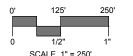
# GOSHEN PV SOLAR FACILITY GREENSKIES CLEAN ENERGY LLC

# 129 BARTHOLOMEW HILL ROAD GOSHEN, CONNECTICUT PERMIT DRAWINGS

NOT FOR CONSTRUCTION SLR PROJECT No. - 16763.00011 JULY 15, 2021

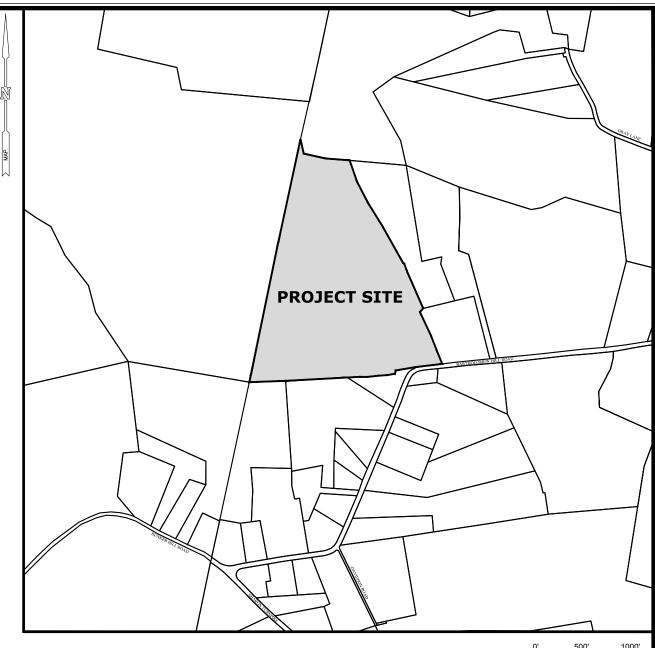


## **PROJECT SITE VICINITY MAP:**



## PREPARED BY:





**LOCATION MAP:** 

#### 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 - 05	EX-1 - EX-2	EXISTING CONDITIONS PLAN
06 - 07	LA-1 - LA-2	SITE LAYOUT & GRADING PLAN
08 - 09	SE-1 - SE-2	SEDIMENT & EROSION CONTROL PLAN
10 - 13	SD-1 - SD-4	MISCELLANEOUS SITE DETAILS





#### **SURVEY NOTES**

DISCLOSE.

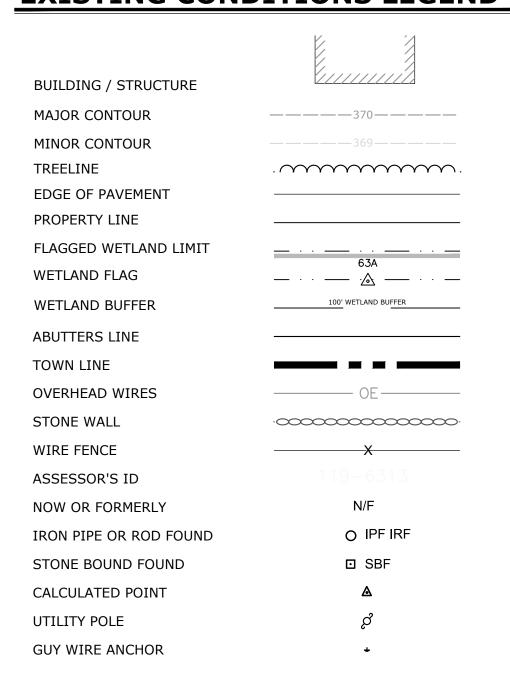
- 1. THIS PLAN IS BASED ON THE PLAN AND SURVEY PROVIDED BY NORTHEAST SURVEY CONSULTANTS DATED MARCH 31, 2021.
- 2. HORIZONTAL DATUM IS NAD83. VERTICAL DATUM IS NAVD88. BOTH WERE DERIVED FROM GPS OBSERVATIONS TAKEN ON SITE.
- 3. BOUNDARY LINES SHOWN HEREIN WERE TAKEN FROM PLANS & DEEDS OF RECORD AND MONUMENTS FOUND.
- 4. ALL CONTOURS SHOWN HEREIN WERE GENERATED IN QGIS FROM DIGITAL ELEVATION MODELS OF THE 2016 CRCOG LIDAR DATA (5' GRID SIZE/TIN GRID METHOD) AS DISTRIBUTED BY NOAA.
- 5. ACCORDING TO FEDERAL EMERGENCY MANAGEMENT AGENCY MAPS, ALL OF THE LOCUS PARCELS ARE LOCATED IN AREAS DESIGNATED AS ZONE X (UNSHADED): "AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOOD PLAIN". COMMUNITY PANEL NO. 090177 0005 A & 090177 0015 A, EFFECTIVE DATE: 11/16/1990
- 6. THE LOCUS PROPERTY AND ALL ABUTTING PROPERTIES ARE LOCATED IN THE RA-5 ZONING DISTRICT.
- 7. THIS PLAN WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO MATTERS A TITLE REPORT WOULD
- 8. 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.
- 9. WETLAND DELINEATION PERFORMED BY SLR INTERNATIONAL CORPORATION ON DECEMBER 14, 2020.

# **CONSTRUCTION SEQUENCE AND SCHEDULE**

CONSTRUCTION IS ANTICIPATED TO TAKE APPROXIMATELY 4 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 ON THE DRAWINGS WITHOUT CONSENT OF THE ENGINEER.
- 2. INSTALL E&S CONTROLS FOR SITE CLEARING ACTIVITIES AS SHOWN ON THE DRAWINGS.
- 3. CLEAR AND GRUB THE WOODED AREAS OF THE SITE WITHIN THE LIMITS SHOWN ON THE PLANS.
- 4. CONSTRUCT THE STORMWATER MANAGEMENT BASIN, OUTLET WEIR WALL, AND APPURTENANCES.
- 5. INSTALL PV SOLAR PANEL ARRAY RACKING, PANELS, ELECTRICAL COMPONENTS, CONDUIT, AND PERIMETER FENCING.
- 6. ANY DISTURBED SLOPES ARE TO BE ESTABLISHED TO FINISHED GRADE WITH PLACEMENT OF TOPSOIL AND SEED AS SOON AS PRACTICABLE. AREAS DISTURBED AND COMPACTED AS A RESULT OF PV ARRAY RACKING INSTALLATION SHALL BE AERATED BY APPROVED METHODS AND SEEDED. INSTALL EROSION CONTROL BLANKETS AS SHOWN ON THE DRAWINGS.
- 7. REMOVE E&S CONTROLS ONCE ALL DISTURBED AREAS HAVE COMPLETELY STABILIZED.

## **EXISTING CONDITIONS LEGEND**



#### **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	
PROPOSED MINOR CONTOUR	
SPOT ELEVATION	<b>+</b> 1560.20
GRAVEL SURFACE	
PROPOSED ELECTRICAL SERVICE (UNDERGROUND)	———— E ————
PROPOSED ELECTRICAL SERVICE (OVERHEAD)	——————————————————————————————————————
PROPOSED CHANLINK FENCE / GATE	-0-0-0-0-
PHOTOVOLTAIC ARRAY	
PROPOSED LIMIT OF WORK	
PROPOSED INVERTER PAD	
PROPOSED UTILITY POLE	<b>€</b> O2

#### SEDIMENT & EROSION CONTROL NOTES

- 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 BASIN 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	SF
COMPOST FILTER TUBE	CFT
STONE LEVEL SPREADER	
LIMIT OF CLEARING	.~~~~.
CONSTRUCTION ENTRANCE PAD	
EROSION CONTROL MATTING	
TREE REMOVAL AREAS	

ZONING DISTRICT	RA-5 (RESIDENTIAL-AGRICULTURAL 5)	
DIMENSIONAL / DENSITY CRITERIA	REGULATION	
MIN. LOT AREA	5.0 AC	
YARD SETBACKS		
FRONT	50 FT	
SIDE	30 FT	
REAR	50 FT	
MAX HEIGHT	35 FT	
IMPERVIOUS AREA	MAX. 10% OF LOT AREA	

**ZONING DATA** 

475
1.12
25°
0°
14
Fixed tilt, 2x5
portrait, post-driven
9,432
4,480
4,000

#### **FORMATION OF STORMWATER EMBANKMENTS**

#### <u>MATERIALS</u>

ALL FILL MATERIALS SHALL BE OBTAINED FROM REQUIRED EXCAVATIONS OR DESIGNATED BORROW AREAS. FILL MATERIAL SHALL CONTAIN NO FROZEN MATERIAL, SOD, BRUSH, ROOTS, OR OTHER ORGANIC MATERIAL. EARTH EMBANKMENTS SHALL CONTAIN NO STONES OR ROCK PARTICLES OVER THREE INCHES IN DIAMETER. THE MATERIAL USED IN THE CENTER PORTION OF THE EMBANKMENT SHALL BE THE MOST IMPERVIOUS MATERIAL OBTAINED FROM THE BORROW AREAS IF REQUIRED. THE MORE PERVIOUS MATERIALS SHALL BE USED IN THE OUTER PORTION OF THE EMBANKMENT AS SHOWN ON THE PLANS.

#### A. IMPERVIOUS FILL MATERIALS

IMPERVIOUS FILL SHALL BE A GLACIAL TILL, AND TO BE PROVIDED FROM AN OFFSITE SOURCE IN THE QUANTITIES REQUIRED FOR COMPLETION. FILL TO BE APPROVED BY THE ENGINEER. GLACIAL TILL SHALL CONSIST OF HARD AND DURABLE PARTICLES OR FRAGMENTS AND SHALL BE FREE FROM ORGANIC MATTER AND OTHER OBJECTIONABLE MATERIALS. GLACIAL TILL SHALL GENERALLY CONFORM TO THE FOLLOWING GRADATION LIMITS:

U.S. STANDARD	PERCENTAGE PASSING
SIEVE SIZE	BY WEIGHT
3 INCH	100
NO. 4	60-95
NO. 10	50-95
NO. 40	30-75
NO. 100	20-65
NO. 200	10-40

#### 2. EMBANKMENT FOUNDATION PREPARATION

AREAS WHERE EMBANKMENTS ARE TO BE FORMED SHALL BE CLEARED AND GRUBBED OF ALL TOPSOIL AND OTHER ORGANIC MATERIALS TO A DEPTH OF AT LEAST 24 INCHES. UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS, FOUNDATION AREAS SHALL BE SCARIFIED TO A DEPTH OF THREE INCHES PRIOR TO PLACEMENT OF FILL MATERIAL.

#### 3. PLACEMENT

NO FILL SHALL BE PLACED UNTIL THE FOUNDATION PREPARATION AND EXCAVATIONS IN THE FOUNDATION HAVE BEEN COMPLETED. NO FILL SHALL BE PLACED ON A FROZEN SURFACE NOR SHALL FROZEN MATERIAL BE INCORPORATED.

#### EMBANKMENT

MATERIAL SHALL BE PLACED IN HORIZONTAL LAYERS. THE THICKNESS OF LAYERS SHALL BE SIX INCHES. DURING CONSTRUCTION, THE SURFACE OF THE FILL SHALL HAVE A CROWN OR CROSS-SLOPE OF NOT LESS THAN TWO PERCENT. EACH LAYER OR LIFT SHALL EXTEND OVER THE ENTIRE AREA OF THE FILL.

THE FILL SHALL BE FREE FROM LENSES, POCKETS, STREAKS, OR LAYERS OF MATERIAL DIFFERING SUBSTANTIALLY IN TEXTURE OR GRADATION FROM THE SURROUNDING MATERIAL. THE MORE PERVIOUS MATERIAL SHALL BE PLACED IN THE OUTSIDE PORTION OF THE EMBANKMENT OR AS INDICATED ON THE DRAWINGS. THE FINISHED FILL SHALL BE SHAPED AND GRADED TO THE LINES AND GRADE SHOWN ON THE DRAWINGS.

#### 4. COMPACTION A. EMBANKMENT

EMBANKMENT MATERIAL SHALL BE COMPACTED TO 95% OF THE STANDARD PROCTOR DENSITY AT NEAR OPTIMUM MOISTURE CONTENT AND BY THE COMPACTION EQUIPMENT SPECIFIED HEREIN. THE COMPACTION EQUIPMENT SHALL TRAVERSE THE ENTIRE SURFACE OF EACH LAYER OF FILL MATERIAL.

APPROVED TAMPING ROLLERS SHALL BE USED FOR COMPACTING ALL PARTS OF THE EMBANKMENTS WHICH THEY CAN EFFECTIVELY REACH. THE CONTRACTOR SHALL DEMONSTRATE THE EFFECTIVENESS OF THE ROLLER BY ACTUAL SOIL COMPACTION RESULTS OF THE SOIL TO BE USED IN THE EMBANKMENT WITH LABORATORY WORK PERFORMED BY AN APPROVED SOIL TESTING LABORATORY.

#### B. BACKFILL AT STRUCTURES

BACKFILL SHALL BE COMPACTED BY HAND TAMPING WITH MECHANICAL TAMPERS. HEAVY EQUIPMENT SHALL NOT BE OPERATED WITHIN TWO FEET OF

### ANY STRUCTURE.

THE EMBANKMENTS SHALL BE CONSTRUCTED TO THE ELEVATIONS, LINES, GRADES AND CROSS-SECTIONS AS SHOWN ON THE DRAWINGS. THE EMBANKMENTS SHALL BE MAINTAINED IN A MANNER SATISFACTORY TO THE ENGINEER AND SURFACES SHALL BE COMPACT AND ACCURATELY GRADED BEFORE TOPSOIL IS PLACED ON THEM. THE CONTRACTOR SHALL CHECK THE EMBANKMENT SLOPES WITH STRING LINES TO INSURE THAT THEY CONFORM TO THE SLOPES GIVEN ON THE PLANS AND ARE UNIFORM FOR THE ENTIRE LENGTH OF

DATE BY

NOT FOR CONST

LEGEND & NOTES
GOSHEN PV SOLAR FACILITY
GREENSKIES CLEAN ENERGY LLC
129 BARTHOLOMEW HILL ROAD

MRG DESIGNED DRAWN MRG CHECKED

N.T.S.

SCALE

JULY 15, 2021

DATE

16763.00011

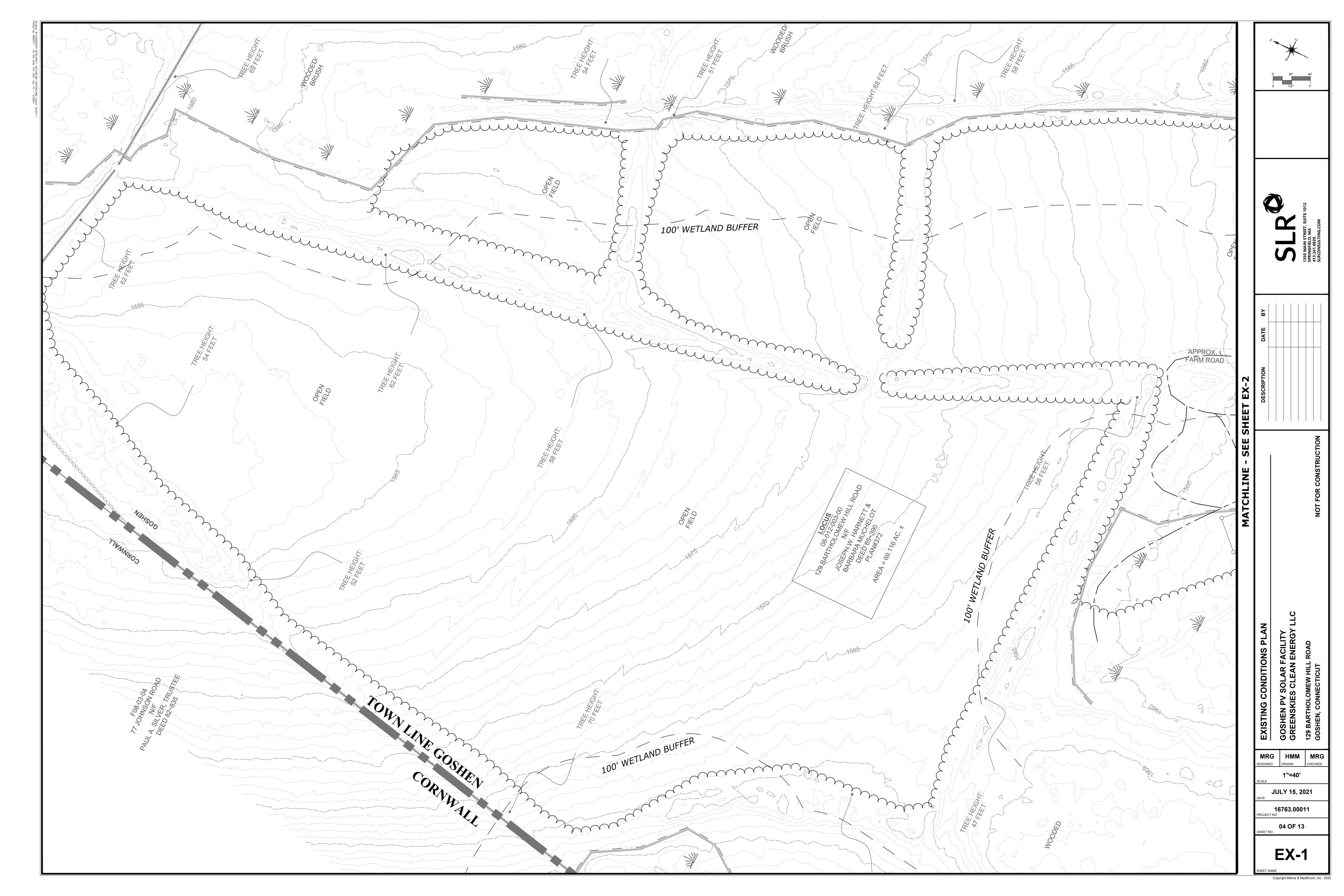
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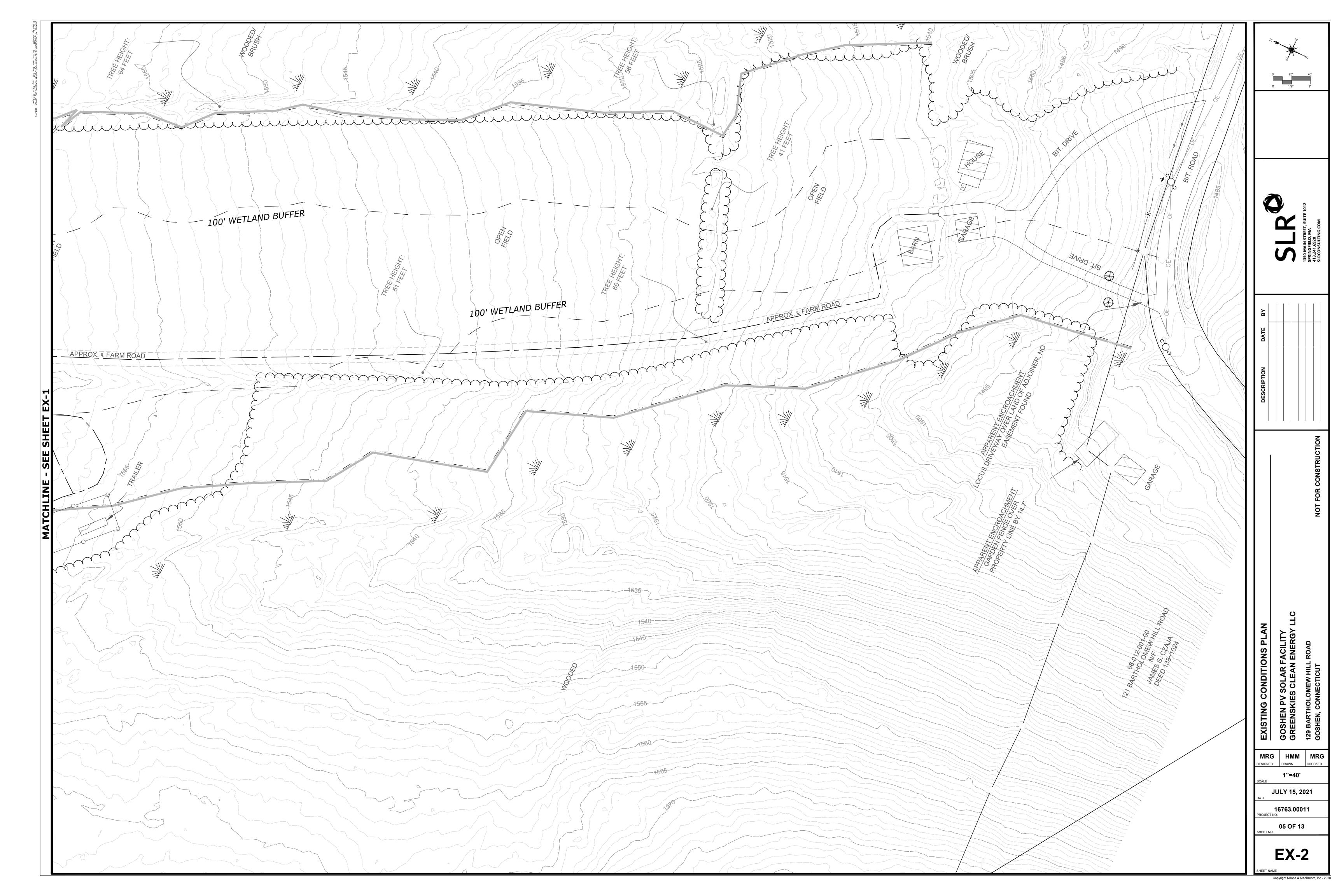
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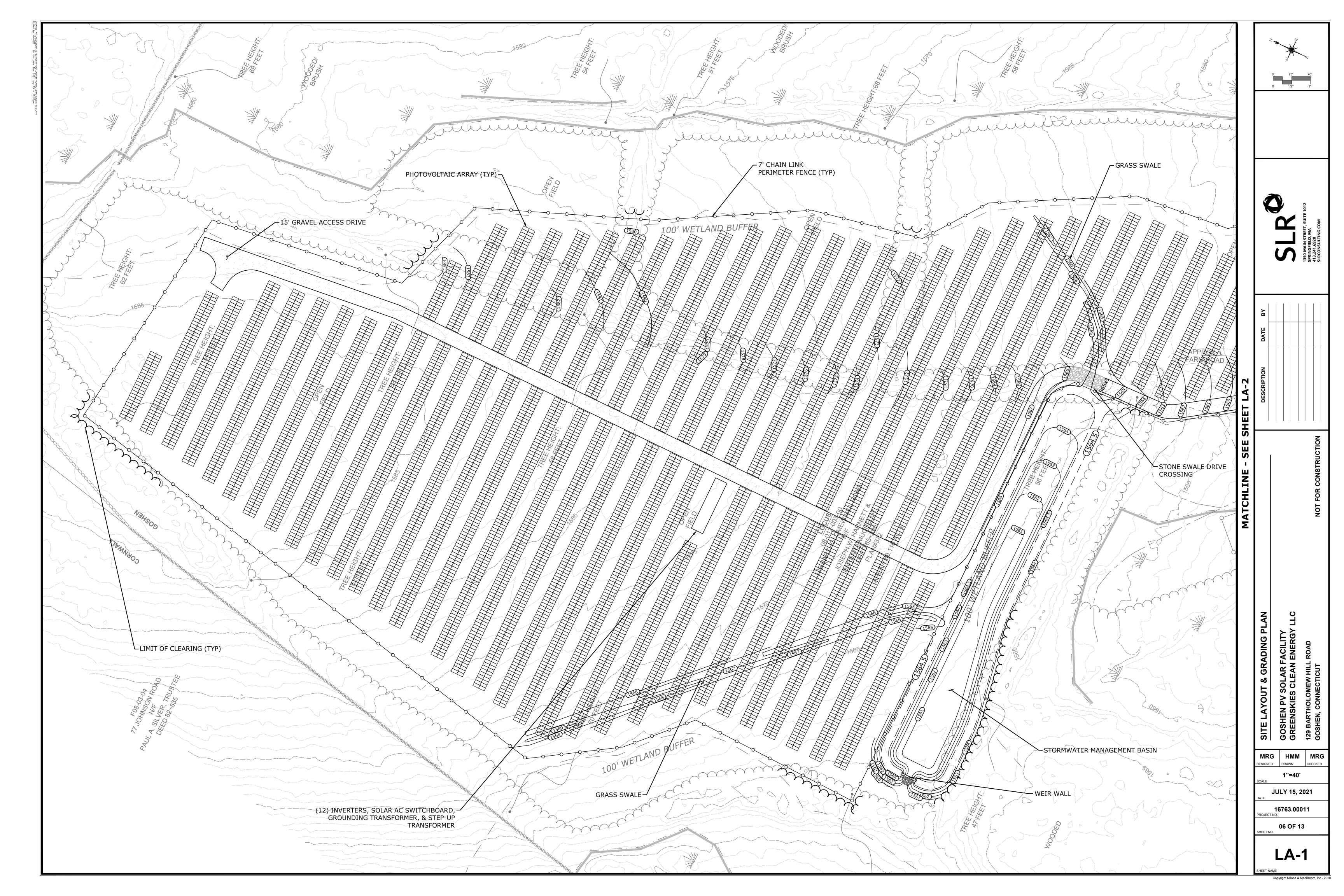
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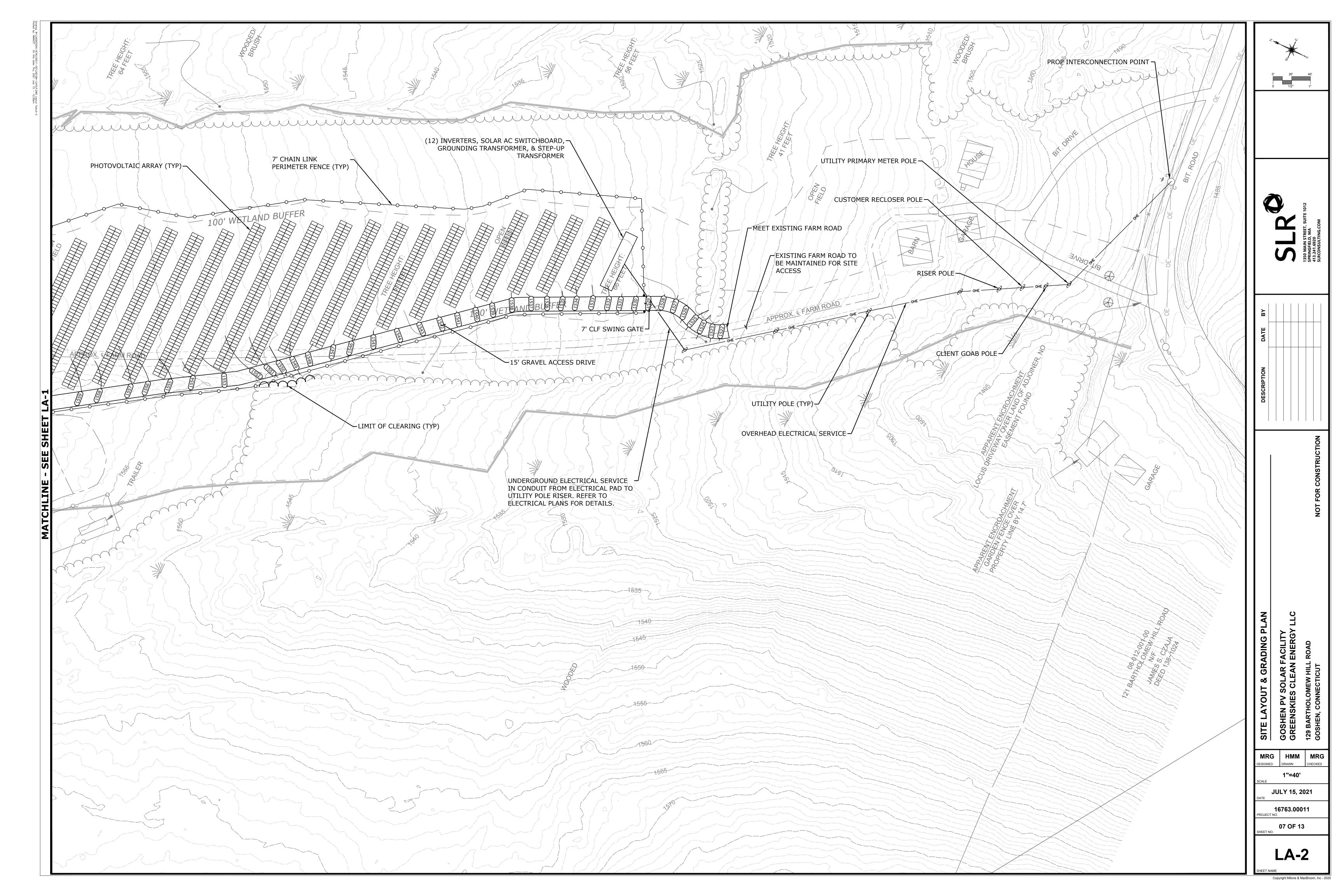
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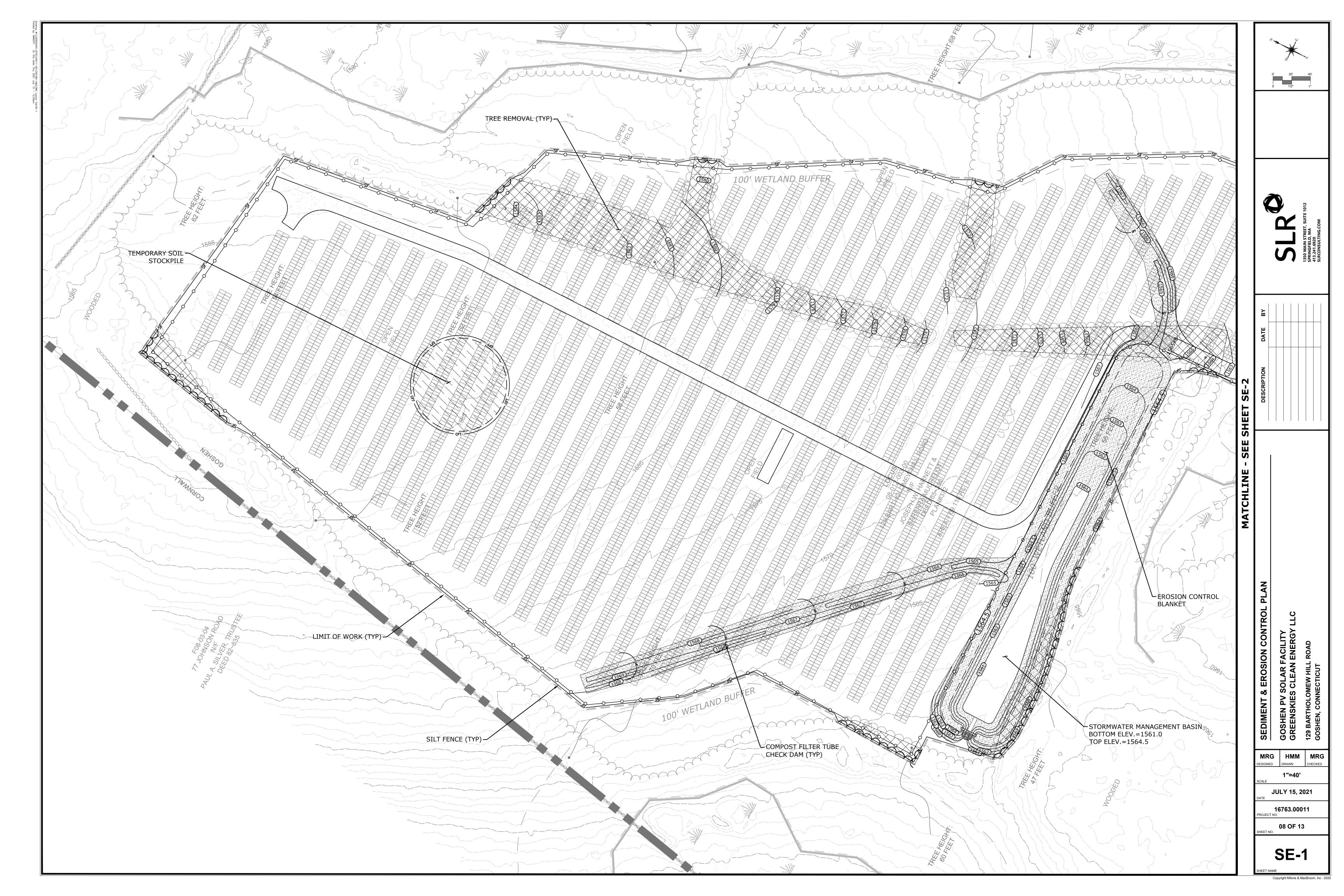


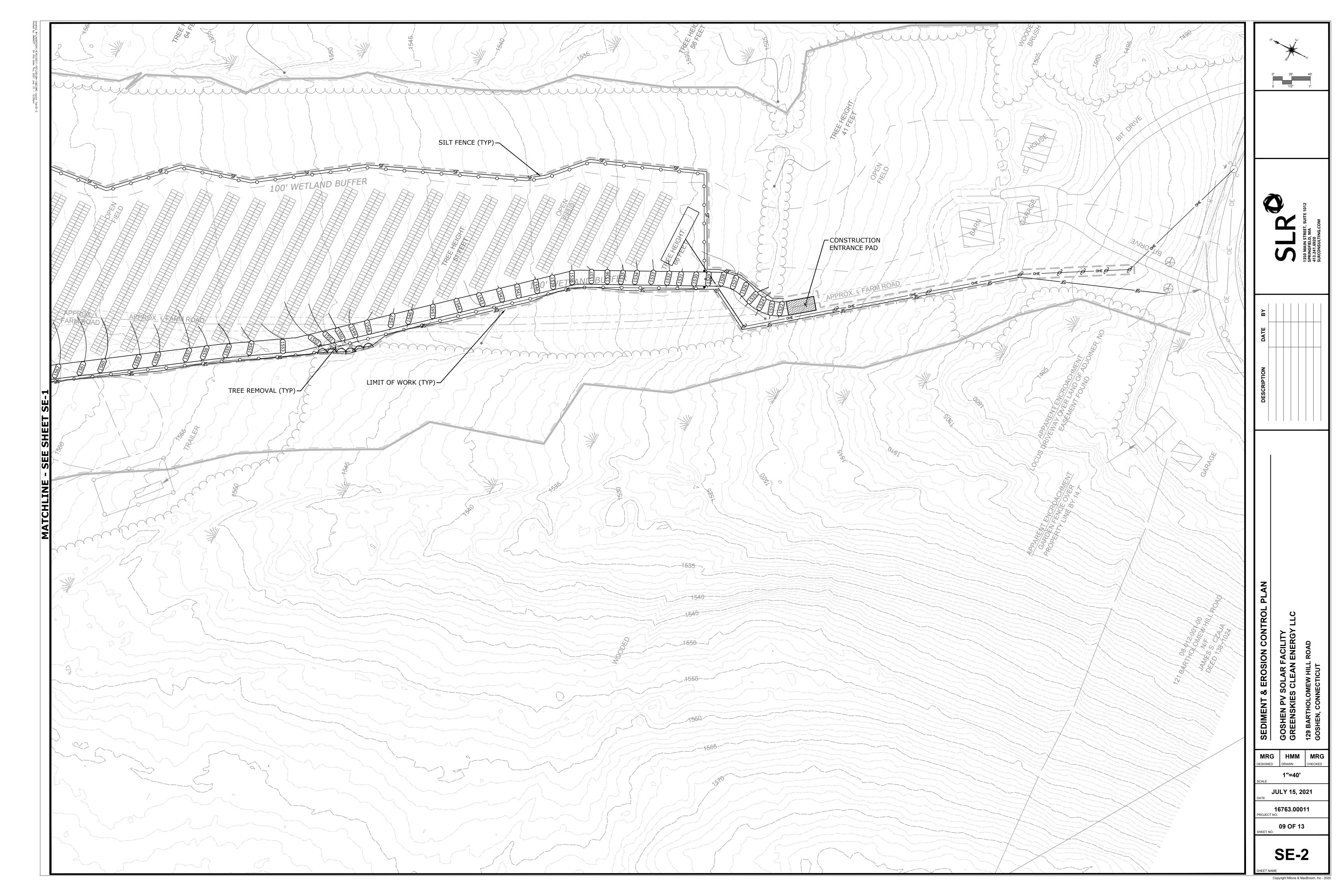












## SEDIMENT & EROSION CONTROL SPECIFICATIONS

#### **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 POLLUTION CONTROL MEASURES TO PREVENT CONTAMINATION OF ADJACENT WETLANDS, WATERCOURSES, AND WATER BODIES, AND TO PREVENT, INSOFAR AS POSSIBLE, EROSION ON THE SITE.

#### LAND GRADING:

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 TO ONE VERTICAL (2:1)
- b. THE PERMANENT EXPOSED FACES OF FILLS SHALL NOT BE STEEPER THAN TWO HORIZONTAL TO ONE VERTICAL (2:1).
- c. THE CUT FACE OF ROCK EXCAVATION SHALL NOT BE STEEPER THAN ONE HORIZONTAL TO TWO VERTICAL (1:2).
- 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.
- f. 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

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:**

- 1. 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
- 2. 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.

INCHES (6") HIGH. APPLY ONLY WHEN GRASS IS DRY.

- 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
- 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

#### **ESTABLISHMENT:**

CONTOUR IF SITE IS SLOPING

- 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
- SOIL USING SUITABLE EQUIPMENT.
- 4. MULCH IMMEDIATELY AFTER SEEDING IF REQUIRED. (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:

SHALL BE MADE PROMPTLY AS NEEDED.

- 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.
- 3. INSPECTIONS SHALL BE FREQUENT (AT MINIMUM EVERY 7 CALENDAR DAYS AND AFTER EVERY RAINFALL EVENT GREATER THAN ONE HALF INCH) AND REPAIR OR REPLACEMENT
- 4. EROSION CHECKS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM WATER FLOW OR DRAINAGE.

#### **TEMPORARY STABILIZATION FOR WINTER CONDITIONS:**

ANY SIGNIFICANT AREAS OF EXPOSED SOIL WHICH HAVE BEEN DISTURBED AFTER OCTOBER 15<sup>TH</sup> SHALL BE TEMPORARILY STABILIZED BY ONE OF THE FOLLOWING METHODS UNTIL SUCH TIME THAT PERMANENT STABILIZATION MEASURES AND SEEDING CAN BE APPLIED, TYPICALLY AFTER MAY 15TH.

- 1. INSTALLATION OF AN ANCHORED EROSION CONTROL BLANKET. EROSION CONTROL BLANKETS SHOULD NOT BE INSTALLED ON SNOW OF GREATER THAN ONE INCH IN DEPTH OR ON FROZEN GROUND.
- 2. APPLICATION OF STRAW MULCH AT A RATE OF FOUR (4) TONS PER ACRE.
- APPLICATION OF WOOD CHIP MULCH AT A MINIMUM DEPTH OF THREE INCHES (3"). WOOD CHIP MULCH SHOULD NOT BE USED ON SLOPES GREATER THAN 2:1 (H:V). ALI WOOD CHIP MULCH SHALL BE REMOVED PRIOR TO RESUMING SITE GRADING.

#### **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
- 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 SUITABLE EQUIPMENT (EXCEPT WHEN HYDROSEEDING).
- 5. MULCH IMMEDIATELY AFTER SEEDING, IF REQUIRED, ACCORDING TO TEMPORARY MULCHING SPECIFICATIONS. (REFER TO TEMPORARY OR PERMANENT VEGETATIVE
- 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**

- 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

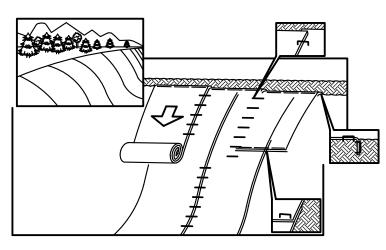
#### **CONSTRUCTION SEQUENCE & SCHEDULE**

CONSTRUCTION IS ANTICIPATED TO COMMENCE IN SPRING 2022 AND WILL LAST APPROXIMATELY FOUR TO SIX MONTHS. THE GENERAL SEQUENCE OF CONSTRUCTION IS AS

- 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
- 3. CLEAR AND GRUB THE WOODED AREA OF THE SITE WITHIN THE LIMITS SHOWN ON THE
- 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.

4. CONSTRUCT THE STORMWATER MANAGEMENT BASIN, OUTLET WEIR WALL, AND

- 6. INSTALL PV SOLAR PANEL ARRAYS, ELECTRICAL COMPONENTS, CONDUIT, AND
- 7. REMOVE S&E CONTROLS ONCE ALL DISTURBED AREAS HAVE COMPLETELY STABILIZED.

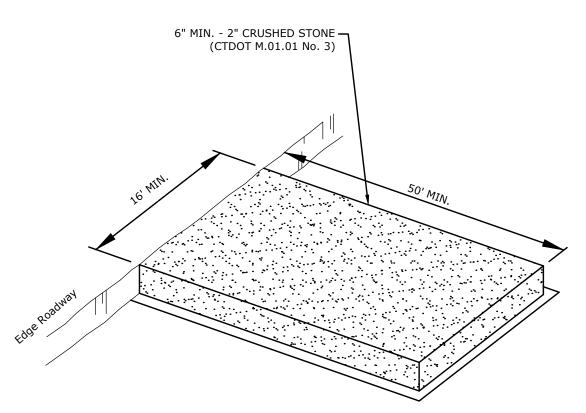


- .. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN ROLLMAX S150 OR APPROVED EQUIVALENT.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" DEEP BY 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER
- 3. ROLL THE BLANKETS DOWN THE SLOPE IN THE DIRECTION OF THE WATER
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 4"-6" OVERLAP.
- 5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 6" OVERLAP. STAPLE THROUGH OVERLAP AREA, APPROXIMATELY 12" APART.

REFER TO GENERAL STAPLE PATTERN GUIDE IN NORTH AMERICAN GREEN CATALOG FOR CORRECT STAPLE PATTERN RECOMMENDATIONS FOR SLOPE

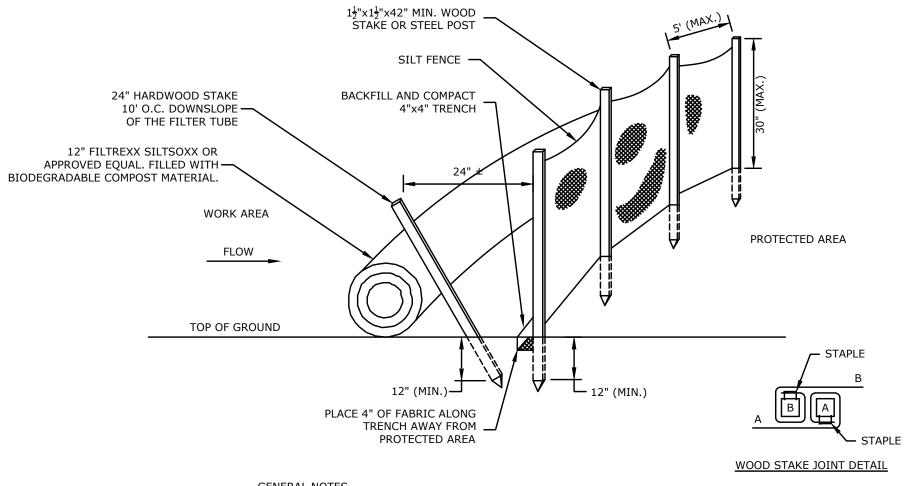
#### APPLICATION OF EROSION **CONTROL BLANKET ON SLOPES**

NOT TO SCALE



: STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSTALLED AND MAINTAINED DURING OPERATIONS WHICH PROMOTE VEHICULAR TRACKING OF MUD

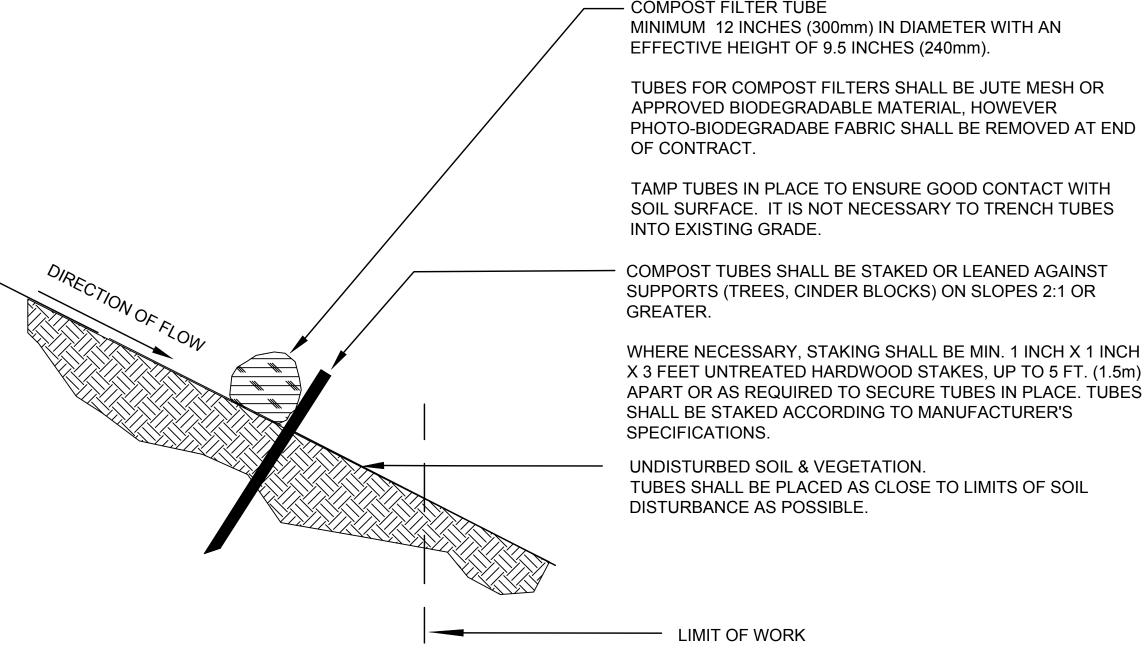
# **CONSTRUCTION ENTRANCE PAD**



#### **GENERAL NOTES**

- 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 & COMPOST FILTER TUBE**

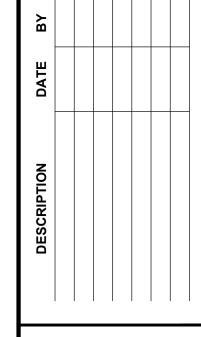


#### **GENERAL NOTES:**

- 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 ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINEER.

**COMPOST FILTER TUBE NOT TO SCALE** 



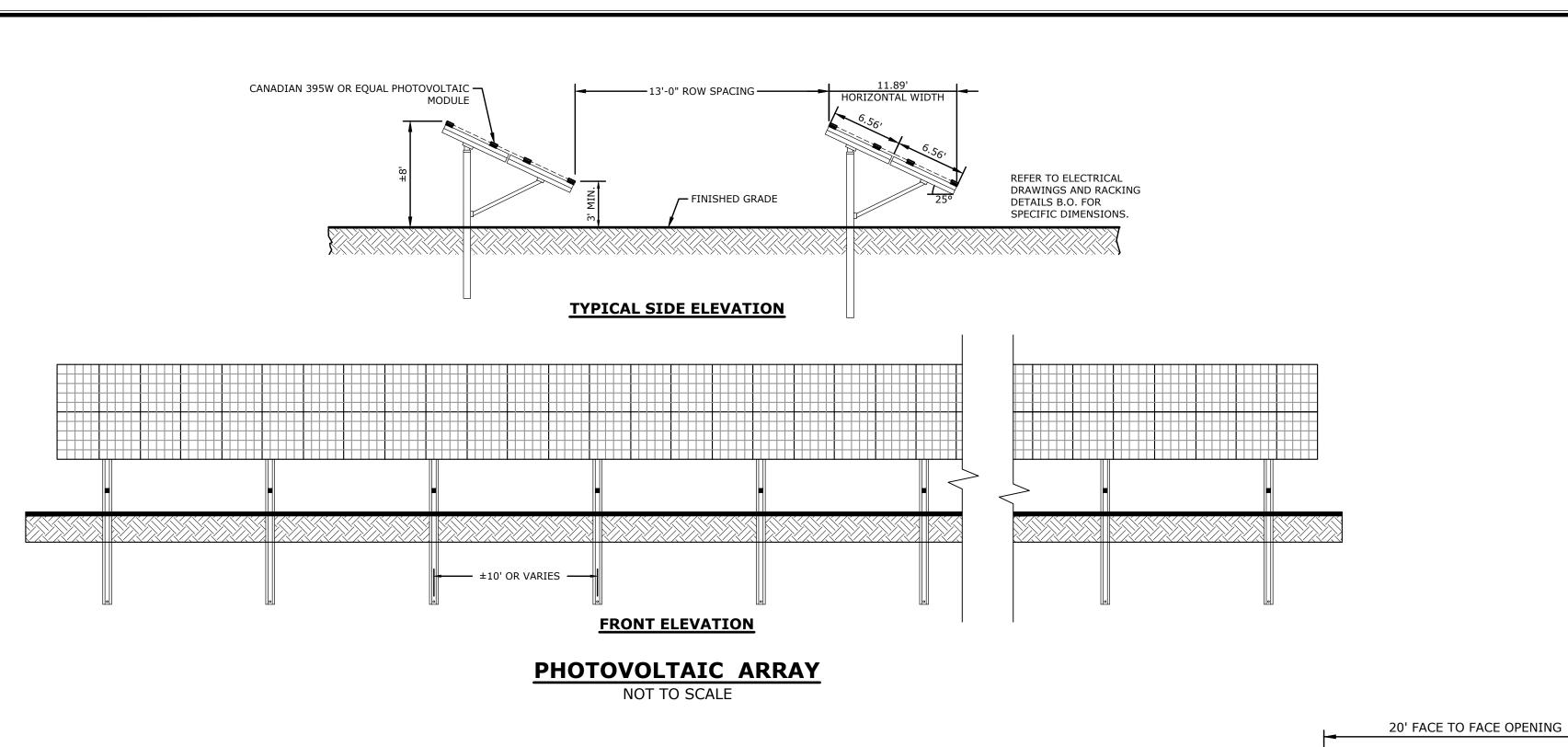


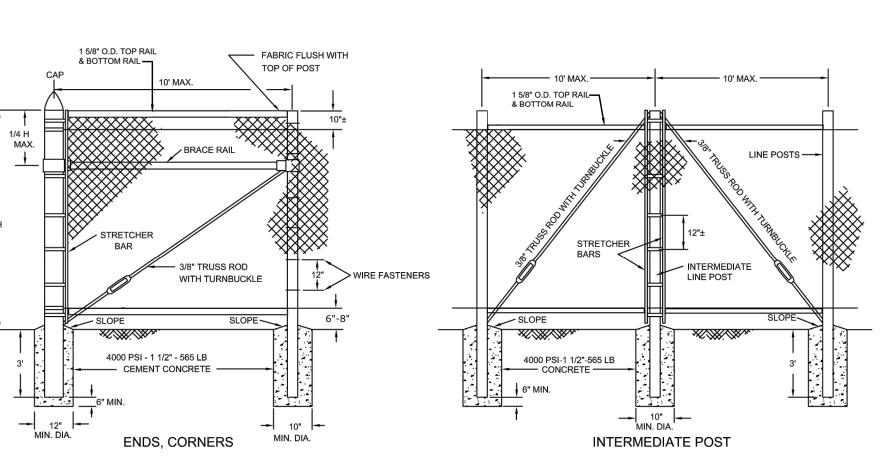
ACILITY ENERGY GOSHEN PV SOL GREENSKIES CL

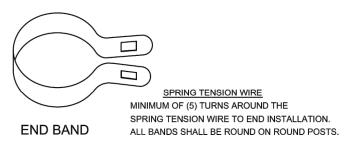
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#### NOTES:

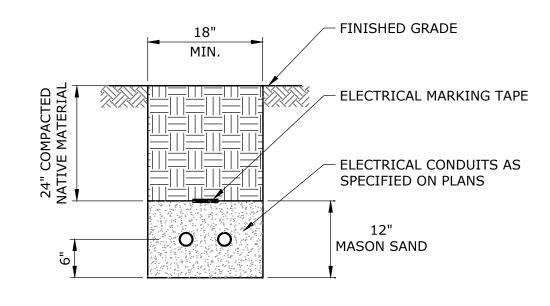
- 1. FABRIC FOR FENCES 4' OR LESS IN HEIGHT: TOP SELVAGE TO HAVE KNUCKLED FINISH. BOTTOM SELVAGE TO HAVE TWISTED AND BARBED FINISH UNLESS OTHERWISE NOTED. FABRIC FOR FENCES 5' OR OVER IN HEIGHT: BOTH TOP AND BOTTOM SELVAGE TO HAVE TWISTED AND BARBED FINISH UNLESS OTHERWISE NOTED.
- 2. GRADE OF FENCE TO BE PARALLEL WITH THE GRADE OF SIDEWALKS, CURBING, GROUND OR TOP OF
- 3. INTERMEDIATE POST INTERVALS NOT TO EXCEED 500 FEET.

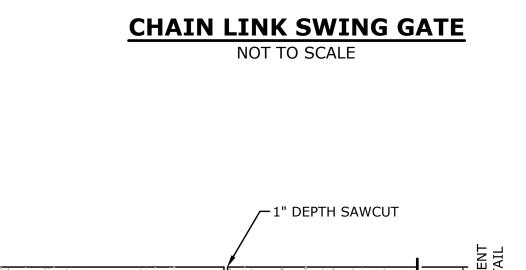
7. LINE POSTS TO BE DRIVEN EXCEPT WHERE NOTED ABOVE.

- 4. FOR DESCRIPTION, MATERIALS AND CONSTRUCTION METHODS, SEE STANDARD SPECIFICATIONS.
- 5. SPRING TENSION WIRE TO BE FASTENED TO FABRIC WITH 11 GAUGE HOG RINGS AT 1' INTERVALS.
- 6. SPRING TENSION WIRE TO BE FASTENED TO LINE POSTS WITH CLIPS.
- 8. 6"-8" GAP BENEATH FENCE TO ALLOW SMALL WILDLIFE TO PASS THROUGH.

# 7' HIGH CHAIN LINK FENCE

NOT TO SCALE

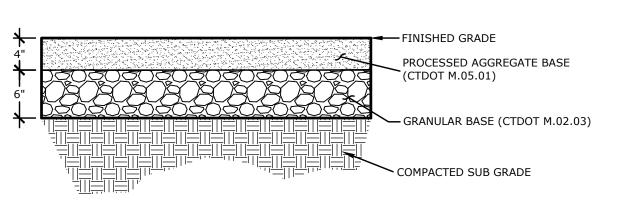




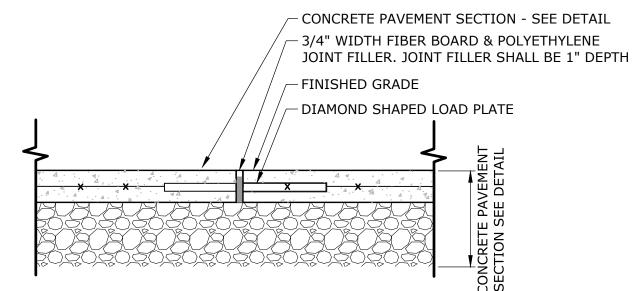
- TRUSS ROD

1. PROVIDE PREFORMED EXPANSION JOINT AT ALL CONSTRUCTION JOINT, EXPANSION CONTROL JOINT, SAWCUT, AND OTHER LOCATIONS WHERE CONCRETE ABUTS EXISTING CONCRETE.

#### **SCORE JOINT - SAWCUT**

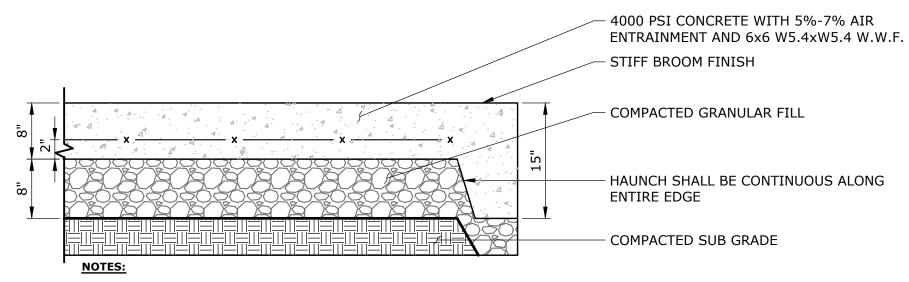


**SECTION - PROPOSED GRAVEL DRIVE** 



1. PROVIDE PREFORMED EXPANSION JOINT AT ALL CONSTRUCTION JOINT, SAWCUT, AND OTHER LOCATIONS WHERE CONCRETE ABUTTS EXISTING CONCRETE.

#### **CEMENT CONCRETE EXPANSION JOINT**



1. EXPANSION JOINTS EVERY 20LF MAXIMUM OR EVERY 144SF UNLESS OTHERWISE INDICATED ON PLANS (SEE JOINT DETAILS)

2. SCORE JOINTS 5' ON CENTER UNLESS OTHERWISE INDICATED ON PLANS.

### **CONCRETE UTILITY PAD**

NOT TO SCALE

### **NOTES**

TENSION BAND

FINISHED GROUND

1. CONCRETE WASHOUT AREA(S) SHALL BE INSTALLED PRIOR TO CONCRETE PLACEMENT ON SITE. THE CONCRETE WASHOUT AREA SHALL BE ENTIRELY

2. THE CONTRACTOR SHALL SUBMIT THE DESIGN, LOCATION AND SIZING OF THE CONCRETE WASHOUT AREA(S) WITH THE PROJECT'S EROSION AND SEDIMENTATION CONTROL PLAN AND SHALL BE APPROVED BY THE ENGINEER. LOCATION: WASHOUT AREA(S) ARE TO BE LOCATED AT LEAST 100 FEET FROM ANY STREAM, WETLAND, STORM DRAINS, OR OTHER SENSITIVE RESOURCE. THE FLOOD CONTINGENCY PLAN MUST ADDRESS THE CONCRETE WASHOUT IF THE WASHOUT IS TO BE LOCATED WITHIN THE FLOODPLAIN.

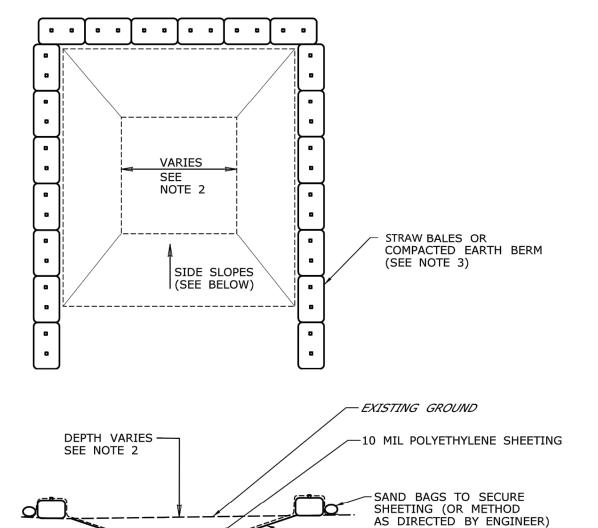
SIZE: THE WASHOUT MUST HAVE SUFFICIENT VOLUME TO CONTAIN ALL LIQUID AND CONCRETE WASTE GENERATED BY WASHOUT OPERATIONS INCLUDING, BUT NOT LIMITED TO, OPERATIONS ASSOCIATED WITH GROUT AND MORTAR. 3. SURFACE DISCHARGE IS UNACCEPTABLE. THEREFORE, HAY BALES OR OTHER CONTROL MEASURES, AS APPROVED BY THE ENGINEER, SHOULD BE USED

AROUND THE PERIMETER OF THE CONCRETE WASHOUT AREA FOR CONTAINMENT.

4. SIGNS SHOULD BE PLACED AT THE CONSTRUCTION ENTRANCE, AT THE CONCRETE AREA(S) AND ELSEWHERE AS NECESSARY TO CLEARLY INDICATE THE LOCATION OF THE CONCRETE WASHOUT TO OPERATORS OF CONCRETE TRUCKS AND PUMP RIGS. WASHOUT AREA(S) SHOULD BE FLAGGED WITH SAFETY FENCING OR OTHER APPROVED MÈTHOD.

5. WASHOUT AREA(S) ARE TO BE INSPECTED AT LEAST ONCE A WEEK FOR STRUCTURAL INTEGRITY, ADEQUATE HOLDING CAPACITY AND CHECKED FOR LEAKS, TEARS, OR OVERFLOWS. (AS REQUIRED BY THE CONSTRUCTION SITE ENVIRONMENTAL INSPECTION REPORT) WASHOUT AREA(S) SHOULD BE CHECKED AFTER HEAVY RAINS.

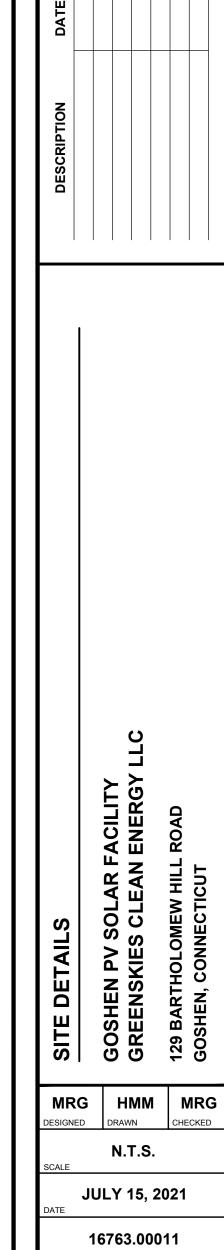
6. HARDENED CONCRETE WASTE SHOULD BE REMOVED AND DISPOSED OF WHEN THE WASTE HAS ACCUMULATED TO HALF OF THE CONCRETE WASHOUT'S HEIGHT. THE WASTE CAN BE STORED AT AN UPLAND LOCATION, AS APPROVED BY THE ENGINEER. ALL CONCRETE WASTE SHALL BE DISPOSED OF IN A MANNER CONSISTENT WITH ALL APPLICABLE LAWS, REGULATIONS, AND GUIDELINES.



-SIDE SLOPES TO BE 3:1 (NOMINAL)

**CONCRETE WASHOUT AREA** 

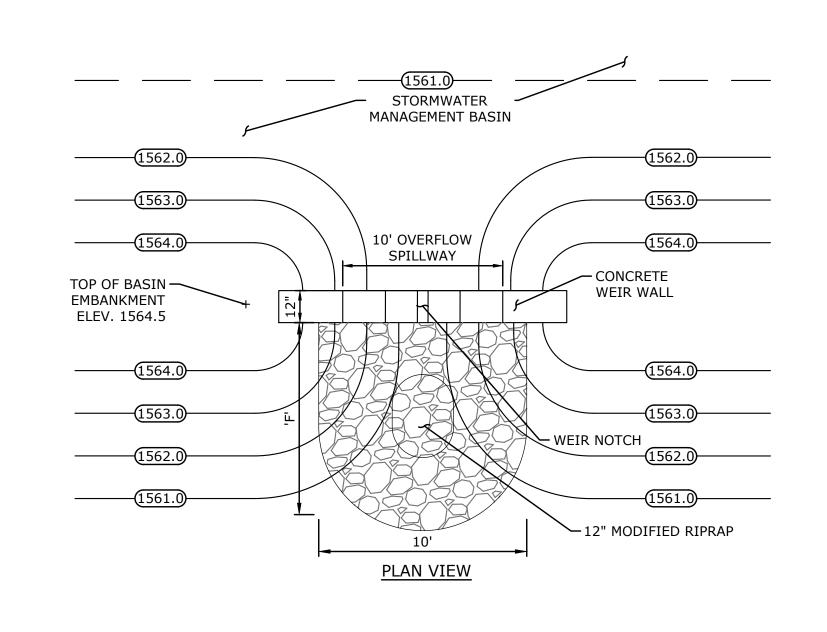
NOT TO SCALE (SEE NOTE 2)

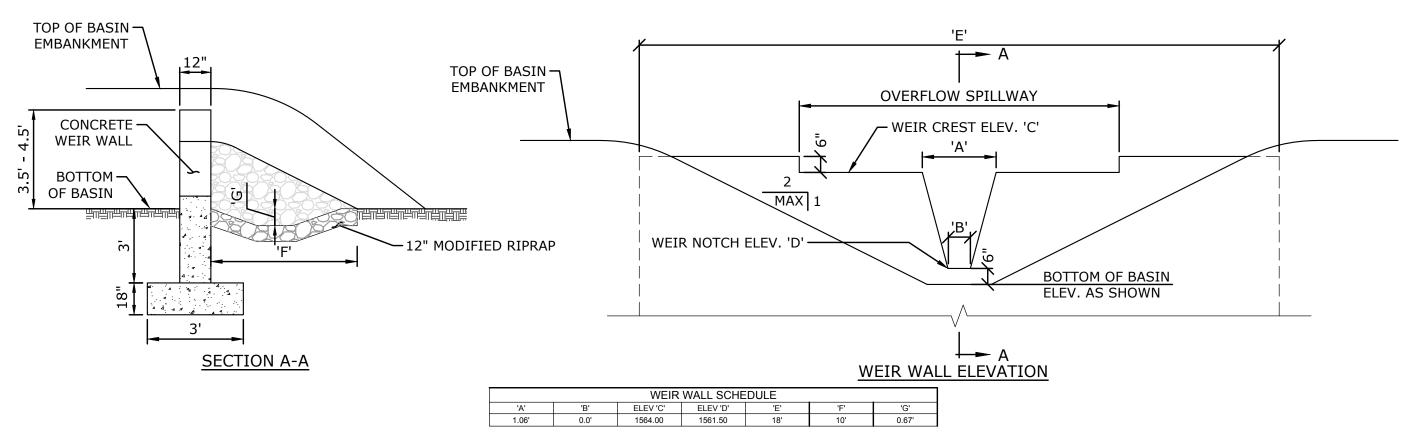


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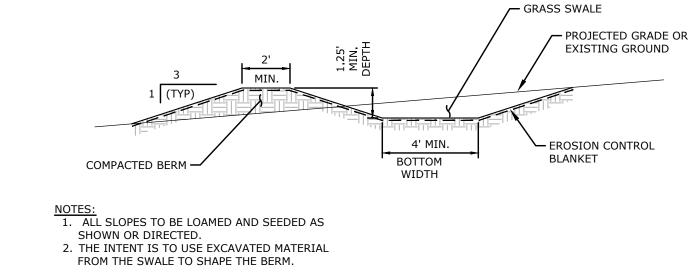
**ELECTRICAL CONDUIT TRENCH** NOT TO SCALE



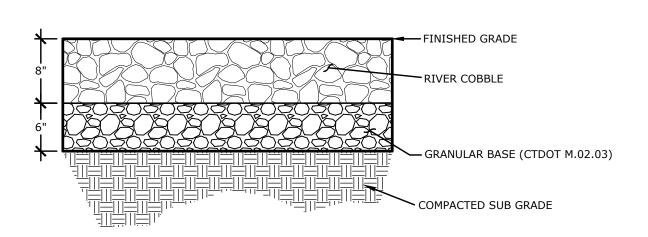


OUTLET WEIR WALL

NOT TO SCALE



# **DIVERSION SWALE**



SECTION - PROPOSED RIVER COBBLE

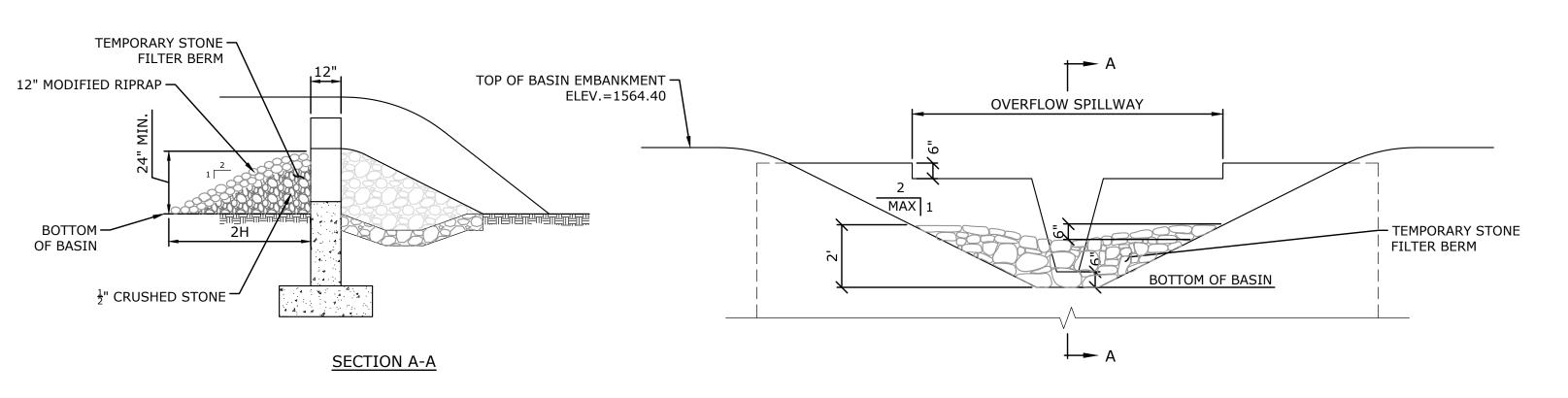
DRIVE CROSSING

NOT TO SCALE



 ${\underline{\sf NOTE}}$ : SIGN SHALL HAVE OVERALL DIMENSIONS OF 18" x 12".

NO TRESPASSING SIGN
NOT TO SCALE

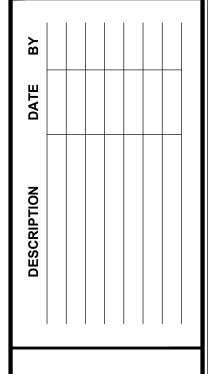


NOTES:
TEMPORARY STONE FILTER BERM TO BE REMOVED
ONCE ALL DISTURBED AREAS HAVE STABILIZED.

TEMPORARY RIPRAP FILTER BERM

NOT TO SCALE





GOSHEN PV SOLAR FACILITY
GREENSKIES CLEAN ENERGY LLC
129 BARTHOLOMEW HILL ROAD

MRG DESIGNED DRAWN MRG CHECKED

N.T.S.
SCALE

JULY 15, 2021
DATE

16763.00011
PROJECT NO.

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SD-3

