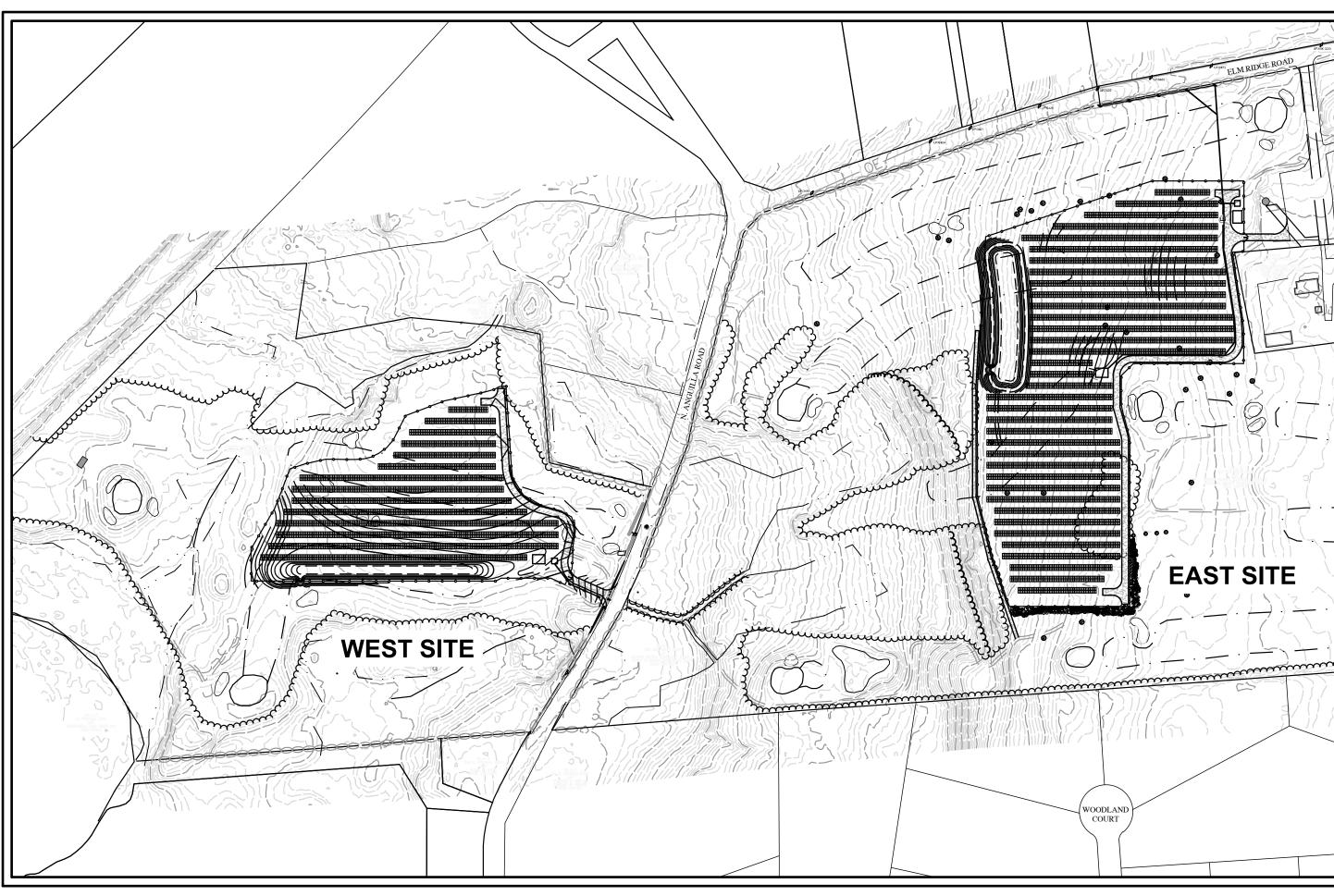
# ELMRIDGE GOLF COURSE PV SOLAR FACILITY GREENSKIES CLEAN ENERGY LLC





# 229 ELMRIDGE ROAD STONINGTON, CONNECTICUT PERMIT DRAWINGS

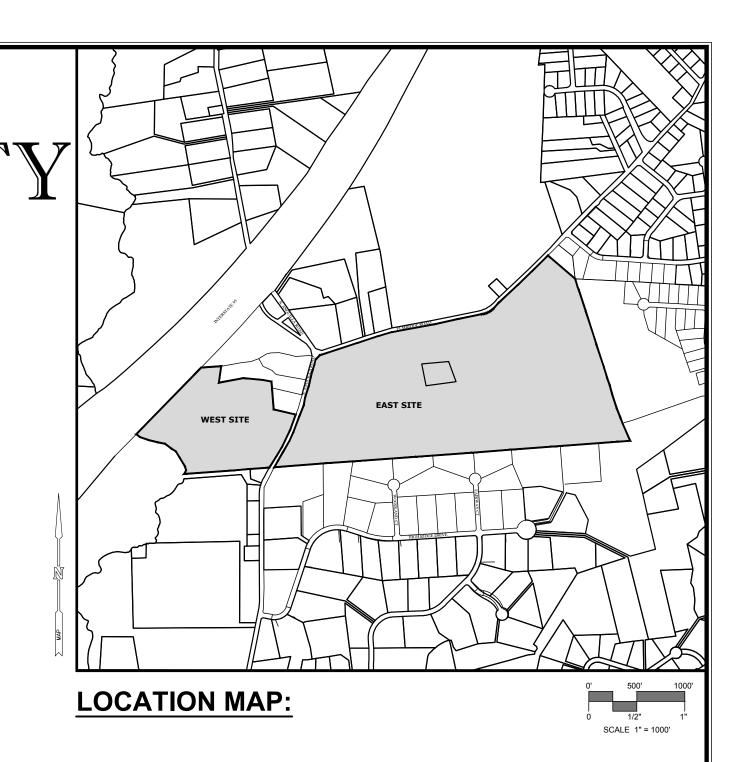
MMI PROJECT No. 6763-10 MAY 19, 2020

# PROJECT SITE VICINITY MAP:

0' 100' 200' 0 1/2" 1" SCALE 1" = 200'

PREPARED BY:





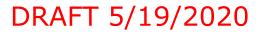
# PREPARED FOR:



127 WASHINGTON AVENUE WEST BUILDING, GARDEN LEVEL NORTH HAVEN, CT 06473

# LIST OF DRAWINGS

NO.	NAME	TITLE
01		TITLE SHEET
02	LD	LEGEND & NOTES
03	IN	INDEX PLAN
04 - 06	EX-1 - EX-3	EXISTING CONDITIONS PLANS
07 - 09	LA-1 - LA-3	SITE LAYOUT & GRADING PLANS
10 - 12	SE-1 - SE-3	SEDIMENT & EROSION CONTROL PLANS
13 - 15	SD-1 - SD-3	MISCELLANEOUS SITE DETAILS



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# SURVEY NOTES

- 1. THIS PLAN IS BASED ON THE PLAN AND SURVEY PROVIDED BY NORTHEAST SURVEY CONSULTANTS DATED DECEMBER 16, 2019. SUPPLEMENTAL INFORMATION WAS PROVIDED ON JANUARY 23, 2020.
- 2. HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD88.
- 3. BOUNDARY LINES SHOWN HEREIN WERE TAKEN FROM PLANS & DEEDS OF RECORD AND MONUMENTS FOUND.
- 4. ALL CONTOURS SHOWN HEREIN WERE GENERATED IN ARCMAP FROM DIGITAL ELEVATION MODELS OF THE 2016 CRCOG LIDAR DATA (10' GRID SIZE/TIN GRID METHOD) AS DISTRIBUTED BY NOAA.
- 5. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, THE LOCUS PARCELS ARE LOCATED IN AREAS DESIGNATED AS ZONE X (UNSHADED), ZONE X (SHADED) AND ZONE AE. COMMUNITY PANEL NO. 09011C 0413 G, EFFECTIVE DATE: 07/18/2011. FLOOD ZONE LINES SHOWN HEREON ARE TAKEN FROM THE NATIONAL FLOOD HAZARD GIS LAYER PROVIDED BY FEMA.
- 6. THE FOLLOWING FEATURES WERE TRACED FROM AERIAL PHOTOGRAPHY AND ARE APPROXIMATE ONLY: CART PATHS, FAIRWAYS, GREENS, SAND TRAPS, PARKING AREAS, DRIVES, TREELINES AND WATER FEATURES.
- 7. LOCATIONS OF UTILITIES SHOWN HEREIN ARE THE RESULT OF SURFACE EVIDENCE AS LOCATED BY FIELD SURVEY AND ANECDOTAL KNOWLEDGE OF THE SITE. THIS PLAN DOES NOT DEPICT THE EXACT LOCATIONS OF ALL UTILITIES WHICH MAY EXIST AT THIS TIME WITHIN THE PREMISES SURVEYED.
- 8. THE PROJECT PROPERTY IS LOCATED WITHIN THE LI-130 AND GBR-130 ZONING DISTRICTS. A MAJORITY OF THE PROJECT, INCLUDING THE ENTIRE PV ARRAY FIELD, STORMWATER MANAGEMENT BASINS, AND GRADING, ARE LOCATED WITHIN THE GBR-130 ZONING DISTRICT. WORK IN THE LI-130 ZONING DISTRICT CONSISTS OF WORK ASSOCIATED WITH THE NORTHERLY INTERCONNECTION TO TAUGWONK ROAD AND MAINTENANCE OF THE EXISTING GRAVEL ACCESS ROAD.
- 9. WETLAND DELINEATION PERFORMED BY MILONE & MACBROOM, INC. ON NOVEMBER 26, 2019 AND JANUARY 13, 2020.

# **EXISTING CONDITIONS LEGEND**

BUILDING / STRUCTURE MAJOR CONTOUR MINOR CONTOUR TREELINE EDGE OF PAVEMENT PROPERTY LINE FLAGGED WETLAND LIMIT WETLAND FLAG WETLAND BUFFER FEMA ZONE AE FEMA ZONE X ABUTTERS LINE EASEMENT LINE OVERHEAD WIRES STONE WALL CHAIN LINK FENCE ASSESSOR'S ID NOW OR FORMERLY IRON PIPE FOUND BOUND FOUND CALCULATED POINT UTILITY POLE GUY WIRE ANCHOR

370
369
63A - · · · · · · · · · · · ·
100' WETLAND BUFFER
100-YR
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# **GENERAL NOTES**

- 1. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD (V.I.F.) PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE.
- 2. THE CONTRACTOR SHALL PERFORM NECESSARY CONSTRUCTION NOTIFICATIONS, APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK AS REQUIRED BY THE CONTRACT DOCUMENTS.
- 3. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND SAFETY OF TRAFFIC ON THE PUBLIC AND PRIVATE WAYS AFFECTED BY THE CONSTRUCTION OF THE PROJECT.
- 4. ALL SLOPES, VEGETATION, PAVING, WALKS, AND IMPROVEMENTS OUTSIDE THE AREAS TO BE AFFECTED BY THE CONSTRUCTION OF THE PROJECT SHALL BE PROTECTED. DAMAGES RESULTING FROM CONSTRUCTION ACTIVITIES OUTSIDE THE PROJECT LIMITS SHALL BE REPAIRED AT NO ADDITIONAL COST TO THE OWNER.
- 5. THE CONTRACTOR IS RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. PERFORM CONSTRUCTION ACTIVITIES IN ACCORDANCE WITH O.S.H.A. STANDARDS AND LOCAL REQUIREMENTS.
- 6. ALL STUMPS SHALL BE DISPOSED OF AT AN APPROVED OFFSITE LOCATION. THE BURYING OF STUMPS ON SITE SHALL NOT BE PERMITTED.

# **GRADING NOTES**

THE RESHAPING OF THE GROUND SURFACE WITH EXCAVATION AND FILLING OR A COMBINATION OF, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE SEDIMENT AND EROSION MEASURES IN ADDITION THE FOLLOWING CRITERIA:

- 1. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
- 2. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
- 3. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO TWO VERTICAL (1:2).
- 4. PROVISIONS SHOULD BE INCLUDED TO CONVEY SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
- 5. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH INTO ADJACENT WETLANDS, WATERCOURSES, OR WATER BODIES.
- 6. PRIOR TO ANY RE-GRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.
- 7. GRADING SHALL BE COMPLETED TO 95% COMPACTION PER THE SPECIFICATIONS.

# SITE LAYOUT LEGEND

PROPOSED MAJOR CONTOUR	250
PROPOSED MINOR CONTOUR	248)
SPOT ELEVATION	+260.20
GRAVEL SURFACE	
PROPOSED ELECTRICAL SERVICE (UNDERGROUND)	E
PROPOSED ELECTRICAL SERVICE (OVERHEAD)	OHE
PROPOSED CHANLINK FENCE / GATE	-0000
PHOTOVOLTAIC ARRAY	
PROPOSED LIMIT OF WORK	
PROPOSED INVERTER PAD	
PROPOSED UTILITY POLE	್ಂ

**SEDIMENT & EROSION CONTROL NOTES** 

- 1. CONTRACTOR TO STAKE OUT LIMIT OF DISTURBANCE. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
- 2. CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS ALONG THE PERIMETER, AS SHOWN ON THE SEDIMENT CONTROL PLAN AND STABILIZED CONSTRUCTION ENTRANCES.
- 3. CLEAR AND GRUB SITE AND STOCKPILE TOPSOIL AS NECESSARY. PLACE COMPOST FILTER TUBES AROUND STOCKPILES.
- 4. CONSTRUCT STORMWATER MANAGEMENT BASINS AFTER THE SITE IS CLEARED AND GRUBBED.
- 5. SLOPES ARE TO BE ESTABLISHED AS SOON AS PRACTICAL BEFORE PV ARRAY INSTALLATION. STABILIZE ALL SLOPES IMMEDIATELY AFTER THEIR ESTABLISHMENT.
- 6. THE SEDIMENT CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE AND THE MUNICIPALITY DESIGNATED REPRESENTATIVE AS NECESSITATED BY CHANGING SITE CONDITIONS.
- 7. ROUTINE SEDIMENT AND EROSION CONTROL INSPECTIONS SHALL CONTINUE UNTIL ALL DISTURBED AREAS HAVE STABILIZED PURSUANT TO THE CONNECTICUT STORMWATER GENERAL PERMIT.
- 8. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
- 9. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER, AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
- 10. A COPY OF ALL PLANS AND REVISIONS, AND THE SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION.

# **SEDIMENT & EROSION LEGEND**

SILT FENCE

SILT FENCE & STAKED STRAW BALES

COMPOST FILTER TUBE

LIMIT OF CLEARING

CONSTRUCTION ENTRANCE PAD

\_\_\_\_\_ CFT \_\_\_\_\_ 

50)------60.20

ZON \_\_\_\_\_ DIME

\_\_\_\_\_ MIN. YAR

MAX

# **ZONING DATA (WEST SITE)**

ZONING DISTRICT	GBR-130 (GREENBELT RESIDENTIAL)
DIMENSIONAL / DENSITY CRITERIA	REGULATION
MIN. LOT AREA	130,000 SF
YARD SETBACKS	
FRONT	75 FT
SIDE <sup>1,2</sup>	30/100 FT
REAR	100 FT
MAX HEIGHT	30 FT

## ZONING DATA (EAST SITE)

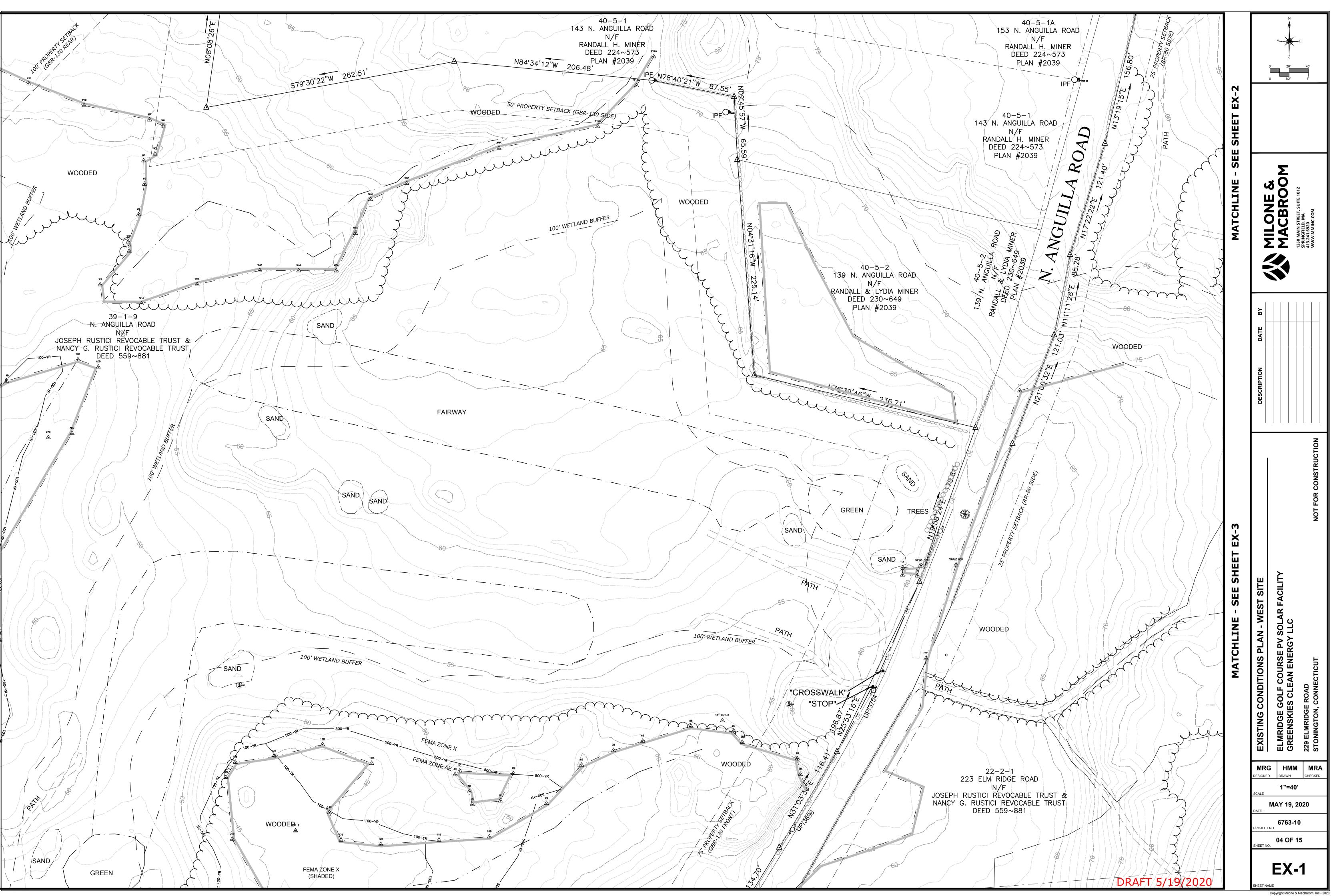
NING DISTRICT	RR-80 (RURAL RESIDENTIAL)
IENSIONAL / DENSITY CRITERIA	REGULATION
I. LOT AREA	80,000 SF
RD SETBACKS	
FRONT <sup>1, 2</sup>	50 FT
SIDE 1, 2	25 FT
REAR <sup>1,2</sup>	50 FT
X HEIGHT	30 FT

PV SOLAR SYSTEM SPEC	IFICATIONS
WEST SITE	
Module output (Watts):	395
System DC/AC Ratio:	1.265
Module tilt angle:	25°
Azimuth:	180
Min Row Spacing (ft):	13
Racking:	2x5 portrait
No. Modules:	3,200
Array Output (KW-DC):	1,264
Array Output (KW-AC):	1,000
EAST SITE	
Module output (Watts):	395
System DC/AC Ratio:	1.265
Module tilt angle:	25°
Azimuth:	180
Min Row Spacing (ft):	13
Racking:	2x5 portrait
No. Modules:	6,400
Array Output (KW-DC):	2,528
Array Output (KW-AC):	2,000

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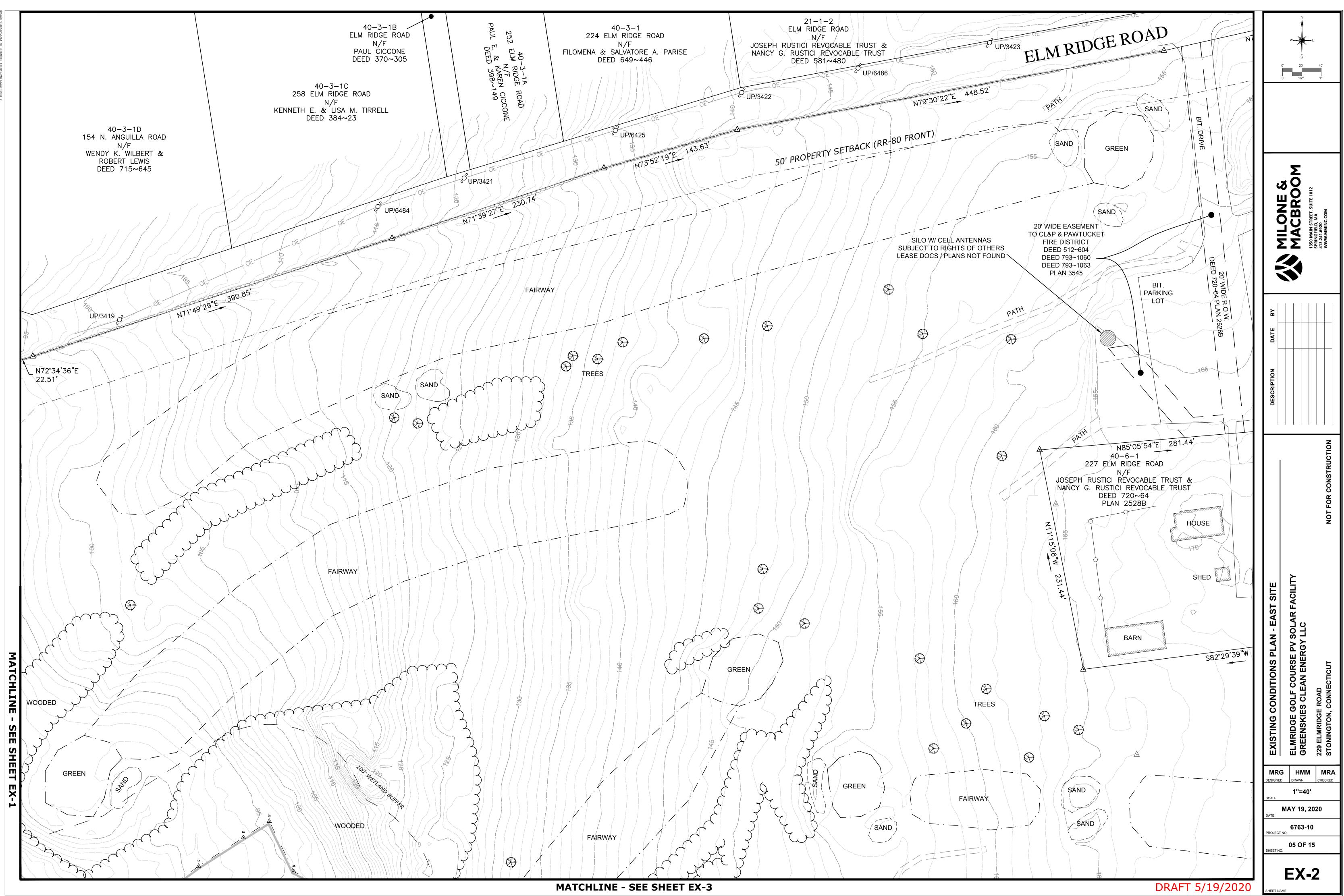
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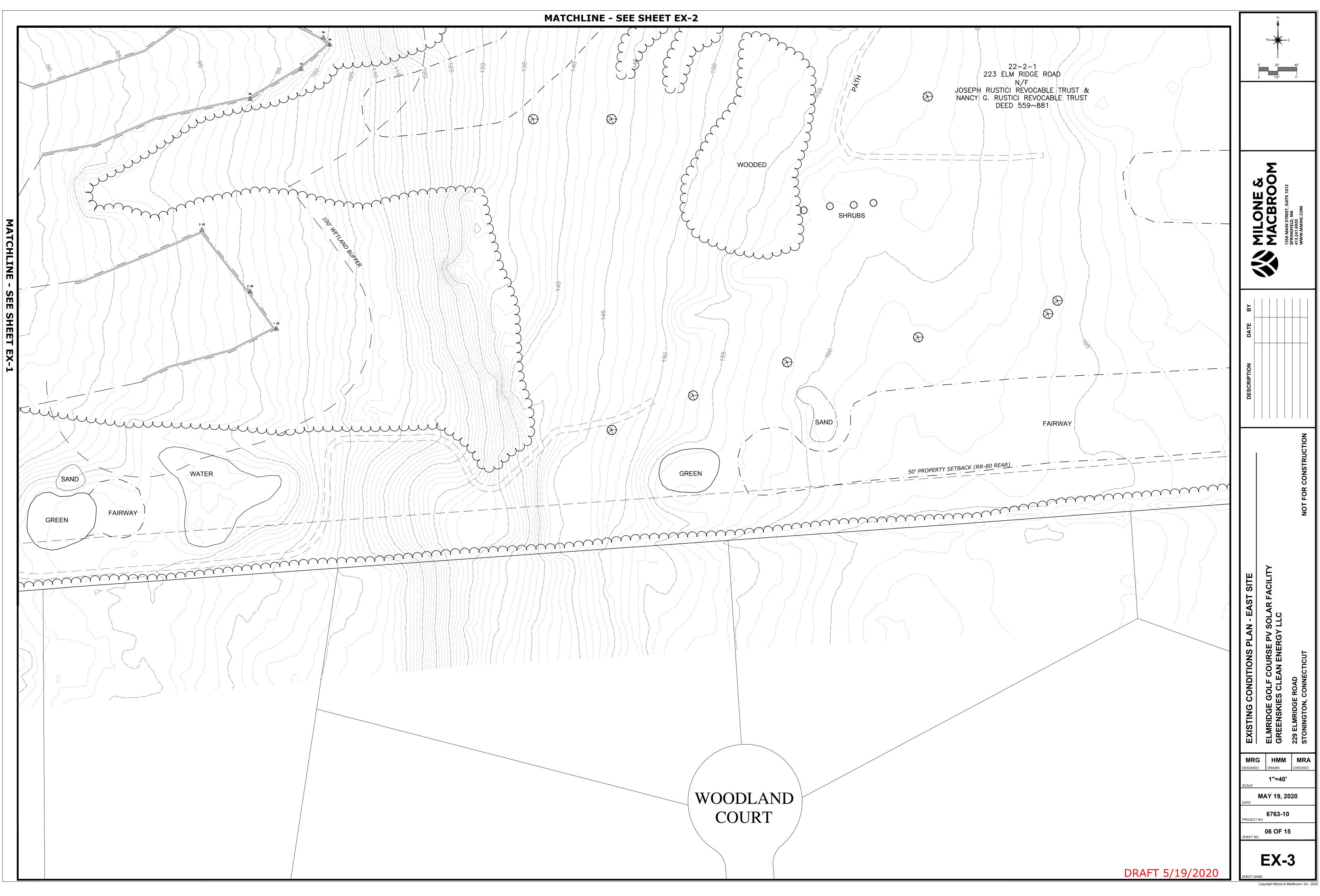
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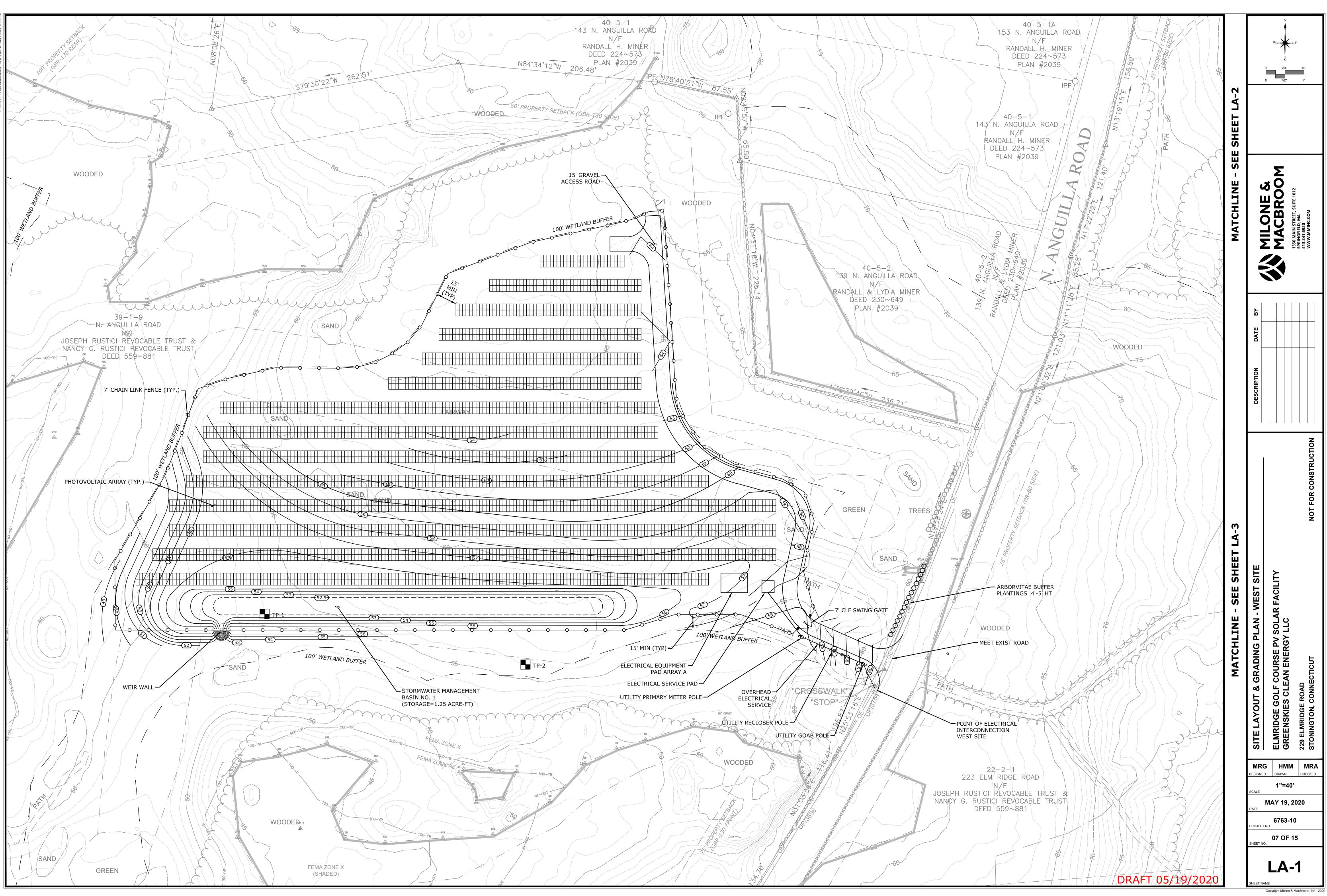


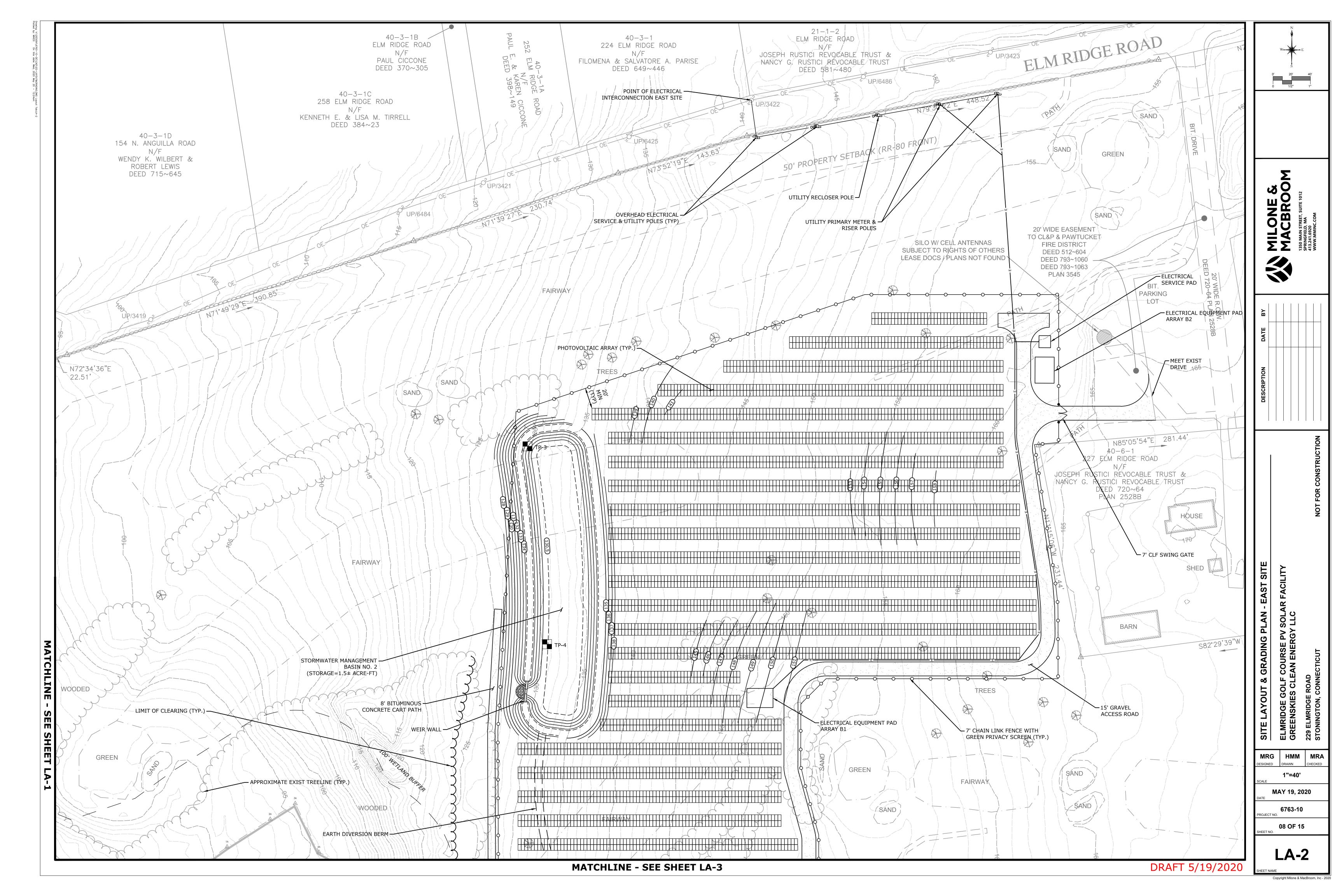
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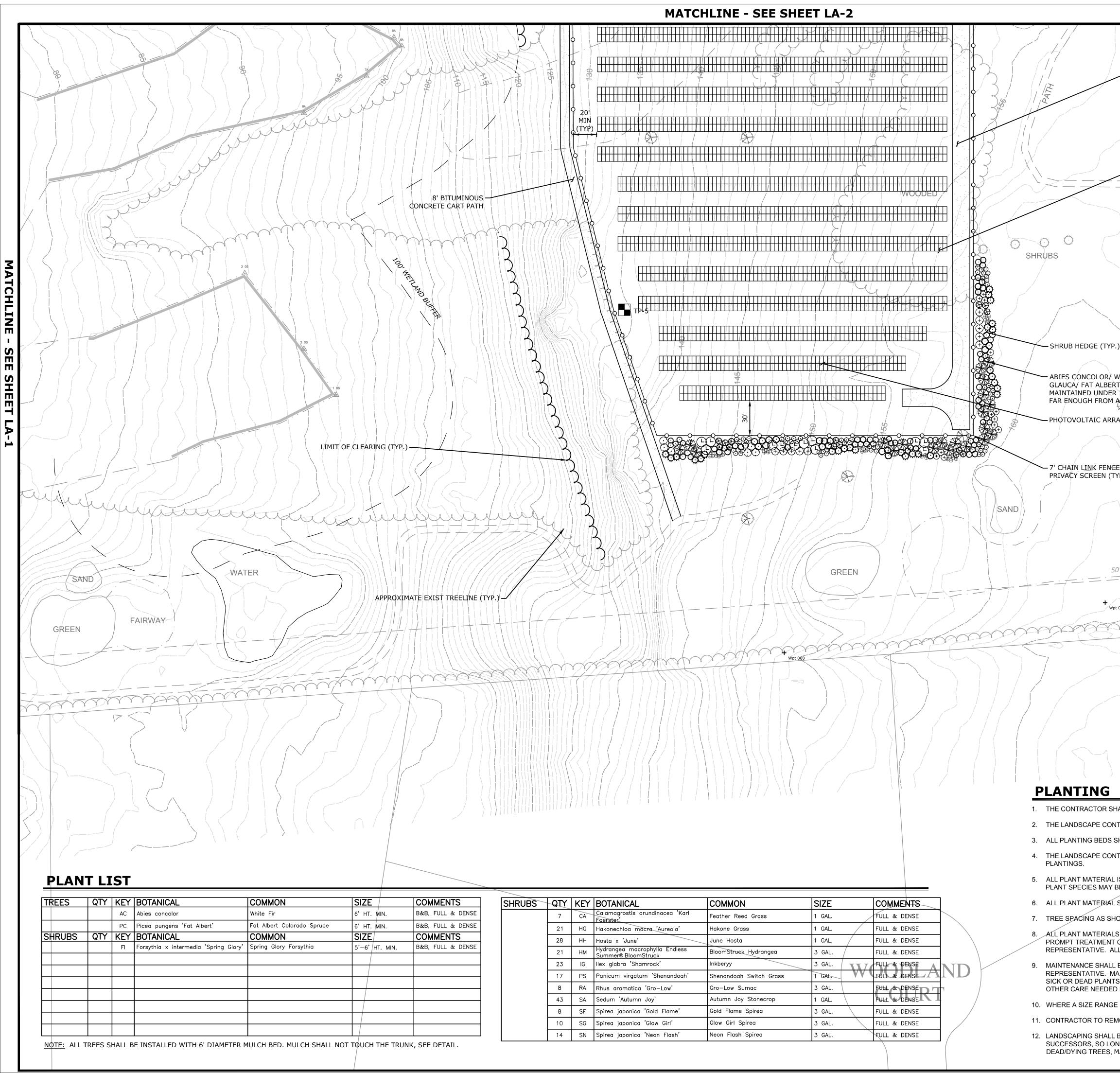








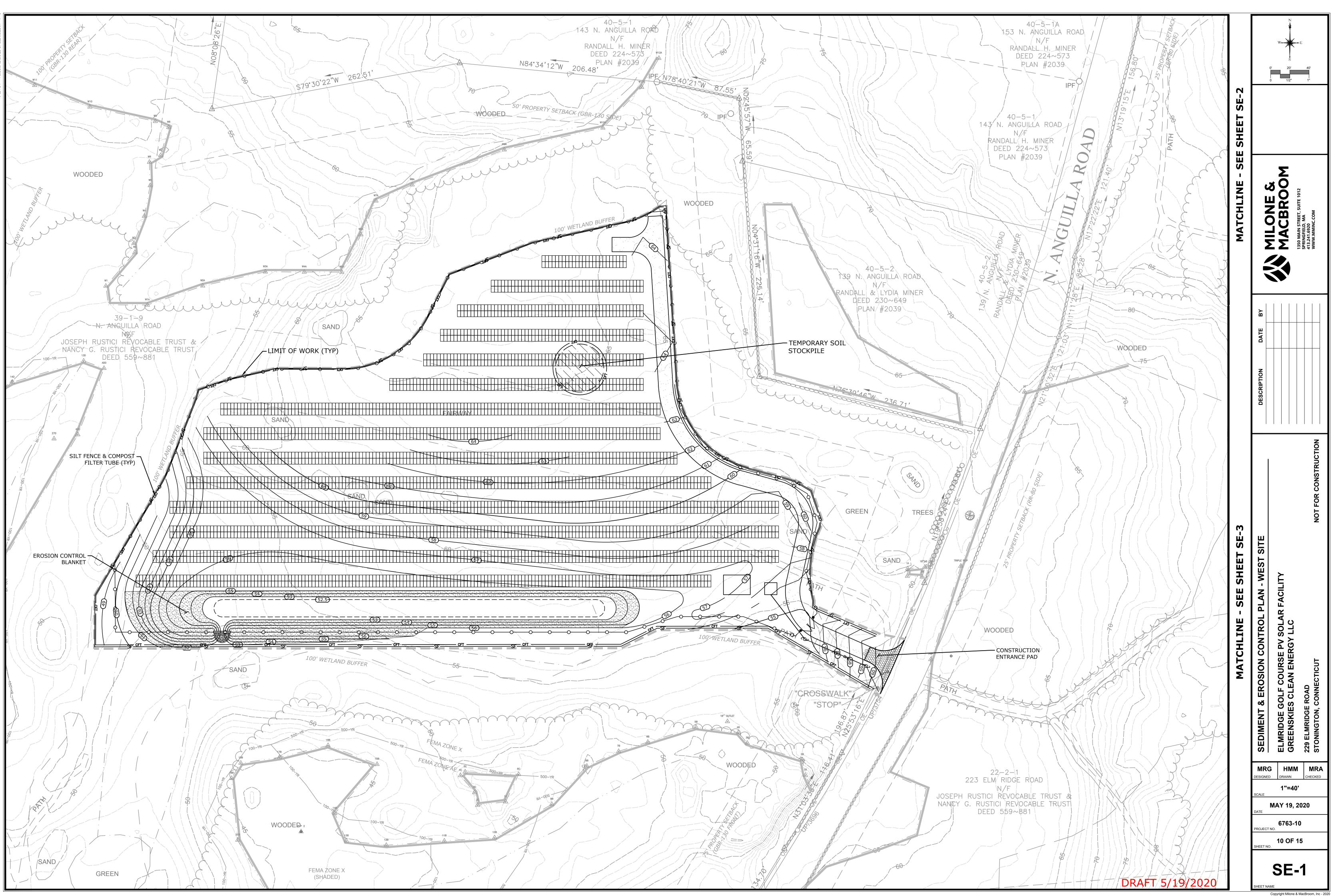


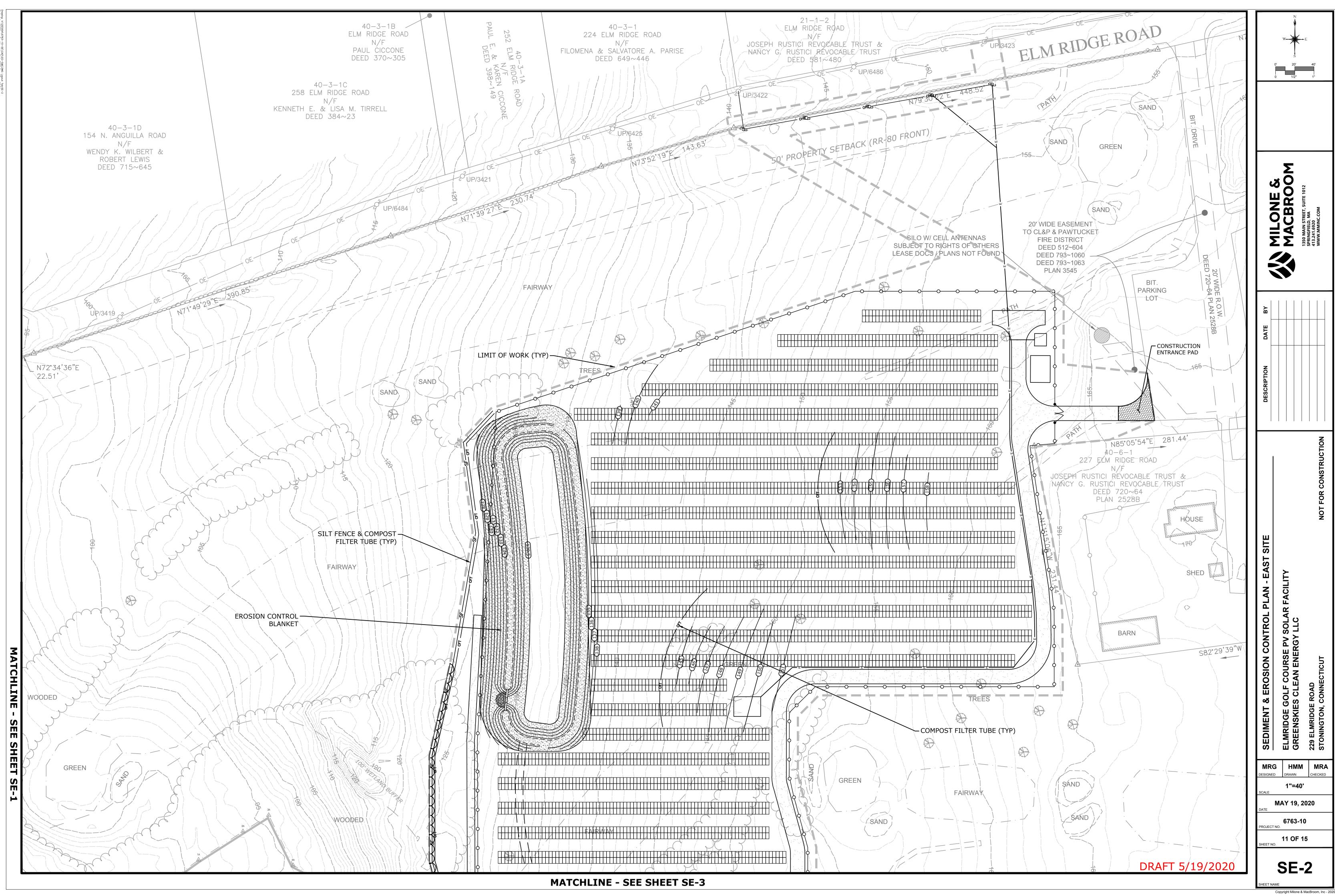


3S	QTY	KEY	BOTANICAL	COMMON	SIZE	COMMENTS	
	7	CA	Calamagrostis arundinacea 'Karl Foerster'	Feather Reed Grass	1 GAL.	FULL & DENSE	
	21	HG	Hakonechloa macra 'Aureola'	Hakone Grass	1 GAL.	FULL & DENSE	
	28	нн	Hosta x 'June'	June Hosta	1 GAL.	FULL & DENSE	
	21	НМ	Hydrangea macrophylla Endless Summer® BloomStruck	BloomStruck Hydrangea	3 GAL.	FULL & DENSE	
	23	IG	llex glabra 'Shamrock'	Inkberyy	3 GAL.	FULL & DENSE	NTT
	17	PS	Panicum virgatum 'Shenandoah'	Shenandoah Switch Grass	1 GAL.	FULL & DENSE	INI
	8	RA	Rhus aromatica 'Gro-Low'	Gro-Low Sumac	3 GAL.	FULL & DENSE	7
	43	SA	Sedum 'Autumn Joy'	Autumn Joy Stonecrop	1 GAL.	FULL & DENSE	
	8	SF	Spirea japonica 'Gold Flame'	Gold Flame Spirea	3 GAL.	FULL & DENSE	
	10	SG	Spirea japonica 'Glow Girl'	Glow Girl Spirea	3 GAL.	FULL & DENSE	
	14	SN	Spirea japonica 'Neon Flash'	Neon Flash Spirea	3 GAL.	FULL & DENSE	

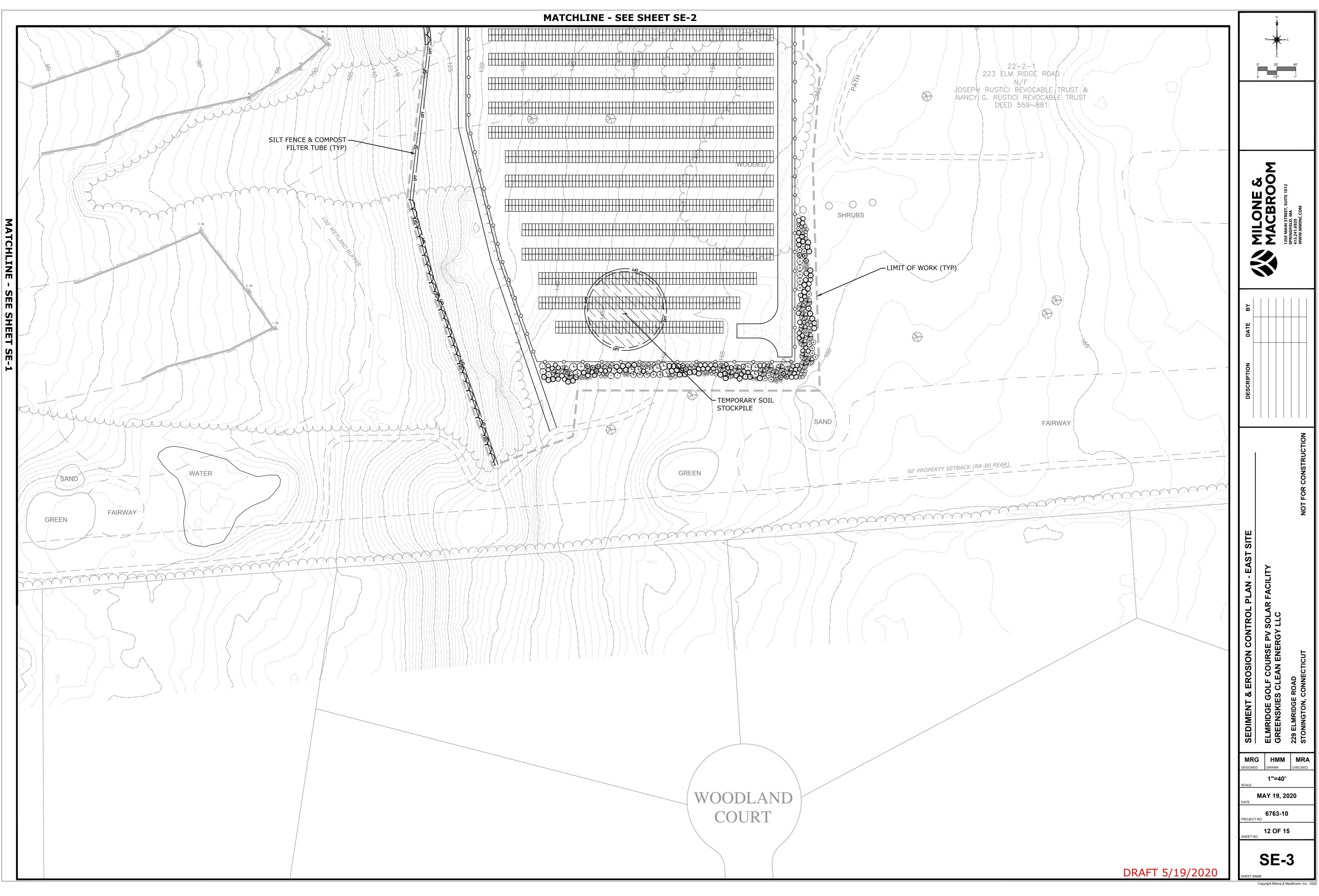
	1	
15' GRAVEL ACCESS ROAD 22-2-1 223 ELM RIDGE ROAD	0	N W S 20' 40' 1/2" 1"
JOSEPHI RUSTICI REVOCABLE/TRUST & NANCY G. RUSTICI REVOCABLE TRUST DEED 559~881		1/2 1
- CLEAR WOODED AREA		
	Σ	A B B B B B B B B B B B B B B B B B B B
VHITE FIR AND PICEA T SPRUCE NOT TO BE 10' HEIGHT, PLANTED ARRAY. AY (TYP.)	DESCRIPTION DATE BY	
E WITH GREEN (P.) FAIRWAY	DESCR	
D' PROPERTY SETBACK (RR-80 REAR)		ONSTRUCTION
		NOT FOR C
	T SITE	СІГІТҮ
	G PLAN - EAST	JRSE PV SOLAR FACILITY ENERGY LLC cut
NOTES	Ž	SE NEF
IALL VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES PRIOR TO EXCAVATING PLANT PITS.	GRADING	COURSE EAN ENEF ECTICUT
TRACTOR SHALL PROVIDE A 6" MINIMUM DEPTH OF TOPSOIL FOR ALL SEEDED AND LANDSCAPED AREAS.	S © G	DLF COI CLEAN OAD DNNECTI
SHALL HAVE 12" MINIMUM DEPTH OF TOPSOIL. TRACTOR SHALL PROVIDE A 4" MIN. DEPTH OF SHREDDED MULCH OVER ALL PLANTING BEDS AND TREE		ELMRIDGE GOLF COURS GREENSKIES CLEAN EN 229 ELMRIDGE ROAD STONINGTON, CONNECTICUT
IS SUBJECT TO INSPECTION AND APPROVAL BY THE OWNER'S REPRESENTATIVE PRIOR TO AND AFTER PLANTING.		IRID EEN: JING
BE ADJUSTED BASED ON AVAILABILITY AT TIME OF PLANTING.	SITE	ELMRII GREEN 229 ELM STONING
OWN ON PLAN. SYMBOLS SHOWN AT 50-75% MATURE WIDTH.	MRG	HMM MRA
S SHALL CARRY A FULL GUARANTEE FOR A PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE, TO INCLUDE OR REMOVAL AND REPLACEMENT OF ANY PLANTS FOUND TO BE IN AN UNHEALTHY CONDITION BY THE OWNER'S	DESIGNED	DRAWN CHECKED
L REPLACEMENTS SHALL BE OF THE SAME KIND AND SIZE OF PLANTS SPECIFIED IN THE PLANT LIST. BEGIN IMMEDIATELY AFTER PLANTING AND SHALL CONTINUE UNTIL ACCEPTANCE BY THE OWNER'S	SCALE	MAY 19, 2020
AINTENANCE SHALL INCLUDE WATERING, MULCHING, TIGHTENING & REPLACING OF TREE GUYS, REPLACEMENT OF S, RESETTING PLANTS TO PROPER GRADE OR UPRIGHT (PLUMB) POSITION, RESTORATION OF SAUCERS, AND ALL FOR PROPER GROWTH OF THE PLANTS.	DATE	6763-10
IS SPECIFIED AT LEAST 50% OF PLANTS PROVIDED SHALL BE OF THE LARGER SIZE.	PROJECT N	
IOVE TREE STAKES AFTER ONE GROWING SEASON.	SHEET NO.	
BE KEPT AND MAINTAINED FOR SCREENING PURPOSES IN PERPETUITY BY ELMRIDGE GOLF COURSE AND/OR ITS NG AS A SOLAR ARRAY IS LOCATED ON THIS SITE. MAINTENANCE WILL INCLUDE THE REPLACEMENT OF ANY MAINTAINING SHRUBS AT 10' HT, OR PLANTING OF ADDITIONAL TREES TO FILL IN SPACES. DRAFT 5/19/2020	SHEET NAM	LA-3











# SEDIMENT & EROSION CONTROL SPECIFICATIONS

#### **GENERAL:**

THESE GUIDELINES SHALL APPLY TO ALL WORK CONSISTING OF ANY AND ALL TEMPORARY AND/OR PERMANENT MEASURES TO CONTROL WATER POLLUTION AND SOIL EROSION, AS MAY BE REQUIRED, DURING THE CONSTRUCTION OF THE PROJECT.

IN GENERAL, ALL CONSTRUCTION ACTIVITIES SHALL PROCEED IN SUCH A MANNER SO AS NOT TO POLLUTE ANY WETLANDS, WATERCOURSE, WATER BODY, AND CONDUIT CARRYING WATER, ETC. THE CONTRACTOR SHALL LIMIT, INSOFAR AS POSSIBLE, THE SURFACE AREA OF EARTH MATERIALS EXPOSED BY CONSTRUCTION METHODS AND IMMEDIATELY PROVIDE PERMANENT AND TEMPORARY POLIUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATER BODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

### LAND GRADING:

TO ONE VERTICAL (2:1).

TO TWO VERTICAL (1:2).

HORIZONTAL TO ONE VERTICAL (2:1).

THE RESHAPING OF THE GROUND SURFACE BY EXCAVATION AND FILLING OR A COMBINATION OF BOTH, TO OBTAIN PLANNED GRADES, SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING CRITERIA:

- a. THE CUT FACE OF EARTH EXCAVATION SHALL NOT BE STEEPER THAN TWO HORIZONTAL
- b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO
- c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL
- d. PROVISIONS SHOULD BE INCLUDED TO CONVEY SURFACE WATER SAFELY TO STORM DRAINS TO PREVENT SURFACE RUNOFF FROM DAMAGING CUT FACES AND FILL SLOPES.
- e. NO FILL SHOULD BE PLACED WHERE IT WILL SLIDE OR WASH UPON THE INTO ADJACENT WETLANDS, WATERCOURSES, OR WATER BODIES.
- PRIOR TO ANY RE-GRADING, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT THE ENTRANCE TO THE WORK AREA IN ORDER TO REDUCE MUD AND OTHER SEDIMENTS FROM LEAVING THE SITE.

#### **TOPSOILING:**

TOPSOIL SHALL BE SPREAD OVER ALL EXPOSED AREAS IN ORDER TO PROVIDE A SOIL MEDIUM HAVING FAVORABLE CHARACTERISTICS FOR THE ESTABLISHMENT, GROWTH, AND MAINTENANCE OF VEGETATION.

UPON ATTAINING FINAL SUBGRADES, SCARIFY SURFACE TO PROVIDE A GOOD BOND WITH TOPSOIL

REMOVE ALL LARGE STONES, TREE LIMBS, ROOTS AND CONSTRUCTION DEBRIS. APPLY LIME ACCORDING TO SOIL TEST OR AT THE RATE OF TWO (2) TONS PER ACRE.

#### MATERIAL

- .. TOPSOIL SHOULD HAVE PHYSICAL, CHEMICAL, AND BIOLOGICAL CHARACTERISTICS FAVORABLE TO THE GROWTH OF PLANTS.
- 2. TOPSOIL SHOULD HAVE A SANDY OR LOAMY TEXTURE.
- 3. TOPSOIL SHOULD BE RELATIVELY FREE OF SUBSOIL MATERIAL AND MUST BE FREE OF STONES (OVER 1" IN DIAMETER), LUMPS OF SOIL, ROOTS, TREE LIMBS, TRASH, OR CONSTRUCTION DEBRIS. IT SHOULD BE FREE OF ROOTS OR RHIZOMES SUCH AS THISTLE, NUTGRASS, AND QUACKGRASS.
- 4. AN ORGANIC MATTER CONTENT OF SIX PERCENT (6%) IS REQUIRED. AVOID LIGHT COLORED SUBSOIL MATERIAL
- 5. SOLUBLE SALT CONTENT OF OVER 500 PARTS PER MILLION (PPM) IS LESS SUITABLE. AVOID TIDAL MARSH SOILS BECAUSE OF HIGH SALT CONTENT AND SULFUR ACIDITY.
- 6. THE pH SHOULD BE MORE THAN 6.0. IF LESS, ADD LIME TO INCREASE pH TO AN ACCEPTABLE LEVEL

#### APPLICATION:

- 1. AVOID SPREADING WHEN TOPSOIL IS WET OR FROZEN.
- SPREAD TOPSOIL UNIFORMLY TO A DEPTH OF AT LEAST SIX INCHES (6"), OR TO THE DEPTH SHOWN ON THE PLANS.

#### **TEMPORARY VEGETATIVE COVER:**

TEMPORARY VEGETATIVE COVER SHALL BE ESTABLISHED ON ALL UNPROTECTED AREAS THAT PRODUCE SEDIMENT, AREAS WHERE FINAL GRADING HAS BEEN COMPLETED, AND AREAS WHERE THE ESTIMATED PERIOD OF BARE SOIL EXPOSURE IS LESS THAN 12 MONTHS. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED IF AREAS WILL NOT BE PERMANENTLY SEEDED BY SEPTEMBER 1.

#### SITE PREPARATION:

- 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA
- 3. APPLY LIME ACCORDING TO SOIL TEST OR AT A RATE OF ONE (1) TON OF GROUND DOLOMITIC LIMESTONE PER ACRE (5 LBS. PER 100 SQ. FT.).
- 4. APPLY FERTILIZER ACCORDING TO SOIL TEST OR AT THE RATE OF 300 LBS. OF 10-10-10 PER ACRE (7 LBS. PER 1,000 SQ. FT.) AND SECOND APPLICATION OF 200 LBS. OF 10-10-10 (5 LBS. PER 1,000 SQ. FT.) WHEN GRASS IS FOUR INCHES (4") TO SIX INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY.
- 5. UNLESS HYDROSEEDED, WORK IN LIME AND FERTILIZER TO A DEPTH OF FOUR (4") INCHES USING A DISK OR ANY SUITABLE EQUIPMENT
- 6. TILLAGE SHOULD ACHIEVE A REASONABLY UNIFORM LOOSE SEEDBED. WORK ON CONTOUR IF SITE IS SLOPING.

#### ESTABLISHMENT

SOIL USING SUITABLE EQUIPMENT.

- 1. SELECT APPROPRIATE SPECIES FOR THE SITUATION. NOTE RATES AND SEEDING DATES (SEE VEGETATIVE COVER SELECTION & MULCHING SPECIFICATION BELOW).
- 2. APPLY SEED UNIFORMLY ACCORDING TO THE RATE INDICATED BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- 3. UNLESS HYDROSEEDED, COVER RYEGRASS SEEDS WITH NOT MORE THAN 1/4 INCH OF
- 4. MULCH IMMEDIATELY AFTER SEEDING IF REOUIRED. (REFER TO TEMPORARY OR PERMANENT VEGETATIVE COVER REQUIREMENTS.) APPLY STRAW MULCH AND ANCHOR TO SLOPES GREATER THAN 3% OR WHERE CONCENTRATED FLOW WILL OCCUR.

#### **PERMANENT VEGETATIVE COVER:**

PERMANENT VEGETATIVE COVER SHALL BE ESTABLISHED AS VARIOUS SECTIONS OF THE PROJECT ARE COMPLETED IN ORDER TO STABILIZE THE SOIL, REDUCE DOWNSTREAM DAMAGE FROM SEDIMENT AND RUNOFF, AND TO ENHANCE THE AESTHETIC NATURE OF THE SITE. IT WILL BE APPLIED TO ALL CONSTRUCTION AREAS SUBJECT TO EROSION WHERE FINAL GRADING HAS BEEN COMPLETED AND A PERMANENT COVER IS NEEDED.

#### SITE PREPARATION:

- 1. INSTALL REQUIRED SURFACE WATER CONTROL MEASURES.
- 2. REMOVE LOOSE ROCK, STONE, AND CONSTRUCTION DEBRIS FROM AREA.
- 3. PERFORM ALL PLANTING OPERATIONS PARALLEL TO THE CONTOURS OF THE SLOPE.
- 4. APPLY TOPSOIL AS INDICATED ELSEWHERE HEREIN.
- 5. APPLY FERTILIZER ACCORDING TO SOIL TEST OR:
- SPRING SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 300 LBS, OF 10-10-10 FERTILIZER PER ACRE (7 LBS. PER 1,000 SQ. FT.); THEN SIX (6) TO EIGHT (8) WEEKS LATER, APPLY ON THE SURFACE AN ADDITIONAL 300LBS. OF 10-10-10 FERTILIZER PER ACRE. AFTER SEPTEMBER 1, TEMPORARY VEGETATIVE COVER SHALL BE APPLIED.
- FALL SEEDING: WORK DEEPLY IN SOIL, BEFORE SEEDING, 600 LBS. OF 10-10-10 FERTILIZER PER ACRE (14 LBS. PER 1,000 SQ. FT.).

#### **EROSION CHECKS:**

#### **GENERAL:**

TEMPORARY PERVIOUS BARRIERS USING GEOTEXTILE FABRIC FASTENED TO A FENCE POST AND BURIED INTO THE GROUND, COMPOST FILTER TUBE HELD IN PLACE WITH STAKES, AND EROSION CONTROL BLANKET SHALL BE INSTALLED AND MAINTAINED AS REQUIRED TO CHECK EROSION AND REDUCE SEDIMENTATION.

#### CONSTRUCTION:

GEOTEXTILE FABRIC SHALL BE SECURELY ANCHORED AT THE TOP OF A THREE FOOT (3') HIGH FENCE AND BURIED A MINIMUM OF FOUR INCHES (4") TO THE SOIL. SEAMS BETWEEN SECTIONS OF FILTER FABRIC SHALL OVERLAP MINIMUM OF TWO FEET (2').

COMPOST FILTER TUBES SHOULD BE PLACED WITH A MINIMUM OVERLAP OF THREE FEET (3') OR SLEEVED TO JOIN IN A CONTINUOUS BARRIER. COMPOST TUBES SHALL BE TAMPED IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE.

COMPOST TUBES SHALL BE STAKED OR LEANED AGAINST SUPPORTS ON SLOPES 2:1 OR GREATER. STAKES SHALL BE LOCATED AS REQUIRED TO SECURE TUBES IN PLACE UP TO FIVE FEET (5') APART. COMPOST TUBES SHALL BE PLACED AS CLOSE TO THE LIMITS OF SOIL DISTURBANCE AS POSSIBLE.

#### **INSTALLATION AND MAINTENANCE:**

- 1. GEOTEXTILE FENCE, EROSION CONTROL BLANKET AND COMPOST FILTER TUBE SHALL BE INSTALLED AT THE LOCATIONS INDICATED ON THE PLAN AND IN ADDITIONAL AREAS AS MAY BE DEEMED APPROPRIATE DURING CONSTRUCTION.
- 2. ALL EROSION CHECKS SHALL BE MAINTAINED UNTIL ADJACENT AREAS ARE STABILIZED.
- INSPECTIONS SHALL BE FREQUENT (AT MINIMUM EVERY 7 CALENDAR DAYS AND AFTER EVERY RAINFALL EVENT GREATER THAN ONE HALF INCH) AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
- 4. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER FLOW OR DRAINAGE.

#### **VEGETATIVE COVER SELECTION & MULCHING:**

**TEMPORARY VEGETATIVE COVER:** 

#### PERENNIAL RYEGRASS 3 LBS./1,000 SQ.FT. (IOLUIUM PERENNE)

#### PERMANENT VEGETATIVE COVER

- 1. NEW ENGLAND CONSERVATION/WILDLIFE MIX OR EQUAL:
- **RECOMMENDED APPLICATION RATE: 1 POUND PER 1,750 SF** SEED MIX SPECIES: Virginia Wild Rye (Elymus virginicus), Little Bluestem (Schizachyrium scoparium), Big Bluestem (Andropogon gerardii), Creeping Red Fescue (Festuca rubra), Switch Grass (Panicum virgatum), Partridge Pea (Chamaecrista fasciculata), Deer Tongue (Panicum clandestinum), Indian Grass (Sorghastrum nutans), Ox Eye Sunflower (Heliopsis helianthoides), Common Milkweed (Asclepias syriaca), Spotted Joe Pye Weed (Eupatorium maculatum), Grass Leaved Goldenrod (Euthamia graminifolia), Blue Vervain (Verbena hastata), New England Aster (Aster novae-angliae) Early Goldenrod (Solidago juncea)
- 2. TEMPORARY MULCHING: STRAW AT 70-90 LBS./1,000 SQ.FT. (TEMPORARY VEGETATIVE AREAS) WOOD FIBER IN HYDROMULCH SLURRY 25-50 LBS./1,000 SQ. FT.

#### ESTABLISHMENT:

- 1. SMOOTH AND FIRM SEEDBED WITH CULTIPACKER OR OTHER SIMILAR EQUIPMENT PRIOR TO SEEDING (EXCEPT WHEN HYDROSEEDING).
- 2. SELECT ADAPTED SEED MIXTURE FOR THE SPECIFIC SITUATION. NOTE RATES AND THE SEEDING DATES (REFER TO TEMPORARY OR PERMANENT VEGETATIVE COVER REOUIREMENTS)
- 3. APPLY SEED UNIFORMLY ACCORDING TO RATE INDICATED, BY BROADCASTING, DRILLING, OR HYDRAULIC APPLICATION.
- 4. COVER GRASS AND LEGUME SEED WITH NOT MORE THAN 1/4 INCH OF SOIL WITH
- 5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (REFER TO TEMPORARY OR PERMANENT VEGETATIVE COVER REQUIREMENTS)
- 6. USE PROPER INOCULANT ON ALL LEGUME SEEDINGS, USE FOUR (4) TIMES NORMAL RATES WHEN HYDROSEEDING.
- 7. THE USE OF SOD IS AN ACCEPTABLE ALTERNATIVE WHERE THERE IS A HEAVY CONCENTRATION OF WATER AND IN CRITICAL AREAS WHERE IT IS IMPORTANT TO GET A QUICK VEGETATIVE COVER TO PREVENT EROSION.

#### MAINTENANCE:

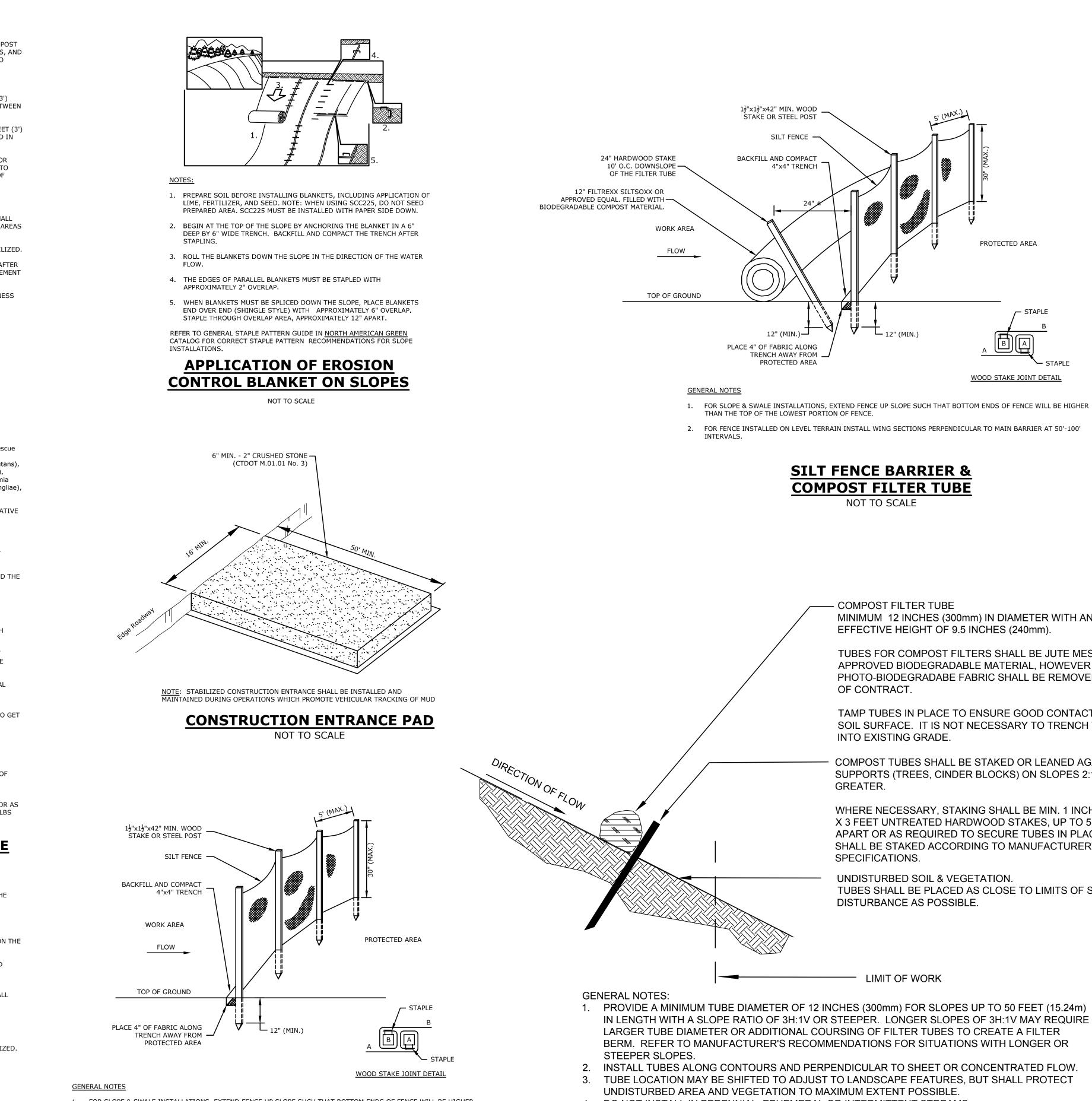
APPURTENANCES

- 1. TEST FOR SOIL ACIDITY EVERY THREE (3) YEARS AND LIME AS REQUIRED.
- 2. ON SITES WHERE GRASSES PREDOMINATE, BROADCAST ANNUALLY 500 POUNDS OF 10-10-10 FERTILIZER PER ACRE (12 LBS. PER 1,000 SQ. FT.) OR AS NEEDED ACCORDING TO ANNUAL SOIL TESTS.
- 3. ON SITES WHERE LEGUMES PREDOMINATE, BROADCAST EVERY THREE (3)YEARS OR AS INDICATED BY SOIL TEST 300 POUNDS OF 0-20-20 OR EQUIVALENT PER ACRE (8 LBS PER 1,000 SQ. FT.).

#### **CONSTRUCTION SEQUENCE & SCHEDULE**

CONSTRUCTION IS ANTICIPATED TO COMMENCE IN SUMMER 2020 AND WILL LAST APPROXIMATELY THREE MONTHS. THE GENERAL SEQUENCE OF CONSTRUCTION IS AS FOLLOWS:

- 1. STAKE OUT THE LIMIT OF WORK. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN.
- 2. INSTALL S&E CONTROLS FOR SITE CLEARING ACTIVITIES AS SHOWN ON THE DRAWINGS
- 3. CLEAR AND GRUB THE WOODED AREA OF THE SITE WITHIN THE LIMITS SHOWN ON THE PLANS.
- 4. CONSTRUCT THE STORMWATER MANAGEMENT BASINS, OUTLET WEIR WALLS, AND
- 5. ANY DISTURBED SLOPES ARE TO BE ESTABLISHED TO FINISHED GRADE WITH PLACEMENT OF TOPSOIL BEFORE PV ARRAY RACKING INSTALLATION. STABILIZE ALL SLOPES OUTSIDE OF THE PV ARRAY COMPOUND AREA WITH TOPSOIL AND SEED. INSTALL EROSION CONTROL BLANKET AS SHOWN ON THE DRAWINGS.
- 6. INSTALL PV SOLAR PANEL ARRAYS, ELECTRICAL COMPONENTS, CONDUIT, AND PERIMETER FENCING.
- 7. REMOVE S&E CONTROLS ONCE ALL DISTURBED AREAS HAVE COMPLETELY STABILIZED.



1. FOR SLOPE & SWALE INSTALLATIONS, EXTEND FENCE UP SLOPE SUCH THAT BOTTOM ENDS OF FENCE WILL BE HIGHER THAN THE TOP OF THE LOWEST PORTION OF FENCE.

FOR FENCE INSTALLED ON LEVEL TERRAIN INSTALL WING SECTIONS PERPENDICULAR TO MAIN BARRIER AT 50'-100' INTERVALS.

> SILT FENCE BARRIER NOT TO SCALE

MINIMUM 12 INCHES (300mm) IN DIAMETER WITH AN

TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH OR APPROVED BIODEGRADABLE MATERIAL, HOWEVER PHOTO-BIODEGRADABE FABRIC SHALL BE REMOVED AT END

TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO TRENCH TUBES

COMPOST TUBES SHALL BE STAKED OR LEANED AGAINST SUPPORTS (TREES, CINDER BLOCKS) ON SLOPES 2:1 OR

WHERE NECESSARY, STAKING SHALL BE MIN. 1 INCH X 1 INCH X 3 FEET UNTREATED HARDWOOD STAKES, UP TO 5 FT. (1.5m) APART OR AS REQUIRED TO SECURE TUBES IN PLACE. TUBES SHALL BE STAKED ACCORDING TO MANUFACTURER'S

TUBES SHALL BE PLACED AS CLOSE TO LIMITS OF SOIL

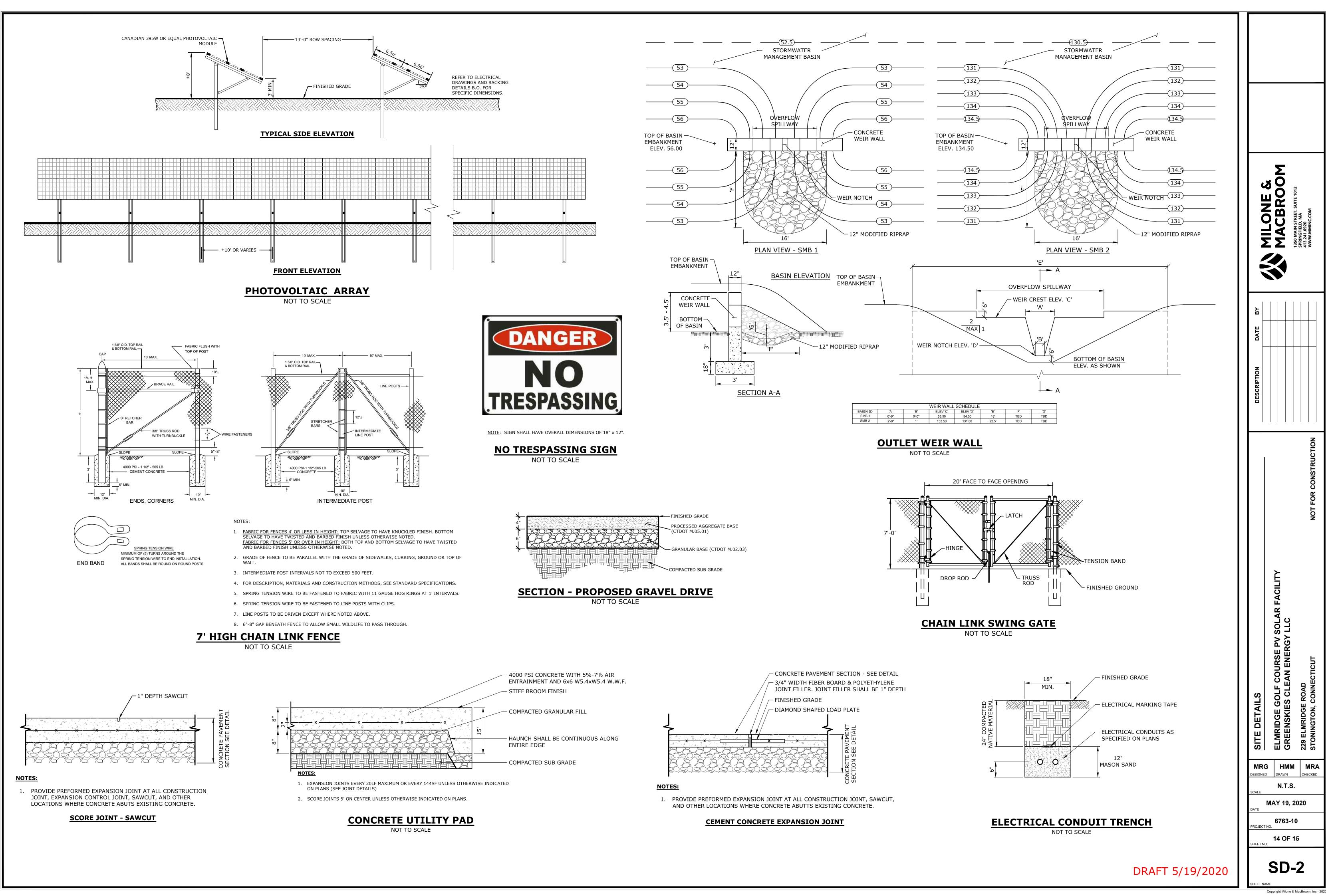
4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER 6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

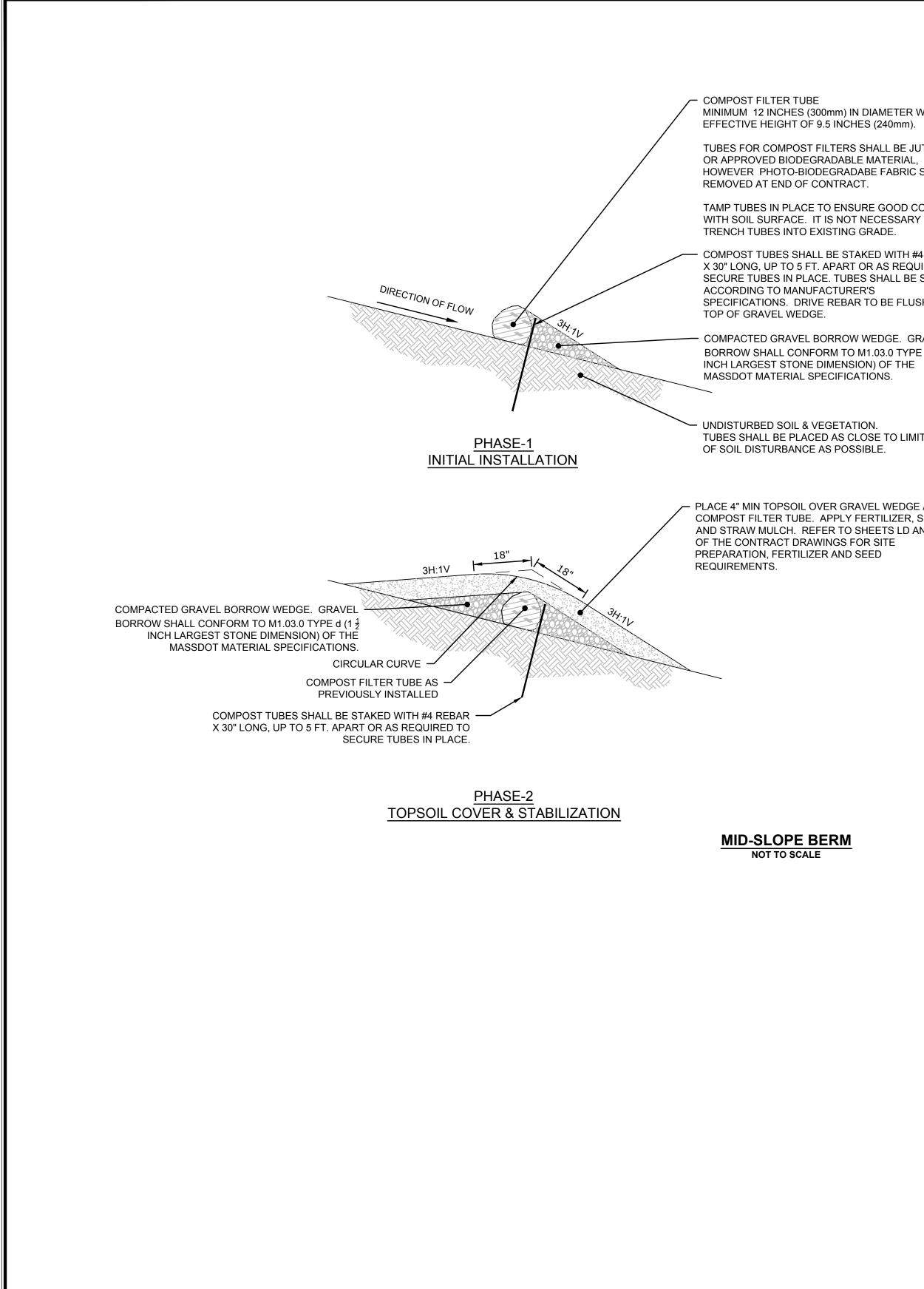


DRAFT 5/19/2020

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DATE						
DESCRIPTION						
					NOT FOR CONSTRUCTION	
SITE DETAILS		GREENSKIES CLEAN ENERGY LLC		229 ELMRIDGE ROAD	STONINGTON, CONNECTICUT	
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SCALE	MA	Y 19,		20		
PROJEC		6763- <sup>-</sup>	10			
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MINIMUM 12 INCHES (300mm) IN DIAMETER WITH AN

TUBES FOR COMPOST FILTERS SHALL BE JUTE MESH HOWEVER PHOTO-BIODEGRADABE FABRIC SHALL BE

TAMP TUBES IN PLACE TO ENSURE GOOD CONTACT WITH SOIL SURFACE. IT IS NOT NECESSARY TO

- COMPOST TUBES SHALL BE STAKED WITH #4 REBAR X 30" LONG, UP TO 5 FT. APART OR AS REQUIRED TO SECURE TUBES IN PLACE. TUBES SHALL BE STAKED SPECIFICATIONS. DRIVE REBAR TO BE FLUSH WITH

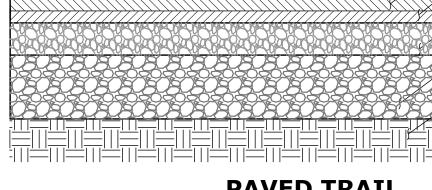
· COMPACTED GRAVEL BORROW WEDGE. GRAVEL BORROW SHALL CONFORM TO M1.03.0 TYPE d (1<sup>1</sup>/<sub>2</sub>

TUBES SHALL BE PLACED AS CLOSE TO LIMITS

- PLACE 4" MIN TOPSOIL OVER GRAVEL WEDGE AND COMPOST FILTER TUBE. APPLY FERTILIZER, SEED AND STRAW MULCH. REFER TO SHEETS LD AND SD-1

#### GENERAL NOTES:

- 1. PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPES UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. LONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAMETER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
- 2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
- 3. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL
- PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE. 4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS.
- 5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER. 6. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER. 7. PHASE-2 INSTALLATION SHALL BE CONDUCTED AFTER MARCH 15TH OR WHEN CONDITIONS PERMIT.



BITUMINOUS CONCRETE WEARING COURSE (CLASS 2) - BITUMINOUS CONCRETE **PAVED TRAIL** 

NOT TO SCALE

BINDER COURSE (CLASS 1) - PROCESSED AGGREGATE - COMPACTED GRAVEL BASE

- COMPACTED SUBGRADE

		SPRINGFIELD, MA 413.241.6920 WWW.MMINC.COM
DATE BY		
DESCRIPTION		
		NOT FOR CONSTRUCTION
SITE DETAILS	ELMRIDGE GOLF COURSE PV SOLAR FACILITY GREENSKIES CLEAN ENERGY LLC	229 ELMRIDGE ROAD STONINGTON, CONNECTICUT
		<b>MRA</b> CHECKED
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