPILE SO THAT NATURAL DRAINAGE IS NOT OBSTRUCTED. 2. DIVERT RUNOFF WATER AWAY FROM OR AROUND THE STOCKPILE.

-FINISHED GRADE

DRAINAGE SWALE

TO FINISHED GRADE IMMEDIATELY AS REQUIRED,

TOPSOILED, SEEDED AND MAINTAINED FOR EROSION

3. INSTALL A GEOTEXTILE SILT FENCE OR HAY BALE BARRIER AROUND THE STOCKPILE AREA APPROXIMATELY 10 FEET FROM PROPOSED TOE OF THE SLOPE.

5. STOCKPILES THAT ARE NOT TO BE USED WITHIN 30 DAYS NEED TO BE SEEDED AND MULCHED IMMEDIATELY AFTER FORMATION OF THE STOCKPILE.

TEMPORARY TOPSOIL STOCKPILE

INSTALLATION PROCEDURE

- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. START UNROLLING THE FUTERRA F4 NETLESS 1-2' ABOVE THE SLOPE CREST. 3. ANCHOR TOP OF BLANKET ON 1' CENTERS
- 4. APPLY PINS OR STAPLES ALONG BLANKET LENGTH, ONE EVERY 2.5 LINEAR FEET. PLACE PIN OR STAPLE EVERY EVERY 5' DOWN CENTER OF BLANKET, CREATING AN X PATTERN WITH THE ANCHORING SYSTEM.
- 5. RAKE LOOSE SOIL OVER TOP EDGE ALONG BLANKET WIDTH. MOUND TO A MIN. HEIGHT OF 4". 6. OVERLAP SHINGLE STYLE A MAX. OF 2". ANCHOR ON 1' CENTER ACROSS THE ROLL WIDTH.
- 7. UNROLL THE NEXT BLANKET DOWN THE SLOPE.
- 8. OVERLAP ROLLS A MAX. OF 2". USE ONE PIN OR STAPLE EVERY 5'.

FUTERRA F4 NETLESS EROSION CONTROL BLANKETS MATERIAL: THERMALLY REFINED WOOD AND DEGRADABLE MAN-MADE FIBERS

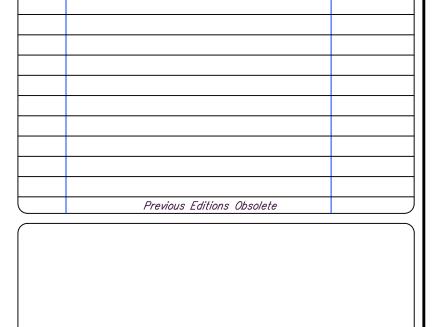
CRITICAL POINTS

OVERLAPS AND SEAMS
PROJECTED WATER LINE
CHANNEL BOTTOM/SIDE SLOPE VERTICES

1. HORIZONTAL STAPLE SPACING SHOULD BE ALTERED IF NECESSARY TO ALLOW STAPLES TO SECURE THE CRITICAL POINTS ALONG THE CHANNEL SURFACE. 2. IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS IN EXCESS OF 6" (15 CM) MAY BE NECESSARY TO PROPERLY ANCHOR THE BLANKETS.

3. SLOPE CREST TRENCHING MAY BE SPECIFIED ON SOME PROJECTS. TOP EDGE WIDTH OF THE FUTERRA F4 NETLESS SHOULD THEN BE STAPLED OR STAKED IN THE TRENCH BOTTOM. BACKFILL AND COMPACT SOIL.IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS. 4. FUTERRA F4 NETLESS CAN BE APPLIED HORIZONTALLY ON SHALLOW SLOPES.*

FUTERRA F4 NETLESS EROSION CONTROL BLANKET



DATE

REVISION

INSTALL SILT FENCE PER DETAIL

TOP EDGE TO BE

ANCHORED

LSE HOROLOGIUM LLC **40 TOWER LANE** AVON, CT

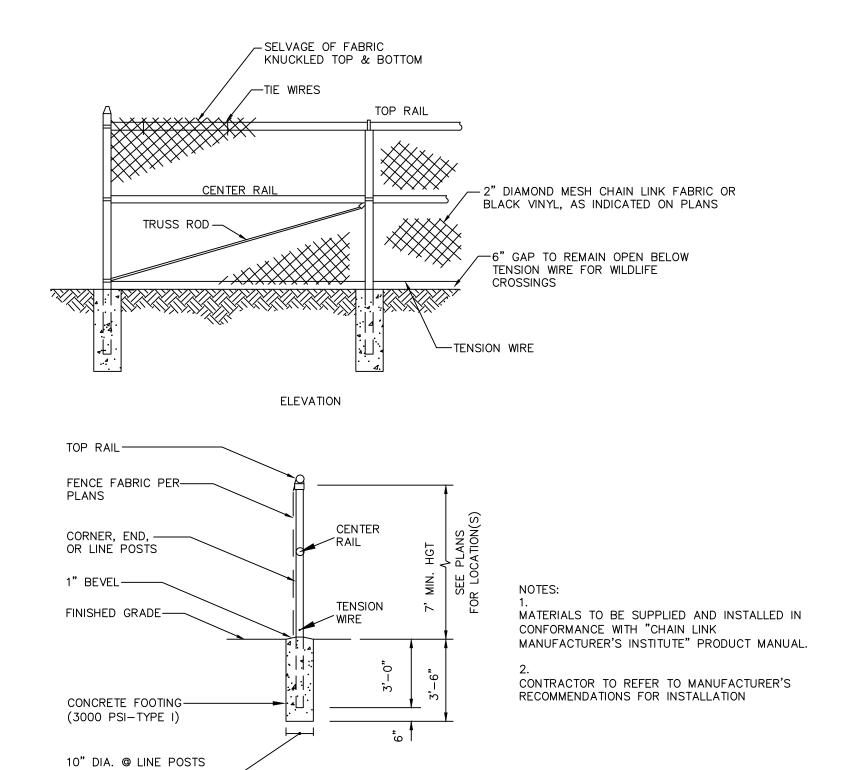
DETAILS

PARCEL A BRICK TOP **LANE & 163 NORTH** WINDHAM ROAD

WINDHAM CONNECTICU

CORNERSTONE PROFESSIONAL PARK, SUITE D-101 43 SHERMAN HILL ROAD (203) 266 - 0778 CONNECTICUT

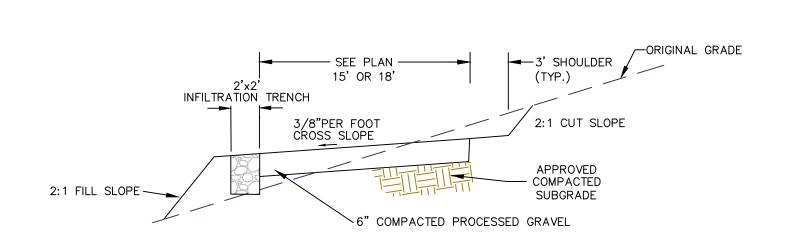
> **AS NOTED** 17 MAR 23 3983 DRAWING NO..



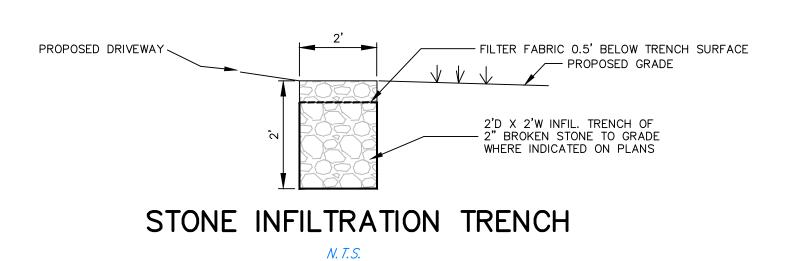
7' CHAIN LINK FENCE

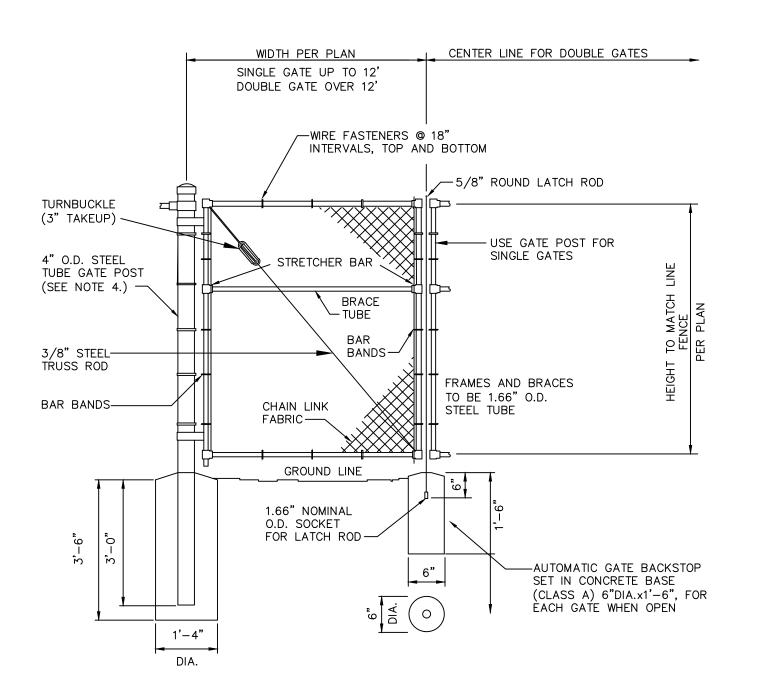
SECTION

OR 1'-4" @ CORNER,-PULL OR END POSTS



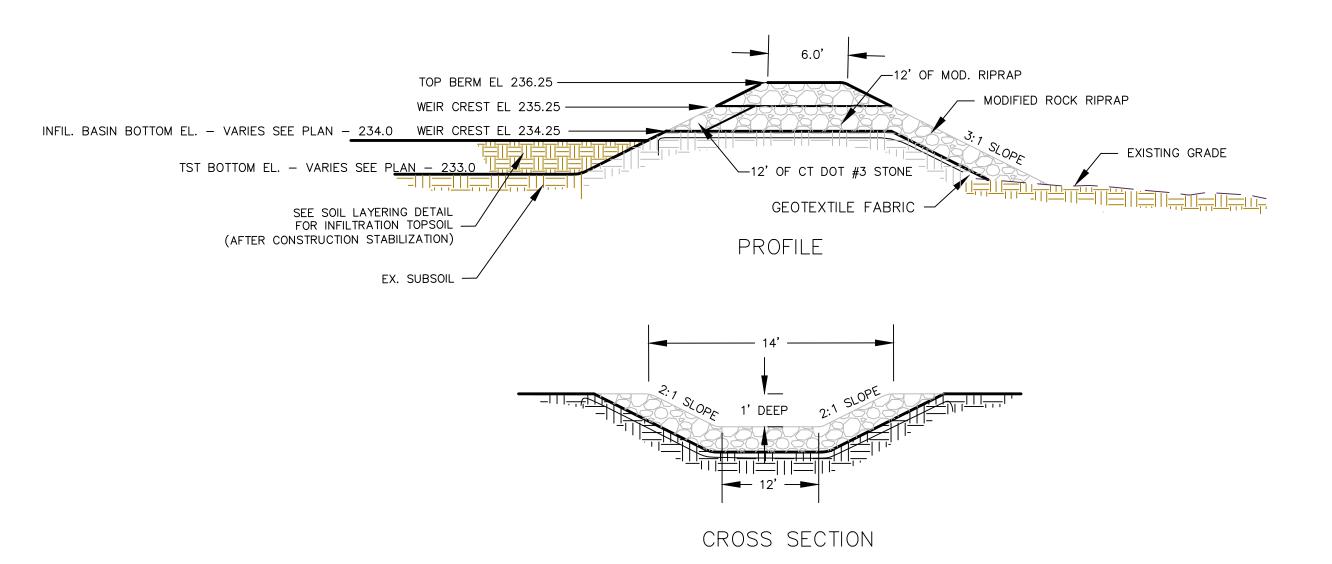
GRAVEL DRIVEWAY CROSS SECTION UNPA VED AREAS N. T.S.



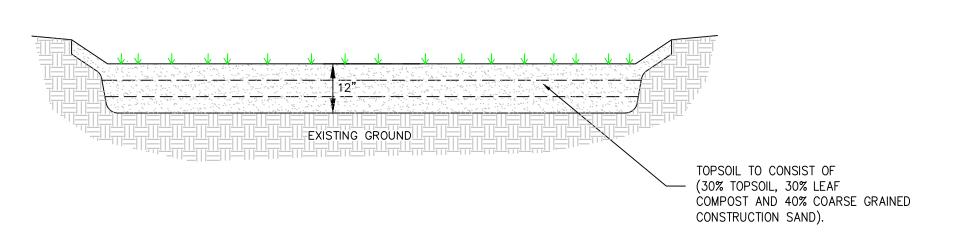


- 1. CHAIN LINK FABRIC FOR GATES TO BE THE SAME AS REQUIRED FOR FENCE.
- 2. GATE POST BASE-PORTLAND CEMENT CONCRETE (3000 PSI).
- 3. FENCE FABRIC, POSTS, FRAMEWORKS, AND HARDWARE SHALL BE GALVANIZED STEEL OR BLACK
- VINYL (AS INDICATED ON PLANS) PER SPECIFICATIONS.
- 4. GATE POSTS TO BE USED ON EACH SIDE OF SINGLE AND DOUBLE GATE OPENINGS.

CHAIN LINK FENCE GATE



TYPICAL SPILLWAY SWALE FOR INFILTRATION BASINS



INFILTRATION BASIN & RAIN GARDEN SOIL LAYERING DETAIL

NOTES:
-EXCAVATE RAIN GARDEN AREAS TO PROPOSED INVERT DEPTHS AND SCARIFY EXISTING SOIL SURFACES, TAKING CARE NOT TO COMPACT THE IN-SITU MATERIALS
-PLACE TOPSOIL IN 8"-12" LIFTS, DO NOT COMPACT
-LIFTS MAY BE LIGHTLY WATERED TO ENCOURAGE NATURAL COMPACTION
-OVERFILL OF TOPSOIL IS REQUIRED TO ACCOMMODATE NATURAL SETTLEMENT TO PROPER GRADE

LSE HOROLOGIUM LLC **40 TOWER LANE** AVON, CT

Previous Editions Obsolete

DATE

REVISION

DETAILS

PARCEL A BRICK TOP LANE & 163 NORTH WINDHAM ROAD

WINDHAM CONNECTICU CORNERSTONE PROFESSIONAL PARK, SUITE D-101 43 SHERMAN HILL ROAD (203) 266 - 0778 CONNECTICUT

17 MAR 23 3983 C - 5.2

GENERAL CONSTRUCTION NOTES

GENERAL:

1. Contractor shall notify "call before you dig" (811 or 1—800—922—4455) at least 72 hours.

2. Contractor shall be responsible for site security and job safety. construction activities shall be in accordance with OSHA standards and local requirements.

3. Work within the local rights—of—way shall conform to local municipal standards.

4. Upon award of contract, contractor shall make necessary construction notifications and apply for and obtain necessary permits, pay fees, and post bonds associated with the work indicated on the drawings, in the specifications, and in the contract documents. do not close or obstruct roadways, sidewalks, and fire hydrants, without appropriate permits.

5. Areas outside the limits of proposed work disturbed by the contractor's operations shall be restored by the contractor to their original condition at the contractor's expense.

6. In the event that suspected contaminated soil, groundwater, and other media are encountered during excavation and construction activities based on visual, olfactory, or other evidence, the contractor shall stop work in the vicinity of the suspect material to avoid further spreading of the material, and shall notify the owner immediately so that the appropriate testing and subsequent action can be taken.

7. Contractor shall prevent sediment and debris from existing the site and shall be responsible for cleanup, repairs and corrective action if such occurs.

8. Damage resulting from construction loads shall be repaired by the contractor at no additional cost

9. The project disturbs more than five acres of land and will require adherence to and registration for the Connecticut Department of Energy & Environmental Protection General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities, effective December

10. Staging and stockpile areas shall not be located within any wetland and abutting resource area and shall be located within the limits of disturbance.

UTILITIES:

1. The locations, sizes and types of existing utilities are shown as an approximate representation. the owner or it's consultants have not independently verified this information as shown on the plans. the utility information shown does not guarantee the actual existence serviceability, or other data concerning the utilities, nor does it guarantee against the possibility that additional utilities may be present that are not shown on the plans. prior to ordering materials and beginning construction, the contractor shall verify and determine the exact locations, sizes, and elevations of the points of connections to existing utilities and, shall confirm that there are no interferences with existing utilities and the proposed utility routes, including routes within the public rights of way.

2. Where an existing utility is found to conflict with the proposed work. or existing conditions differ from those shown such that the work cannot be completed as intended, the location, elevation, and size of the utility shall be accurately determined without delay by the contractor, and the information furnished in writing to the owner's representative for the resolution of the conflict and contractor's failure to notify prior to performing additional work releases owner from obligations for additional payments which otherwise may be warranted to resolve the conflict.

3. The site contractor shall coordinate with the electrical contractor and shall provide excavation, installation and backfill of electrical materials such as pull boxes, conduits, duct banks ,light pole bases, and concrete pads. site contractor shall furnish concrete encasement of duct banks if required by the utility company and as indicated on the drawings.

LAYOUT AND GRADING

1. Any existing property line monumentation disturbed during the construction shall be reset by a licensed surveyor at the expense of the contractor.

2. Prior to start of construction, contractor shall verify existing pavement elevations at interface with proposed pavements, and existing ground elevations adjacent to drainage outlets to assure proper transition between existing and proposed facilities.

3. Final layout is subject to conditions encountered in the field.

DEMOLITION:

1. Contractor shall dispose of demolition debris in accordance with applicable federal, state and local regulations, ordinances and statutes.

2. The demolition and clearing limits depicted in the plans is intended to aid the contractor during the bidding and construction process and is not intended to depict each and every element of demolition. the contractor is responsible for identifying the detailed scope of demolition before submitting its bid/proposal to perform the work and shall make no claims and seek no additional compensation for changed conditions or unforeseen or latent site conditions related to any conditions discovered during execution of the work.

3. Unless otherwise specifically provided on the plans or in the specifications, the engineer has not prepared designs for and shall have no responsibility for the presence, discovery, removal, abatement or disposal of hazardous materials, toxic wastes or pollutants at the project site. the engineer shall not be responsible for any claims of loss, damage, expense, delay, injury or death arising from the presence of hazardous material and contractor shall indemnify and hold harmless the engineer from any claims made in connection therewith. moreover, the engineer shall have no administrative obligations of any type with regard to any contractor amendment involving the issues of presence, discovery, removal, abatement or disposal of asbestos or other hazardous materials.

CONSTRUCTION SEQUENCE

ALL CONSTRUCTION ACTIVITIES ARE EXPECTED TO BEGIN IN THE SPRING/SUMMER OF 2023 AND BE COMPLETED BY THE END OF 2023. THE GENERAL CONSTRUCTION NOTES ARE AS FOLLOWS:

1. The site contractor shall be fully responsible to control construction such that sedimentation shall not affect roads/highways and their drainage system, neighboring properties, wetlands and regulatory protected areas, whether such sedimentation is caused by water, wind, or direct deposit. Designated access drives must be used to the maximum extents possible. It is required that the site contractor perform a daily inspection of all erosion and sediment control measures employed at the

2. A CT DEEP—approved qualified inspector shall be assigned to be responsible for performing inspections and preparing reports in accordance with section 5(b)(4)(8) of the construction general permit. these inspections shall take place weekly, at a minimum, and shall be required within 24 hours of a rainfall event exceeding 0.5 inches. the engineer of record shall be required to review and counter—sign the prepared weekly reports. It is also anticipated that representatives from CT DEEP and/or the State Conservation District may perform periodic inspections.

3. The engineer of record will perform monthly plan implementation inspections and prepare reports of the findings. These inspections shall last a minimum of three months or until the completion and stabilization of all erosion control measures at the site.

4. Throughout the course of the construction project, additional sediment and erosion control measures may be warranted at the discretion of the qualified inspector and/or design engineer. These improvements must be implemented in a timely fashion in accordance with the requirements of the construction general permit. Additionally, areas of proposed compacted native soil roads shall be converted to stable gravel roads if/as determined by the qualified inspector or engineer of record.

5. Prior to construction, the applicant shall provide the Town of Windham Land Use Office with the name of contact information for the developer and the site contractor. The contractor will also notify the Land Use Office 48 hours prior to the start of construction.

6. Contractor shall adhere to 2002 Connecticut Guidelines for Erosion and Sediment Control, as amended.

7. The contractor shall hold pre—construction meeting(s). Attendees shall include, but not be limited to developer, representatives of the general contractor, site contractor, CT DEEP, Town of Windham Land Use Office, engineer of record, and the gualified SWPPP inspector.

8. The contractor shall contact CALL—BEFORE—YOU—DIG (1—800—922—4455) prior to engaging in any excavation activities at the site.

9. No construction of site improvements may begin until the proper erosion control measures serving the area to be disturbed are in place.

10. Anticipated work hours will be between 7:00 AM and 5:00 PM.

11. Any dewatering by pump shall include an intake and/or discharge filtration system (i.e. dirtbag system) and be pumped to stable ground. contractor to ensure discharged water is running clean or alternate methods must be employed.

EROSION CONTROL CONSTRUCTION SEQUENCE:

1. Access roads shall be designated as early as feasible and used primarily for construction traffic. Clear areas of trees and vegtation where designated on the plans but do not grub (remove stumps) until all perimeter erosion control measures are in place.

2. Install erosion and sediment controls following the CT Guidelines, manufacturer's directions and the design plans. During construction, the contractor shall install measures as required by the engineer of record or qualified inspector, to prevent sediment—laden runoff from reaching wetlands or discharging offsite.

3. Remove stumps from clearing areas after erosion control measures have been installed.

4. Install access drives to array areas, this includes the two wetlands crossings for array areas A and B. Provide dewatering by using sand bags to block flow upgradient of the proposed crossings and pump through dirtbags to dishcarge below the area of construction.

5. Install the proposed 36" RCPs at the crossing locations and embed the pipes 1' below the watercourse channel to allow for watercourse bed re—establishment within the pipes. Backfill pipes place topsoil and seed/mulch slopes immediately.

6. Complete access drives into the sites.

7. Install temporary sediment traps and conveyance swales in accordance with the approved site—specific SWPCP and CT Guidelines. The engineer of record shall inspect features to confirm required storage capacities are provided and that outlets and/or spillways are constructed correctly. Discharge areas below outfalls must be inspected to confirm flow will be over stable ground and sheet flow is encouraged. If disturbed soils are present, the engineer of record to provide correct measures to address condition.

8. Seed and protect disturbed soils around sediment traps within 14 days of completion. Secure seed with mulch or biodegradable erosion control matting.

CONSTRUCTION SEQUENCE:

1. Perform earthwork on the site. this shall only include minimal shaping within the array areas for storm water measures including temporary diversion ditches and berms as indicated on the plans.

2. Topsoil shall be replaced over regraded areas upon completion of mass earthwork activities and areas which were disturbed by mass earthwork operations shall be re—seeded within 14 days of completion.

3. Throughout construction, the contractor shall address ongoing erosion problems using temporary diversions and filling and grading gullies. A stapled biodegradable erosion control blanket without monofilament mesh is an acceptable alternative for hydroseeding.

4. Install piles and/or ground screws for solar panel racking. Install infiltration trenches and level spreaders at panel drip edge locations as indicated on plans prior to panel installation

5. Upon completion of any grading, all disturbed areas shall be seeded and stabilized. Areas with slopes in excess of 8% grade shall be stablized with biodegradable erosion control matting or hydroseeding with a tackifier.

6. Install electrical conduit, poles and overhead wires as required by the electrical design plans.

7. The installation of racking shall follow the pile/ground screw installation by roughly one week starting from the same point

8. Install solar panel modules in the racking. much of this work is anticipated to be performed by hand and light construction equipment which will cause minimal disturbance compared to the use of heavy equipment.

9. Upon completion of construction, re—seed all disturbed areas within 14 days and prevent vehicular trafficking over these areas. install final landscaping.

10. Clean any silt from the temporary sediment traps to prepare them for converstion into the post construction infiltration basins. Loosen existing subsoil in the basins and install the final topsoil/sand mix in the basins and install final seed mix in accordance with the design plans.

11. After site is stabilized, and after inspection by design engineer and/or CT DEEP representative, remove temporary erosion and sediment controls including silt fence and any temporary diversion swales. entire site shall be checked for and cleaned of sediment as needed.

GENERAL EROSION CONTROL PRINCIPLES

The following general principles shall be maintained as effective means of minimizing erosion and sedimentation during the development process.

Stripping away of vegetation, regrading or other development shall be done in such a way as to minimize erosion.

Grading and development plans shall preserve important natural features, keep cut and fill operations to a minimum, and insure conformity with topography so as to create the least erosion potential and adequately handle the volume and velocity of surface water runoff.

Whenever feasible, natural vegetation shall be retained, protected and supplemented wherever indicated on the site development plan.

The undisturbed area and the duration of exposure shall be kept to a practical minimum.

Disturbed soils shall be stabilized as quickly as possible.

Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development when expected to be exposed in excess of 7 days.

The permanent (final) vegetation and mechanical erosion control measures shall be installed as soon as practical during construction.

Sediment in the runoff water shall be trapped until the disturbed areas are stabilized by the use of debris basins, sediment basins, silt traps or similar measures.

All lots, tracts or developments shall be final graded to provide proper drainage away from buildings

and dispose of it without ponding, and all land within a development shall be graded to drain and dispose of surface water without ponding.

Land disturbance will be kept to a minimum. Restabilization will be scheduled as soon as practical.

Catch basins will be protected with haybale and/or silt sack filters throughout the construction period and until all disturbed areas are thoroughly stabilized.

Haybale filters will be installed at the toe of slope of all critical cut and fill slopes.

the plan and for notifying the planning administration of any transfer of responsibility.

All control measures will be maintained in effective condition throughout the construction period.

The responsibility for implementing the erosion and sediment control plan will rest with the owner of record. He acknowledges that he is responsible for informing all concerned of the requirements of

Additional control measures will be installed during construction if necessary or required.

Concentration of surface runoff shall be only permitted by piping and/or through drainage swales or natural watercourses.

Slopes created by cuts or fills shall not be steeper than 2:1 unless noted specifically on the plans and shall be restabilized by temporary or permanent measures, as required during the development

Adequate provisions shall be made to prevent surface water from damaging the cut face of

Cuts and fills shall not endanger adjoining property.

excavations or the sloping surfaces of fills.

Excavation and Fills ——

All fills shall be compacted to provide stability of material and to prevent undesirable settlement. The fill shall be spread in a series of layers each not exceeding twelve (12) inches in thickness and

Fills shall not encroach on natural watercourses, constructed channels or regulated flood plain areas, unless permitted by license or permit from authority having jurisdiction.

Fills placed adjacent to natural watercourses, constructed channels or flood plains shall have suitable

shall be compacted by a mechanical roller or other approved method after each layer is spread.

protection against erosion during periods of flooding.

During grading operations, necessary planning and measures for dust control shall be exercised in accordance section 5-2-12 of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and other best management practices including limiting exposed soils to the greatest extent feasible,

All erosion and sediment control measures will be constructed in accordance with the standards and specifications of the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (2002) — State of Connecticut DEP Bulletin 34.

mechanical sweeping, watering, soil tackifer and construction of wind breaks with tarps/brush piles.

FILL MATERIAL & COMPACTION REQUIREMENTS

1. Fill material shall be free of brush, rubbish, large rocks, logs, stumps, building debris and other objectionable material that would interfere with, or prevent construction of, satisfactory fills, where embankments are to be constructed on slopes steeper than 3:1. Deeply scarify the existing slope or cut into steps before filling is begun.

2. Place and compact all fill in layers not exceeding 1 foot in thickness. No fill should be placed on surfaces of snow, ice or frozen or unstable surfaces. If fill placement is not completed within 1 day, then install temporary erosion and sediment controls such as a temporary fill berm to redirect runoff water away from the unstable slope until fill placement resumes.

3. No frozen material be incorporated into the fill envelope. Material shall be placed in horizontal layers in 12 inch loose lifts and each layer compacted. During construction, the surface of the material shall be sloped to drain. The material shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture or gradation from the surrounding material.

4. The moisture content of the material shall be controlled to meet the necessary requirements of compaction. When necessary, moisture shall be added by the use of approved sprinkling equipment. Water shall be added uniformly and each layer shall be thoroughly disked or harrowed to provide proper mixing. Any layer found too wet for compaction shall be allowed to dry before rolling. Placing or rolling of materials will not be permitted during or immediately after rainfalls

5. The material shall be brought up uniformly and its top shall be kept graded and sloped so that a minimum of rain water will be retained thereon. Compacted material damaged by runoff shall be replaced immediately by the contractor.

which increase the moisture content beyond the limit of satisfactory compaction.

6. Material shall be compacted to 95% of the standard proctor density at or near optimum moisture content and by the compaction equipment specified herein. The compaction equipment shall traverse the entire surface of each layer of material. Approved tamping rollers shall be used for compacting. The contractor shall demonstrate the effectiveness of the roller by actual soil compaction test results of the soil with laboratory work performed by an approved soil testing laboratory. Compaction tests shall include modified proctor and nuclear density tests made at the Engineer's discretion.

RESPONSIBILITY FOR THE PLAN

The responsibility for implementing and maintaining the Erosion and Sedimentation Control Plan rests with the DEVELOPER & CONTRACTOR, where any development of the parcel gives cause to erosion and sedimentation. The DEVELOPER & CONTRACTOR shall be held responsible for informing all concerned regarding responsibility of the plan.

The responsibility of all drainage, erosion and sedimentation control measures will therefore rest with the DEVELOPER & CONTRACTOR.

Whenever sedimentation is caused by stripping vegetation and/or grading, it shall be the responsibility of the person, corporation or other entity having responsibility to remove sedimentation from all lower properties, drainage systems and watercourses and to repair any damage at their expense as quickly as possible

Maintenance of all drainage facilities and watercourses within any land development shall be the responsibility of the DEVELOPER & CONTRACTOR All control measures will be maintained in effective condition throughout the construction period. Surface inlets shall be kept open and free of sediment and debris. The system shall be checked after every major storm and sediment shall be disposed of at an approved location consistent with the plan.

It shall be the responsibility of any person, corporation or other entity engaging in any act on or near any stream, watercourse or swale or upon the flood plain or right—of—way thereof to maintain as nearly as possible in its present state that same stream, watercourse, swale, flood plain or right—of—way for the duration of the activity and to return it to its original or equal condition after such activity is completed.

No person, corporation or other entity shall block, impede the flow of, alter, construct any structure or deposit any material or thing or commit any act which affects normal or flood flow in any communal stream or watercourse without having obtained prior approval from the Town.

SEEDING AND PLANTING REQUIREMENTS

Seedbed Preparation

Fine grade and rake surface to remove stones larger than 2" in diameter. Install needed erosion control devices such as surface water diversions. Grade stabilization structures, sediment basins or drainage channels to maintain grassed areas. Apply limestone at a rate of 2 tons/Ac. or 90 lbs/1000 SF unless otherwise required according to soil test results. Apply fertilizers with 10-10-10 at a rate of 300 lbs./Ac. or 7.5 lbs/1000 SF. At least 50% of the nitrogen shall be from organic sources. Work lime and fertilizer into soil uniformity to a depth of 4" with a whisk, springtooth harrow or other suitable equipment following the contour lines.

Seed Application

Apply grass mixtures at rates specified by hand, cyclone seeder or hydroseeder. Increase seed mixture by 10% if hydroseeder is used. Lightly drag or roll the seeded surface to cover seed. Seeding for selected fine grasses should be done between April 1 and June 1 or between August 15 and October 15. If seeding cannot be done during these times, repeat mulching procedure below until seeding can take place or seed with a quick germinating seed mixture to stabilize slopes.

Mulching Immediately following seeding, mulch the seeded surface with straw, hay or wood fiber at a rate of 1.5 to 2 tons/Ac. except as otherwise specified elsewhere. Mulches should be free of weeds and coarse matter. Spread mulch by hand or mulch blower. Punch mulch into soil surface with track machine or disk harrow set straight up. Mulch material should be "tucked" approximately 2— 3" into the soil surface. Chemical mulch binders or netting, in combination with the straw, hay or wood fibers, will be used where difficult slopes do not allow harrowing by machines.

Seed Mixes:

Basin and rain garden bottoms:
• Retention Basin Wildlife Mix — ERNMX—127

This mix has a variety of species that do well in both damp and moist soils and provide pollinator friendly species, including milkweed.

All other areas should receive a blend of the following seed mixes:

Fuzz & Buzz Mix - Premium - ERNMX-147 - 40% by volume
 Ernst Solar Farm Seed Mix - ERNMX-186 - 30% by volume

Quick Erosion Control Cover Mix — ERNMX—104 — 30% by volume
By blending these seed mixes, the quick erosion control mix will establish stabilization quickly and
provide a nurse crop for the other two seed mixes while also providing for pollinator friendly
species, including milkweed.

IN CASE OF AN EMERGENCY (e.g. severe flooding, rains, or other environmental problems): THE DEVELOPER AND THE TOWN'S LAND USE OFFICE SHALL BE NOTIFIED.

LSE HOROLOGIUM LLC 40 TOWER LANE AVON, CT

REVISION

REV. SOLAR ARRAY LAYOUT

Previous Editions Obsolete

DATE

WETLAND & WETLAND BUFFER AREA ACTIVITY

ACTIVITY WITHIN 0-100 FOOT WETLAND BUFFER AREA FOR DRIVEWAYS, SOLAR PANELS, INFILTRATION BASINS, STORMWATER TREATMENT MEASURES AND ASSOCIATED GRADING: 266.880 SF = 6.13 ACRES

ACTIVITY WITHIN 0-50 FOOT WETLAND BUFFER AREA FOR DRIVEWAYS, SOLAR PANELS, INFILTRATION BASINS, STORMWATER TREATMENT MEASURES AND ASSOCIATED GRADING: 90,010 SF = 2.07 ACRES

ACTIVITY WITHIN 0-25 FOOT WETLAND BUFFER AREA FOR ACCESS DRIVEWAYS AND ASSOCIATED GRADING: 14,425 SF = 0.33 ACRES

ACTIVITY WITHIN WETLANDS AREAS = 405 SF FOR SOUTHERN WETLANDS CROSSING + 420 SF FOR NORTHERN WETLANDS CROSSING = 825 SF TOTAL = 0.019 ACRES = 0.06% OF ON-SITE WETLANDS.

TOTAL AREA OF WETLANDS ON PROPERTY = 1,417,379 SF = 32.58 ACRES

AREA OF TREE CLEARING REQUIRED FOR PROPOSED ACTIVITY WITHIN 0-100 FOOT WETLANDS BUFFER AREA = 17,940 SF = 0.41 ACRES

AREA OF CONSTRUCTION ACTIVITY

TOTAL AREA OF CONSTRUCTION FOR NORTHERN ARRAY: 206,877 SF = 4.75 ACRESTOTAL AREA OF CONSTRUCTION FOR SOUTHERN ARRAYS: 257,937 SF = 5.92 ACRES

TOTAL AREA OF CONSTRUCTION FOR ENTIRE PROJECT: 464,814 SF = 10.67 ACRES (15.8% OF THE TOTAL 67.36 ACRES OF THE PROJECT PROPERTIES)

GENERAL NOTES & EROSION
CONTROL NOTES

PARCEL A BRICK TOP LANE & 163 NORTH WINDHAM ROAD

WINDHAM CONNECTICU



CORNERSTONE PROFESSIONAL PARK, SUITE D-101
43 SHERMAN HILL ROAD
WOODBURY (203) 266 - 0778 CONNECTICUT

DRAWN: BB APPROVED: CJ
SCALE: AS NOTED

DATE: 17 MAR 23

PROJ. NO.: 3983

CADD FILE NAME: 3983

DRAWING NO.:

C - 6.1

ENVIRONMENTAL NOTES - RESOURCES PROTECTION MEASURES

As a result of the Facility's location in the vicinity of sensitive wetland and vernal pool habitat the following Protection Program shall be implemented by the Contractor to avoid unintentional impacts to these resources including proximate wetland resources or mortality to vernal pool herpetofauna (i.e., wood frog, salamanders, turtles, etc.) during construction activities. The vernal pool specific protection measures shall be implemented should construction activities occur during peak amphibian movement periods (early spring breeding [March 1st to May 15th] and late summer dispersal [July 15th to September 15th]). Protection measures associated with wetlands shall be implemented regardless of the time of year.

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

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 and will provide an education session on the project's proximity to sensitive wetlands and associated vernal pool herpetofauna prior to the start of construction activities. The Contractor shall contact Dean Gustafson, Senior Wetland Scientist at APT, at least 5 business days prior to the pre-construction meeting. Mr. Gustafson can be reached by phone at (860) 552—2033 or via email at dgustafson@allpointstech.com.

This resource protection program consists of several components including: education of all contractors and sub-contractors prior to initiation of work on the site; installation of erosion controls; petroleum materials storage and spill prevention; protective measures; rare species protection measures; herbicide, pesticide, and salt restrictions; 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 information such as, but not limited to: identification of wetland resources proximate to work areas, representative photographs of typical herpetofauna that may be encountered, typical species behavior, and proper procedures if species are encountered, and the environmentally sensitive nature of the development site.

b. The Contractor's Project Monitor will be provided with cell phone and email contacts for APT personnel. Educational poster materials will be provided by APT and displayed on the job site to maintain worker awareness as the project progresses.

c. 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.

2. Erosion and Sedimentation Controls/Isolation Barriers

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. No permanent erosion control products or reinforced silt fence will be used on the project. Temporary erosion control products that will be exposed at the ground surface and represent a potential for wildlife entanglement 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. 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.

c. Installation of erosion and sedimentation controls, required for erosion control compliance and creation of a barrier to possible migrating/dispersing herpetofauna (only applicable during the seasonal restriction period and will be installed at the discretion of the Environmental Monitor), shall be performed by the Contractor if any soil disturbance occurs or heavy machinery is anticipated. The Environmental Monitor will inspect the work zone area prior to and following erosion control barrier installation. In addition, work zones in proximity to vernal pool resources will be inspected prior to and following erosion control barrier installation to ensure the area is free of herpetofauna and the barrier is satisfactorily installed. The intent of the barrier is to segregate the majority of the work zone from migrating/dispersing herpetofauna. Oftentimes complete isolation of a work zone is not feasible due to accessibility needs and locations of staging/material storage areas, etc. In those circumstances, the barriers will be positioned at the discretion of the Environmental Monitor to deflect migrating/dispersal routes away from the work zone to minimize potential encounters with herpetofauna.

d. The Contractor shall be responsible for daily inspections of the sedimentation and erosion controls for tears or breaches 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 APT Environmental Monitor within 24 hours of any breaches of the sedimentation and erosion controls and any sediment releases beyond the perimeter controls that impact wetlands, the vernal pool, or areas within 100 feet of wetlands. The APT 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 to protect nearby wetlands. 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 regulatory agencies. If the Environmental Monitor is notified by the Contractor of a sediment release, an inspection will be scheduled specifically to investigate and evaluate possible impacts to wetland resources.

e. 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.

f. No equipment, vehicles or construction materials shall be stored within 100 feet of wetland resources.

g. All silt fencing and other erosion control devices shall be removed within 30 days of completion of work and permanent stabilization of site soils. 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 due to the project's location in proximity to wetland resources.

b. 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.

c. Servicing of machinery shall not occur within 100 feet of wetlands.

d. At a minimum, 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.
 2. 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.

Remove any sources of spark or flame.
 Contain the source of the spill.

Determine the approximate volume of the spill.
 Identify the location of natural flow paths to prevent the release of the spill to sensitive nearby wetlands and vernal pool.
 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. iv. Reporting

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

Wetland and Vernal Pool Protective Measures

a. A thorough cover search of the construction area will be performed by APT's Environmental Monitor for herpetofauna prior to and following installation of the silt fencing barrier to remove any species from the work zone prior to the initiation of construction activities. Any herpetofauna discovered would be translocated outside the work zone in the general direction the animal was oriented. Periodic inspections will be performed by APT's Environmental Monitor throughout the duration of the construction.

b. Any ruts or artificial depressions that could hold water created intentionally or unintentionally by site clearing/construction activities will be properly filled in and permanently stabilized with vegetation to avoid the creation of vernal pool "decoy pools" that could intercept amphibians moving toward the vernal pools. Stormwater management features such as level spreaders will be carefully reviewed in the field to ensure that standing water does not endure for more than a 24-hour period, where feasible at the discretion of the Environmental Monitor, to avoid creation of decoy pools and may be subject to field design changes. Any such proposed design changes will be reviewed by the design engineer to ensure stormwater management functions are maintained.

c. Erosion control measures will be removed no later than 30 days following final site stabilization so as not to impede migration of herpetofauna or other wildlife.

5. Herbicide, Pesticide, and Salt Restrictions

a. The use of herbicides and pesticides at the Facility shall be minimized. If herbicides and/or pesticides are required at the Facility, their use will be in accordance with current Integrated Pest Management ("IPM") principles with particular attention to avoid/minimize applications within 100 feet of wetland and vernal pool resources.

b. Maintenance of the facility during the winter months shall not include the application of salt or similar products for melting snow or ice.

6. Reporting

a. Compliance Monitoring Reports (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 (e.g., DEEP Stormwater Permit monitoring). 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 along with any observations of vernal pool herpetofauna.

b. Following completion of the construction project, APT will provide a final Compliance Monitoring Report to the Permittee documenting implementation of the resource protection program and monitoring observations. The Permittee is responsible for providing a copy of the final Compliance Monitoring Report to the Connecticut Siting Council for compliance verification.

NO.	REVISION	DATE
1	REV. SOLAR ARRAY LAYOUT	5/11/2
2	ADDED ENVIRONMENTAL NOTES	5/31/2
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LSE HOROLOGIUM LLC 40 TOWER LANE AVON, CT

ENVIRONMENTAL PROTECTION NOTES

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