Exhibit A
Facility Site Plan

North Branford Solar

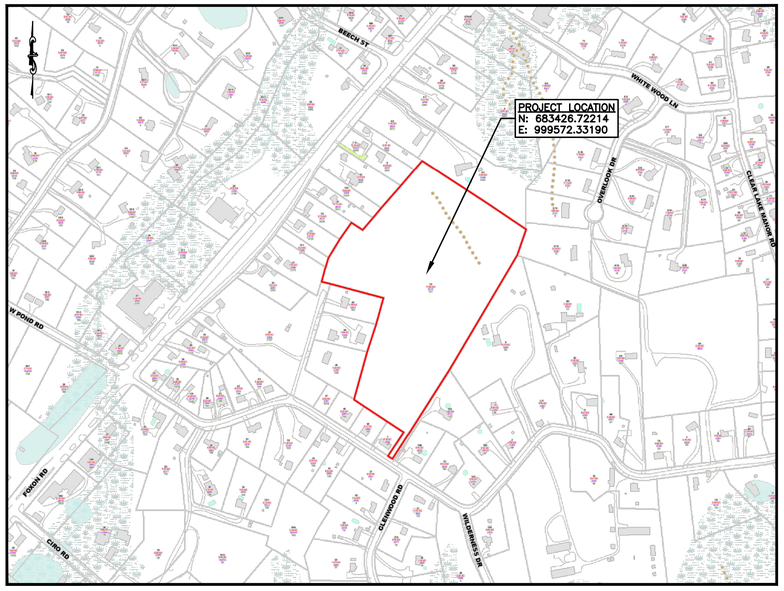
121 West Pond Road
North Branford, Connecticut 06471

Permitting Documents

Prepared For

ecos ENERGY

South 8th Street, #900
Minneapolis, MN 55402



LOCATION MAP
SCALE: 1"=±400'

PROPERTY LOCATION

121 West Pond Road
Branford, CT 06471
Parcel ID: 27A 14

ZONE

Residential - R-40

PROPERTY OWNERS & APPLICANT

PROPERTY OWNER:
PLH Vineyard Sky LLC
South 8th Street, #900
Minneapolis, MN 55402

APPLICANT:
ECOS Engergy
South 8th Street, #900
Minneapolis, MN 55402

PROJECT CONTACT INFORMATION

RECORD LANDOWNER:
PLH Vineyard Sky LLC
South 8th Street, #900
Minneapolis, MN 55402

OWNER/DEVELOPER:
ECOS Engergy
South 8th Street, #900
Minneapolis, MN 55402

CIVIL ENGINEER:
CLA Engineers, Inc.
317 Main Street
Norwich, CT 06360
TEL: 860-886-1966

SURVEYOR & WETLANDS DELINEATION:
Godfrey Hoffman Hodge, LLC
26 Broadway
North Haven, CT 06473
TEL: 203-239-4217

INDEX TO DRAWINGS

Revised: July 18, 2025
Revised: July 9, 2025
Revised: March 31, 2025
February 28, 2025

CLA Engineers, Inc.
CIVIL • STRUCTURAL • SURVEYING
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

STATE OF CONNECTICUT · KYLE J. MAUBERT · No. 24328 · LICENSED PROFESSIONAL ENGINEER

CLA

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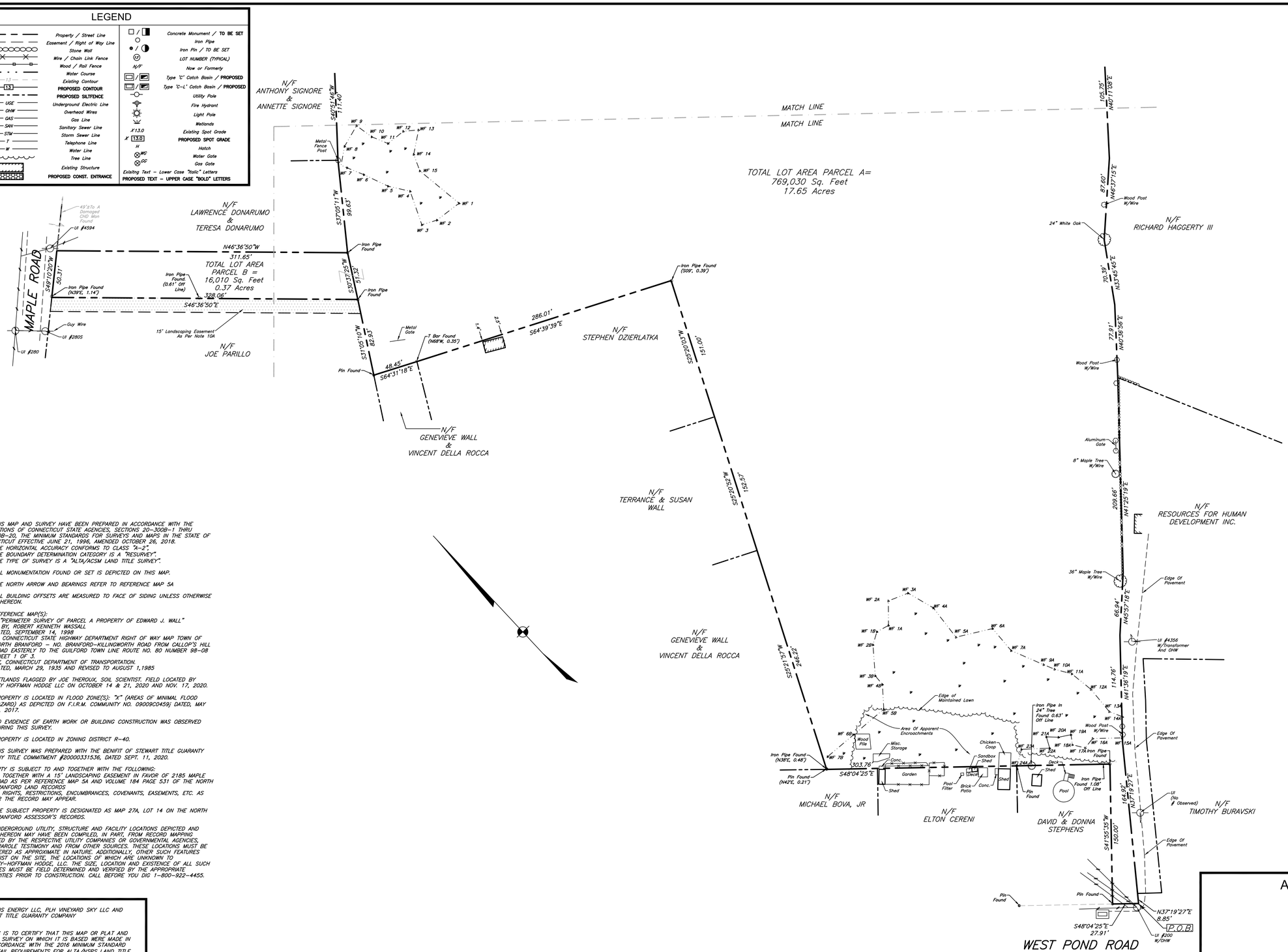
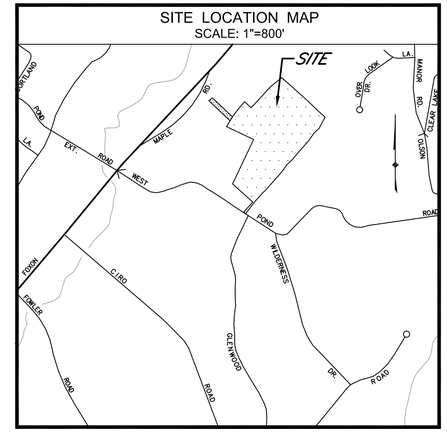
LEGEND

Property / Street Line	Concrete Monument / TO BE SET
Easement / Right of Way Line	Iron Pipe
Stone Wall	Iron Pin / TO BE SET
Wire / Chain Link Fence	LOT NUMBER (TYPICAL)
Wood / Rail Fence	Now or Formerly
Water Course	Type "C" Catch Basin / PROPOSED
Existing Contour	Type "C-L" Catch Basin / PROPOSED
PROPOSED CONTOUR	Utility Pole
PROPOSED SILTFENCE	Fire Hydrant
Underground Electric Line	Light Pole
Overhead Wires	Wetlands
Gas Line	Existing Spot Grade
Sanitary Sewer Line	PROPOSED SPOT GRADE
Storm Sewer Line	Hatch
Telephone Line	Water Gate
Water Line	Gas Gate
Tree Line	Existing Text – Lower Case "Italic" Letters
Existing Structure	PROPOSED TEXT – UPPER CASE "BOLD" LETTERS
PROPOSED CONST. ENTRANCE	



SITE LOCATION MAP
SCALE: 1"=800'



1. THIS MAP AND SURVEY HAVE BEEN PREPARED IN ACCORDANCE WITH THE REGULATIONS OF CONNECTICUT STATE AGENCIES, SECTIONS 20-300B-1 THRU 20-300B-20, THE MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT EFFECTIVE JUNE 21, 1996, AMENDED OCTOBER 26, 2018.
   A) THE HORIZONTAL ACCURACY CONFORMS TO CLASS "A-2".
   B) THE BOUNDARY DETERMINATION CATEGORY IS A "RESURVEY".
   C) THE TYPE OF SURVEY IS A "ALTA/ACSM LAND TITLE SURVEY".

2. ALL MONUMENTATION FOUND OR SET IS DEPICTED ON THIS MAP.

3. THE NORTH ARROW AND BEARINGS REFER TO REFERENCE MAP 5A

4. ALL BUILDING OFFSETS ARE MEASURED TO FACE OF SIDING UNLESS OTHERWISE NOTED HEREON.

5. REFERENCE MAP(S):
   A. "PERIMETER SURVEY OF PARCEL A PROPERTY OF EDWARD J. WALL" BY, ROBERT KENNETH WASSALL DATED, SEPTEMBER 14, 1998
   B. CONNECTICUT STATE HIGHWAY DEPARTMENT RIGHT OF WAY MAP TOWN OF NORTH BRANFORD – NO. BRANFORD-KILLINGWORTH ROAD FROM CALLOP'S HILL ROAD EASTERLY TO THE GUILFORD TOWN LINE ROUTE NO. 80 NUMBER 98-08 SHEET 1 OF 3.
   BY, CONNECTICUT DEPARTMENT OF TRANSPORTATION.
   DATED, MARCH 29, 1935 AND REVISED TO AUGUST 1,1985

6. WETLANDS FLAGGED BY JOE THEROUX, SOIL SCIENTIST, FIELD LOCATED BY GODFREY HOFFMAN HODGE LLC ON OCTOBER 14 & 21, 2020 AND NOV. 17, 2020.

7. PROPERTY IS LOCATED IN FLOOD ZONE(S): "X" (AREAS OF MINIMAL FLOOD HAZARD) AS DEPICTED ON F.I.R.M. COMMUNITY NO. 090090C0459J DATED, MAY 16, 2017.

8. NO EVIDENCE OF EARTH WORK OR BUILDING CONSTRUCTION WAS OBSERVED DURING THIS SURVEY.

9. PROPERTY IS LOCATED IN ZONING DISTRICT R-40.

10. THIS SURVEY WAS PREPARED WITH THE BENIFIT OF STEWART TITLE GUARANTY COMPANY TITLE COMMITMENT #20000331536, DATED SEPT. 11, 2020.

PROPERTY IS SUBJECT TO AND TOGETHER WITH THE FOLLOWING:
   A. TOGETHER WITH A 15' LANDSCAPING EASEMENT IN FAVOR OF 2185 MAPLE ROAD AS PER REFERENCE MAP 5A AND VOLUME 184 PAGE 531 OF THE NORTH BRANFORD LAND RECORDS
   B. RIGHTS, RESTRICTIONS, ENCUMBRANCES, COVENANTS, EASEMENTS, ETC. AS PER THE RECORD MAY APPEAR.

11. THE SUBJECT PROPERTY IS DESIGNATED AS MAP 27A, LOT 14 ON THE NORTH BRANFORD ASSESSOR'S RECORDS.

12. UNDERGROUND UTILITY, STRUCTURE AND FACILITY LOCATIONS DEPICTED AND NOTED HEREON MAY HAVE BEEN COMPILED, IN PART, FROM RECORD MAPPING SUPPLIED BY THE RESPECTIVE UTILITY COMPANIES OR GOVERNMENTAL AGENCIES, FROM PAROLE TESTIMONY AND FROM OTHER SOURCES. THESE LOCATIONS MUST BE CONSIDERED AS APPROXIMATE IN NATURE. ADDITIONALLY, OTHER SUCH FEATURES MAY EXIST ON THE SITE, THE LOCATIONS OF WHICH ARE UNKNOWN TO GODFREY-HOFFMAN HODGE, LLC. THE SIZE, LOCATION AND EXISTENCE OF ALL SUCH FEATURES MUST BE FIELD DETERMINED AND VERIFIED BY THE APPROPRIATE AUTHORITIES PRIOR TO CONSTRUCTION. CALL BEFORE YOU DIG 1-800-922-4455.

TO: ECOS ENERGY LLC, PLH VINEYARD SKY LLC AND STEWART TITLE GUARANTY COMPANY

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2016 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND INCLUDES ITEMS 2,3,4,6A, 6B,7A,8,11,13,16,18,19&20 OF TABLE A THEREOF. THE FIELDWORK WAS COMPLETED ON OCTOBER 15, 2008 AND REVISED TO AUGUST 25, 2016.

TO THE BEST OF MY KNOWLEDGE AND BELIEF THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON.

ADAM HOFFMAN, L.S. #15168

NOT VALID WITHOUT LIVE SIGNATURE AND SEAL.

STATE OF CONNECTICUT ADAM HOFFMAN No.15168 LICENSED LAND SURVEYOR

ALL WORK, LABOR, AND MATERIALS TO BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES AND LAWS WHICH SHALL TAKE PRECEDENCE OVER THESE DRAWINGS IN THE EVENT OF ERRORS AND/OR OMISSIONS HEREIN.

THE WORD "CERTIFY" OR "DECLARE" IS UNDERSTOOD TO BE AN EXPRESSION OF PROFESSIONAL OPINION BY THE LAND SURVEYOR AND/OR ENGINEER, WHICH IS BASED ON THEIR BEST KNOWLEDGE, INFORMATION AND BELIEF. AS SUCH IT CONSTITUTES NEITHER A GUARANTEE OR WARRANTY.

THE INFORMATION CONTAINED HEREIN IS THE PROPRIETARY AND CONFIDENTIAL PROPERTY OF GODFREY+HOFFMAN HODGE, LLC. REPRODUCTIONS, PUBLICATION, DISTRIBUTION, OR DUPLICATION IN WHOLE OR IN PART REQUIRES THE WRITTEN PERMISSION OF GODFREY+HOFFMAN HODGE, LLC. THIS DOCUMENT AND COPIES THEREOF ARE VALID ONLY IF THEY BEAR THE LIVE SIGNATURE AND LIVE SEAL OF THE DESIGNATED LICENSED PROFESSIONAL.

NO.	DATE	DESCRIPTION
2	12-04-20	CLIENT COMMENTS
1	11-17-20	ADDITIONAL WETLANDS LOCATION

REVISIONS

ALTA / NSPS LAND TITLE SURVEY

PREPARED FOR

ECOS ENERGY LLC

121 WEST POND ROAD & 2185 MAPLE ROAD
NORTH BRANFORD, CONNECTICUT

0 25 50 75 100 125

GODFREY HOFFMAN HODGE, LLC
PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS
26 BROADWAY NORTH HAVEN, CT 06473: TEL: 203.239.4217 - WWW.GODFREYHOFFMAN.COM
1783 FARMINGTON AVENUE, UNIONVILLE, CT 06085: TEL: 860.673.0444 - WWW.HODGELLC.COM

DRAWN BY:	CSW
CHECKED BY:	AH
DATE:	10-27-2020
SCALE:	1"=50'
PROJECT:	20-098
DRAWING:	1 of 2

LEGEND

Symbol description	Symbol description
Property / Street Line	Concrete Monument / TO BE SET
Easement / Right of Way Line	Iron Pipe
Stone Wall	Iron Pin / TO BE SET
Wire / Chain Link Fence	LOT NUMBER (TYPICAL)
Wood / Rail Fence	Now or Formerly
Water Course	Type 'C' Catch Basin / PROPOSED
Existing Contour	Type 'C-L' Catch Basin / PROPOSED
PROPOSED CONTOUR	Utility Pole
PROPOSED SILTFENCE	Fire Hydrant
Underground Electric Line	Light Pole
Overhead Wires	Wetlands
Gas Line	Existing Spot Grade
Sanitary Sewer Line	PROPOSED SPOT GRADE
Storm Sewer Line	Hatch
Telephone Line	Water Gate
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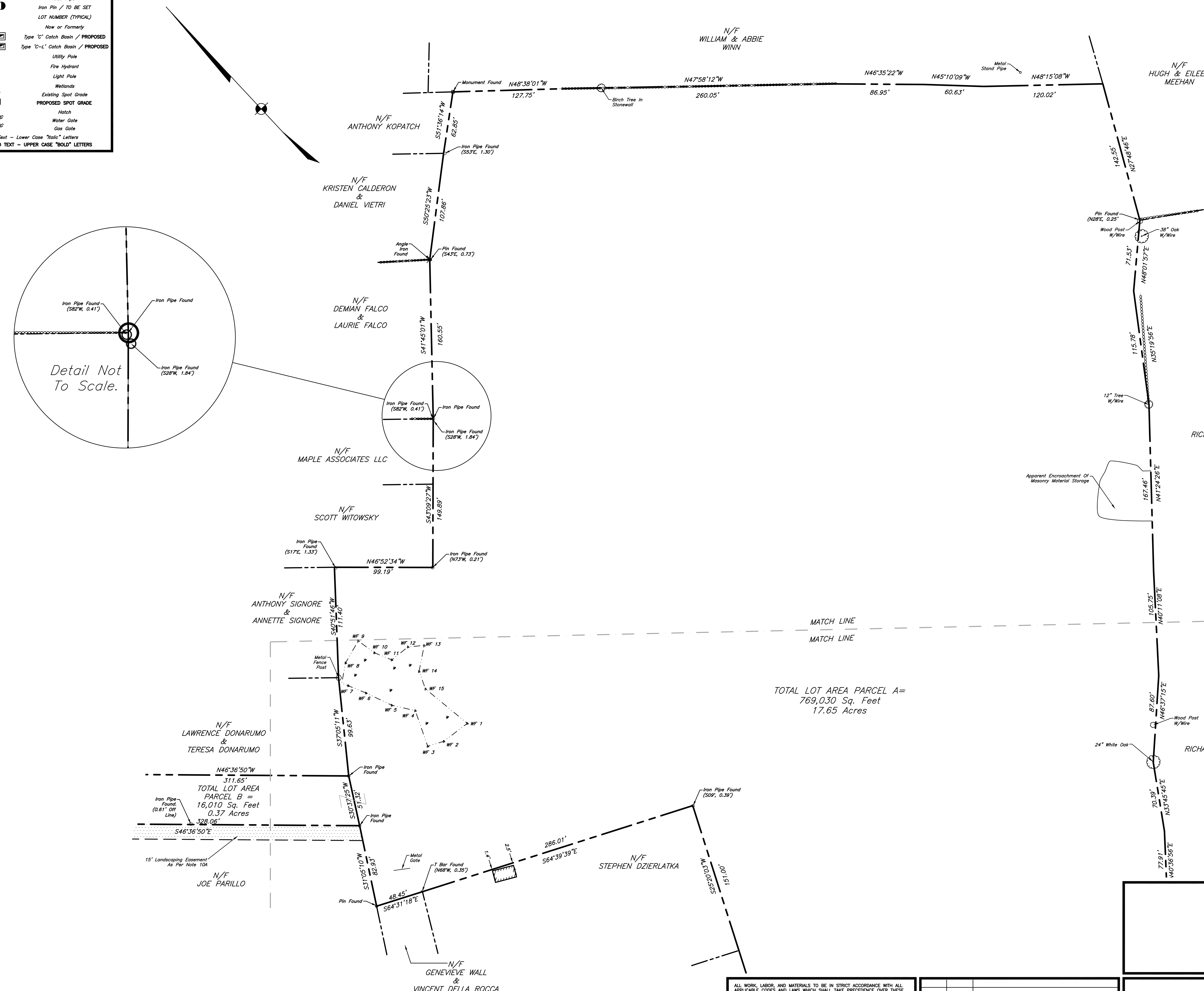
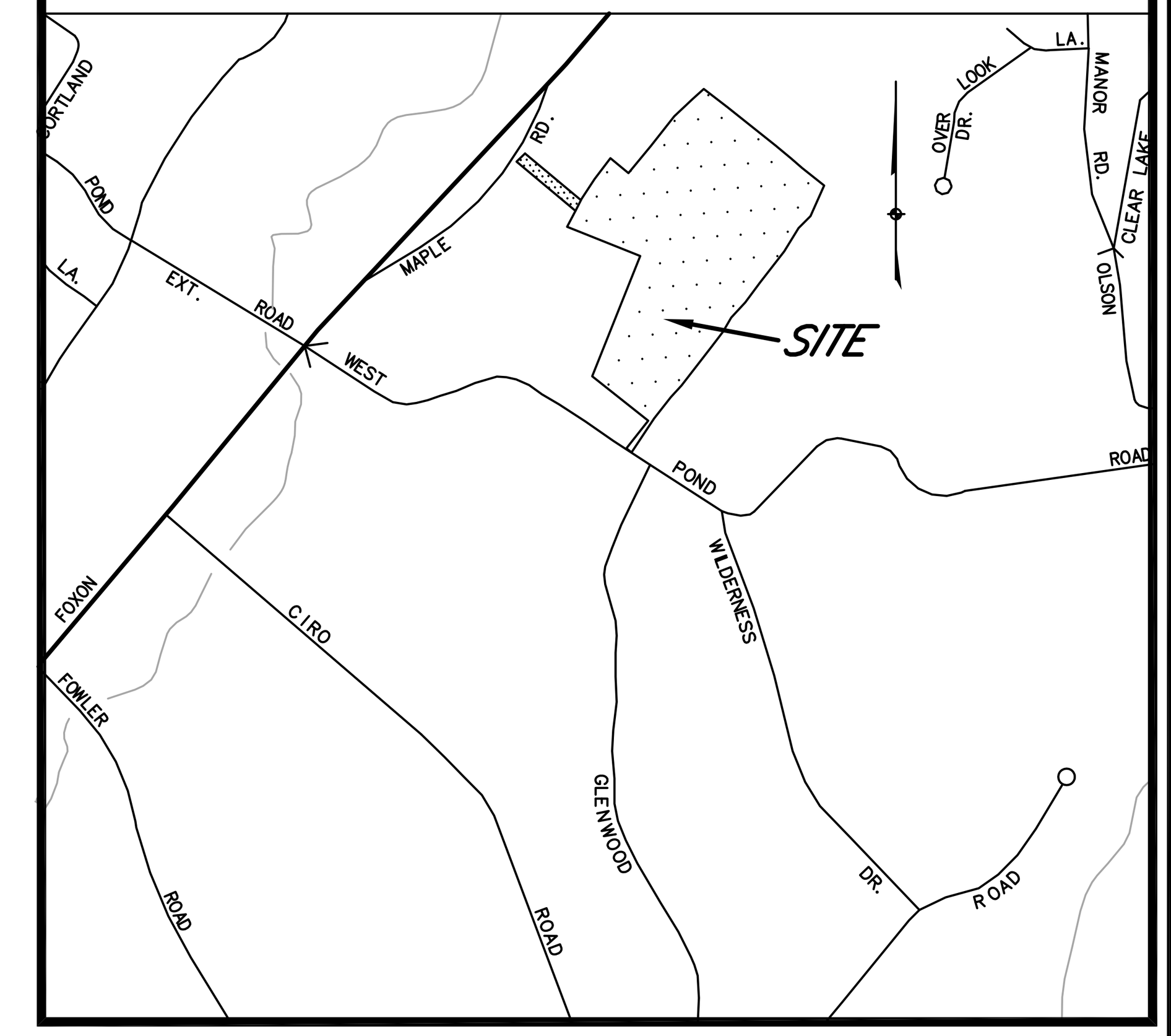
Tree Line	Exisitng Text – Lower Case "Italic" Letters
Existing Structure	PROPOSED TEXT – UPPER CASE "BOLD" LETTERS
PROPOSED CONST. ENTRANCE	



SITE LOCATION MAP
SCALE: 1"=800'



ALTA / NSPS LAND TITLE SURVEY

PREPARED FOR

ECOS ENERGY LLC

121 WEST POND ROAD & 2185 MAPLE ROAD

NORTH BRANFORD, CONNECTICUT

0 25 50 75 100 125

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2	12-04-20	CLIENT COMMENTS
1	11-17-20	ADDITIONAL WETLANDS LOCATION

REVISIONS

GODFREY HOFFMAN HODGE, LLC
PROFESSIONAL LAND SURVEYORS & CIVIL ENGINEERS
26 BROADWAY NORTH HAVEN, CT 06473; TEL: 203.239.4217 - WWW.GODFREYHOFFMAN.COM
1783 FARMINGTON AVENUE, UNIONVILLE, CT 06085; TEL: 860.673.0444 - WWW.HODGELLC.COM

DRAWN BY: CSW
CHECKED BY: AH
DATE: 10-27-2020
SCALE: 1"=50'
PROJECT: 20-098
DRAWING:

LEGEND TO DRAWINGS

EXISTING		PROPOSED
	PROPERTY LINE	
STM	CATCH BASIN & CULVERT	
W	WATER	
S	SEWER	
G	GAS	
E	ELECTRIC	
OH	ELECTRIC	OH
	UTILITY POLE	
	100-YR FLOOD PLAIN	
126	CONTOUR	000
124.2 x	SPOT ELEVATION	000.0 x
	SILT FENCE	
x x	FENCE	x x
	GUIDE RAIL	
	STONE WALL	
TH3	TEST HOLE	
	TREE/SHRUB LINE	
WFx	WETLAND FLAGS/LIMITS	
	STORMWATER MANAGEMENT BASINS	
	SOLAR MODULES	

PROJECT INFORMATION

EXISTING ZONING: RESIDENCE, R-40
PROPOSED USE: SPECIAL COMMERCIAL

SPECIFIC SITE NOTES:
1. NO LIGHTING PROPOSED WITH THE PROJECT
2. NO AUDIBLE NOISE GREATER THAN THE SITES EXISTING AMBIENT NOISE LEVEL SHALL BE DETECTABLE AT OR BEYOND THE PROPERTY LINE OF THE PROJECT
3. EMERGENCY VEHICULAR & SITE ACCESS TO BE PROVIDED TO ALL LOCAL RESPONDERS (POLICE, FIRE, ETC...)

PROJECT SUMMARY

2000kW AC SYSTEM
5512 (580w Modules) = 2.962 MW DC
1.59 DC/AC RATIO

PROJECT AREA & IMPACTS

TOTAL SITE AREA = ±18.02 ACRES

TOTAL SITE DISTURBANCE = ±14.72 ACRES
PROJECT AREA 1 = ±10.56 ACRES
PROJECT AREA 2 = ±4.16 ACRES

TOTAL ARRAY FOOTPRINT
(SOLAR MODULE ENVELOPE) = ±8.28 ACRES

TOTAL PROPOSED IMPERVIOUS AREA:
GRAVEL ACCESS ROAD, STRUCTURAL POSTS & EQUIPMENT PADS = ±0.20 ACRES
SOLAR MODULES EFFECTIVE IMPERVIOUS = ±0.46 ACRES

No.	DATE	REVISION
3	7/16/2025	Misc. Revisions Per Owner Comments
2	7/9/2025	Misc. Revisions Per Owner Comments
1	3/31/2025	Misc. Revisions Per Owner Comments

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317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

STATE OF CONNECTICUT · KYLE J. RAUBER · No. 24326 · PROFESSIONAL ENGINEER

Plans Prepared for ECOS Energy
South 8th Street, #900, Minneapolis, MN 55402

North Branford Solar

121 West Pond Road
North Branford, CT 06471

Overall Site Plan

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. C-1

M:\6000\6600\6693 North Branford Solar\Drawings\CLA-6693 N Branford Solar - Sheet 02-06 Site Plans R3.dwg

MATCH LINE – SEE SHEET C-3

STABILIZE THE ARRAY AREAS IN ACCORDANCE WITH THE EROSION CONTROL NOTES AND THE CONSTRUCTION DETAILS:
- DISTURBED AREAS SHALL BE MINIMIZED
- ANY DISTURBED AREAS LEFT IDLE FOR MORE THAN 14 DAYS MUST BE STABILIZED
- PROVIDE MIN. 6" TOPSOIL, SEED, FERTILIZER, AND MULCH OVER ALL DISTURBED AREAS (SEE SLOPE STABILIZATION DETAILS)
- PROVIDE EROSION CONTROL MATTING OR FIBER REINFORCED HYDROSEED OVER ALL 3:1 SLOPES OR STEEPER. MATTING OR HYDROSEED MUST BE INSTALLED WITHIN 24-HOURS OF TOPSOIL PLACEMENT.

40' 0' 40' 80'
SCALE: 1"=40'

No.	DATE	REVISION
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STATE OF CONNECTICUT KYLE J. HAUBERT No. 24329 LICENSED PROFESSIONAL ENGINEER

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North Branford Solar

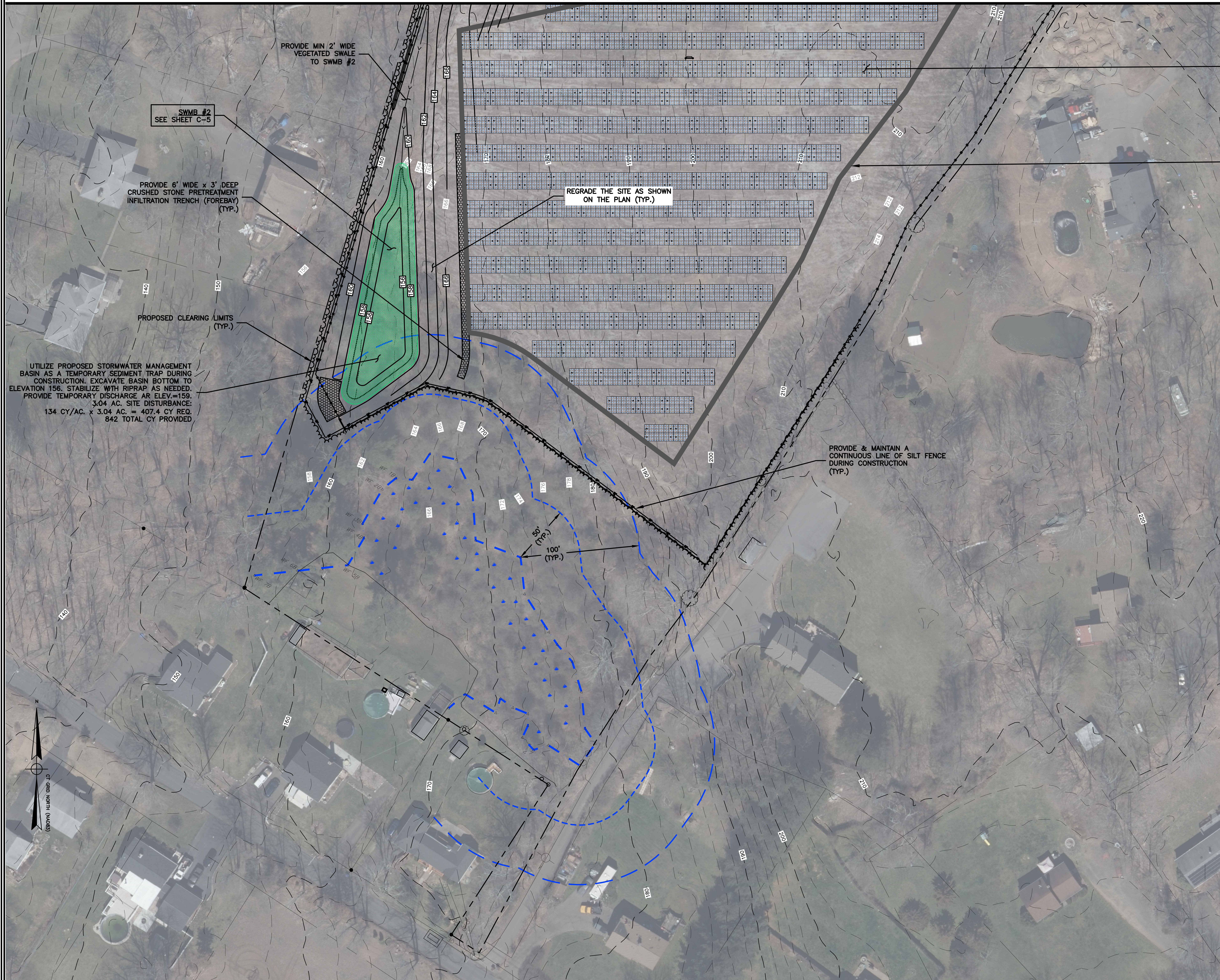
121 West Pond Road
North Branford, CT 06471

Grading and Erosion & Sedimentation Control Plan

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. C-2

CLA

MATCH LINE – SEE SHEET C-2



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SOLAR MODULE ENVELOPE:
RACKS TO BE ADJUSTED WITHIN THE ENVELOPE DURING CONSTRUCTION BASED ON THE FIELD CONDITIONS (TYP.)

40' 0' 40' 80'
SCALE: 1"=40'

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CLA

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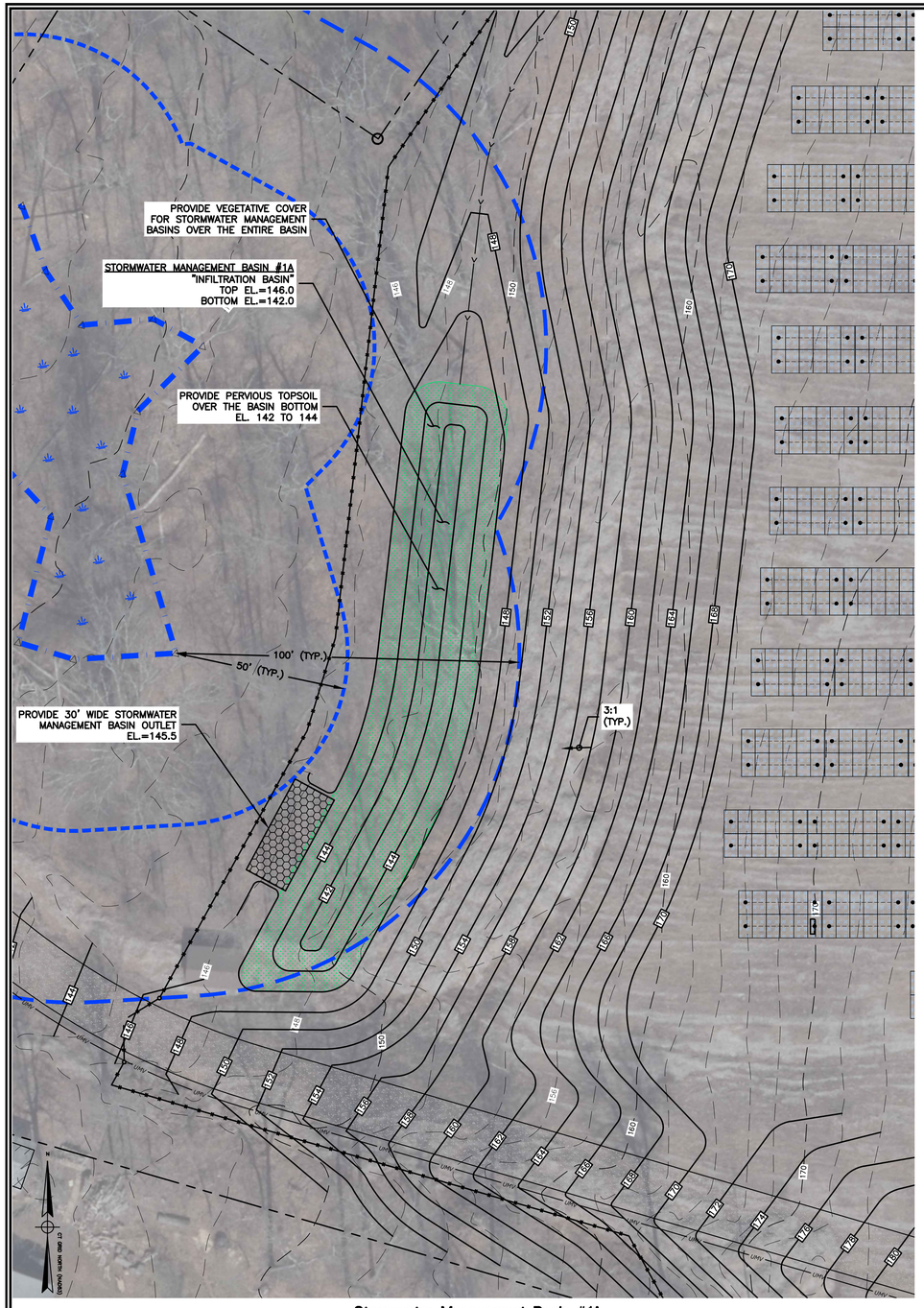

Stormwater Management Basin #1A

20' 0' 20' 40'

SCALE: 1"=20'

Stormwater Management Basin #1B

20' 0' 20' 40'

SCALE: 1"=20'

40' 0' 40' 80'

SCALE: 1"=40'

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Stormwater Management Basin Plans

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. C-4

CLA

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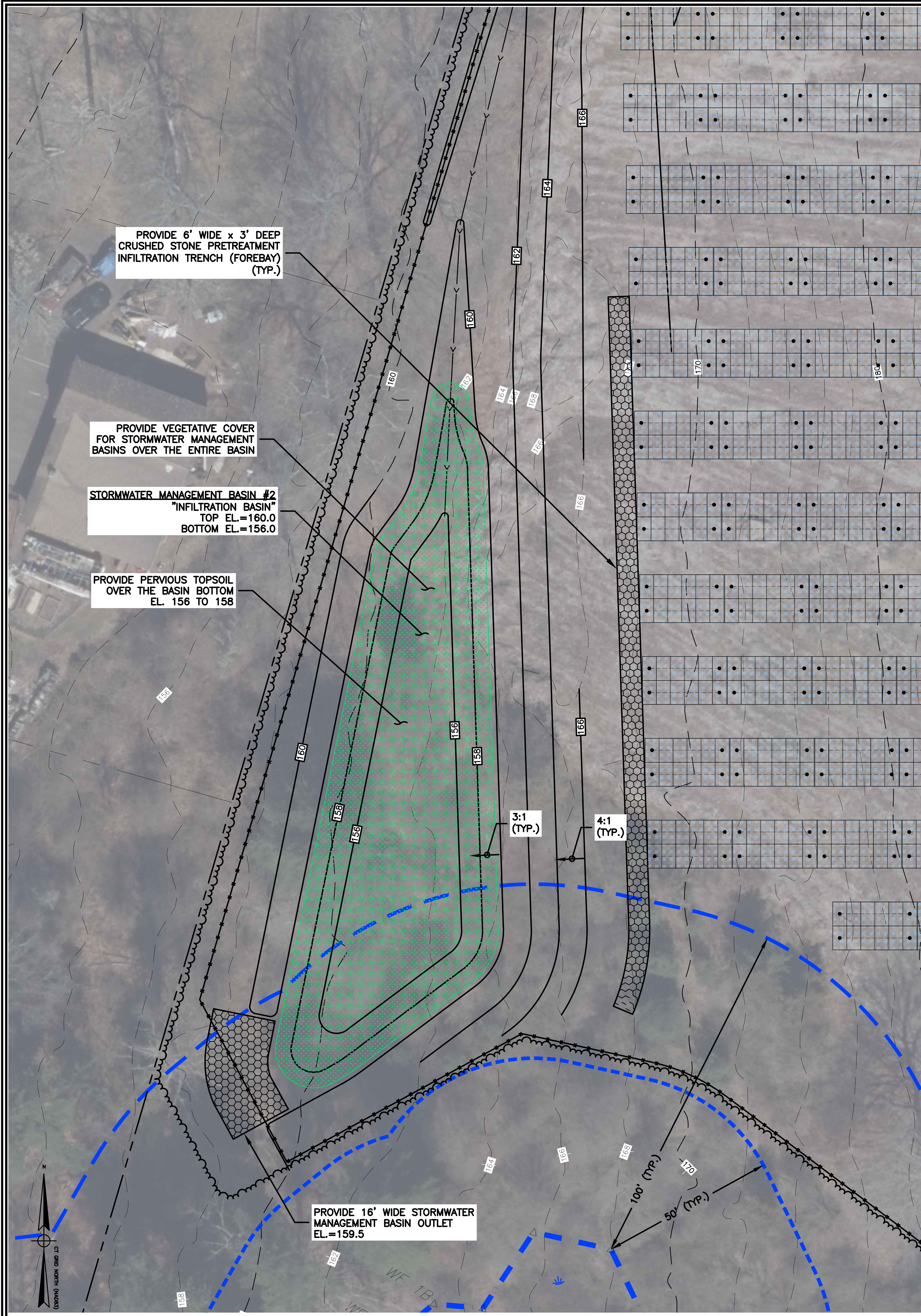
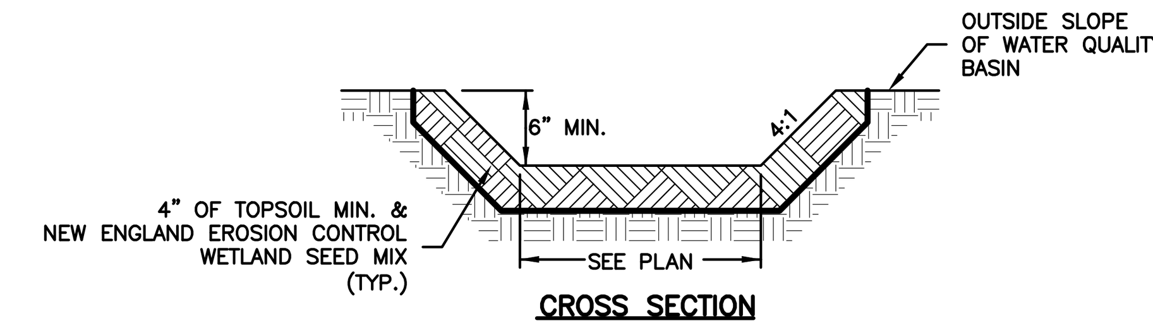
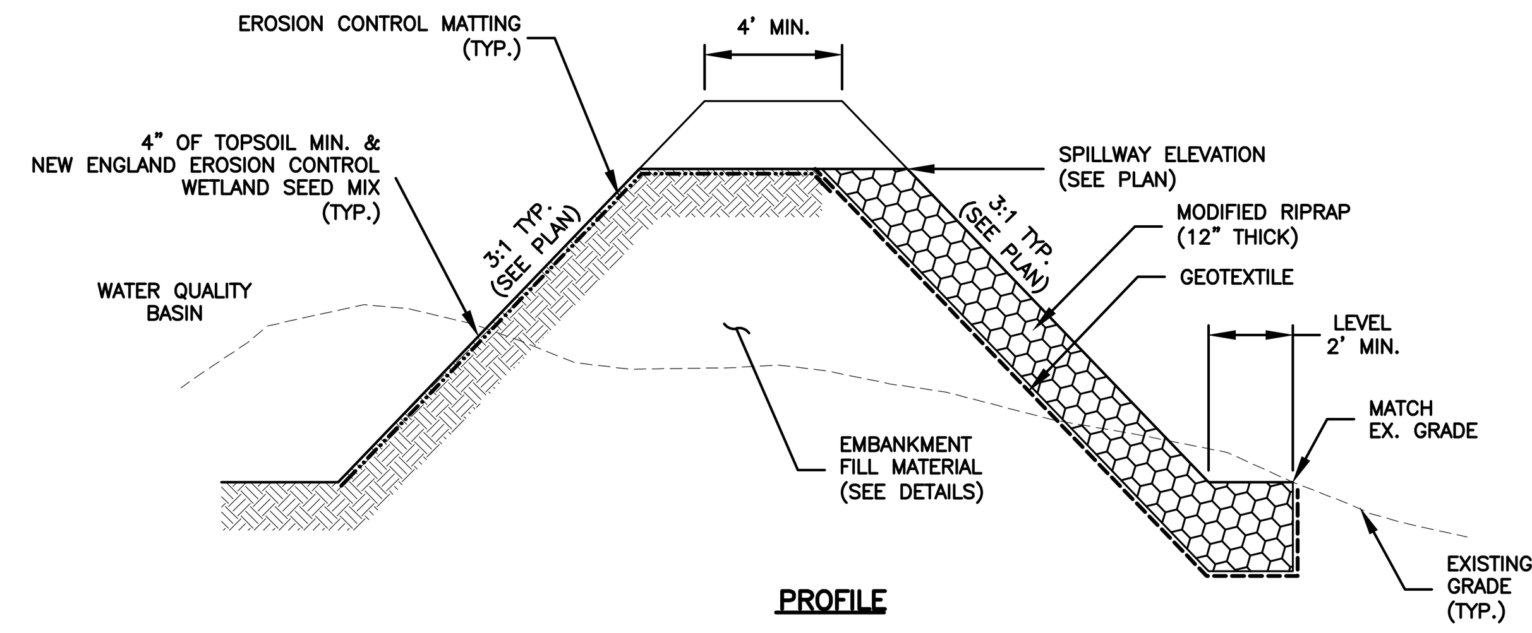


Stormwater Management Basin #2

SCALE: 1"=20'



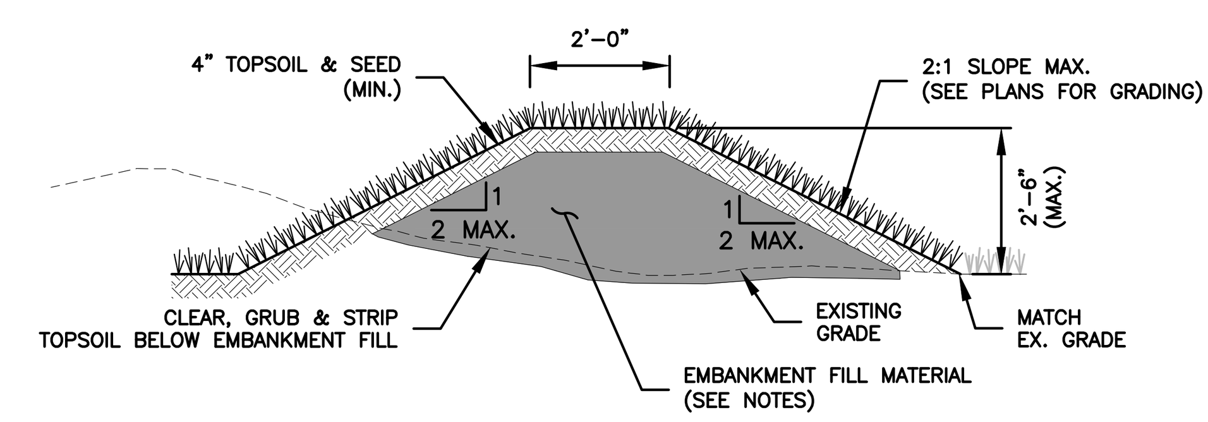


PROFILE

NOTES:
1. EROSION CONTROL MATTING SHALL BE NORTH AMERICAN GREEN C125 OR APPROVED EQUAL. EROSION CONTROL MATTING MUST BE INCLUDED ON THE DOT QUALIFIED PRODUCT LIST. EROSION CONTROL MATTING SHALL BE LISTED UNDER CLASS I: SLOPE PROTECTION, TYPE D.
2. GEOTEXTILE SHALL BE PROPEX GEOTEX 104 F OR APPROVED EQAUL. GEOTEXTILE MUST BE INCLUDED ON THE DOT QUALIFIED PRODUCT LIST. GEOTEXTILE SHALL BE LISTED UNDER EROSION CONTROL, CLASS A.

STORMWATER QUALITY BASIN OUTLET DETAIL

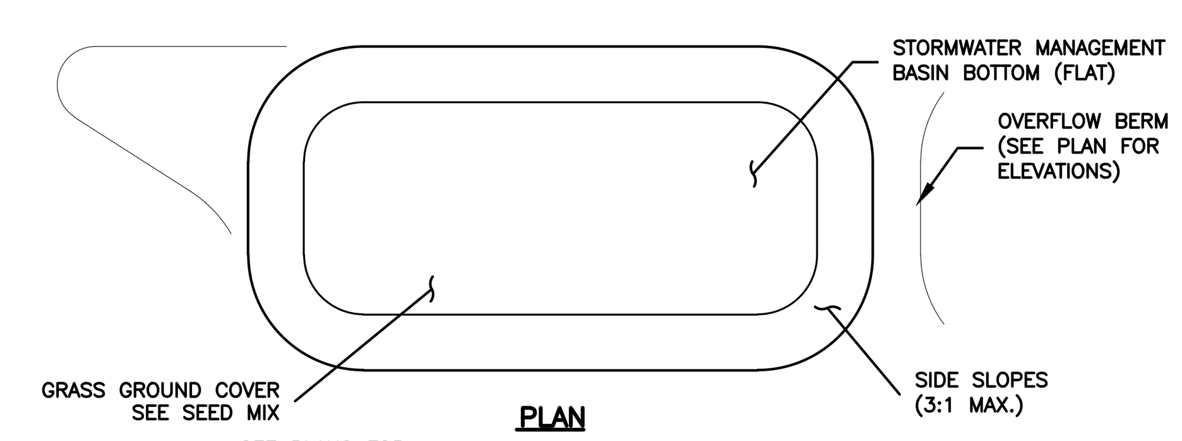
NOT TO SCALE



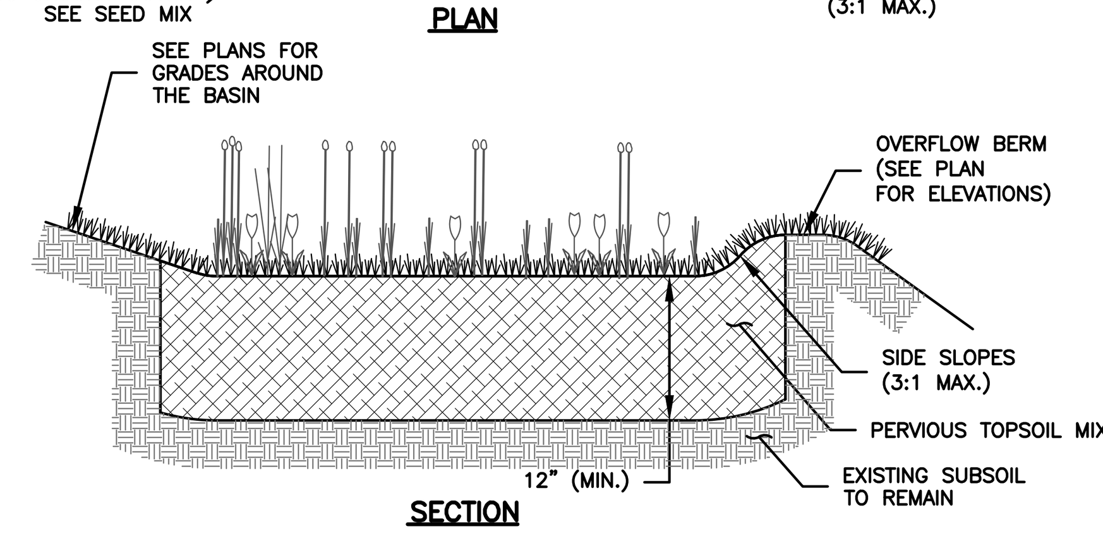
NOTES:
1. EMBANKMENT FILL MATERIAL SHALL CONSIST OF THE FOLLOWING
   A. CLEAN MINERAL SOIL, FREE OF ROOTS, WOODY VEGETATION, STUMPS, SOD, OVERSIZED STONES, ROCKS, OR OTHER ORGANIC UNSUITABLE MATERIAL.
   B. SHALL BE A NON-FREE DRAINING GLACIAL TILL
   C. MATERIAL SHALL CONTAIN AT LEAST 15% PASSING THE #200 SIEVE AND NOT MORE THAN 50% PASSING THE #200 SIEVE.
   D. NO STONES LARGER THAN 6" SHALL BE ALLOWED WITHIN THE EMBANKMENT.
   E. NO STONES LARGER THAN 3" SHALL BE ALLOWED WITHIN 2 FEET OF STRUCTURES.
2. EMBANKMENT FILL SHALL BE PLACED IN MAXIMUM 9" LIFTS. THE EXISTING GRADE AND THE SURFACE OF EACH LIFT SHALL BE SCARIFIED PRIOR TO THE PLACEMENT OF THE NEXT LIFT.
3. EMBANKMENT FILL SHALL BE COMPACTED TO 90%-95% STANDARD PROCTOR COMPACTION

STORMWATER QUALITY BASIN EMBANKMENT FILL SECTION DETAIL

NOT TO SCALE



PLAN



SECTION

NOTES:
1. PERVIOUS TOPSOIL MIX SHALL MEET THE REQUIREMENTS OF DOT FORM 818, ARTICLE M.13.01.1 WITH THE FOLLOWING GRADATION:

SIEVE	% PASSING
#10	100%
#40	60-80%
#80	5%
#200	0%

DO NOT COMPACT MATERIAL DURING INSTALLATION.
2. EXCAVATE STORMWATER MANAGEMENT BASIN TO THE GRADES SPECIFIED WITH SIDEWALLS AS NEAR TO VERTICAL AS POSSIBLE. INSTALL PERVIOUS TOPSOIL MIX. DO NOT COMPACT TOPSOIL MIX.
3. SEED MIX SHALL CONFORM THE REQUIREMENTS SPECIFIED IN THE VEGETATIVE COVER NARRATIVE HEREIN.
4. INSTALL SHRUBS AND ALL PLANTINGS IN CONFORMANCE WITH THE CONSTRUCTION DETAILS AND LANDSCAPING NOTES HEREIN.

TYPICAL STORMWATER MANAGEMENT BASIN SECTION

NOT TO SCALE

VEGETATIVE COVER FOR STORMWATER MANAGEMENT BASIN

SEED MIXTURE FOR SETTLING BASINS SHALL BE THE "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES" FROM NEW ENGLAND WETLAND PLANTS, AMHERST, MA, TELEPHONE NO. 413-548-8000

THE BEST RESULTS ARE OBTAINED WITH A SPRING SEEDING. SUMMER AND FALL SEEDING REQUIRE A LIGHT MULCHING OF WEED FREE STRAW TO CONSERVE MOISTURE. LATE FALL AND WINTER DORMANT SEEDING REQUIRE A 10% INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE.

RAIN GARDEN SEED MIXTURE	LBS./ACRE	LBS./1000 S.F.
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES	35	0.80

SPECIES: Virginia Wild Rye, (Elymus virginicus), Creeping Red Fescue, (Festuca rubra), Little Bluestem, (Schizachyrium scoparium), Big Bluestem, (Andropogon gerardii), Fox Sedge, (Carex vulpinoidea), Switch Grass, (Panicum virgatum), Rough Bentgrass, (Agrostis scabra), New England Aster, (Aster novae-angliae), Boneset, (Eupatorium perfoliatum), Grass Leaved Goldenrod, (Euthamia graminifolia), Green Bulrush, (Scirpus atrovirens), Blue Vervain, (Verbena hastata), Soft Rush, (Juncus effusus), Wool Grass, (Scirpus cyperinus)

No.	DATE	REVISION
3	7/18/2025	Misc. Revisions Per Owner Comments
2	7/9/2025	Misc. Revisions Per Owner Comments
1	3/31/2025	Misc. Revisions Per Owner Comments

CLA Engineers, Inc.
Civil · Structural · Surveying
317 Main Street Norwich, CT 06360
(860) 886-1966 Fax (860) 886-9165

STATE OF CONNECTICUT KYLE J. HAUBERT No. 24329 LICENSED PROFESSIONAL ENGINEER

Plans Prepared for ECOS Energy
South 8th Street, #900, Minneapolis, MN 55402

North Branford Solar

121 West Pond Road
North Branford, CT 06471

Stormwater Management Basin Plans & Details

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. C-5

CLA

PROVIDE ARBORVITAE TREES AT 8'-0" ON CENTER. 13 TREES MINIMUM.

PROVIDE VEGETATIVE COVER FOR STORMWATER MANAGEMENT BASINS OVER THE ENTIRE BASIN

GRAVEL ACCESS DRIVE (TYP.)

PROVIDE VEGETATED SWALES (SEE DETAIL) (TYP.)

PROVIDE VEGETATIVE COVER FOR STORMWATER MANAGEMENT BASINS OVER THE ENTIRE BASIN

FOXON ROAD

ROUTE 80

MAPLE ROAD

PROVIDE VEGETATIVE COVER FOR STORMWATER MANAGEMENT BASINS OVER THE ENTIRE BASIN

PROVIDE ARBORVITAE TREES AT 8'-0" ON CENTER. 40 TREES MINIMUM.

50' (TYP.)

100' (TYP.)

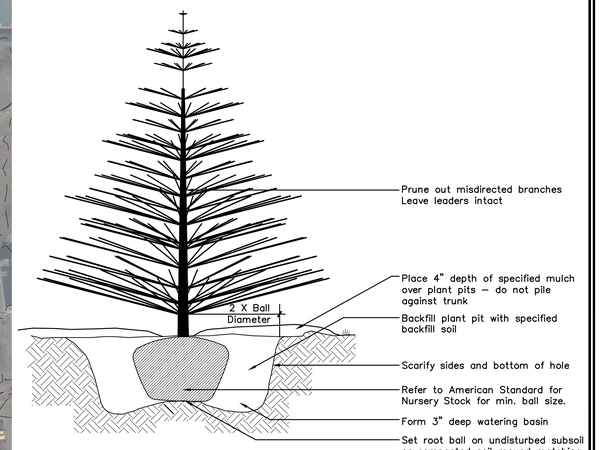
WEST POND ROAD

N

SCALE: 1"=80'

STABILIZE THE ARRAY AREAS IN ACCORDANCE WITH THE EROSION CONTROL NOTES AND THE CONSTRUCTION DETAILS:

- DISTURBED AREAS SHALL BE MINIMIZED
- ANY DISTURBED AREAS LEFT IDLE FOR MORE THAN 14 DAYS MUST BE STABILIZED
- PROVIDE MIN. 6" TOPSOIL, SEED, FERTILIZER, AND MULCH OVER ALL DISTURBED AREAS (SEE SLOPE STABILIZATION DETAILS)
- PROVIDE EROSION CONTROL MATTING OR FIBER REINFORCED HYDROSEED OVER ALL 3:1 SLOPES OR STEEPER. MATTING OR HYDROSEED MUST BE INSTALLED WITHIN 24-HOURS OF TOPSOIL PLACEMENT.



TYPICAL ARBORVITAE PLANTING DETAIL
NOT TO SCALE

No.	DATE	REVISION
3	7/18/2025	Misc. Revisions Per Owner Comments
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STATE OF CONNECTICUT · KYLE J. KAUBERT · No. 24328 · LICENSED PROFESSIONAL ENGINEER

Plans Prepared for ECOS Energy
South 8th Street, #900, Minneapolis, MN 55402

North Branford Solar

121 West Pond Road
North Branford, CT 06471

Landscaping Plan

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. C-6

CLA

M:\6000\6600\6693 North Branford Solar\Drawings\CLA-6693 N Branford Solar - Sheet 02-06 Site Plans 83.dwg

EROSION & SEDIMENTATION CONTROL NARRATIVE

CONTACT:
STEVE BROYER
ECOS ENERGY
222 SOUTH 9TH STREET
SUITE 1600
MINNEAPOLIS MN 55402

THE PURPOSE OF THIS PROJECT IS TO INSTALL SOLAR MODULES AND ASSOCIATED ELECTRICAL EQUIPMENT FOR POWER GENERATION.

THE TOTAL AREA OF THE PROJECT SITE IS APPROXIMATELY 12.95 ACRES AND THE TOTAL AREA OF THE SITE THAT IS EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES IS 10.7 ACRES.

THE EROSION & SEDIMENTATION CONTROL PLAN AND DETAILS HAVE BEEN DEVELOPED AS A STRATEGY TO CONTROL SOIL EROSION AND SEDIMENTATION DURING AND AFTER CONSTRUCTION. THIS PLAN IS BASED ON THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" EFFECTIVE MARCH 30, 2024 BY THE COUNCIL ON SOIL AND WATER CONSERVATION IN COLLABORATION WITH CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.

IN THE AREAS OF SOLAR PANEL INSTALLATION, THERE ARE SEVERAL ACTIVITIES (SITE GRADING, FOOTING INSTALLATION, PANEL INSTALLATION, AND ELECTRICAL TRENCH WORK) THAT WILL DISTURB SOIL. SOIL MUST BE PROMPTLY STABILIZED AFTER EACH ACTIVITY.

THIS PROJECT WILL NOT BE PHASED. THE DEVELOPMENT WILL FOLLOW THE CONSTRUCTION SEQUENCE PROVIDED ON THIS PLAN.

THE PROPOSED LOCATIONS OF SILTATION AND EROSION CONTROL MEASURES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE SILT FENCE, HAY BALES, EROSION MAT, STONE CHECK DAMS, A CONSTRUCTION ENTRANCE, AND/OR OTHER EROSION CONTROL MEASURES AS NEEDED OR DIRECTED BY THE ENGINEER OR TOWN STAFF TO ADEQUATELY PREVENT SEDIMENT TRANSPORT.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO SITE DISTURBANCE.

THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY SIGNIFICANT RAINFALL OR SNOW MELT. SEDIMENT DEPOSITS MUST BE REMOVED BEFORE DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER. SEDIMENT CONTROL DEVICES SHALL REMAIN IN PLACE AND BE MAINTAINED BY THE CONTRACTOR UNTIL AREAS UPSLOPE ARE PERMANENTLY STABILIZED.

STAKED HAY BALE SILT BARRIERS OR SILT FENCE SHALL BE INSTALLED AROUND ANY TEMPORARY STOCKPILE AREAS. TEMPORARY VEGETATIVE COVER MAY BE REQUIRED (SEE NOTE).

CONTINUOUS DUST CONTROL USING WATER OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED ROADWAY SURFACES. THE USE OF CALCIUM CHLORIDE FOR DUST CONTROL SHALL NOT BE ALLOWED.

IF DEWATERING IS NECESSARY DURING ANY TIME OF CONSTRUCTION A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS SHOWN IN THE HAY-BALE BARRIER DEWATERING DETAIL OR ALTERNATE METHOD PROPOSED BY THE CONTRACTOR AND APPROVED BY THE OWNER AND ENGINEER.

ALL DISTURBED AREAS SHALL BE RESTORED PER THE SLOPE STABILIZATION AND PERMANENT VEGETATION DETAILS. ALL DISTURBED AREAS THAT ARE SLOPED LESS THAN THREE HORIZONTAL TO ONE VERTICAL (3:1) SLOPE SHALL BE LOAMED, SEEDED, FERTILIZED AND MULCHED PER THE PERMANENT VEGETATIVE COVER SPECIFICATIONS. EROSION CONTROL MATTING OR HYDROSEED SHALL BE PROVIDED ON ALL DISTURBED AREAS THAT ARE SLOPED THREE HORIZONTAL TO ONE VERTICAL (3:1) OR MORE.

IF FINAL SEEDING OF DISTURBED AREAS IS NOT TO BE COMPLETED BEFORE OCTOBER 15, THE CONTRACTOR SHALL PROVIDE TEMPORARY MULCHING (DORMANT SEEDING MAY BE ATTEMPTED AS WELL) TO PROTECT THE SITE AND DELAY PERMANENT SEEDING.

WHEN FEASIBLE, TEMPORARY SEEDING OF DISTURBED AREAS THAT HAVE NOT BEEN FINISHED GRADED SHALL BE COMPLETED PRIOR TO OCTOBER 15.

ON EACH FRIDAY AND ALSO ON THE DAY BEFORE ANY RAIN FORECAST OF 0.5 INCHES OR MORE, THE CONTRACTOR SHALL HAY MULCH ALL EXPOSED SOIL.

ANY EROSION WHICH OCCURS WITHIN THE DISTURBED AREAS SHALL BE IMMEDIATELY REPAIRED AND STABILIZED. DURING THE CONSTRUCTION PHASE, INTERCEPTED SEDIMENT SHALL BE RETURNED TO THE SITE. POST SEEDING, INTERCEPTED SEDIMENT, IF ANY, SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE TOWN AND ENGINEER.

EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL VEGETATION IS RE-ESTABLISHED OR SLOPES ARE STABILIZED AND REMOVAL IS APPROVED BY THE ENGINEER.

UNFORESEEN PROBLEMS WHICH ARE ENCOUNTERED IN THE FIELD SHALL BE SOLVED ACCORDING TO THE "CONNECTICUT GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL" EFFECTIVE MARCH 30, 2024 BY THE COUNCIL ON SOIL AND WATER CONSERVATION IN COLLABORATION WITH CONNECTICUT DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION.

THE CONTRACTOR SHALL PROVIDE THE NAME AND EMERGENCY CONTACT INFORMATION FOR THE PROJECT PERSONNEL RESPONSIBLE FOR EROSION AND SEDIMENTATION CONTROLS PRIOR TO THE START OF CONSTRUCTION.

THE OWNER WILL EMPLOY A CERTIFIED SOIL SCIENTIST TO PERFORM WEEKLY EROSION & SEDIMENTATION CONTROL INSPECTION.

A. ROUTINE REPAIRS OR MODIFICATIONS SHALL BE COMPLETED BY THE CONTRACTOR WITHIN 48 HOURS AFTER DIRECTION BY THE INSPECTOR.
B. EMERGENCY REPAIRS SHALL BE COMPLETED IMMEDIATELY UPON DIRECTION BY THE INSPECTOR.

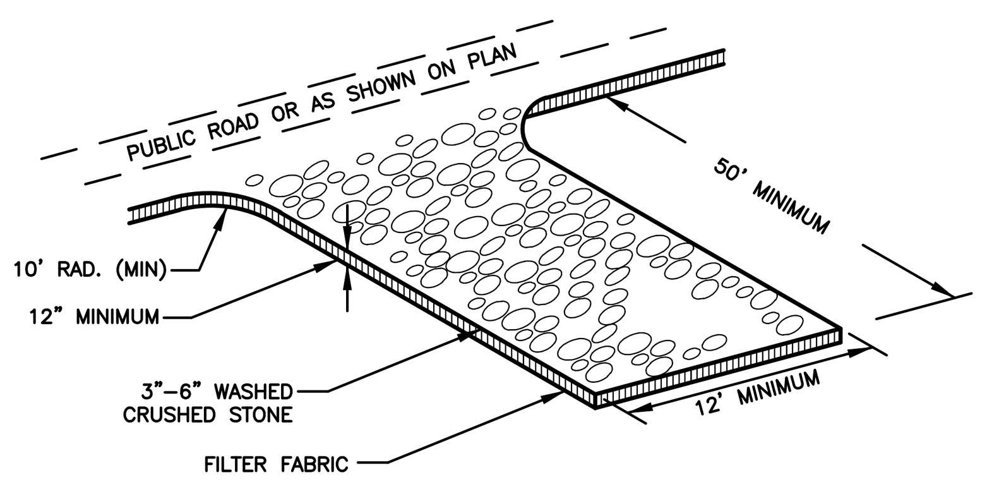
THE WETLANDS ENFORCEMENT OFFICER SHALL BE NOTIFIED AT LEAST 2 BUSINESS DAYS PRIOR TO CONSTRUCTION TO INSPECT EROSION CONTROLS.

STATE AND FEDERAL PERMITS REQUIRED: THIS PROJECT REQUIRES A PERMIT FROM THE STATE OF CONNECTICUT SITING COUNCIL.

THE FOLLOWING DOCUMENTS ARE CONSIDERED TO BE PART OF THIS EROSION AND SEDIMENTATION CONTROL PLAN: THE COMPLETE SITE PLANS, THE STORMWATER MANAGEMENT PLAN PREPARED BY CLA ENGINEERS, AND THE CTDEEP 2024 MANUAL.

NOTE: THE CONTRACTOR SHALL CONTINUALLY STORE THE FOLLOWING MATERIALS ONSITE DURING CONSTRUCTION TO MEET UNEXPECTED EROSION NEEDS

* 100 LF OF SILT FENCE
* 10 HAY BALES
* WOOD CHIPS OR CRUSHED STONE



NOTES:
1. ROCK CONSTRUCTION ENTRANCE SHOULD BE A MINIMUM THICKNESS OF 1.0' AND CONTAIN MAXIMUM SIDE SLOPES OF 4:1.
2. ROCK ENTRANCE SHOULD BE INSPECTED AND MAINTAINED REGULARLY. ROCK ENTRANCE LENGTH MAY NEED TO BE EXTENDED IN CLAY SOILS.

ANTI-TRACKING CONSTRUCTION ENTRANCE DETAIL
NOT TO SCALE

CLA

STORMWATER MANAGEMENT & POLLUTION PREVENTION PLAN

DURING CONSTRUCTION

1. POLLUTION PREVENTION TEAM:
THE CONTRACTOR SHALL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.
2. SWEEPING:
PAVED SURFACES, SIDEWALKS AND OTHER IMPERVIOUS SURFACES BEYOND THE WORK SITE SHALL BE SWEPT CLEAN OF SAND, SILT AND LITTER DAILY AT THE END OF THE WORK DAY.
3. OUTSIDE STORAGE:
ACCESSORIES OR EQUIPMENT STORED OUTSIDE SHALL BE COVERED OR MAINTAINED TO MINIMIZE POSSIBILITY OF THESE MATERIALS OR THEIR RESIDUE PASSING TO STORM WATER.
4. WASHING:
NO WASHING OF VEHICLES, ACCESSORIES, EQUIPMENT, OR APPLIANCES IN WORK SITE.
5. MAINTENANCE AND INSPECTION:
   A. THE CONTRACTOR SHALL INSPECT, REPAIR AND/OR REPLACE EROSION CONTROL MEASURES EVERY 7 DAYS AND IMMEDIATELY FOLLOWING ANY RAINFALL OF ½" OR MORE OR SIGNIFICANT SNOW MELT.
   B. SEDIMENT DEPOSITS MUST BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE HALF THE HEIGHT OF THE BARRIER.
   C. DAILY DUST CONTROL USING WATER, OR APPROVED EQUAL SHALL BE PROVIDED FOR ALL EARTH STOCKPILES, EARTH PILED ALONG EXCAVATIONS, SURFACES OF BACKFILLED TRENCHES AND GRAVELED SURFACES.
6. SPILLS OR ACCIDENTAL DISCHARGES:
   A. COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.
   B. CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338
   C. THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
      a. STOP THE SOURCE OF THE SPILL
      b. CONTAIN THE SPILL
      c. COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
      d. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

POST CONSTRUCTION

1. POLLUTION PREVENTION TEAM:
THE OWNERS SHALL BE RESPONSIBLE FOR CARRYING OUT THE PROVISIONS OF THIS PLAN.
2. OUTSIDE STORAGE:
ACCESSORIES OR EQUIPMENT STORED OUTSIDE SHALL BE COVERED OR MAINTAINED TO MINIMIZE POSSIBILITY OF THESE MATERIALS OR THEIR RESIDUE PASSING TO STORM WATER.
3. WASHING:
NO WASHING OF VEHICLES, ACCESSORIES, EQUIPMENT OR APPLIANCES ON IMPERVIOUS AREAS.
4. MAINTENANCE AND INSPECTION:
   A. MONTHLY INSPECTION OF STORM WATER STRUCTURES AND OUTFALLS.
   B. CLEAN SEDIMENT AND DEBRIS FROM OUTLET STRUCTURES OUTFALLS AT LEAST ONCE PER YEAR DURING APRIL.
   C. STORMWATER MANAGEMENT BASINS AND SWALES:
   SEE OPERATIONS AND MAINTENANCE TABLES
5. SPILLS OR ACCIDENTAL DISCHARGES:
   A. COMPLY WITH STATE AND FEDERAL REGULATIONS TO CONTAIN AND CLEAN UP ANY SPILL OR DISCHARGE AND DISPOSE OF MATERIALS AT AN APPROVED FACILITY.
   B. CONTACT CONNECTICUT DEEP OIL AND CHEMICAL SPILL RESPONSE DIVISION (860) 424-3338
   C. THE FOLLOWING STEPS SHOULD BE PERFORMED AS SOON AS POSSIBLE:
      a. STOP THE SOURCE OF THE SPILL
      b. CONTAIN THE SPILL
      c. COVER SPILL WITH ABSORBENT MATERIAL SUCH AS KITTY LITER, SAWDUST OR OIL ABSORBENT PADS. DO NOT USE STRAW.
      d. DISPOSE OF ABSORBER IN ACCORDANCE WITH LOCAL AND STATE REGULATIONS.

STORMWATER SYSTEM OPERATIONS & MAINTENANCE

Maintenance Schedule for Stormwater Management Basins & Swales

Activity	Schedule
• Prior to new spring growth reaching a height of 2" (e.g., shortly after forsythia or redbud blooms), trim any material standing from the previous year close to the ground (approximately 2"). This will allow the soil to warm more quickly, which will stimulate the emergence and growth of native seedlings and reduce the likelihood of the meadow being invaded by shrubs. • Problem weeds should be hand pulled or spot sprayed with an approved herbicide, such as Rodeo® or Garlon® 3A. If you did not plant vines or spiny plants as part of your mix, be vigilant about controlling them. These are more easily pulled when they are young rather than after they have had two to three months of growth. Examples include bindweed, blackberry, multiflora rose, mile-a-minute and Japanese hops. Be equally vigilant about controlling other invasive species, such as autumn olive and Japanese knotweed. • **Special Circumstances** If you notice a heavy infestation of ragweed or foxtail in the second growing season, trim the meadow to a height of 8". Trimming should cease by mid-September.	Second growing season
• For the basin and side slopes, inspect for invasive vegetation. • Grassy weeds or persistent perennials can re-establish in these soils. Monitor and control weeds by hand pulling or spot spraying.	Monthly
• Inspect for damage, undercut, or eroded area • Monitor for sediment accumulation	Semi-Annual inspection
• Repair undercut or eroded areas.	As needed maintenance
• Clean and remove debris & sediment from inlet and outlet structures • Inspect and clean debris & sediment in the basin • Clean and remove debris from the plunge pools • Mow side slopes. Close mowing throughout the regular growing season or extensive chemical use is not conducive to water quality improvement and wildlife habitat. Spring mowed vegetation can typically remain within basins providing cover for new emerging vegetation.	Semi-annual

TEMPORARY SEDIMENT TRAP NARRATIVE

THE STORMWATER MANAGEMENT BASINS ARE LOCATED AT THE LOW POINTS IN THE DEVELOPED PORTION OF THE SITE TOPOGRAPHY AND A PORTION WILL BE USED DURING CONSTRUCTION AS A TEMPORARY SEDIMENT TRAPS. THE TRAPS WILL BE EXCAVATED PRIOR TO THE COMMENCEMENT OF OTHER SITE GRADING. THE BERM SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CONSTRUCTION DETAILS AND ARMORED WITH MODIFIED RIP RAP AS NEEDED.

1. THE TRAPS SHALL BE INSPECTED AT LEAST ONCE PER WEEK AND WITHIN 24 HOURS AFTER ANY RAINFALL OF 0.5 INCHES OR GREATER.
2. THE SEDIMENT TRAPS SHALL BE CLEANED WHEN SEDIMENT ACCUMULATION EXCEEDS ONE HALF OF THE AVAILABLE WET STORAGE CAPACITY. SEDIMENTS REMOVED FROM THE SEDIMENT TRAPS WILL BE PLACED OUTSIDE OF THE TRAP IN THE DESIGNATED STOCKPILE AREA.
3. PRIOR TO COMPLETING THE BASIN CONSTRUCTION, EXISTING SEDIMENT LOCATED IN THE BASIN BOTTOM IS TO BE REMOVED AND THE BASIN EXCAVATED TO A DEPTH OF 12" BELOW FINISHED GRADE. IMMEDIATELY FOLLOWING THE GRADING, AND PIPING INSTALLATIONS THE PERVIOUS TOPSOIL AND SWMB SEED MIX SHALL BE INSTALLED.
4. REMOVE RIP RAP ARMORING AND INSTALL TOPSOIL AND SEED MIX OVER ALL DISTURBED AREAS. EROSION CONTROL MATTING, BFM HYDROSEED, OR FGM HYDROSEED SHALL BE INSTALLED ON ALL OF THE BASIN SIDE SLOPES.
5. AFTER VEGETATION HAS BEEN ESTABLISHED ON THE BASIN BOTTOM AND SIDE SLOPES EROSION CONTROL MEASURES MAY BE REMOVED.

TEMPORARY VEGETATIVE COVER

A TEMPORARY SEEDING OF RYE GRASS WILL BE COMPLETED WITHIN 15 DAYS OF THE FORMATION OF STOCKPILES. IF THE SOIL IN THE STOCKPILES HAS BEEN COMPACTED BY CONSTRUCTION OPERATIONS IT SHALL BE LOOSENED TO A DEPTH OF 2 INCHES BEFORE THE FERTILIZER, LIME AND SEED IS APPLIED. 10-10-10 FERTILIZER AT A RATE OF 7.5 POUNDS PER 1000 S.F. LIMESTONE AT A RATE OF 90 LBS. PER 1000 S.F. SHALL BE USED. RYE GRASS APPLIED AT A RATE OF 1 LB. PER 1000 S.F. SHALL PROVIDE THE TEMPORARY VEGETATIVE COVER. STRAW, FREE FROM WEEDS AND COARSE MATTER SHALL BE USED AT A RATE OF 70-90 LBS. PER 1000 S.F. AS A TEMPORARY MULCH. APPLY MULCH AND DRIVE TRACKED EQUIPMENT UP AND DOWN SLOPE OVER ENTIRE SURFACE SO CLEAT MARKS ARE PARALLEL TO THE CONTOURS.

PERMANENT VEGETATIVE COVER

TOPSOIL WILL BE REPLACED ONCE THE EXCAVATIONS HAVE BEEN COMPLETED AND THE SLOPES ARE GRADED AS SHOWN ON THE PLANS. PROVIDE SLOPE PROTECTION AS CALLED FOR ON THE PLANS AND DETAILS. TOPSOIL SHALL BE SPREAD AT A MINIMUM COMPACTED DEPTH OF 4 INCHES. ONCE THE TOPSOIL HAS BEEN SPREAD, ALL STONES TWO INCHES OR LARGER IN ANY DIMENSION WILL BE REMOVED AS WELL AS DEBRIS.

- APPLY AGRICULTURAL GROUND LIMESTONE AT THE RATE OF TWO TONS PER ACRE OR 100 LBS. PER 1000 S.F.
- APPLY 10-10-10 FERTILIZER OR EQUIVALENT AT A RATE OF 300 LBS. PER ACRE OR 7.5 LBS. PER S.F.
- WORK LIMESTONE AND FERTILIZER INTO THE SOIL TO A DEPTH OF 4 INCHES.
- INSPECT SEEDBED BEFORE SEEDING.
- IF TRAFFIC HAS COMPACTED THE SOIL, RETILL COMPACTED AREAS.
- APPLY THE FOLLOWING GRASS SEED MIX:

SEED MIXTURE

2:1 SLOPES OR GREATER	LBS./ACRE	LBS./1000 S.F.
DEP SEED MIX NO. 3:		
CREEPING RED FESCUE (PENNLAWN, WINTERGREEN)	20	0.45
BIRD'S FOOT TREFOIL (EMPIRE, VIKING) W/ INOCULANT	8	0.20
TALL FESCUE (KENTUCKY 31) OR		
SMOOTH BROMEGRASS (SARATOGA, LINCOLN)	20	0.45
	45	1.00

REMAINDER OF DISTURBED AREAS	LBS./ACRE	LBS./1000 S.F.
KENTUCKY BLUEGRASS	75	1.72
CREEPING RED FESCUE	75	1.72
PERENNIAL RYEGRASS	25	0.58
	175	4.00

THE RECOMMENDED SEEDING DATES ARE:
APRIL 1 - JUNE 15 AND AUGUST 15 - OCTOBER 15

IMMEDIATELY FOLLOWING SEEDING, FIRM SEED BED WITH A ROLLER AND MULCH WITH WEED FREE STRAW. IF PERMANENT VEGETATIVE COVER IS HAS NOT BEEN ESTABLISHED BY SEPTEMBER 30, APPLY A TEMPORARY VEGETATIVE COVER ON THE TOPSOIL.

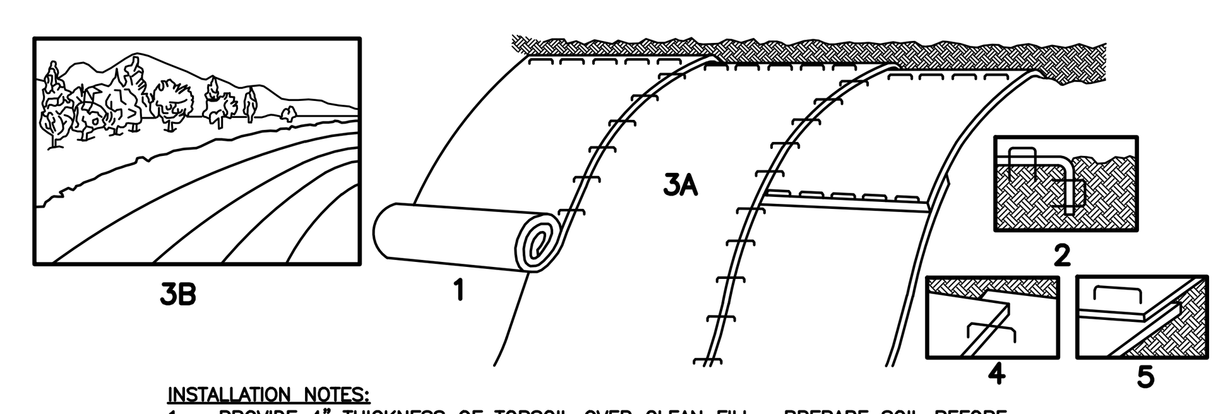
VEGETATIVE COVER FOR STORMWATER MANAGEMENT BASINS

SEED MIXTURE FOR SETTLING BASINS SHALL BE THE "NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR MOIST SITES" FROM NEW ENGLAND WETLAND PLANTS, AMHERST, MA, TELEPHONE NO. 413-548-8000

THE BEST RESULTS ARE OBTAINED WITH A SPRING SEEDING. SUMMER AND FALL SEEDING REQUIRE A LIGHT MULCHING OF WEED FREE STRAW TO CONSERVE MOISTURE. LATE FALL AND WINTER DORMANT SEEDING REQUIRE A 10% INCREASE IN THE SEEDING RATE. FERTILIZATION IS NOT REQUIRED UNLESS THE SOILS ARE PARTICULARLY INFERTILE.

RAIN GARDEN SEED MIXTURE	LBS./ACRE	LBS./1000 S.F.
NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DETENTION BASINS AND MOIST SITES	35	0.80

SPECIES: Virginia Wild Rye, (Elymus virginicus), Creeping Red Fescue, (Festuca rubra), Little Bluestem, (Schizachyrium scoparium), Big Bluestem, (Andropogon gerardii), Fox Sedge, (Carex vulpinoidea), Switch Grass, (Panicum virgatum), Rough Bentgrass, (Agrostis scabra), New England Aster, (Aster novae-angliae), Boneset, (Eupatorium perfoliatum), Grass Leaved Goldenrod, (Euthamia graminifolia), Green Bulrush, (Scirpus atrovirens), Blue Vervain, (Verbena hastata), Soft Rush, (Juncus effusus), Wool Grass, (Scirpus cyperinus)



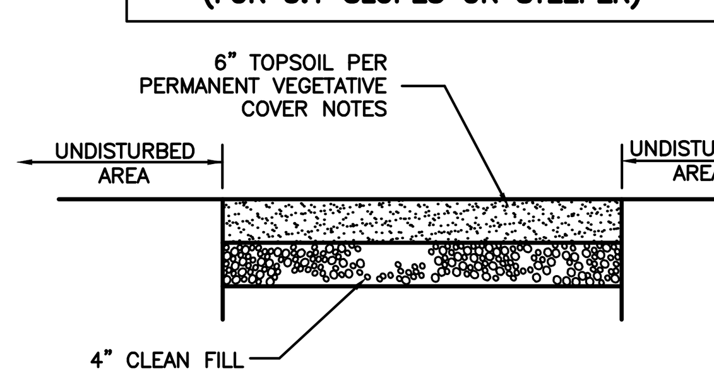
INSTALLATION NOTES:
1. PROVIDE 4" THICKNESS OF TOPSOIL OVER CLEAN FILL. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED MIX PER PERMANENT VEGETATIVE COVER NOTES. (SHALL BE PAID FOR AT THE UNIT PRICE FOR LOAM, SEED, FERTILIZE & MULCH)
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP x 6" WIDE TRENCH, BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
3. ROLL THE BLANKET (A) DOWN OR (B) HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.

PRODUCT NOTES:
1. **EROSION CONTROL MATTING MUST BE LISTED ON THE LATEST CT DOT QUALIFIED PRODUCTS LIST UNDER CLASS I: SLOPE PROTECTION, TYPE A.**

EROSION CONTROL MATTING DETAIL (FOR 3:1 SLOPES OR STEEPER)

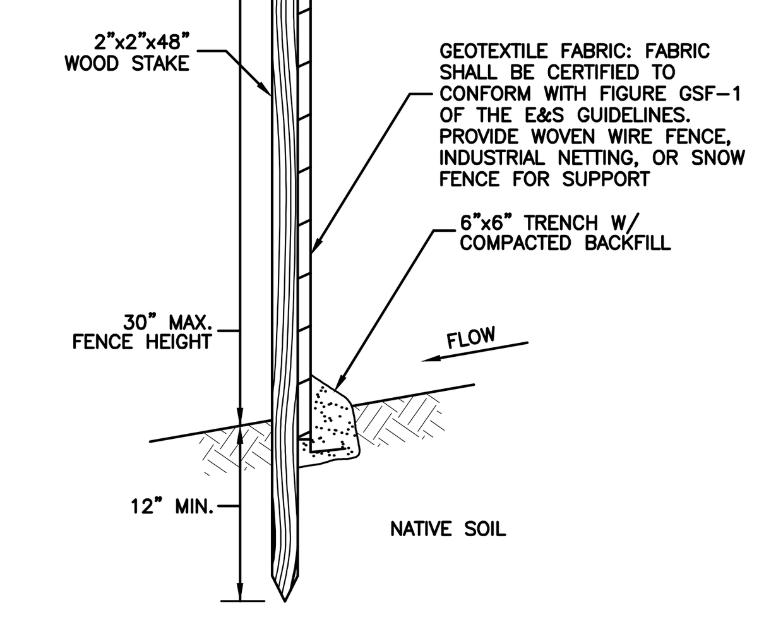
NOTES:
1. HYDROSEED SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 9.50.3.b OF DOT FORM 818.
2. BONDED FIBER MATRIX (BFM) OR FLEXIBLE GROWTH MEDIUM (FGM) MUST BE INCLUDED IN THE HYDROSEED SLURRY. MIX RATE PERCENTAGES SHALL BE IN ACCORDANCE WITH THE MANUFACTURERS RECOMMENDATIONS FOR THE FINISHED SLOPES. THE FOLLOWING ARE ACCEPTABLE PRODUCTS:
A. PROFILE FLEXTERRA FGM
B. PROFILE HYDRO-BLANKET BONDED FIBER MATRIX
C. MAT, INC. SOIL GUARD BONDED FIBER MATRIX
D. NORTH AMERICAN GREEN HYDRA GT OR HYDRA CM
3. THE REQUIRED SEED MIX SHALL BE IN ACCORDANCE WITH THE PERMANENT VEGETATIVE COVER NOTES. ALL APPLICATION RATES SHALL BE INCREASED BY 10% FOR HYDROSEEDING.
4. THE CONTRACTOR SHALL ENSURE 100% COVERAGE OF THE DISTURBED SOIL.

HYDROSEED REQUIREMENTS (FOR 3:1 SLOPES OR STEEPER)

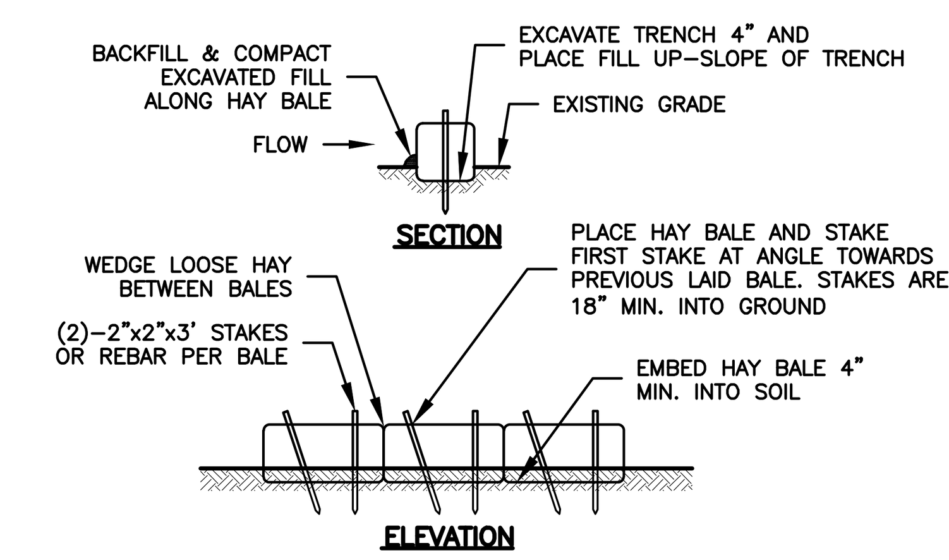


TYPICAL LOAM & SEED SECTION DETAIL (FOR ALL DISTURBED AREAS)

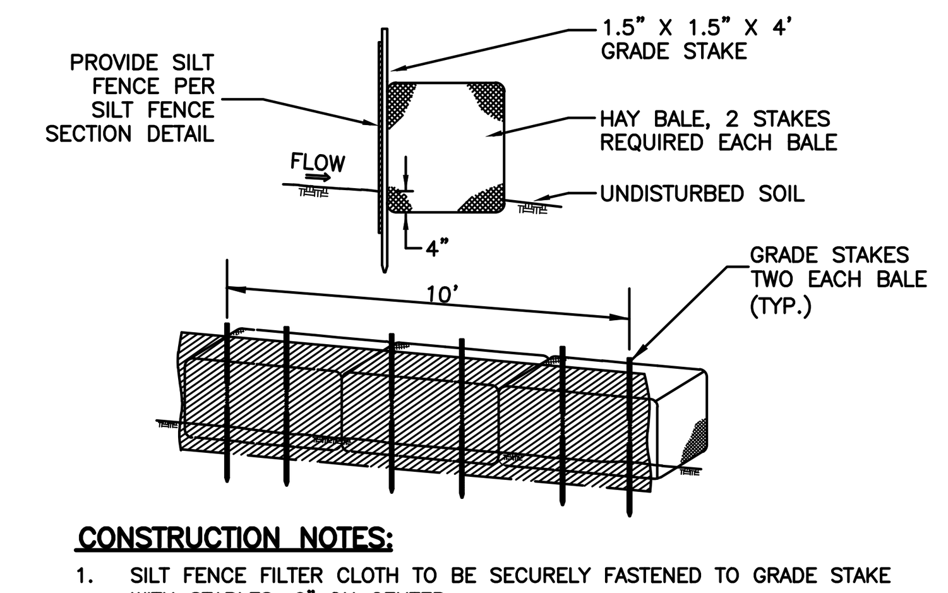
SLOPE STABILIZATION DETAILS
NOT TO SCALE



SILT FENCE SECTION
NOT TO SCALE

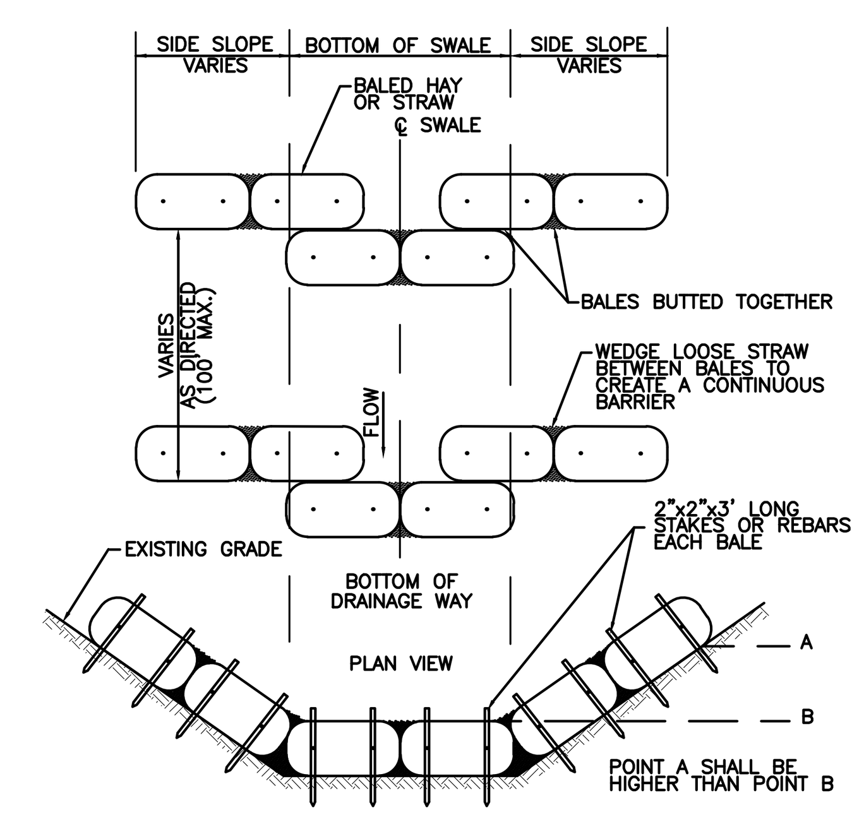


HAY BALE BARRIER DETAIL
NOT TO SCALE



CONSTRUCTION NOTES:
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

SILT FENCE BACKED BY HAY BALES DETAIL
NOT TO SCALE



HAY BALE CHECK DAM
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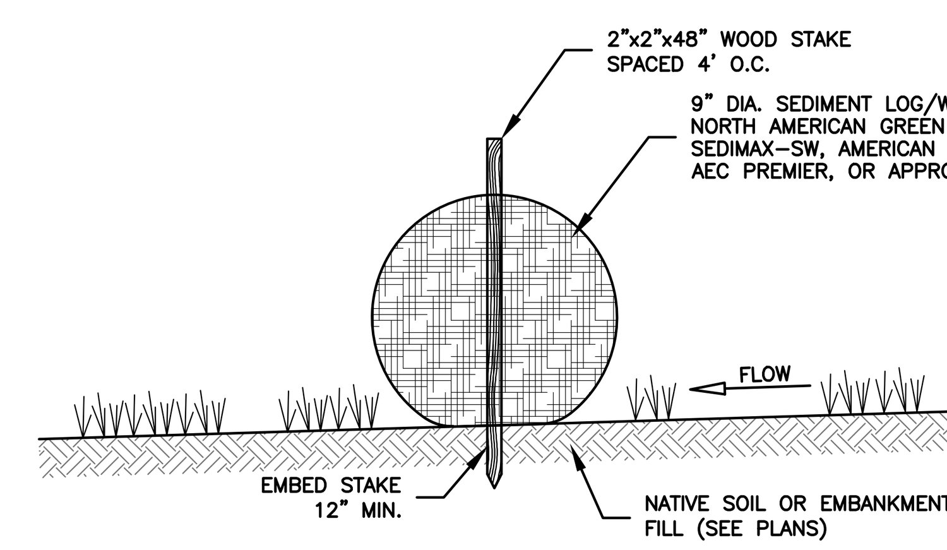
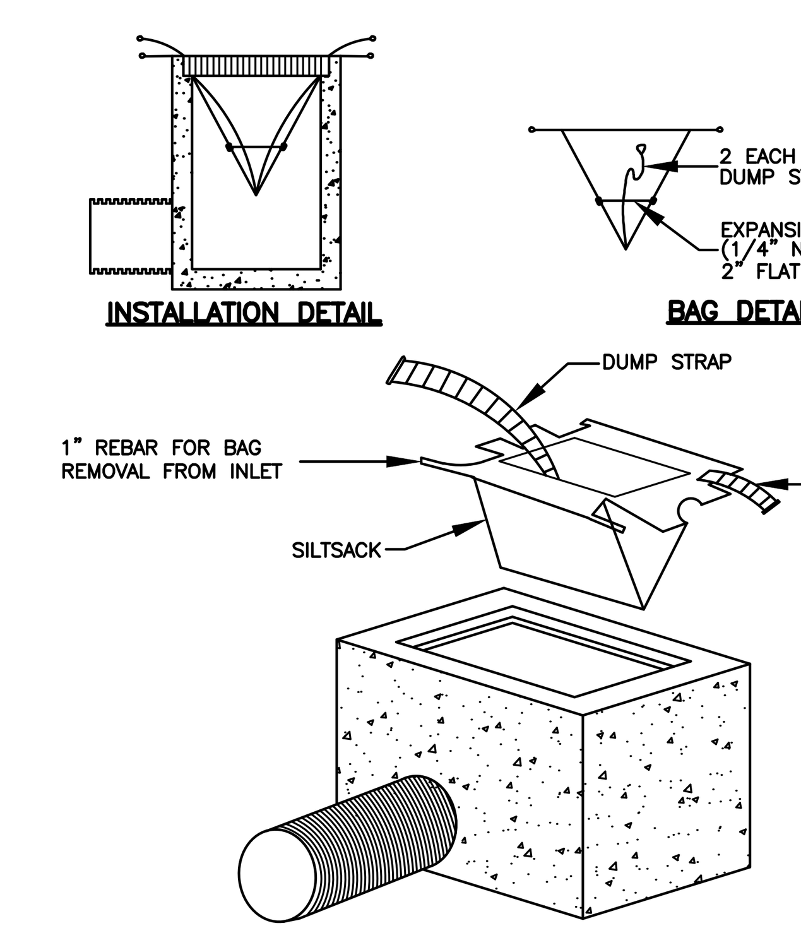


NOTES:
1. STORMWATER LOG ENDS SHALL BE TIED TOGETHER, OVERLAPPED AT LEAST 24" OR BE SECURED AS RECOMMENDED BY THE MANUFACTURER.

STORMWATER SEDIMENT LOG (WATTLE) DETAIL
NOT TO SCALE



INLET SEDIMENT CONTROL DEVICE DETAIL
NOT TO SCALE

No.	DATE	REVISION
3	7/18/2025	Misc. Revisions Per Owner Comments
2	7/9/2025	Misc. Revisions Per Owner Comments
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STATE OF CONNECTICUT · KYLE J. HAUBERT · No. 24329 · LICENSED PROFESSIONAL ENGINEER

Plans Prepared for ECOS Energy
South 8th Street, #900, Minneapolis, MN 55402

North Branford Solar
121 West Pond Road
North Branford, CT 06471

Erosion & Sedimentation Control and Stormwater Management Details

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. D-1

ROAD DESIGN PARAMETERS

1. ROAD MAINTENANCE CAN BE EXPECTED OVER THE LIFE OF THE PERMANENT FACILITY.

SPECIAL PROVISIONS FOR GRADING AND EROSION CONTROL

THE CONTRACTOR SHALL PROVIDE EROSION CONTROL MEASURES AS PLANNED AND SPECIFIED FOLLOWING BEST MANAGEMENT PRACTICES AS OUTLINED BY THE STATE OF CONNECTICUT AND BEING IN CONFORMANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) GENERAL STORMWATER PERMIT. SEE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR EROSION CONTROL AND RESTORATION SPECIFICATIONS. UNLESS OTHERWISE NOTED OR MODIFIED HEREIN, ALL SECTIONS OF THE GENERAL CONDITIONS SHALL APPLY.

EXECUTION

1. CLEARING AND GRUBBING
   A. THE CONTRACTOR SHALL BE REQUIRED TO REMOVE ALL TREES, STUMPS, BRUSH, AND DEBRIS WITHIN THE GRADING LIMITS SHOWN ON THE PLANS. THE CONTRACTOR IS TO REMOVE ONLY THOSE TREES WHICH ARE DESIGNATED BY THE OWNER'S REPRESENTATIVE FOR REMOVAL, AND SHALL EXERCISE EXTREME CARE AROUND EXISTING TREES TO BE SAVED.
2. TOPSOIL STRIPPING
   A. TOPSOIL SHALL BE STRIPPED FROM ALL ROADWAY AREAS THROUGH THE ROOT ZONE. TOPSOIL SHALL NOT BE STRIPPED OUTSIDE OF THE DESIGNATED DISTURBANCE AREAS.
   B. ANY TOPSOIL, THAT HAS BEEN STRIPPED, SHALL BE RE-SPREAD OR STOCKPILED WITHIN GRADING AREAS AND/OR USED AS FILL OUTSIDE OF THE DISTURBANCE AREAS, AS DIRECTED BY THE ENGINEER.
3. EMBANKMENT CONSTRUCTION.
   A. EMBANKMENT CONSTRUCTION SHALL CONSIST OF THE PLACING OF SUITABLE FILL MATERIAL, AFTER TOPSOIL STRIPPING, ABOVE THE EXISTING GRADE. GENERALLY, EMBANKMENTS SHALL HAVE COMPACTED SUPPORT SLOPES OF TWO AND A HALF FEET HORIZONTAL TO ONE FOOT VERTICAL. THE MATERIAL FOR EMBANKMENT CONSTRUCTION SHALL BE OBTAINED FROM THE ACCESS ROAD EXCAVATION (SEE GEOTECHNICAL REPORT FOR RESTRICTIONS), OR ANY SUITABLE, APPROVED SOIL OBTAINED OFFSITE BY CONTRACTOR, AS DIRECTED OR APPROVED BY THE ENGINEER. THIS MATERIAL SHALL BE PLACED IN LIFTS NOT TO EXCEED 9".
   B. SIDE SLOPES GREATER THAN 2.5:1 WILL NOT BE PERMITTED, UNLESS OTHERWISE NOTED ON THE PLAN.

TESTING REQUIREMENTS;

1. TESTING SHALL BE PERFORMED BY A DESIGNATED INDEPENDENT TESTING AGENCY.
2. SUBMIT TESTING AND INSPECTION RECORDS SPECIFIED TO THE CIVIL ENGINEER OF RECORD FOR REVIEW.
   A. THE ENGINEER WILL REVIEW THE TESTING AND INSPECTION RECORDS TO CHECK CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. THE ENGINEER'S REVIEW DOES NOT RELIEVE THE CONSTRUCTION CONTRACTOR FROM THE RESPONSIBILITY FOR CORRECTING DEFECTIVE WORK.
3. PROOF ROLLING:
   A. PROOF-ROLLING SHALL BE PERFORMED IN THE PRESENCE OF THE GEOTECHNICAL ENGINEER OR QUALIFIED GEOTECHNICAL REPRESENTATIVE USING A FULLY LOADED TANDEM AXLE DUMP TRUCK WITH A MINIMUM GROSS WEIGHT OF 25 TONS OR A FULLY LOADED WATER TRUCK WITH AN EQUIVALENT AXLE LOADING. PROOF-ROLLING ACCEPTANCE STANDARDS INCLUDE NO RUTTING GREATER THAN 1.5 INCHES, AND NO "PUMPING" OF THE SOIL BEHIND THE LOADED TRUCK.
4. SIEVE ANALYSIS:
   A. SIEVE ANALYSIS SHALL BE CONDUCTED IN ACCORDANCE WITH AASHTO T27
5. PROCTOR:
   A. PROCTORS SHALL BE DETERMINED IN ACCORDANCE WITH ASTM D-1557
6. ATTERBERG LIMITS:
   A. ATTERBERG LIMITS SHALL BE DETERMINED IN ACCORDANCE WITH AASHTO T89 AND T90
7. MOISTURE DENSITY (NUCLEAR DENSITY):
   A. MOISTURE DENSITY TESTING SHALL BE DONE IN ACCORDANCE WITH AASHTO T310

SUBGRADE COMPACTION, TEST ROLLING AND AGGREGATE BASE COMPACTION;

1. FILL MATERIAL:
   A. SOILS USED AS FILL MATERIAL SHALL BE TESTED FOR GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR TESTS (MODIFIED DRY MAXIMUM DENSITY).
      a. FOR PLACED & COMPACTED FILLS, PROVIDE ONE COMPACTION TEST PER LIFT FOR EVERY 1000 FT OF ROAD LENGTH. INCLUDE THE LOCATION, DRY DENSITY, MOISTURE CONTENT, AND COMPACTION PERCENT BASED ON MODIFIED PROCTOR MAXIMUM DRY DENSITY.
   B. IN ROADWAY CUT AREAS, OR WHERE EMBANKMENT CONSTRUCTION REQUIRES LESS THAN 12 INCHES OF FILL PLACEMENT, COMPACT TO A MINIMUM OF 95 PERCENT OF THE MATERIAL'S MODIFIED PROCTOR MAXIMUM DRY DENSITY.
2. COMPACTED SUBGRADE:
   A. THE ENTIRE SUBGRADE SHALL BE PROOF-ROLLED PRIOR TO THE PLACEMENT OF THE AGGREGATE BASE TO IDENTIFY AREAS OF UNSTABLE SUBGRADE.
   B. IF PROOF ROLLING DETERMINES THAT THE SUBGRADE STABILIZATION CANNOT BE ACHIEVED, THE FOLLOWING ALTERNATIVES WILL BE IMPLEMENTED:
      a. REMOVE UNSUITABLE MATERIAL AND REPLACE WITH SUITABLE EMBANKMENT.
      b. SCARIFY, DRY, AND RECOMPACT SUBGRADE AND PERFORM ADDITIONAL PROOF ROLL.
      c. INCREASE ROAD BASE THICKNESS.
   C. PROVIDE 1 MOISTURE DENSITY COMPACTION TESTS FOR EVERY 1000 L.F. OF ROAD LENGTH. COMPACTED SUBGRADE MUST BE COMPACTED TO A MINIMUM OF 95% MODIFIED PROCTOR MAXIMUM DRY DENSITY AT ±3% OF OPTIMUM MOISTURE CONTENT FOR GRANULAR SOILS AND AT -1 TO +3% OF OPTIMUM MOISTURE CONTENT FOR COHESIVE SOILS.
3. AGGREGATE BASE:
   A. AGGREGATE BASE SHALL BE PROOF-ROLLED OVER THE ENTIRE LENGTH. PROVIDE 1 SIEVE ANALYSIS PER 2500 CY OF ROAD BASE PLACED.
      a. IF PROOF ROLLING DETERMINES THAT THE ROAD IS UNSTABLE, ADDITIONAL AGGREGATE SHALL BE ADDED UNTIL THE UNSTABLE SECTION IS ABLE TO PASS A PROOF ROLL.

TABLE 1: TESTING SCHEDULE SUMMARY

LOCATION	TEST	FREQUENCY
STRUCTURAL FILL	GRAIN SIZE ANALYSIS, MOISTURE CONTENT, ATTERBERG LIMITS ON FINES CONTENT, AND PROCTOR	1 PER MAJOR SOIL TYPE
	MOISTURE DENSITY	1 PER 2,000 CY OR MIN. 1 PER LIFT
COMPACTED SUBGRADE	PROOF-ROLL	ENTIRE LENGTH
	MOISTURE DENSITY TEST (NUCLEAR DENSITY)	1 PER 1,000 FT OR MIN. 5 FOR THE SITE
AGGREGATE BASE	PROOF-ROLL	ENTIRE LENGTH
	SIEVE ANALYSIS	1 PER 2,500 CY

GENERAL NOTES:

1. THE PLANIMETRIC FEATURES, GROUND SURFACE CONTOURS ON A LIDAR SURFACE PROVIDED NOAA.
2. NO GRADING OR SOIL DISTURBANCE IS PERMITTED OUTSIDE OF THE GRADING LIMITS IDENTIFIED ON THE PLANS.
3. GRADE ALL PROPOSED ROADS TO THE SLOPES PROPOSED ON THE PLANS.
4. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING DRAINAGE THROUGHOUT THE CONSTRUCTION OF THIS PROJECT. CONSTRUCTION ACTIVITIES SHALL NOT BLOCK THE NATURAL OR MANMADE CREEKS OR DRAINAGE SWALES CAUSING RAINWATER TO POND. ADDITIONAL CULVERTS IN EXCESS OF THOSE ON THE PLANS MAY BE REQUIRED AS APPROVED BY THE ENGINEER.
5. THE CONTRACTOR SHALL NOTIFY DIGSAFE AT LEAST 48 HOURS BEFORE EXCAVATION ACTIVITIES COMMENCE.
6. WETLAND INFORMATION SHOWN ON THE PLAN WAS PROVIDED BY GODFREY, HOFFMAN, AND LODGE, LLC AND FLAGGED BY MATHEW DAVISON. THE GENERAL CONTRACTOR SHALL VERIFY THAT ALL WETLAND PERMITS HAVE BEEN SUBMITTED AND APPROVED PRIOR TO CONSTRUCTION COMMENCING.
7. ELECTRICAL COLLECTION SYSTEM SHOWN ON THE PLAN SHALL BE CONSIDERED PRELIMINARY. CONTRACTOR SHALL REFER TO FINAL ELECTRICAL DESIGN PLANS FOR ACTUAL DESIGN LOCATIONS.

STORMWATER POLLUTION PREVENTION PLAN (SWPCP);

1. REFER TO THE SWPPP BOOKLET FOR SEDIMENT AND EROSION CONTROL PROCEDURES, LOCATIONS OF BMPs, DETAILS, AND INSPECTION INFORMATION.
2. ALL AREAS DISTURBED DURING CONSTRUCTION ACTIVITIES AND NOT COVERED BY ROAD SURFACING MATERIALS, SHALL BE SEEDED IN ACCORDANCE WITH THE SWPPP PLAN.
3. TEMPORARY EROSION CONTROL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE TEMPORARY EROSION CONTROL PLAN SHALL BE IN ACCORDANCE WITH STATE OF CONNETICUT, THE EPA, AND THE SWPCP ON FILE.

SLOPE STABILIZATION;

ALL AREAS DESIGNATED ON THE PLAN FOR SLOPE STABILIZATION SHALL BE GRADED AND COMPACTED, SMOOTH AND CLEAN TO THE FINISH CONTOURS SHOWN ON THE PLAN, WITH A MINIMUM OF 4 INCHES OF TOPSOIL PLACED ON THE AREA. STABILIZATION SHALL BE ACHIEVED IN ONE OF TWO MANNERS:

EITHER: 1) HAND-PLACED RIPRAP
OR:
2) SEED WITH EROSION CONTROL AND REVEGITATION MAT (ECRM)

1. PLACEMENT OF RIP-RAP

RIPRAP HAND PLACED. HAND-PLACED RIPRAP SHALL CONSIST OF ROUGH UNHEWN QUARRY STONES, APPROXIMATELY RECTANGULAR, PLACED DIRECTLY ON THE SPECIFIED SLOPES OR SURFACES. IT SHALL BE SO LAID THAT THE WEIGHT OF THE LARGE STONES IS CARRIED BY THE SOIL RATHER THAN BY ADJACENT STONES. STONES SHALL WEIGH BETWEEN 50 AND 150 LB. EACH AND AT LEAST 60 % OF THEM SHALL WEIGH MORE THAN 100 LB. EACH WHEN USED ON EMBANKMENT CONSTRUCTION. RIP RAP FOR BMPS SHALL BE 6"-8" DIA. PREPARATION FOR HAND-PLACED RIP RAP. BEFORE ANY RIP RAP IS PLACED, THE SURFACE TO BE COVERED SHALL BE FULLY COMPACTED AND GRADED TO THE REQUIRED SLOPE. PLACE MIRAFITM8 OR APPROVED EQUAL GEOTEXTILE ON SLOPE. RIP RAP ON SLOPES SHALL COMMENCE COMMENCE IN A TRENCH BELOW THE TOW OF THE SLOPE AND SHALL PROGRESS UPWARD, EACH STONE BEING LAID BY HAND PERPENDICULAR TO THE SLOPE WITH THE LONG DIMENSION VERTICAL, FIRMLY BEDDED AGAINST THE SLOPE AND AGAINST THE ADJOINING STONE, WITH JOINTS IN CONTACT, AND WITH WELL-BROKEN JOINTS. SIMILAR METHODS SHALL BE USED WHEN LAYING RIPRAP ON STREAM BEDS, IN DITCHES, AND ON LEVEL SURFACES.

THE FINISHED SURFACE OF THE RIPRAP SHALL PRESENT AN EVEN, TIGHT SURFACE, NOT LESS THAN 12 INCHES THICK, MEASURED PERPENDICULAR TO THE SLOPE.

THE STONES WEIGHING MORE THAN 100 LB. SHALL BE WELL DISPERSED THROUGHOUT THE AREA WITH THE 50-100 LB. STONES LAID BETWEEN THEM IN SUCH A MANNER THAT ALL STONES WILL BE IN CLOSE CONTACT. THE REMAINING VOIDS SHALL BE FILLED WITH SPALLS OF SUITABLE SIZE AND WELL TAMPED TO PRODUCE A FIRM AND COMPACT REVETMENT.

2. STABILIZATION WITH EROSION CONTROL AND REVEGITATION MAT (ECRM)
   1) AREA MUST BE GRADED SMOOTH AND CLEAN TO FINISH GRADES, AND COMPACTED.

   2) SEED AND MULCH AREA. USE SEED MIX APPROVED BY THE ENGINEER.

   3) INSTALL ECRM PER MANUFACTURER'S INSTRUCTIONS, HOWEVER THESE MUST INCLUDE THE FOLLOWING MINIMUM REQUIREMENTS:

      A) GRADE GROUND TO FINISH CONTOURS. REMOVE ALL ROCKS, DIRT CLODS, STUMPS, ROOTS, TRASH, AND OTHER OBSTRUCTIONS LYING IN DIRECT CONTACT WITH THE SOIL SURFACE.

      B) DIG MAT ANCHOR TRENCHES (MINIMUM 12"DEEP, 6" WIDE) AT TERMINAL ENDS AND PERIMETER SIDES WHERE MAT IS TO BE INSTALLED.

      C) INSTALL MAT BY ROLLING UPHILL PARALLEL TO WATER FLOW, STARTING AT TRENCH. OVERLAP ROLLS BY MINIMUM OF 3". FASTEN TO GROUND WITH 18" PINS AND 1 1/2" WASHERS, OR EQUIVALENT. PIN MAT AT ENDS, AND EVERY 3' TO 5' ALONG OVERLAPS. DO NO STRETCH MAT. SPLICING ROLLS SHOULD BE DONE IN A CHECK SLOT. BACKFILL TO COVER ENDS AND FASTENERS, ROLLING MAT ACROSS BACKFILL AND PIN AGAIN.

INVASIVE SPECIES;

1. ALL EQUIPMENT SHALL BE INSPECTED UPON ARRIVAL. EQUIPMENT ARRIVING WITH OBSERVABLE SOIL OR PLANT FRAGMENTS WILL BE REMOVED AND CLEANED.
2. STRAW BALES ARE NOT BE USED ON SITE; ONLY WEED-FREE STRAW BALES ARE APPROVED.
3. OFF-SITE TOPSOIL MUST BE FREE OF INVASIVE SPECIES. THE ENGINEER SHALL BE NOTIFIED OF THE TOPSOIL SOURCE 6 WEEKS BEFORE DELIVERY.

CONSTRUCTION SEQUENCE

1. PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY AT THE SITE, APPLICANT SHALL
   a. CONTRACT WITH THE APPROPRIATE CONSERVATION DISTRICT TO PROVIDE INSPECTION SERVICES AT THE SITE PURSUANT TO APPENDIX F OF THE GENERAL PERMIT FOR THE DISCHARGE OF STORMWATER AND DEWATERING WASTEWATERS FROM CONSTRUCTION ACTIVITIES
   b. CONTACT CALL BEFORE YOU DIG (811 OR 1-800-922- 4455) TO MARK UTILITIES.
2. NOTIFY THE TOWN OF ANSONIA ZONING AND INLAND WETLANDS AGENTS OF START OF CONSTRUCTION A MINIMUM OF 48 HOURS IN ADVANCE.
3. HAVE CT LICENSED LAND SURVEYOR STAKE OUT THE CLEARING LIMITS AND PERIMETER EROSION CONTROL.
4. CUT TREES & BRUSH BUT DO NOT GRUB.
5. INSTALL CONSTRUCTION ENTRANCE.
6. INSTALL PERIMETER EROSION AND SEDIMENTATION CONTROLS (AS DEPICTED ON THE PLANS) AND HAVE THEM INSPECTED BY SITE INSPECTOR PRIOR TO GRUBBING OR GRADING ACTIVITIES.
7. EXCAVATE AND STABILIZE TEMPORARY SEDIMENT TRAPS, IF DEWATERING IS NECESSARY FOR EXCAVATION PLEASE COORDINATE DEWATERING PLAN WITH QUALIFIED ENVIRONMENTAL PROFESSIONAL. SWMB #1A, 1B & #2 SHALL BE USED AS A TEMPORARY SEDIMENTATION TRAPS DURING CONSTRUCTION. UPON COMPLETION OF THE SEDIMENT TRAP GRADING THE CONTRACTOR SHALL HAVE THE STABILIZED TRAPS INSPECTED BY SITE INSPECTOR. INSTALL RIPRAP ARMORING AS SHOWN ON THE PLANS.
8. GRUB THE SITE AREA AND PERFORM SITE GRADING AND STABILIZATION WITHIN THE WORK AREA AS IDENTIFIED ON THE PLANS.
9. INSTALL STONE LEVEL SPREADER INFILTRATION TRENCHES.
10. INSTALL PERIMETER FIXED-KNOT FENCE AROUND ENTIRE SITE.
11. FINISH GRADE THE STORMWATER MANAGEMENT BASINS. CONSTRUCT THE OUTLET SPILLWAYS. INSTALL THE FINAL TOPSOIL MIXES (STANDARD AND PERMEABLE) AND SEED THE BASINS. INSTALL EROSION CONTROL MATTING OR FIBER REINFORCED HYDROSEED ON THE SLOPES AS CALLED FOR ON THE PLANS AND DETAILS.
12. AFTER THE INITIAL GRADING WORK IS COMPLETE THE BASINS, SWALES, AND ALL DISTURBED AREAS SHALL BE LEFT FOR A MINIMUM OF ONE GROWING SEASON (APRIL 1ST THROUGH JUNE 15TH OR AUGUST 15TH THROUGH OCTOBER 15TH). THE SITE SHALL BE LEFT UNDISTURBED TO ALLOW NEW VEGETATION TO ESTABLISH. ROUTINE INSPECTIONS SHALL BE PERFORMED AND ANY ERODED AREAS OR BARE AREAS RESTORED. ANY WORK ASSOCIATED WITH THE INSTALLATION / RACKING OF THE SOLAR ARRAY WILL NOT COMMENCE UNTIL THE PERIMETER CONTROLS, INCLUDING, BUT NOT LIMITED TO, ALL SWALES AND BASINS, HAVE BEEN VEGETATIVELY STABILIZED.
13. INSTALL SOLAR RACKING FOUNDATIONS, AND RACKING, AND SOLAR MODULES. HYDROSEED OR SEED AND MULCH ANY EXPOSED SOIL AT THE END OF EACH WEEK AND BEFORE EVERY RAINFALL PREDICTED FOR 0.5 INCHES OR MORE.
14. TRENCH FOR AND INSTALL ELECTRIC LINES AND AT THE END OF EACH WEEK HYDROSEED OR MULCH AND SEED ANY EXPOSED SOIL AT THE END OF EACH WEEK AND BEFORE EVERY RAINFALL PREDICTED FOR 0.5 INCHES OR MORE.
15. INSTALL REMAINING ELECTRIC INFRASTRUCTURE AND AT THE END OF EACH WEEK HYDROSEED OR MULCH AND SEED ANY EXPOSED SOIL AT THE END OF EACH WEEK AND BEFORE EVERY RAINFALL PREDICTED FOR 0.5 INCHES OR MORE.
16. OVERSEED DISTURBED SOILS WHEN ALL SOLAR PANEL INSTALLATION AND ELECTRICAL TRENCHING IS COMPLETE.
17. CLEAN SEDIMENTS BASINS AND GRADE AND RE-SEED FOR USE AS STORMWATER BASINS WHEN SITE INSPECTOR DEEMS SOILS ARE STABILIZED.
18. INSTALL PERIMETER SCREENING PLANTINGS

ROCK / LEDGE MANAGEMENT & STABILIZATION PLAN

WITHIN STORMWATER BASINS

1. BOULDERS AND LOOSE ROCK, IF ENCOUNTERED, WITHIN THE STORMWATER BASINS SHALL BE REMOVED FROM THE BASIN LIMITS BY EXCAVATOR OR MECHANICAL MEANS ONLY. ANY VOIDS LEFT BY THE BOULDERS OR LOOSE ROCK SHALL BE BACKFILLED WITH GRAVEL FILL. PROVIDE TOPSOIL AND SEED MIX AS SPECIFIED ON THE PROJECT PLANS.
2. LEDGE, IF ENCOUNTERED, SHALL BE REMOVED BY MECHANICAL MEANS ONLY, BLASTING SHALL NOT BE PERMITTED AT THE SITE. LEDGE SHALL BE REMOVED TO A MINIMUM OF 18" BELOW FINISHED GRADE ELEVATION. 12" OF GRAVEL FILL AND 6" OF TOPSOIL SHALL BE INSTALLED OVER LEDGE. PROVIDE SEED MIX AS SPECIFIED ON THE PROJECT PLANS.

ROCK THROUGHOUT THE SITE

1. LEDGE, BOULDERS, OR LOOSE ROCK WHEN ENCOUNTERED THROUGHOUT THE REMAINING PORTIONS OF THE SITE SHALL BE REMOVED AS NEEDED TO PERFORM THE WORK. REMOVAL SHALL BE BY EXCAVATOR, OR BY MECHANICAL MEANS ONLY. BLASTING SHALL NOT BE PERMITTED AT THE SITE.
2. WHEN BOULDERS OR LOOSE ROCK IS EXCAVATED AS PART OF THE WORK, ANY VOIDS LEFT BEHIND SHALL BE BACKFILLED WITH GRAVEL FILL.
3. WHEN LEDGE IS ENCOUNTERED AT THE GROUND SURFACE WITHIN THE WORK AREA A MINIMUM OF 6?OF TOPSOIL, SEED, FERTILIZER, AND EROSION CONTROL MATTING SHALL BE INSTALLED OVER THE LEDGE AS CALLED FOR ON THE PROJECT PLANS. SEED, FERTILIZER, AND EROSION CONTROL MATTING MUST BE INSTALLED WITHIN 24 HOURS OF TOPSOIL PLACEMENT.
4. EXCAVATED ROCK MAY BE TEMPORARILY STORED ON SITE AND THE CONTRACTOR SHALL MANAGE THE MATERIAL IN EITHER OF THE FOLLOWING MANNERS, AT THEIR DISCRETION:
   A. ROCK MAY BE REMOVED FROM THE SITE VIA TRUCKS AND/OR TRAILERS AND LEGALLY DISPOSED OF OR PROCESSED OFFSITE.
   B. ROCK MAY BE CRUSHED ONSITE, PROCESSED, AND USED AS TRENCH BACKFILL OR AS GENERAL FILL ONSITE. PORTABLE CRUSHING EQUIPMENT, PROCESSING EQUIPMENT, AND STOCKPILES SHALL BE SURROUNDED BY SILT FENCE OR STRAW BALE BARRIERS.
   C. BOULDERS MAY BE PLACED AROUND THE SITE PERIMETER TO BE USED AS SCREENING FEATURES. LOCATIONS SHALL BE COORDINATED WITH THE SITE OWNER.
5. PROCESSED ROCK PLACED ON THE SITE AS GENERAL FILL SHALL MAINTAIN THE STORMWATER DRAINAGE PATTERNS AS SHOWN ON THE PROJECT PLANS.

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North Branford Solar

121 West Pond Road
North Branford, CT 06471

Civil Construction Notes

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. D-2

STATE OF CONNECTICUT · KYLE J. KAISER · No. 24326 · LICENSED PROFESSIONAL ENGINEER

CLA

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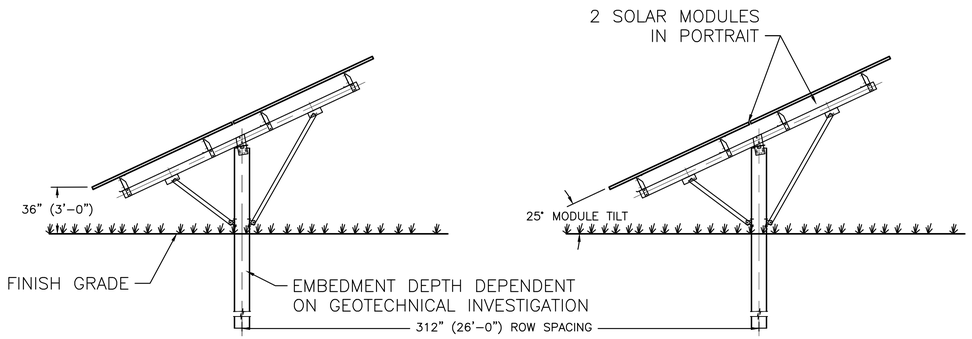


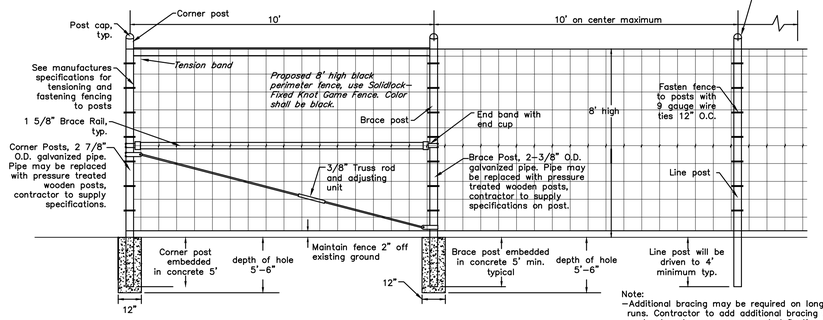
FIXED TILT RACKING DETAIL
NOT TO SCALE

NOTE: Field welded bracing posts shall be constructed in accordance with manufacture's specifications. All welds shall be cleaned and coated with corrosion inhibiting paint or epoxy as soon as possible after fabrication. Vinyl coating cannot be used for welded sections. Paint all pipe that is not vinyl coated with durable mat black paint to match fence wire fabric color. Contractor shall submit shop drawings for any field applied paints or coating to the owner prior to the work. Install all fence components in accordance with manufacturers specifications, see "Fixed knot brace specifications and installation guide" by Bekaert.

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO ORDERING AND CONSTRUCTING FENCE.

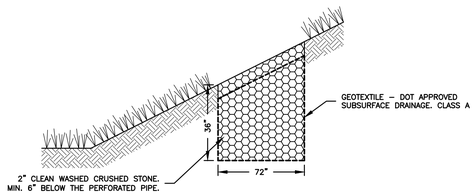
SOLIDLOCK FIXED KNOT GAME FENCE SPECIFICATIONS:
- FENCE FABRIC SHALL BE BEKAERT ZA-6" FIXED KNOT GAME FENCE
- 96" HIGH 12.5 GAUGE WIRE
- CLASS 3 GALVANIZED
- COLOR - BLACK

Line posts 10' on center maximum. Line posts shall be 2-3/8" o.d. galvanized pipe constructed in similar fashion as corner posts on this detail. Pipe may be replaced with pressure treated wooden posts, contractor to supply specifications on posts. T-Posts, as specified by Bekaert, may be used ONLY for straight and flat sections between bracing, IF pre-approved by Owner. T-Posts are NOT allowed at the bottom of all dips or the top of all rises.

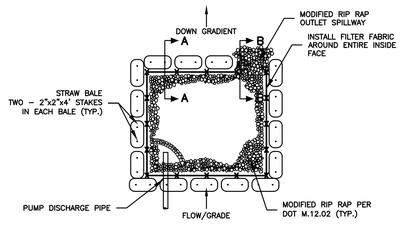


Note:
- Additional bracing may be required on longer fence runs. Contractor to add additional bracing when contractor observes corner post deflection during fence tensioning/fastening.
- All pipes to be SS40
- All fittings to be galvanized
- Fabric to be tied with aluminum page clips

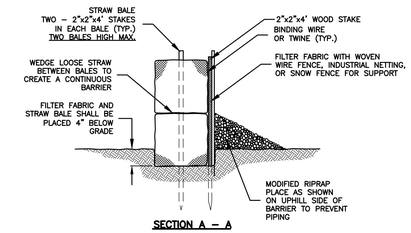
FENCE DETAIL
NOT TO SCALE



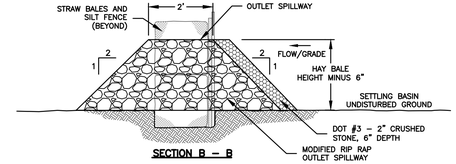
INFILTRATION TRENCH DETAIL
NOT TO SCALE



PLAN VIEW



SECTION A - A

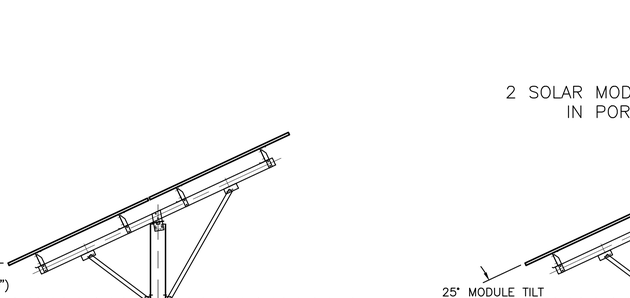


SECTION B - B

CONSTRUCTION NOTES:
1. SILT FENCE FILTER CLOTH TO BE SECURELY FASTENED TO GRADE STAKE WITH STAPLES, 6" ON CENTER.
2. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN ONE ANOTHER THEY SHALL OVERLAP BY 6" AND BE FOLDED.
3. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.

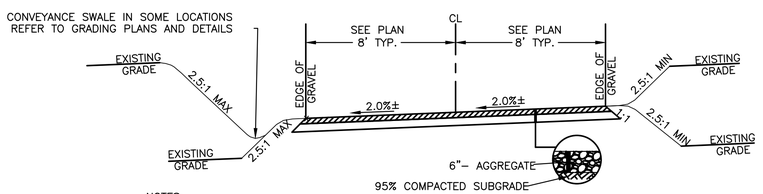
DEWATERING PLAN
A CLEAR WATER DISCHARGE SHALL BE PROVIDED AS FOLLOWS:
1. PUMP INLET SHALL BE PROTECTED WITH FILTER FABRIC & CRUSHED STONE.
2. PUMP SHALL BE STAGED OUTSIDE OF WETLANDS.
3. THE WATER SHALL BE PUMPED TO A DEWATERING STRUCTURE WHICH SHALL BE LOCATED AT LEAST 50 FEET FROM ANY REGULATED WETLAND AREA OR AS SHOWN ON THE PLANS.
4. THE DEWATERING STRUCTURE SHALL BE SIZED TO ACCOMMODATE PUMP DISCHARGE RATE: **REQUIRED VOLUME (C.F.) = PUMP DISCHARGE (G.P.M.) x 16**
5. THE DEWATERING STRUCTURE SHALL DISCHARGED TO A VEGETATED AREA.
6. ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN AND PROPERLY DISPOSED OF WHEN ACCUMULATION REACHES HALF OF THE REQUIRED STORAGE VOLUME.
7. DEWATERING AREA SHALL BE RESTORED WITH NEW ENGLAND EROSION CONTROL SEED MIX.

HAY BALE BARRIER DE-WATERING DETAIL
NOT TO SCALE



CONVEYANCE SWALE SIZING:
A-A SWALE TO CONVEY INTERNAL SITE DRAINAGE: 1.0' DEEP; 2' WIDE BOTTOM ; 2:1 SIDE SLOPES

CONVEYANCE SWALE DETAIL
NOT TO SCALE

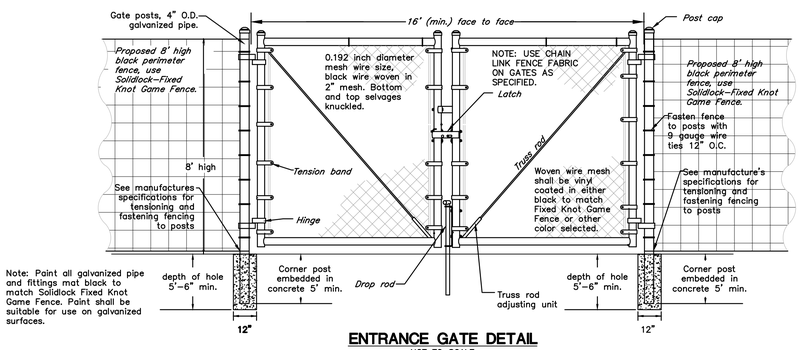


NOTES:
1. CONTRACTOR TO SUBCUT ROADWAY TO EXISTING GRADE ELEVATION TO MAINTAIN EXISTING SITE DRAINAGE PATTERNS WHEREVER POSSIBLE.
2. IN FILL LOCATIONS CONTRACTOR TO GRADE TOE OF SLOPE TO EXISTING GRADE, AND MAINTAIN NATURAL DRAINAGE PATTERNS.
3. IN CUT LOCATIONS CONTRACTOR TO CREATE SWALE ON DOWNSTREAM SIDE, REFER TO GRADING PLANS FOR DETAILS.
4. CONTRACTOR TO COMPACT AGGREGATE TO 95% MAXIMUM DRY DENSITY.
5. REFER TO GEOTECHNICAL RECOMMENDATIONS FOR ADDITIONAL ROADWAY SECTION DESIGN INFORMATION.

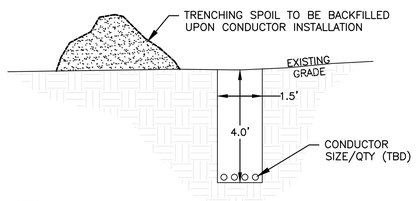
ACCESS ROAD DETAIL
NOT TO SCALE

CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO ENGINEER FOR APPROVAL PRIOR TO ORDERING AND CONSTRUCTING FENCE.

SOLIDLOCK FIXED KNOT GAME FENCE SPECIFICATIONS:
- FENCE FABRIC SHALL BE BEKAERT ZA-6" FIXED KNOT GAME FENCE
- 96" HIGH 12.5 GAUGE WIRE
- CLASS 3 GALVANIZED
- COLOR - BLACK



ENTRANCE GATE DETAIL
NOT TO SCALE



NOTES:
1. CONDUCTOR CLEARANCES DEPENDENT ON GEOTECHNICAL PARAMETERS AND ELECTRICAL DESIGN
2. CONDUCTOR SIZING AND QUANTITIES PER TRENCH DEPENDENT ON FINAL ELECTRICAL DESIGN TRENCH DIMENSIONS FOR EARTHWORK QUANTITIES ARE CONSERVATIVE.

TRENCHING DETAIL
NOT TO SCALE

No.	DATE	REVISION
3	7/18/2025	Misc. Revisions Per Owner Comments
2	7/9/2025	Misc. Revisions Per Owner Comments
1	3/31/2025	Misc. Revisions Per Owner Comments

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STATE OF CONNECTICUT KYLE H. JOHNSON No. 24328 LICENSED PROFESSIONAL ENGINEER

Plans Prepared for ECOS Energy
South 8th Street, #900, Minneapolis, MN 55402

North Branford Solar
121 West Pond Road
North Branford, CT 06471

Civil Construction Details

Project No. CLA-6693
Proj. Engineer K.J.H.
Date: 2/28/2025
Sheet No. D-3

CLA

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