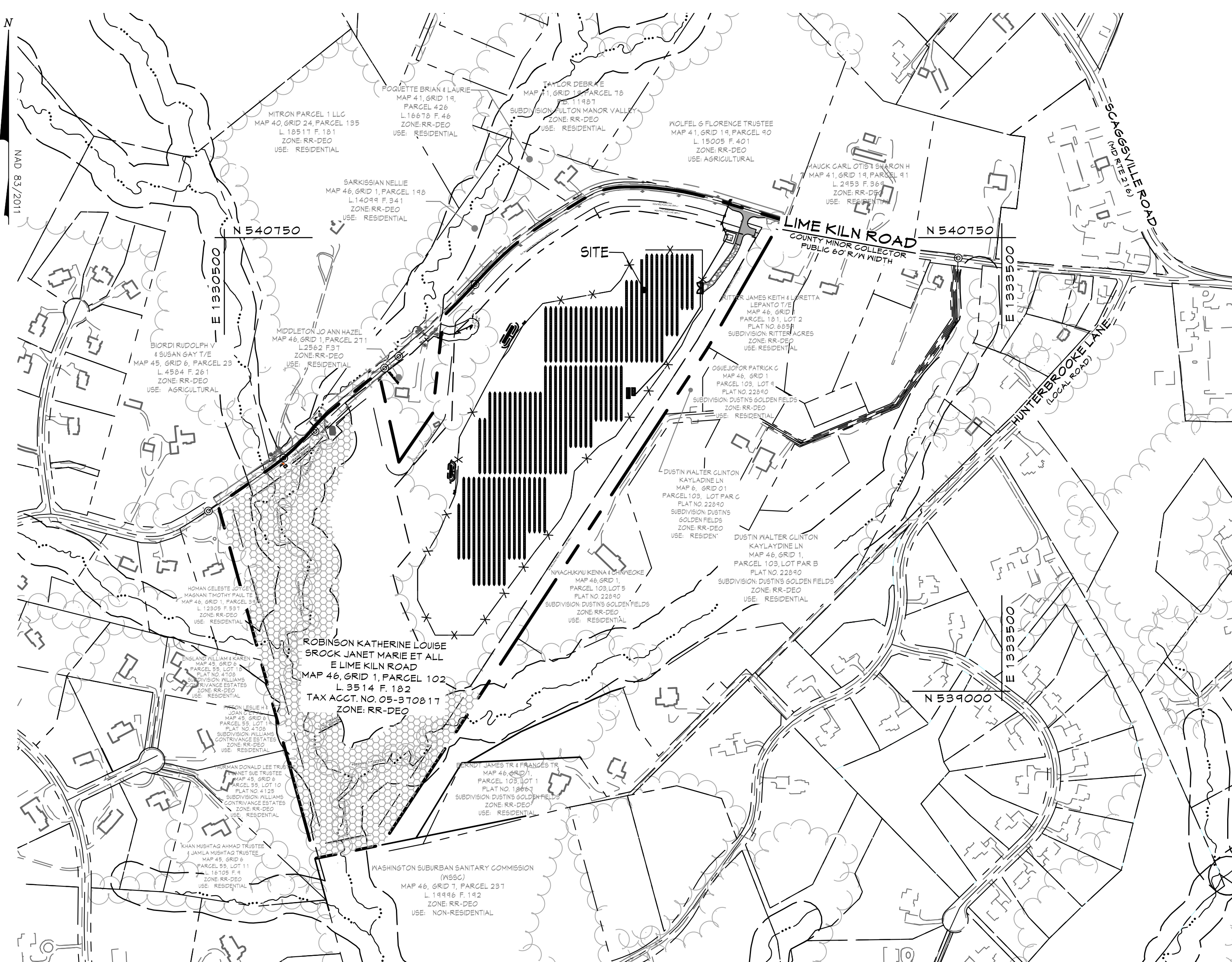


GENERAL NOTES

- 1. OVERALL PROPERTY AREA = 51.3 ACRES
2. DEVELOPMENT AREA = 28.2 ACRES
3. THE SUBJECT PROPERTY IS ZONED RR-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING MAP.
4. CURRENT USE: AGRICULTURAL/OPEN LAND
PROPOSED USE: OPEN LAND/SOLAR FACILITY
5. DEED BOOK/PAGE: 9514 / 182
6. ELECTION DISTRICT: 5
7. MAP GRID/PARCEL: 46/01/102
8. TAX ACCOUNT NO.: 05-310811
9. SUBDIVISION NAME: N/A
10. LOCAL COMMUNITY: FULTON
11. CURRENT DEVELOPMENT CASE#: BA-21-040G/EGP-22-058
12. GENUS TRACT #: 605102
13. THE PROPERTY BOUNDARY SHOWN PROVIDED FROM BEST AVAILABLE HOWARD COUNTY GIS RECORDS.
14. EXISTING TOPOGRAPHY PROVIDED FROM AERIAL SURVEY BY MCKENZIE SNYDER, INC AND FIELD RUN SURVEY BY CENTURY ENGINEERING (DATED APRIL 2022) AND SUPPLEMENTED WITH BEST AVAILABLE HOWARD COUNTY GIS RECORDS.
15. THERE ARE NO EXISTING WELL OR SEPTIC FIELD AREAS ON-SITE.
16. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FOREST CONSERVATION EASEMENT AREAS, UNLESS WAIVERS HAVE BEEN APPROVED OR HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING HAS CONSIDERED THEM NECESSARY.
17. THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLAN COORDINATE SYSTEM, HOWARD COUNTY MONUMENT NO. 00114 AND 416E HEREON REFERRED TO AS THE PROJECT.
18. THE CONTRACTORS SHALL NOTIFY THE FOLLOWING UTILITY COMPANIES OR AGENCIES AT LEAST FIVE (5) WORKING DAYS BEFORE STARTING WORK SHOWN ON THESE PLANS:
STATE HIGHWAY ADMINISTRATION 410531.5533
BEG (CONTRACTOR SERVICES) 410850.4620
BGE (UNDERGROUND DAMAGE CONTROL) 410781.9068
MISS UTILITY PIPELINE COMPANY 800.257.1111
HOWARD COUNTY, DEPT. OF PUBLIC WORKS, BUREAU OF UTILITIES 410313.4900
HOWARD COUNTY HEALTH DEPARTMENT 410313.2640
AT&T 800.252.1133
VERIZON 800.743.0093/410.224.4210
19. THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-1111 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
20. ANY DAMAGE TO PUBLIC RIGHT-OF-WAYS, PAVING OR EXISTING UTILITIES WILL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
21. THE CONTRACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/ BUREAU OF ENGINEERING CONSTRUCTION INSPECTION DIVISION AT 410-315-1880 AT LEAST FIVE (5) DAYS PRIOR TO THE START OF WORK.
22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE LATEST STANDARDS AND SPECIFICATIONS OF HOWARD COUNTY IN ADDITION TO MSHA STANDARDS AND SPECIFICATIONS IF APPLICABLE.
23. THE PROJECT IS IN CONFORMANCE WITH THE CURRENT HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
24. ALL HDPE PIPE SPECIFICATIONS AND INSTALLATIONS SHALL MEET AASHTO M-252 TYPE S, M-294 TYPE S AND ASTM D2521, RESPECTIVELY.
25. SOIL COMPACTATION SPECIFICATIONS, REQUIREMENTS, METHODS AND MATERIALS ARE TO BE IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL ENGINEER.
26. STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET BY TWO (2) MICRO BIORETENTION FACILITY (F-6) AND NON-ROOFTOP DISCONNECTS (N-2). THE STORMWATER FACILITIES FOR THIS SITE WILL BE OWNED AND MAINTAINED BY THE APPLICANT.
27. THERE ARE NO HISTORIC FEATURES ON SITE.
28. THE SITE DOES NOT LIE WITHIN THE 100-YEAR FLOODPLAIN, AS SHOWN ON F.I.R.M. #2402100039D, PANEL 95 OF 235, DATED NOVEMBER 6, 2013.
29. MARKING WILL BE PROVIDED TO EMERGENCY RESPONDERS FOR APPROPRIATE MARKING AND GUIDANCE WITH RESPECT TO WORKING AROUND AND ISOLATING THE SOLAR ELECTRICAL SYSTEM. THERE SHALL BE A SIGN INDICATING THE ELECTRICAL HAZARDS PRESENT, AND EMERGENCY CONTACT INFORMATION FOR THE SITE REPRESENTATIVE. THIS INFORMATION AND CLEARLY SHOWN MEANS OF ACCESS, FIRE DEPARTMENT TURN AROUND AREAS, MAIN AND SECONDARY SHUT-OFFS AS WELL AS GATE LOCATIONS SHALL BE PROVIDED IN PDF FORMAT TO THE OFFICE OF THE FIRE MARSHALL.
30. A VEGETATION MANAGEMENT PLAN SHALL BE PROVIDED AND KEPT ON FILE WITH THE OFFICE OF THE FIRE MARSHALL.
31. TRAINING SHALL BE PROVIDED BY THE DEVELOPER/SOLAR FARM MANAGER TO THE FIRE DEPARTMENT.
32. THIS PROJECT IS SUBJECT TO THE HOWARD COUNTY CASE BA-21-040G TO ALLOW THE CONDITIONAL USE FOR A COMMERCIAL SOLAR FACILITY AND WAS APPROVED ON APRIL 5, 2022 WITH THE FOLLOWING CONDITIONS:
(1) THE COMMERCIAL SOLAR FACILITY CONDITIONAL USE SHALL BE CONDUCTED IN CONFORMANCE WITH AND SHALL ONLY TO THE PETITION AS SUBMITTED AND AS SHOWN ON THE REVISED CONDITIONAL USE PLAN DATED JANUARY 14, 2022, AND NOT TO ANY OTHER ACTIVITIES, USES, OR STRUCTURES ON THE PROPERTY.
(2) THE PETITIONER SHALL COMPLY WITH ALL CONDITIONAL USE STANDARDS.
(3) THE SITE DEVELOPMENT PLAN, OR ITS EQUIVALENT, SHALL INCLUDE A NOTE CONTAINING ALL CONDITIONS OF APPROVAL.
(4) THE SYSTEMS SHALL COMPLY WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL LAWS AND PROVISIONS.
(5) ANY SOLAR COLLECTOR FACILITY THAT IS NO LONGER USED SHALL BE REMOVED BY THE PROPERTY OWNER PRIOR TO THE EXPIRATION OF THE DATE THAT THE USE CEASES.
(6) THE PREMISES SHALL BE MAINTAINED AT ALL TIMES IN A CLEAN AND ORDERLY CONDITION INCLUDING THE CARE OR REPLACEMENT OF PLANT MATERIALS REQUIRED IN THE LANDSCAPING PLAN. THE RESPONSIBILITY FOR COMPLIANCE WITH THIS PROVISION SHALL BE WITH ALL PARTIES HAVING A LEASE OR OWNERSHIP INTEREST IN THE SOLAR COLLECTOR FACILITY. THE PETITIONER SHALL PROVIDE THE HEARING AUTHORITY WITH DETAILS REGARDING MAINTENANCE AND ACCESS FOR THE SUBJECT PROPERTY.
(7) THE PETITIONER SHALL REGISTER ALL SOLAR COLLECTORS WITH THE DEPARTMENT OF FIRE AND RESCUE SERVICES. THE REGISTRATION SHALL INCLUDE A MAP OF THE SOLAR COLLECTOR FACILITY NOTING THE LOCATION OF THE SOLAR COLLECTORS AND THE PANEL DISCONNECT.
(8) TREE REMOVAL SHALL BE MINIMIZED, AND REFORESTATION SHALL BE DONE IN ACCORDANCE WITH SECTION 16.1026 OF THE HOWARD COUNTY CODE.
(9) ALL REQUIRED LANDSCAPING SHALL BE PROVIDED WITHIN 6 MONTHS OF INSTALLATION OF THE SOLAR PANELS.
33. THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND THE LANDSCAPE MANUAL. FINANCIAL SURETY IN THE AMOUNT OF \$10,200.00 FOR 360 EVERGREEN TREES @ \$150 EACH AND 108 SMALL DECIDUOUS TREES @ \$150 EACH WILL BE POSTED AS PART OF THE DPZ DEVELOPER'S AGREEMENT.
34. THIS PLAN COMPLIES WITH THE REQUIREMENTS OF SECTION 16.1200 OF THE HOWARD COUNTY CODE FOR FOREST CONSERVATION BY THE RETENTION OF 13.3 ACRES OF EXISTING FOREST, PROTECTED UNDER A FOREST CONSERVATION EASEMENT, AS RECORDED AMONG THE LAND RECORDS OF HOWARD COUNTY (PLAT NO. 26935).
35. A PRE-SUBMISSION COMMUNITY MEETING FOR THIS PROJECT WAS HELD ON NOVEMBER 10, 2021.
36. TRAFFIC CONTROL DEVICES, MARKINGS AND SIGNING SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). ALL STREET AND REGULATORY SIGNS SHALL BE IN PLACE PRIOR TO THE START OF ANY ASPHALT.
37. ALL SIGN POSTS USED FOR TRAFFIC CONTROL SIGNS INSTALLED IN THE COUNTY RIGHT-OF-WAY SHALL BE MOUNTED ON A 2' GALVANIZED STEEL PERFORATED, SQUARE TUBE POST (14 GAUGE) INSERTED INTO A 2-1/2' GALVANIZED STEEL, PERFORATED, SQUARE TUBE SLEEVE (12 GAUGE)-3' LONG. A GALVANIZED STEEL POLE CAP SHALL BE MOUNTED ON TOP OF EACH POST.
38. ALL PLAN DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
39. WATER IS PRIVATE. NO WATER SERVICE REQUIRED FOR THIS PROJECT.
40. SEWER IS PRIVATE. NO SEWER SERVICE REQUIRED FOR THIS PROJECT.
41. EXISTING UTILITIES ARE BASED ON TOPOGRAPHY PROVIDED FROM AERIAL SURVEY BY MCKENZIE SNYDER, INC AND FIELD RUN SURVEY BY CENTURY ENGINEERING, LLC (DATED APRIL, 2022) AND SUPPLEMENTED WITH BEST AVAILABLE HOWARD COUNTY GIS RECORDS.
42. THE WETLANDS DELINEATION STUDY FOR THIS PROJECT WAS PREPARED BY (WATERSHED ECO LLC, DATED SEPTEMBER 2021), AND WAS APPROVED ON JUNE 10, 2022.
43. NO TRAFFIC STUDY IS REQUIRED FOR THIS PROJECT.

SITE DEVELOPMENT PLAN
PROJECT CHABERTON SOLAR LIME KILN



LOCATION PLAN
SCALE: 1"=300'



APPLICANT/PETITIONER:
CHABERTON SOLAR LIME KILN LLC
1601 NEWATTA STREET, SUITE 100
DENVER, CO 80202
ATTN: ADAM FARRINGTON, PROJECT MANAGER
PHONE: (203) 554-5118
EMAIL: afarrington@epivotenergy.net

CURRENT OWNER(S):
ROBINSON KATHERINE LOUISE 865 YARDARM WAY ANNAPOLIS, MD 21401
PHONE: (443) 944-9285
EMAIL: kr007511@gmail.com
SROCK JANET MARIE ET AL 402 BOULDER COURT RICHLANDS, NC 28514
PHONE: (252) 509-2002
EMAIL: jmsrock@piwebol.com

ENGINEER:
CENTURY ENGINEERING, LLC
16401 MELFORD BLVD, SUITE 130
BOWIE, MD 20715
ATTN: PIERO PETE MELLITS, PE
PHONE: (443) 589-2400
EMAIL: pmellits@centuryeng.com

Design Certification:
I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District.

Piero Pete Mellits, PE
Designer's Signature Date: 3/4/24
MD Registration No. 21875
R.L.S., or R.L.A. (circle one)

Owners/Developer Certification:
I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE.

Adam Farrington, Project Manager
Owner's/Developer's Signature Date: 3/4/24

ADAM FARRINGTON, PROJECT MANAGER
Printed Name & Title

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
Alexander Bratchley 3/11/2024
Howard Soil Conservation District Date

SOIL PROPERTIES

Table with 7 columns: SYMBOL, DESCRIPTION, K-FACTOR, ERODIBLE, HYDRIC, HSG, DRAINAGE CLASS. Rows include Co, GaC, GgA, GgB, GmB, and MdD soil types.

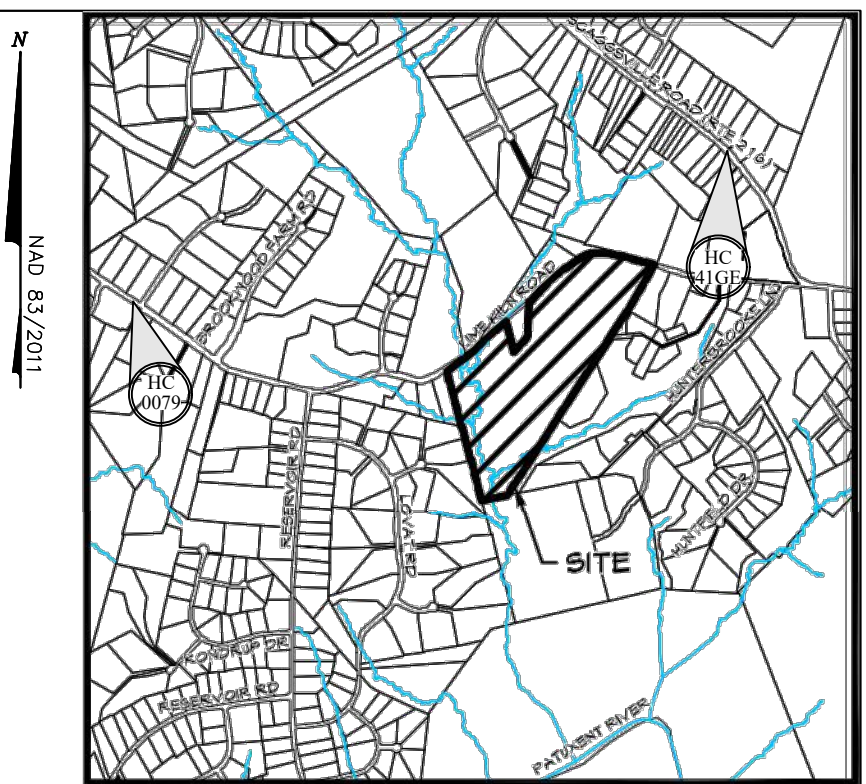
APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Planning Division Date: 3/8/2024
Chief, Division of Planning and Zoning Date: 3/11/2024
Director Date: 3/11/2024

Stormwater Management Information table with columns: Lot/Parcel Number, Facility Name & Number, Practice Type (Quantity), Public, Private, HOA Maintains, Misc.

INDEX OF SHEET

Table listing sheet numbers and titles: COVER SHEET, EXISTING CONDITIONS PLAN, OVERALL SITE PLAN, SITE 4 GRADING PLAN 1, etc.



HOWARD COUNTY GIS DATA, ADC MAP COORDINATES 505226 NEAREST HC GEODETIC CONTROL POINTS 00174 AND 416E

VICINITY MAP
SCALE: 1" = 2000'

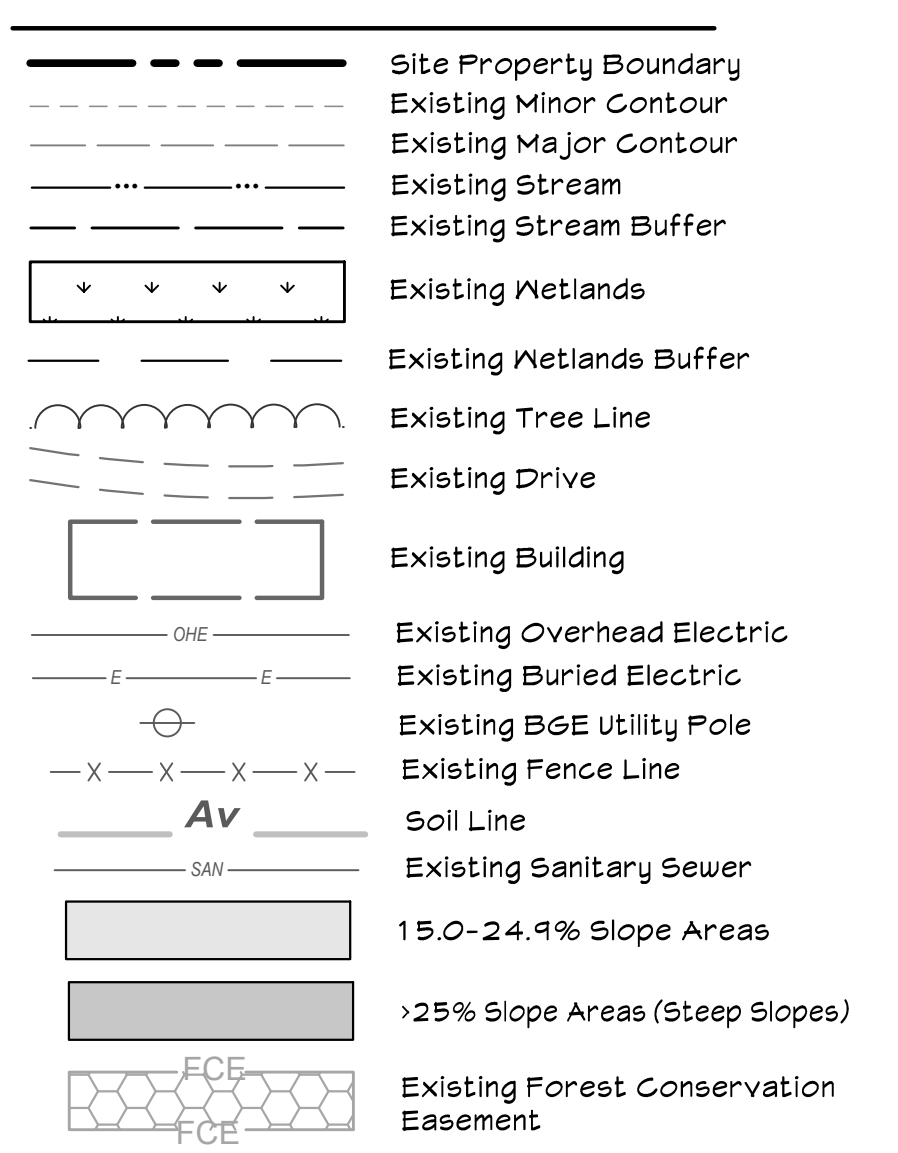
BENCHMARK:
CONTROL STATION 0019
ELEV: 426.131
N: 5402019461
E: 1321,102,174
LIME KILN ROAD EAST OF BROWN BRIDGE ROAD
CONTROL STATION 416E
ELEV: 465.041
N: 841,559,1718
E: 1339,648,985
RT-216 AT FULTON NEAR #11820

SITE ANALYSIS DATA CHART:

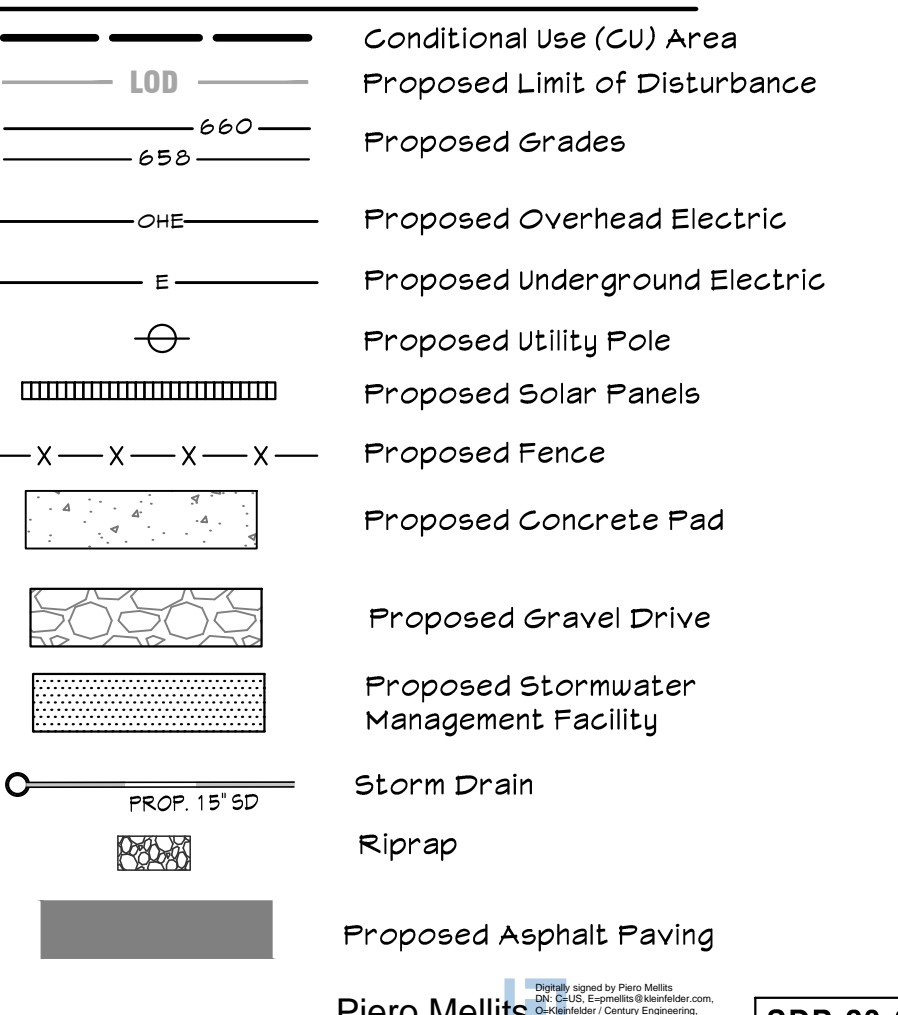
Table with 2 columns: SITE AREA (AREA OF PLAN SUBMISSION, WETLANDS, FLOODPLAIN, etc.) and VALUE (e.g., 51.3 AC).

- 1. OVERALL PROPERTY AREA = 51.3 ACRES
2. DEVELOPMENT (CONDITIONAL USE) AREA = 28.2 ACRES AREA
3. DISTURBED AREA = 809, 112 SF, 18.55 AC.
4. FENCE AREA = 704,814 SF, 16.2 AC.
5. SOLAR ARRAY AREA = 427,849 SF, 9.8 AC.
6. EARTHWORK ANALYSIS:
TOTAL CUT = 1500 CY
TOTAL FILL = 1500 CY
NO SPOIL OR BORROW MATERIAL REQUIRED.
7. THERE ARE NO HISTORIC FEATURES ON SITE
8. THE SITE DOES NOT LIE WITHIN THE 100-YEAR FLOODPLAIN, AS SHOWN ON F.I.R.M. #2402100145D, PANEL 145 OF 235, DATED NOVEMBER 6, 2013
9. ZONING REGULATIONS SECTION SECTION 13.1.0.N.2 LOCAL FACILITY, COMMERCIAL.
MIN. LOT SIZE 10 ACRES PROVIDED 56.3 ACRES
MIN. SETBACK (BRL) FRONT: 50 FT 224 FT
SIDE: 50 FT 125 FT
REAR: 50 FT 86.1 FT
HEIGHT: 20 FT 13 FT

EXISTING LEGEND



PROPOSED LEGEND



- 10. WATERSHED: PATUXENT RIVER
11. THERE ARE EXISTING STREAMS ON-SITE, OUTSIDE OF THE DEVELOPMENT AREA.
12. THERE ARE EXISTING WETLANDS ON-SITE, OUTSIDE OF THE AREA OF DEVELOPMENT.
13. THERE ARE STEEP SLOPES ON-SITE. SLOPES GREATER THAN 15% ARE LOCATED WITHIN THE DEVELOPMENT AREA. STEEP SLOPES GREATER THAN 25% ARE NOT LOCATED WITHIN THE DEVELOPMENT AREA.
14. NO FOREST CLEARING OR SPECIEM TREE REMOVAL PROPOSED.

CALL "MISS UTILITY" AT 1-800-257-7777 72 Hours Before Start Of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

- 1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

Table with columns: DATE, BY, REVISIONS

CENTURY ENGINEERING logo and contact information: 16901 Melford Boulevard, Ste 130, Bowie, MD 20715

COVER SHEET
Chaberton Solar Lime Kiln

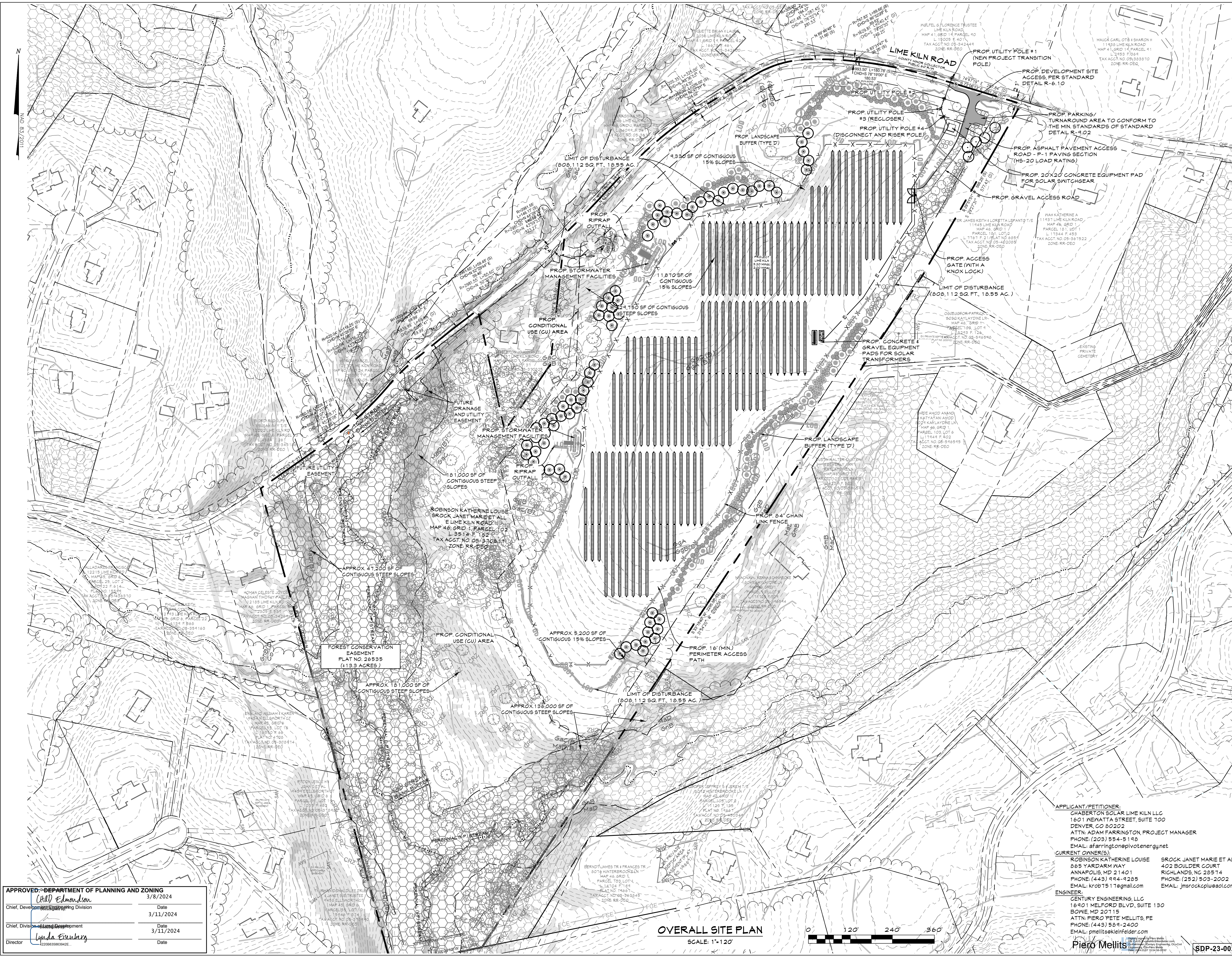
11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
PIERO VAN MELLITS No. 21875
3/4/2024

DRAWN BY: JLA REVIEW BY: PVM
DESIGN BY: JLA REVIEW DATE: 3-4-2024
SCALE: AS SHOWN DRAWING: 1 of 27
PROJECT No.: 211182.00

T:\2022\1-Facilities\2.11.1182.00 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\2.11.1182.00 (SDP-01) Cover_Sheet.dwg Mar 07, 2024 4:00pm janderson

T:\2021\Facilities\2.11.18.2.00 Project Lime Kiln Solar Site\CADD\Drawings\SDP\2.11.18.2.00 (SDP-03) Overall Site Plan.dwg Mar 04, 2024 9:09pm janderson



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0-24.9% Slope Areas
- >25% Slope Areas (Steep Slopes)
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility

CALL "MISS UTILITY" AT
1-800-257-7777
72 Hours Before Start of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

DATA SOURCE:
1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

OVERALL SITE PLAN

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE NO.: 21875
EXPIRATION DATE: 2/12/2026

PIERO MELLITS
No. 21875
REGISTERED PROFESSIONAL ENGINEER

3/4/2024

REVISIONS:
DRAWN BY: JLA
DESIGN BY: JLA
SCALE: AS SHOWN
PROJECT No.: 211182.00

REVISIONS:
REVIEW BY: PVM
REVIEW DATE: 3-4-2024
DRAWING: 3 of 27

APPROVED: DEPARTMENT OF PLANNING AND ZONING

	3/8/2024
Chief, Development Planning Division	Date
	3/11/2024
Chief, Development	Date
Director	Date

OVERALL SITE PLAN

SCALE: 1" = 120'



APPLICANT/PETITIONER:
CHABERTON SOLAR LIME KILN LLC
1601 KENNATTA STREET, SUITE 200
DENVER, CO 80202
ATTN: ADAM FARRINGTON, PROJECT MANAGER
PHONE: (203) 554-5198
EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
ROBINSON KATHERINE LOUISE BROCK JANET MARIE ET AL
865 YARDARM WAY
ANNAPOLIS, MD 21401
PHONE: (443) 994-9285
EMAIL: krob751@gmail.com

ENGINEER:
CENTURY ENGINEERING, LLC
16901 MELFORD BLVD, SUITE 130
BOWIE, MD 20715
ATTN: PIERO PETE MELLITS, PE
PHONE: (443) 589-2400
EMAIL: pmellits@kleinfelder.com

Piero Mellits

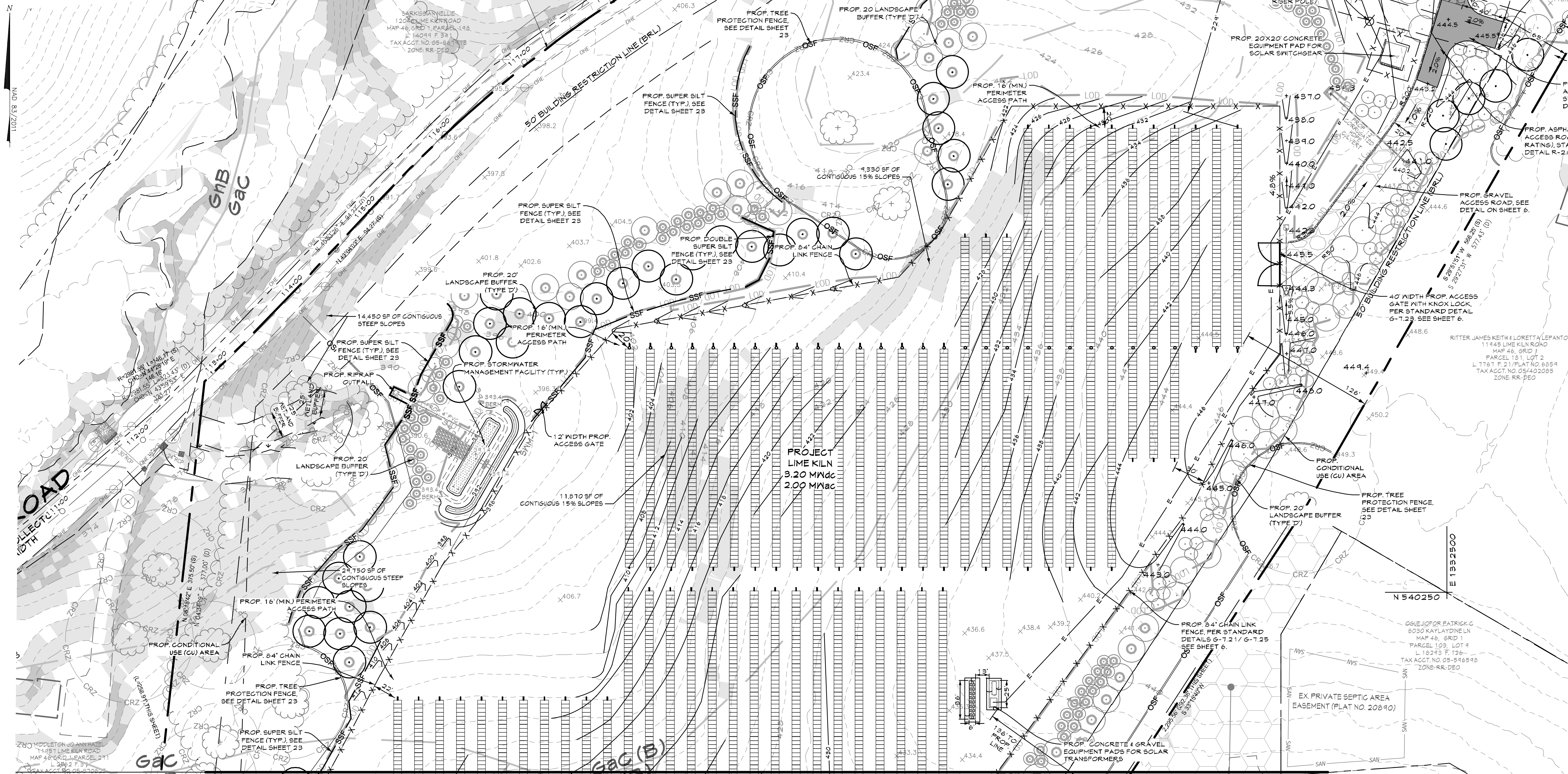
SDP-23-002

EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0-24.9% Slope Areas
- >25% Slope Areas (Steep Slopes)
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Grades
- Forest Conservation Easement Area
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Asphalt Paving
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap
- Super Silt Fence
- Tree Protection Fence



APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MENTATTA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJECT MANAGER
 PHONE: (203) 554-5148
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 965 YARDWAY ROAD
 ANNAPOLIS, MD 21401
 PHONE: (443) 944-4285
 EMAIL: krc001517@gmail.com

ENGINEER:
 CENTURY ENGINEERING, LLC
 16901 MELFORD BLVD, SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETER MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

CALL "MISS UTILITY" AT
 1-800-257-7777
 72 Hours Before Start Of Construction

DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

DATA SOURCE:

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS



16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

SITE & GRADING PLAN 1

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/12/2026



DRAWN BY: JLA
 DESIGN BY: JLA

REVIEW BY: PVM
 REVIEW DATE: 2-15-2024

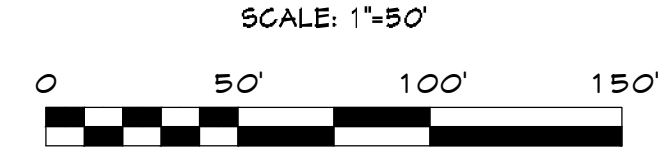
SCALE: AS SHOWN

DRAWING: 4 of 27

PROJECT No.: 211182.00

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 3/8/2024
 Chief, Development and Planning Division
 Date: 3/11/2024
 Chief, Division of Planning and Development
 Date: 3/11/2024
 Director
 Date:

SITE AND GRADING PLAN

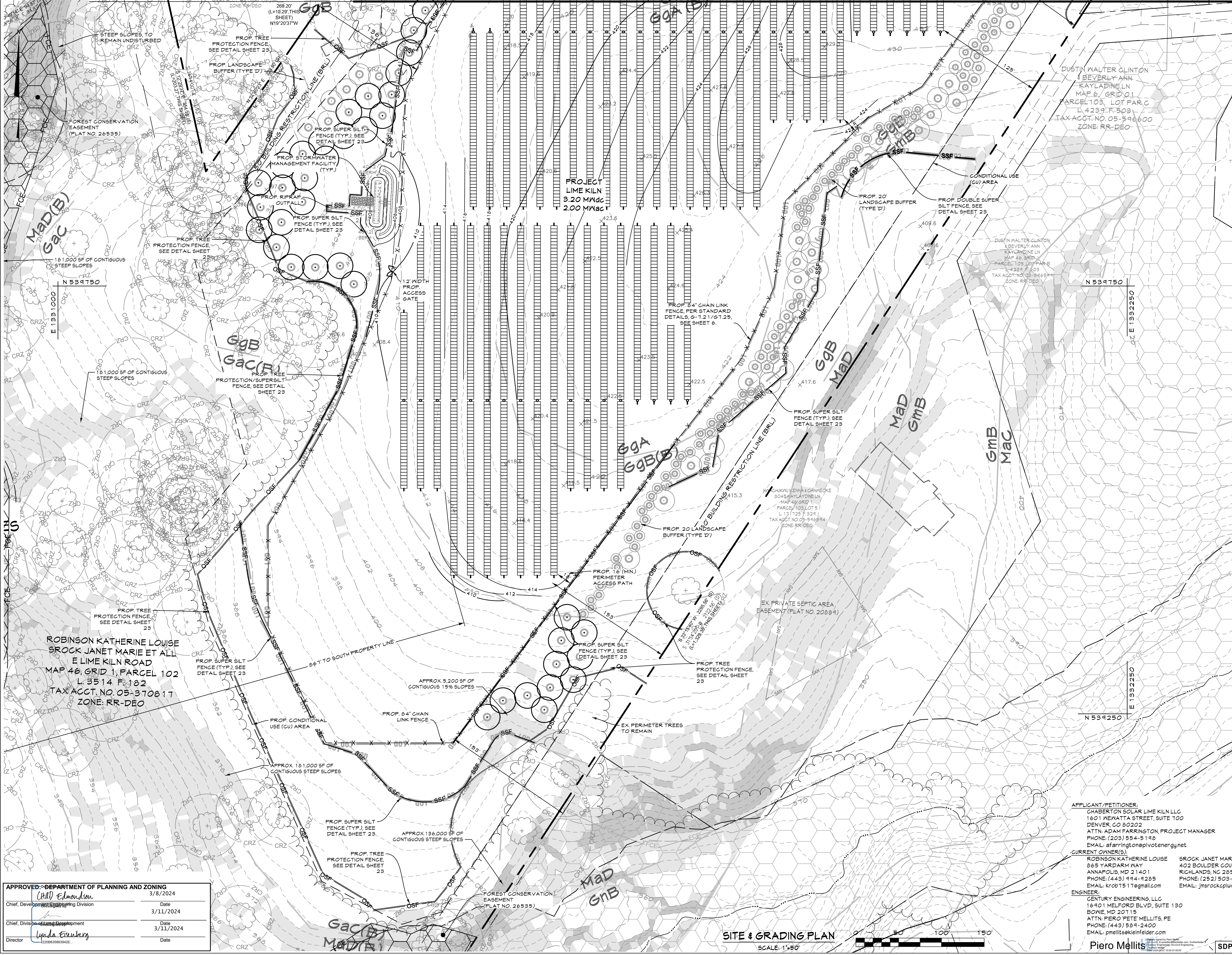


MATCHLINE-SEE SHEET 5

Digitally signed by Piero Mellits
 DN: c=US, e=pmellits@centuryeng.com,
 ou=Century Engineering, cn=Piero Mellits
 Date: 2024.02.20 10:39:13-0500

T:\2021\Facilities\2.11182.00 Project_Lime Kiln Solar_Site\CIVIL\CADD\Drawings\SDP\2.11182.00 (SDP-04-05) Site and Grading Plan.dwg Feb 15, 2024 1:23:00pm janderson

MATCHLINE-SEE SHEET 4



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0-24.9% Slope Areas
- >25% Slope Areas (Steep Slopes)
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Prop. 15" SD
- Riprap
- Super Silt Fence
- Tree Protection Fence

CALL "MISS UTILITY" AT 1-800-257-7777 72 Hours Before Start Of Construction

DATUM: HORIZONTAL DATUM: NAD 83 (2011) VERTICAL DATUM: NAVD 88

- DATA SOURCE
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

SITE & GRADING PLAN 2 Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/12/2026



DRAWN BY: JLA	REVIEW BY: PVM
DESIGN BY: JLA	REVIEW DATE: 3-4-2024
SCALE: AS SHOWN	DRAWING: 5 of 27
PROJECT No.: 211182.00	

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 Chief, Development Planning Division
 Chief, Division of Planning Department
 Director

3/8/2024
3/11/2024
3/11/2024

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 NENATTA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJECT MANAGER
 PHONE: (203) 554-5118
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 865 YARDARM WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 494-4285
 EMAIL: krob7517@gmail.com

ENGINEER:
 CENTURY ENGINEERING, LLC
 16901 MELFORD BLVD, SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

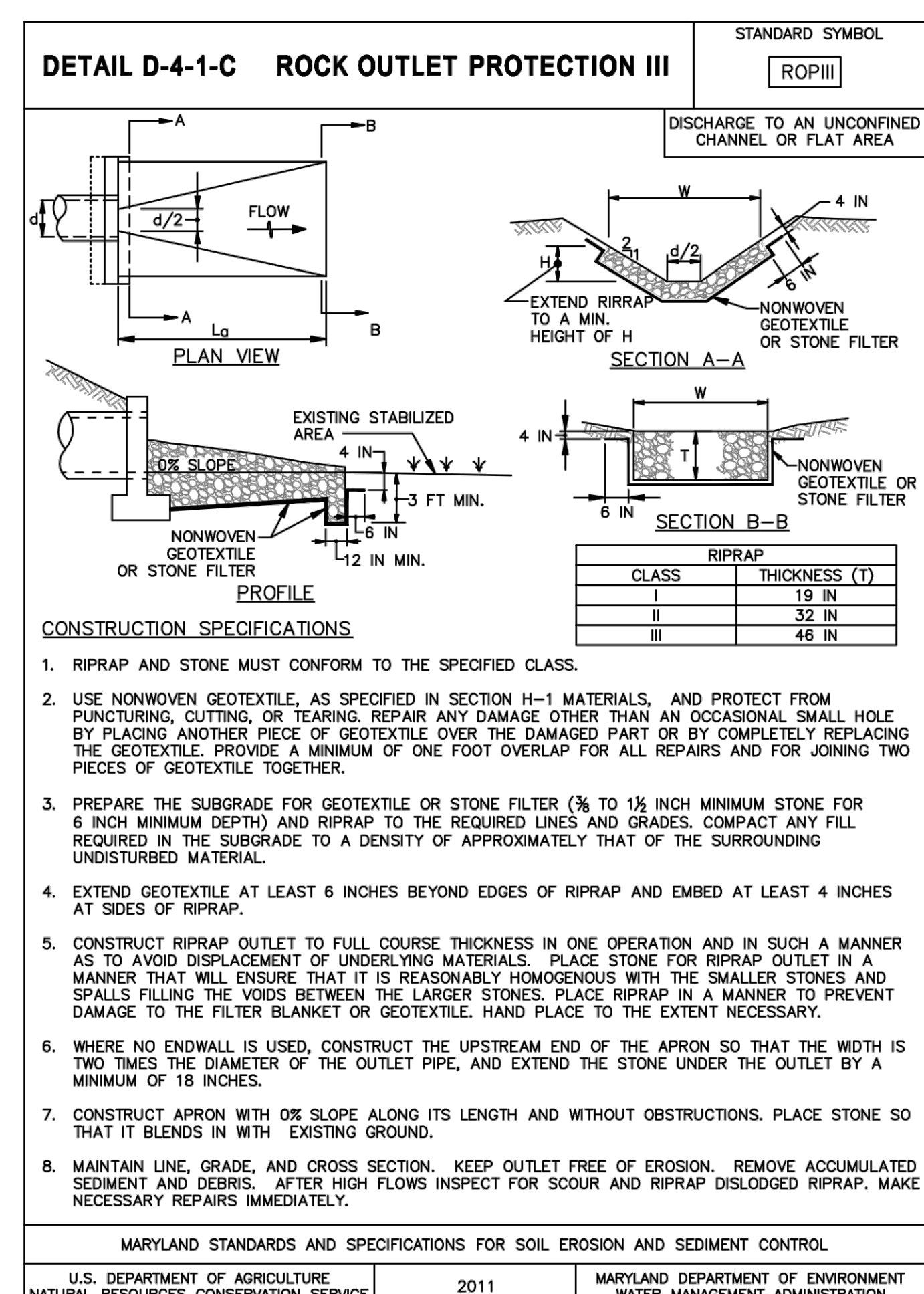
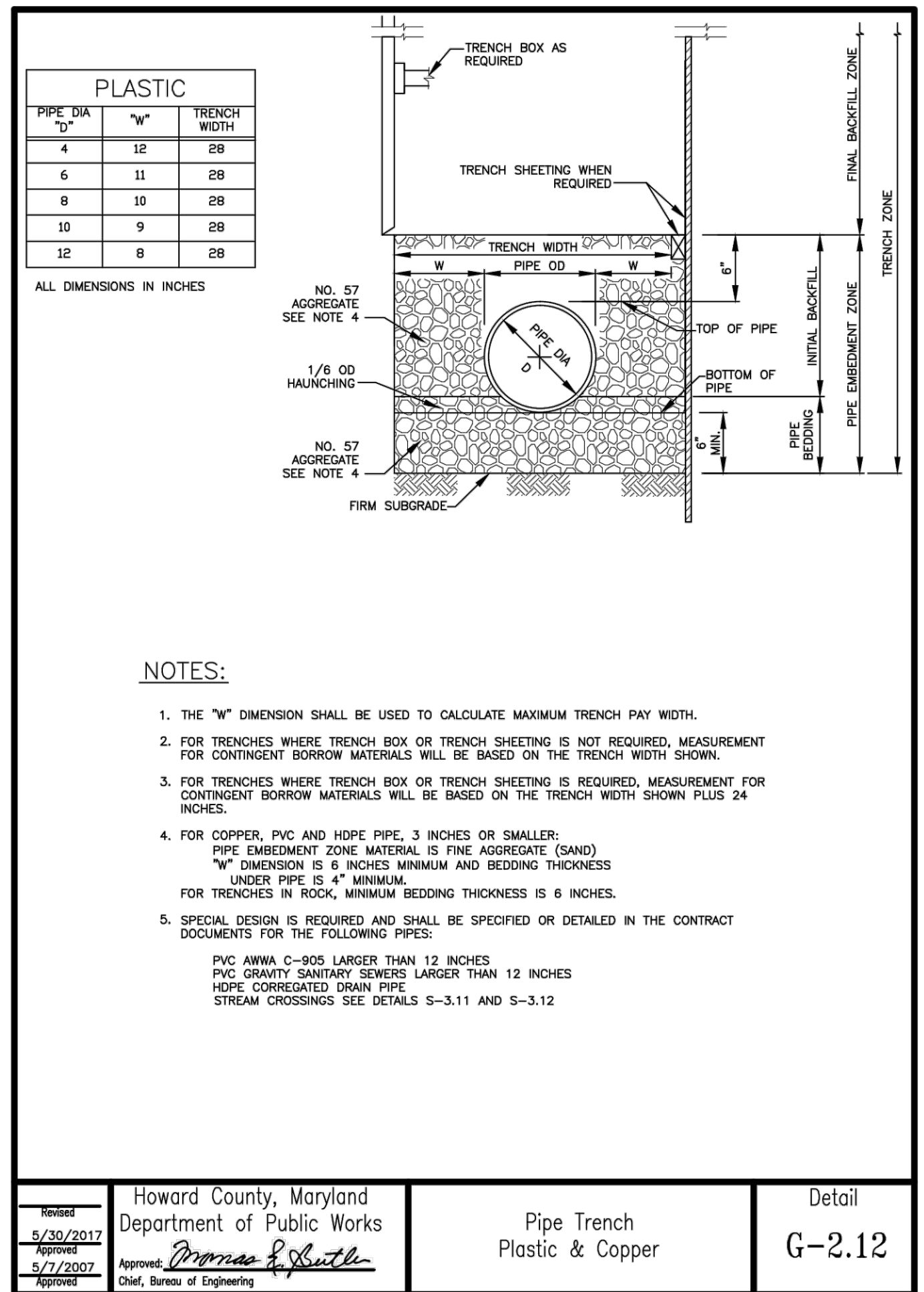
SROCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLANDS, NC 28574
 PHONE: (252) 509-2002
 EMAIL: jmsrockpi@aol.com

Piero Mellits

SITE & GRADING PLAN SCALE: 1"=50'

T:\2023\1\Facilities\2.11.182.00 Project Lime Kiln Solar Site\CADD\Drawings\SDP\2.11.182.00 (SDP-04-05) Site and Grading Plan.dwg Mar 04, 2024 3:18pm janderson

T:\2024\1\Facilities\21118200 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\21118200 (SDP-06-07) Site Details.dwg Feb 15, 2024 12:59pm_janderson



Revised 5/30/2017 Approved 5/7/2007	Howard County, Maryland Department of Public Works Approved: <i>Dorcas E. Smith</i> Chief, Bureau of Engineering	Pipe Trench Plastic & Copper	Detail G-2.12
--	---	---------------------------------	------------------

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MERAYTA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 265 YARDARM PLAZA
 ANNAPOLIS, MD 21401
 PHONE: (443) 994-9285
 EMAIL: krob1517@gmail.com

SROCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLAND, NC 28574
 PHONE: (252) 509-2002
 EMAIL: jmsrockpl@aol.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16901 MELFORD BLVD, SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@kleinfelder.com



DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

DATA SOURCE

1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING

16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

SITE DETAILS
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE No.: 21875
 EXPIRATION DATE: 2/15/2026

2/15/2024

DRAWN BY: JLA REVIEW BY: PVM
 DESIGN BY: JLA REVIEW DATE: 2-15-2024

SCALE: AS SHOWN DRAWING: 7 of 27

PROJECT No.: 211182.00

APPROVED: DEPARTMENT OF PLANNING AND ZONING

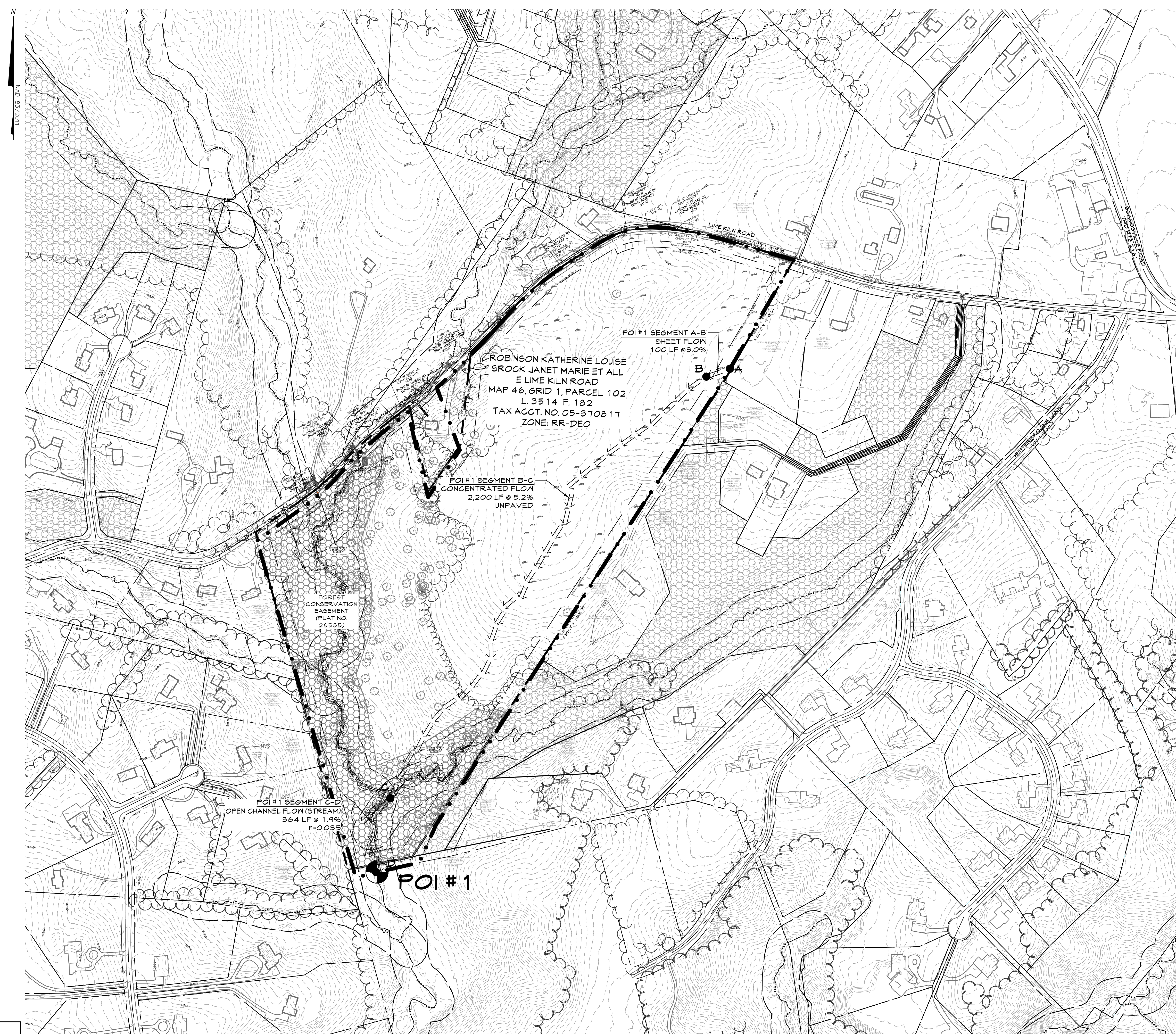
<i>Bill Edmondson</i>	3/8/2024
Chief, Development and Planning Division	Date
<i>Linda Eisenberg</i>	3/11/2024
Chief, Development	Date
<i>Linda Eisenberg</i>	3/11/2024
Director	Date

Piero Mellits

Digitally signed by Piero Mellits
 DN: c=US, e=pmellits@kleinfelder.com,
 o=Kleinfelder / Century Engineering,
 ou=Civil Engineering, CN=Piero Mellits
 Date: 2024.02.20 10:40:41-0500'

SDP-23-002

EXISTING SITE DRAINAGE TO POI #1
 DRAINAGE AREA = 56.83 AC±
 IMPERVIOUS AREA = 0.44 AC±
 Tc = 0.324 Hrs.
 CN = 62
 Q10 = 8.164 CFS
 (DATA OBTAINED FROM TR-55)



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing B&E Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- Existing Storm Drain
- Existing Well
- Existing Drainage Divide
- Time of Concentration Path
- Existing Forest Conservation Easement

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MERNATA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 985 YARDARM WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 994-9285
 EMAIL: krobts17@gmail.com

SRÖCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLANDS, NC 28574
 PHONE: (252) 503-2002
 EMAIL: jmsrockpiu@aol.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16901 MELFORD BLVD., SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

CALL "MISS UTILITY" AT
 1-800-257-7777
 72 Hours Before Start of Construction

DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

- DATA SOURCE**
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

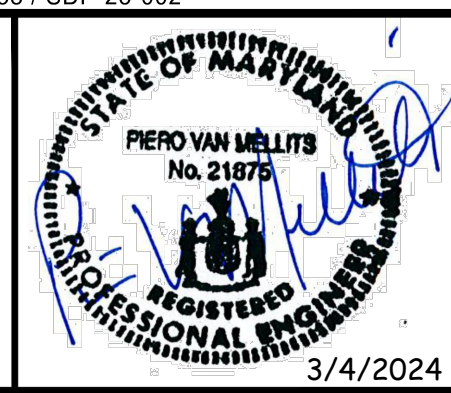
EXISTING DRAINAGE AREA MAP

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/12/2026



DRAWN BY: JLA
 DESIGN BY: JLA

REVIEW BY: PVM
 REVIEW DATE: 3-4-2024

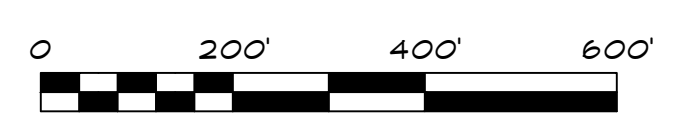
SCALE: AS SHOWN
 PROJECT No.: 211182.00

DRAWING: 8 of 27

APPROVED: DEPARTMENT OF PLANNING AND ZONING

	3/8/2024
Chief, Development and Planning Division	Date
	3/11/2024
Chief, Division of Planning Department	Date
	3/11/2024
Director	Date

EXISTING DRAINAGE AREA MAP
 SCALE: 1"=200'



T:\2021\Facilities\211182.00 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\211182.00 (SDP-06) Existing Drainage Area Map.dwg Mar 04, 2024 3:33pm janderson

Piero Mellits
Digitally signed by Piero Mellits
 DN: cn=Piero Mellits, o=Century Engineering, ou=Century Engineering, c=US
 Date: 2024.03.11 15:05:00 -0500

SDP-23-002

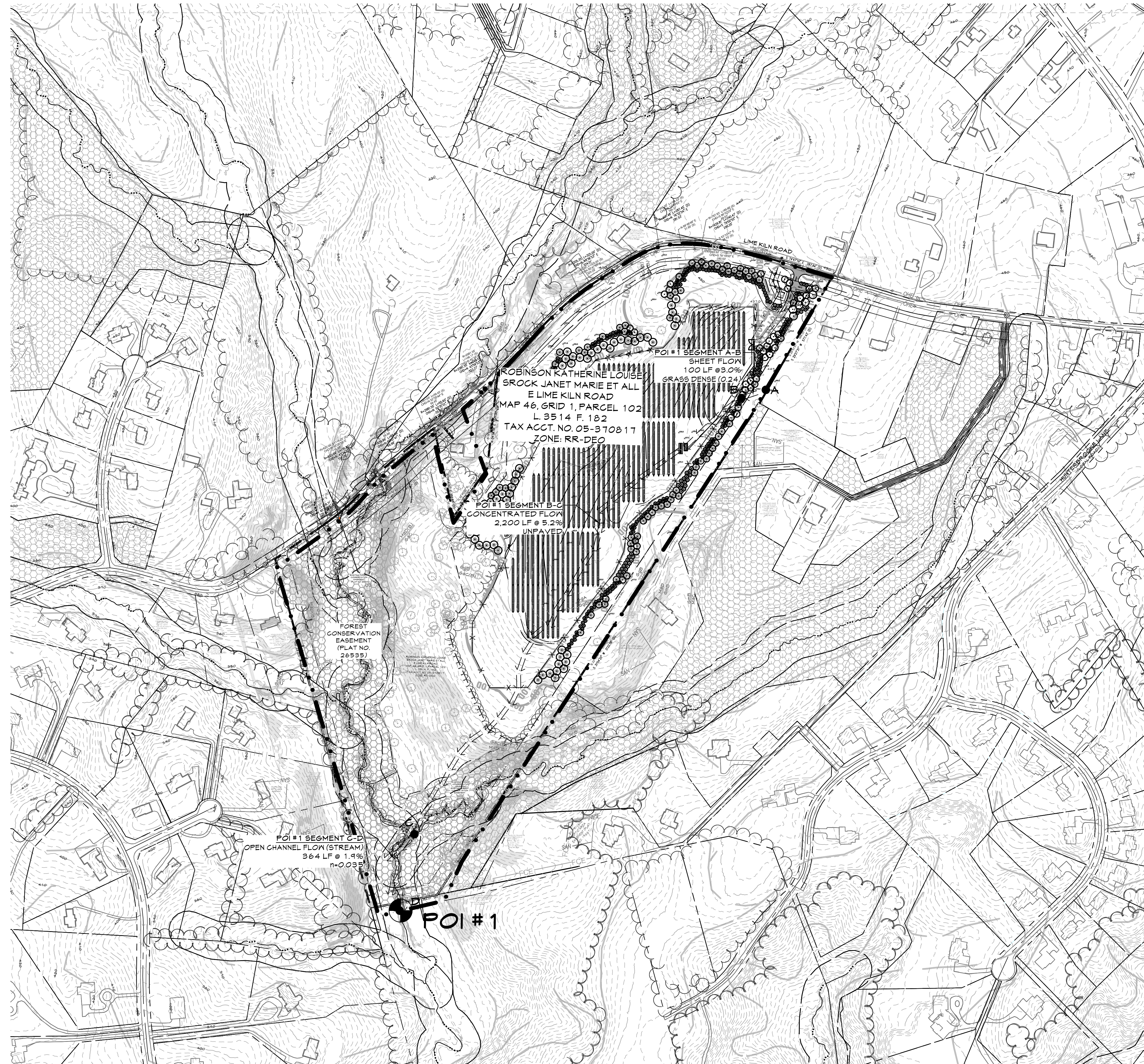
EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Forest Conservation Easement
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- Existing Storm Drain
- Existing Well
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap
- Proposed Drainage Divide
- Time of Concentration Path

PROPOSED SITE DRAINAGE TO POI #1
 DRAINAGE AREA = 56.83 AC±
 IMPERVIOUS AREA = 0.62 AC±
 Tc = 0.388 Hrs.
 CN = 62
 Q10 = 73.58 CFS
 (DATA OBTAINED FROM TR-55)



PROPOSED DRAINAGE AREA MAP

SCALE: 1"=200'
 0 200' 400' 600'

T:\2024\1\Facilities\2.11.18.200 Project Lime Kiln Solar_Site\CIVIL\CADD\Drawings\SDP\2.11.18.200 (SDP-09) Proposed Drainage Area Map.dwg Mar 04, 2024 3:24pm janderson

APPROVED: DEPARTMENT OF PLANNING AND ZONING	
	3/8/2024
Chief, Development Planning Division	Date
	3/11/2024
Chief, Development	Date
	3/11/2024
Director	Date

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MERRITT STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 985 YARDWAY WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 994-9285
 EMAIL: krobts11@gmail.com

BRONCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLANDS, NC 28574
 PHONE: (252) 809-2002
 EMAIL: jmrbronckplu@aol.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16901 MELLFORD BLVD., STE 130
 BOWIE, MD 20715
 ATTN: PIERO VAN MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

CALL "MISS UTILITY" AT
 1-800-257-7777
 72 Hours Before Start Of Construction

- DATUM:**
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88
- DATA SOURCE**
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Mellford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

PROPOSED DRAINAGE AREA MAP
Chaberton Solar Lime Kiln
 11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/12/2026

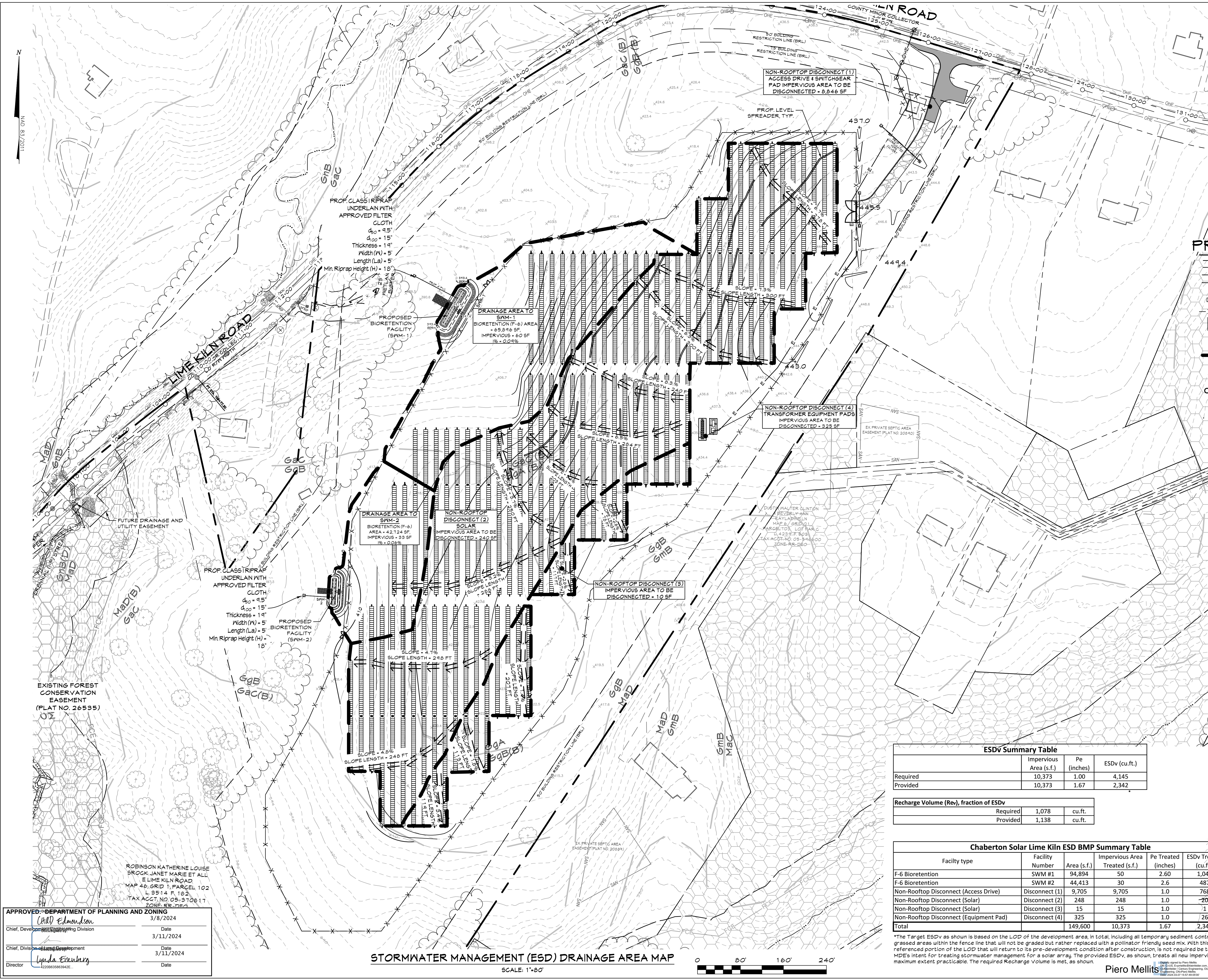
3/4/2024

DRAWN BY: JLA REVIEW BY: PVM
 DESIGN BY: JLA REVIEW DATE: 3-4-2024

SCALE: AS SHOWN DRAWING: 9 of 27

Piero Mellits
 Digitally signed by Piero Mellits
 DN: cn=Piero Mellits, o=Century Engineering, ou=Century Engineering, email=Piero.Mellits@centuryeng.com

T:\2022\1\Facilities\2.11.182.00 Project Lime Kiln Solar Site\CAD\Drawings\SDP\2.11.182.00 (SDP-10) ESD Drainage Area Map.dwg Mar. 04, 2024 3:44pm janderson



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Forest Conservation Easement
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing Utility Pole
- Existing Fence Line
- Soil Line
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap
- Disconnect Sheet Flow
- Proposed Asphalt Paving

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MERRITT STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 365 YARDARM WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 944-9285
 EMAIL: krob7511@gmail.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16901 MELFORD BLVD., SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

CALL "MISS UTILITY" AT
 1-800-257-7777
 72 Hours Before Start Of Construction

DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

- DATA SOURCE
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

STORMWATER MANAGEMENT DRAINAGE AREA MAP

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER
 EXPIRATION DATE: 2/12/2026 3/4/2024

DRAWN BY: JLA REVIEW BY: PVM
 DESIGN BY: JLA REVIEW DATE: 3-4-2024
 SCALE: AS SHOWN DRAWING: 10 of 27
 PROJECT No.: 211182.00

ESDv Summary Table

	Impervious Area (s.f.)	Pe (inches)	ESDv (cu.ft.)
Required	10,373	1.00	4,145
Provided	10,373	1.67	2,342

Recharge Volume (Rev), fraction of ESDv		
Required	1,078	cu.ft.
Provided	1,138	cu.ft.

Chaberton Solar Lime Kiln ESD BMP Summary Table

Facility type	Facility Number	Impervious Area Treated (s.f.)	Pe Treated (inches)	ESDv Treated (cu.ft.)	Rev Treated (cu.ft.)
F-6 Bioretention	SWM #1	94,894	50	2,60	1,040
F-6 Bioretention	SWM #2	44,413	30	2.6	487
Non-Rooftop Disconnect (Access Drive)	Disconnect (1)	9,705	9,705	1.0	768
Non-Rooftop Disconnect (Solar)	Disconnect (2)	248	248	1.0	20
Non-Rooftop Disconnect (Solar)	Disconnect (3)	15	15	1.0	1
Non-Rooftop Disconnect (Equipment Pad)	Disconnect (4)	325	325	1.0	26
Total		149,600	10,373	1.67	2,342

*The Target ESDv as shown is based on the LOD of the development area, in total, including all temporary sediment controls areas and grassed areas within the fence line that will not be graded but rather replaced with a pollinator friendly seed mix. With this being said, the referenced portion of the LOD that will return to its pre-development condition after construction, is not required to be treated to meet MDE's intent for treating stormwater management for a solar array. The provided ESDv, as shown, treats all new impervious area to the maximum extent practicable. The required Recharge Volume is met, as shown.

APPROVED: DEPARTMENT OF PLANNING AND ZONING

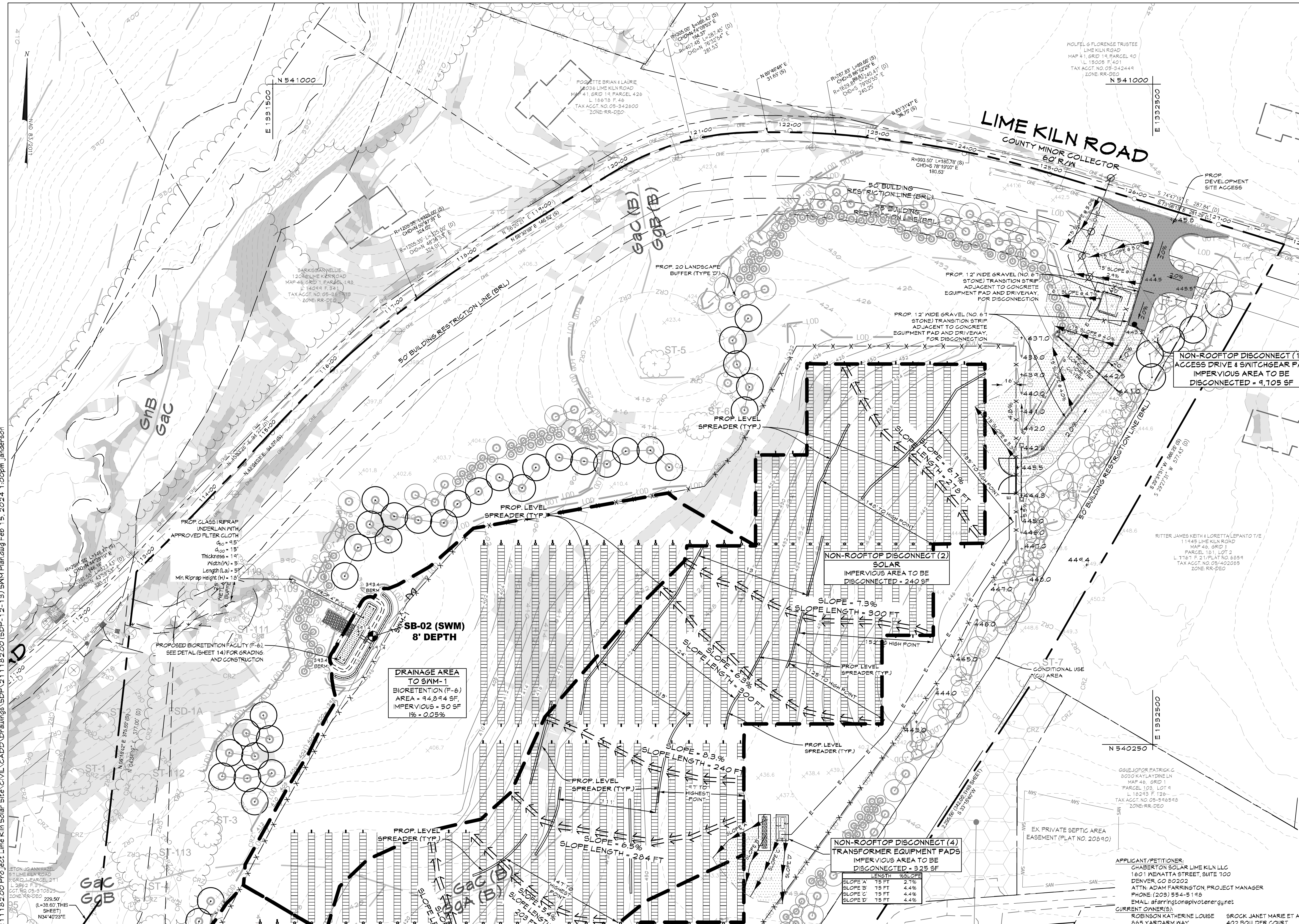
Chief, Development Engineering Division
 Date: 3/11/2024

Chief, Division of Planning
 Date: 3/11/2024

Director
 Date:

STORMWATER MANAGEMENT (ESD) DRAINAGE AREA MAP
 SCALE: 1"=80'





EXISTING LEGEND

- Site Property Boundary
- - - Existing Minor Contour
- - - Existing Major Contour
- - - Existing Stream
- - - Existing Stream Buffer
- - - Existing Netlands
- - - Existing Netlands Buffer
- - - Existing Tree Line
- - - Existing Drive
- - - Existing Building
- - - Existing Overhead Electric
- - - Existing Buried Electric
- ⊕ BGE#542497 Existing BGE Utility Pole
- X - X - X Existing Fence Line
- Av Soil Line
- SAN Existing Sanitary Sewer
- 15.0 - 24.9% Slope Areas
- >25% Steep Slope Areas
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- LOD Proposed Limit of Disturbance
- 650 Proposed Grades
- - - Proposed Overhead Electric
- - - Proposed Underground Electric
- ⊕ Proposed Utility Pole
- Proposed Solar Panels
- X - X - X Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap

CALL "MISS UTILITY" AT 1-800-257-7777
72 Hours Before Start Of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

DATA SOURCE

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

STORMWATER MANAGEMENT PLAN 1

Chaberton Solar Lime Kiln

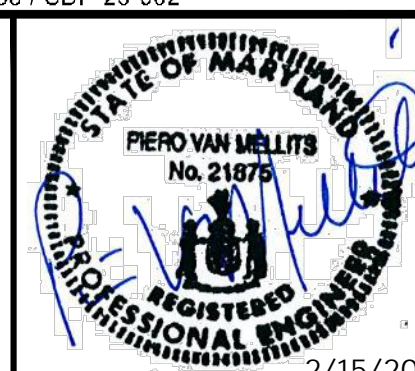
11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

EXPIRATION DATE: 2/12/2026

DATE: 2/15/2024



DRAWN BY: JLA	REVIEW BY: PVM
DESIGN BY: JLA	REVIEW DATE: 2-15-2024
SCALE: AS SHOWN	DRAWING: 12 of 27
PROJECT No.: 211182.00	

APPROVED: DEPARTMENT OF PLANNING AND ZONING

3/8/2024

Chief, Development Planning Division Date 3/11/2024

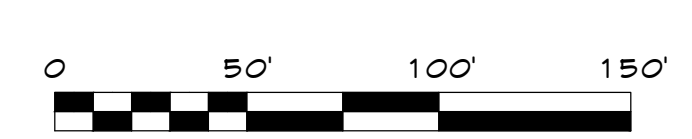
Chief, Division of Land Development Date 3/11/2024

Director Date

MATCHLINE-SEE SHEET 13

STORMWATER MANAGEMENT PLAN
SCALE: 1"=50'

Piero Mellits
Digitally signed by Piero Mellits
DN: cn=US, email=p.mellits@kiefelder.com,
ou=Kiefelder / Century Engineering, OU=Civil
Engineering, CN=Piero Mellits
Date: 2024.02.20 10:42:59-0500



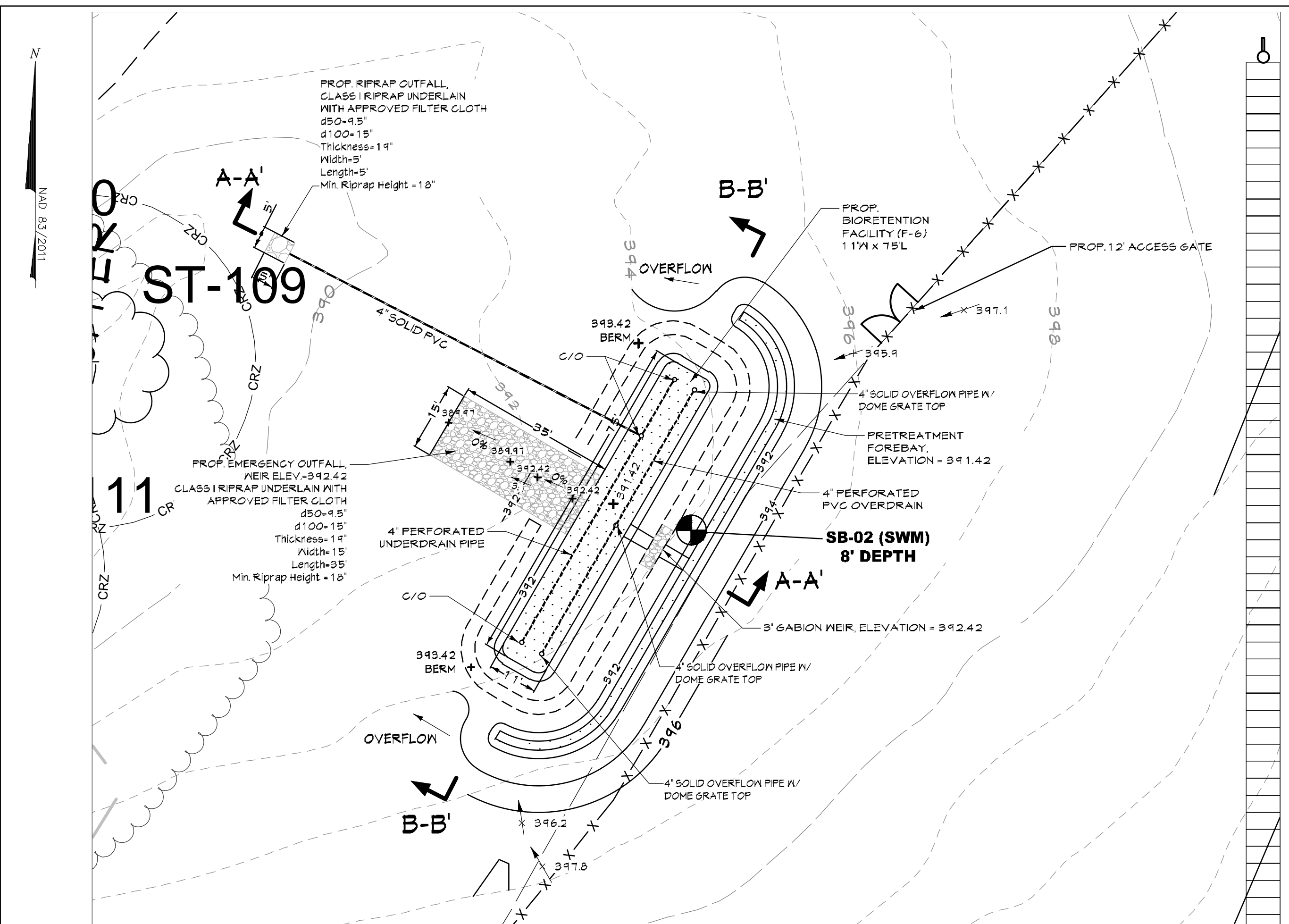
APPLICANT/PETITIONER:
CHABERTON SOLAR LIME KILN LLC
1601 MENATTA STREET, SUITE 700
DENVER, CO 80202
ATTN: ADAM FARRINGTON, PROJECT MANAGER
PHONE: (203) 554-5148
EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
ROBINSON KATHERINE LOUISE 955 YARDARM WAY ANNAPOLIS, MD 21401 PHONE: (443) 494-4285 EMAIL: krob1517@gmail.com

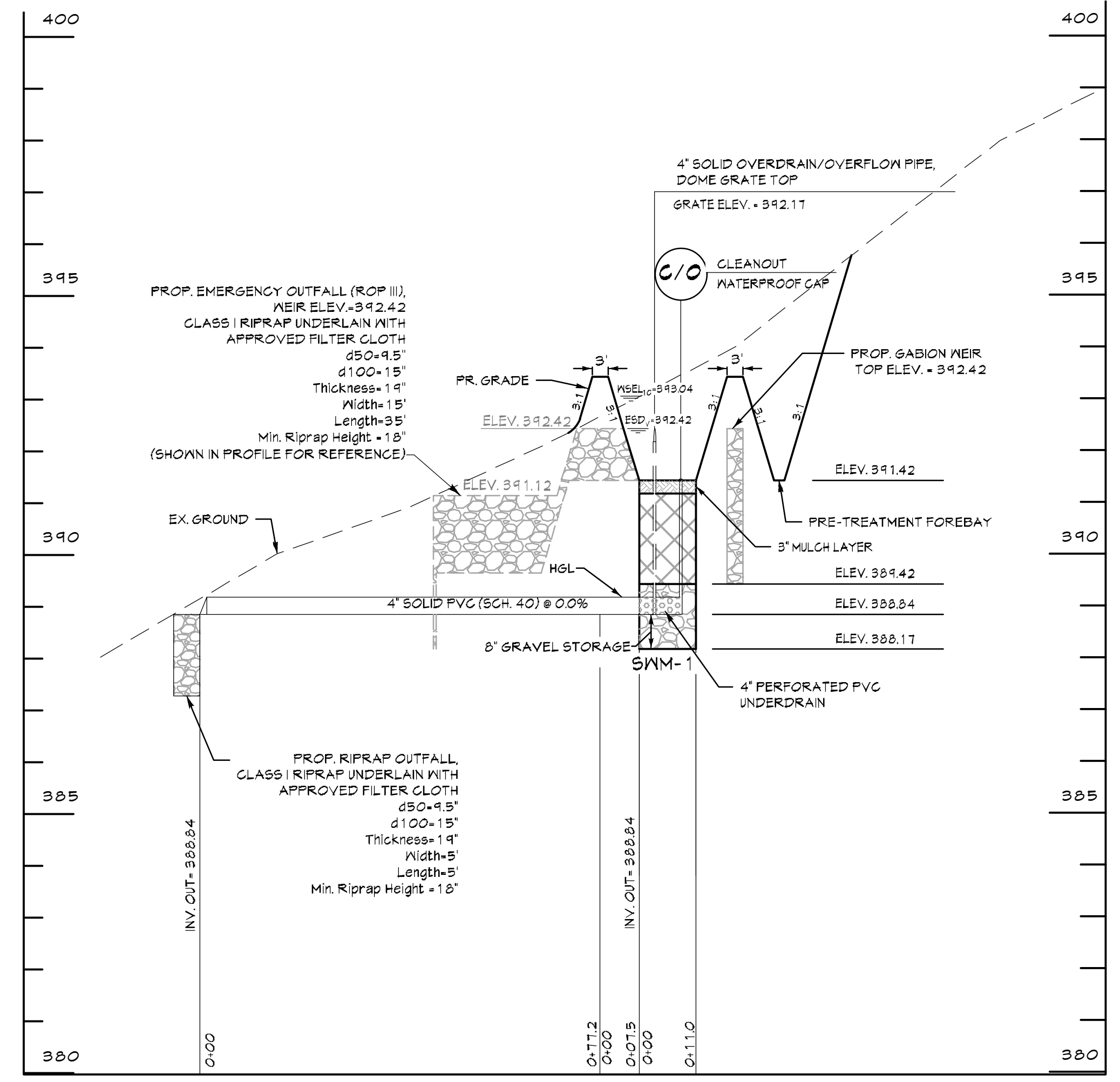
SROCK JANET MARIE ET AL 402 BOULDER COURT RIGHLANDS, NC 28574 PHONE: (252) 503-2002 EMAIL: jmerock@pluwaol.com

ENGINEER:
CENTURY ENGINEERING, LLC
16901 MELFORD BLVD, SUITE 130
BOWIE, MD 20715
ATTN: PIERO PETE MELLITS, PE
PHONE: (443) 589-2400
EMAIL: pmellits@kiefelder.com

T:\2024\1\Facilities\21118200 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\21118200 (SDP-1) (5-17) SWM Notes & Details.dwg Feb 15, 2024 1:01 pm jandereson



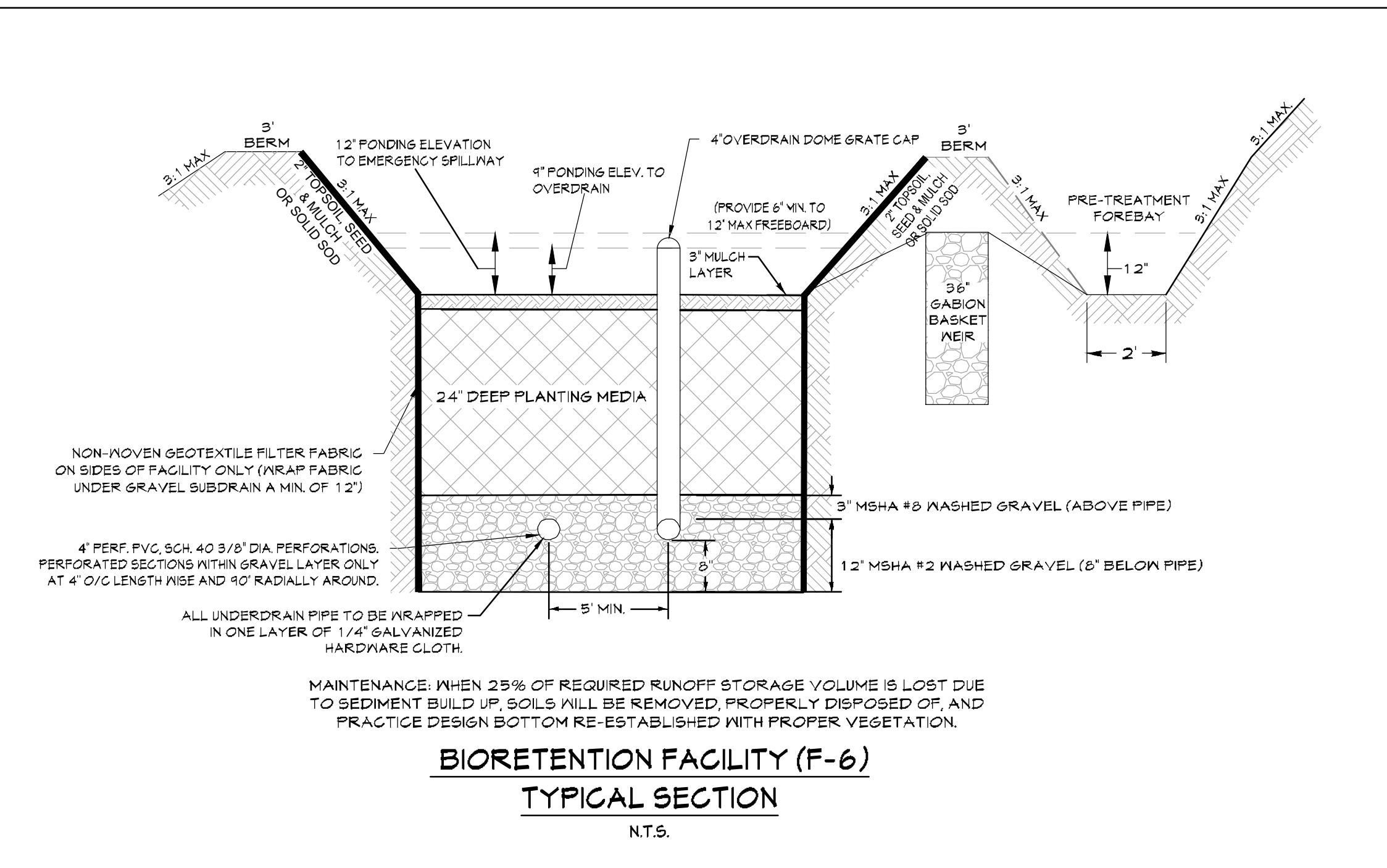
SWM-1 BIORETENTION FACILITY (F-6)
PLAN VIEW
SCALE: 1"=20'



SWM-1 BIORETENTION FACILITY (F-6) PROFILE
SECTION A-A'
SCALE: H: 1"=20'
V: 1"=2'

APPROVED: DEPARTMENT OF PLANNING AND ZONING
Date: 3/7/2024
Chief, Development Engineering Division
Date: 3/11/2024
Chief, Division of Planning and Zoning
Date: 3/11/2024
Director

Schnabel TEST BORING LOG		Project: CHABERTON 2022/23 MARYLAND PROJECTS PROJECT LIME KILN		Boring Number: SB-02			
Contractor: Connolly and Associates, Inc. Frederick, Maryland Contractor Foreman: Cody Craft Schnabel Representative: B. Luna Equipment: CME-55 (Track) Method: 3-1/4" I.D. Hollow Stem Auger		Contract Number: 22140019.002		Sheet: 1 of 1			
Hammer Type: Auto Hammer (140 lb)		Groundwater Observations					
Dates Started: 02/23/22 Finished: 02/23/22		Date	Time	Depth	Casing		
Latitude: 39.15041 Longitude: -76.93201		Encountered	02/23	---	Dry		
Ground Surface Elevation: 384.4 (ft) Total Depth: 12.0 ft		Completion	02/23	12:20 PM	Dry		
		Casing Pulled	02/23	12:22 PM	Dry		
					7.5		
DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRA TUM	SAMPLING DATA	TESTS	REMARKS
0.3	Topsoil, 3 inches		393.8		S-1, SS 2-3-2-2 REC-04, 100%		Ground Cover Loch Raven - Coarse Grained
4.0	CLAYEY SAND, moist, red	SM	390.0	B2	S-2, SS 2-3-2-2 REC-04, 100%		
6.0	SANDY SILT, moist, brown, contains rock fragments	SC	388.0	5	S-3, SS 2-3-2-2 REC-07, 83%	USDA: Silt Loam	Loch Raven - Fine Grained
12.0	Change: contains mica	ML	382.0	B1	S-4, SS 2-2-1-2 REC-11, 46%		
					S-5, SS 2-1-1-4-6 REC-22, 92%		
Bottom of Boring at 12.0 ft. Boring backfilled with cuttings upon completion.							



BIORETENTION FACILITY (F-6)
TYPICAL SECTION
N.T.S.

APPLICANT/PETITIONER:
CHABERTON SOLAR LIME KILN LLC
1601 MERRITT STREET, SUITE 100
DENVER, CO 80202
ATTN: ADAM FARRINGTON, PROJ. MANAGER
PHONE: (203) 554-5198
EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
ROBINSON KATHERINE LOUISE
285 YARDWAY PL
ANNAPOLIS, MD 21401
PHONE: (443) 944-9285
EMAIL: krobt51@gmail.com

ENGINEER:
CENTURY ENGINEERING, LLC
16901 MELFORD BLVD, SUITE 130
BOWIE, MD 20715
ATTN: PIERO PETE MELLITS, PE
PHONE: (443) 589-2400
EMAIL: pmellits@centuryeng.com

CALL "MISS UTILITY" AT
1-800-257-7777
72 Hours Before Start Of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

DATA SOURCE:

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

STORMWATER MANAGEMENT
DETAILS - SWM 1
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 21875
EXPIRATION DATE: 2/12/2026

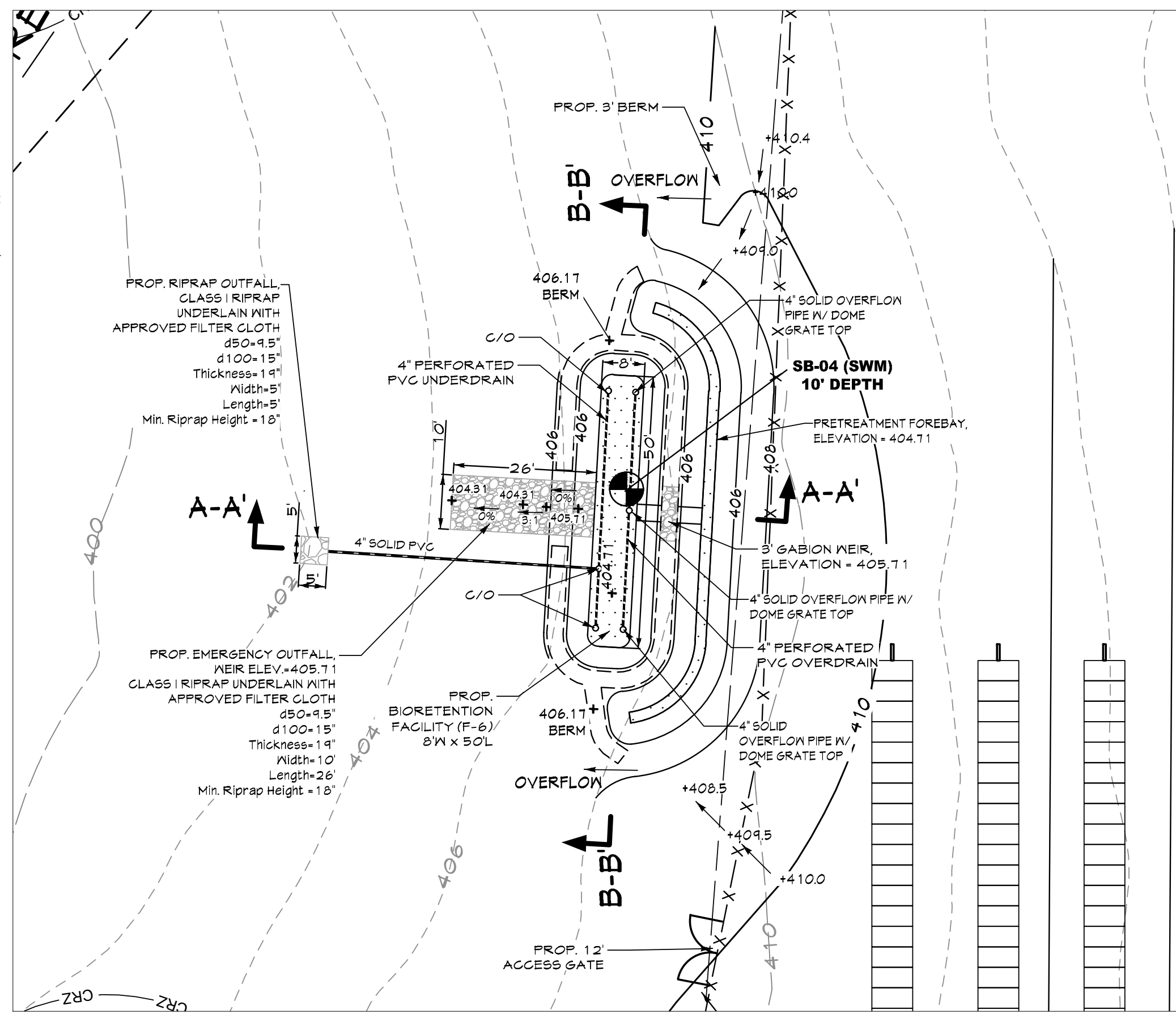
PIERO VAN MELLITS
No. 21875
REGISTERED PROFESSIONAL ENGINEER
2/15/2024

DRAWN BY: JLA
DESIGN BY: JLA
SCALE: AS SHOWN
PROJECT No.: 211182.00

REVIEW BY: PVM
REVIEW DATE: 2-15-2024
DRAWING: 15 of 27

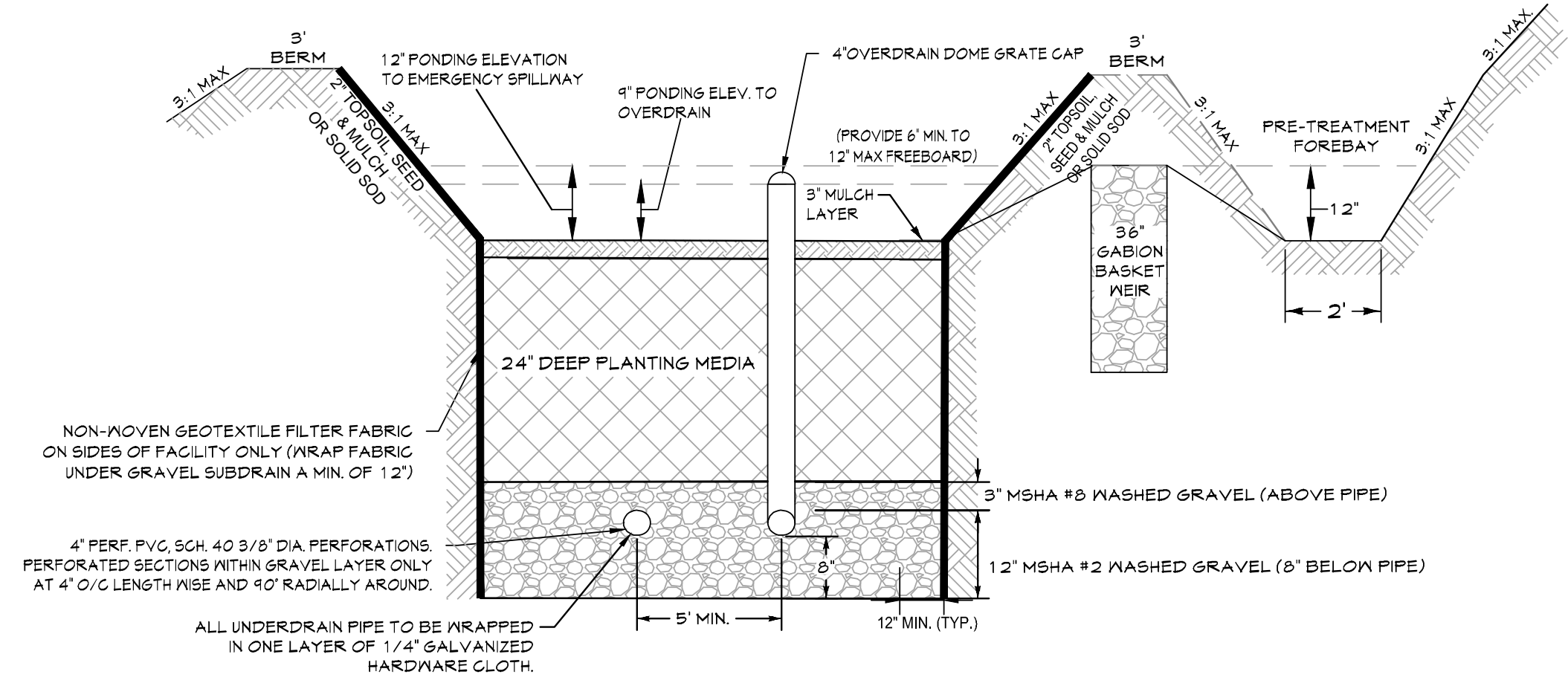
Piero Mellits
Digitally signed by Piero Mellits
DN: cn=Piero Mellits, o=Century Engineering, ou=Century Engineering, cn=Piero Mellits
Date: 2024.02.20 10:44:33-05'00'

SDP-23-002



SWM-2 BIORETENTION FACILITY (F-6)
PLAN VIEW
 SCALE: 1"=20'

Schnabel TEST LOG		Project: CHABERTON 2022/23 MARYLAND PROJECTS	Boring Number: SB-04				
Contractor: Connelly and Associates, Inc. Frederick, Maryland		Contract Number: 22140019.002	Sheet: 1 of 1				
Contractor Foreman: Cody Craft		Groundwater Observations					
Schnabel Representative: B. Luna		Date	Time				
Equipment: CME-55 (Track)		Completion	Depth				
Method: 3-1/4" I.D. Hollow Stem Auger		Casing Pulled	Cased				
Hammer Type: Auto Hammer (140 lb)		Ground Surface Elevation: 407.2 (ft) Total Depth: 14.0 ft					
Dates Started: 6/23/22 Finished: 6/23/22		Latitude: 39.14888 Longitude: -76.93288					
DEPTH (ft)	MATERIAL DESCRIPTION	SYMBOL	ELEV (ft)	STRATUM	SAMPLING DATA	TESTS	REMARKS
0.3	Topsoil, 4 inches LEAN CLAY, moist, red	CL	406.7	B1	S1 SS 144-112 REC-25, 96%		Ground Cover Loam Raven - Fine Grained
2.0	SILTY SAND, moist, orangish brown, contains rock fragments	SM	405.0	B2	S2 SS 448-819 REC-24, 100%		Loam Raven - Coarse Grained
	Change: no rock fragments, contains mica				S3 SS 448-819 REC-21, 88%		USDA: Sandy Loam
	Change: contains rock fragments				S4 SS 317-819 REC-23, 96%		
					S5 SS 345-173 REC-20, 83%		
					S6 SS 818-1214 REC-18, 79%		
14.0	Bottom of Boring at 14.0 ft. Boring backfilled with cuttings upon completion.		393.0				



MAINTENANCE: WHEN 25% OF REQUIRED RUNOFF STORAGE VOLUME IS LOST DUE TO SEDIMENT BUILD UP, SOILS WILL BE REMOVED, PROPERLY DISPOSED OF, AND PRACTICE DESIGN BOTTOM RE-ESTABLISHED WITH PROPER VEGETATION.

BIORETENTION FACILITY (F-6)
TYPICAL SECTION
 N.T.S.

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 MERRITT STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 865 YARDARM WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 944-9285
 EMAIL: krob1517@gmail.com

STOCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHMOND, NC 28854
 PHONE: (252) 503-2002
 EMAIL: jmrstock@plu@ol.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16401 MELFORD BLVD, SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@kleinfelder.com



DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

- DATA SOURCE**
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS



STORMWATER MANAGEMENT DETAILS - SWM-2
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

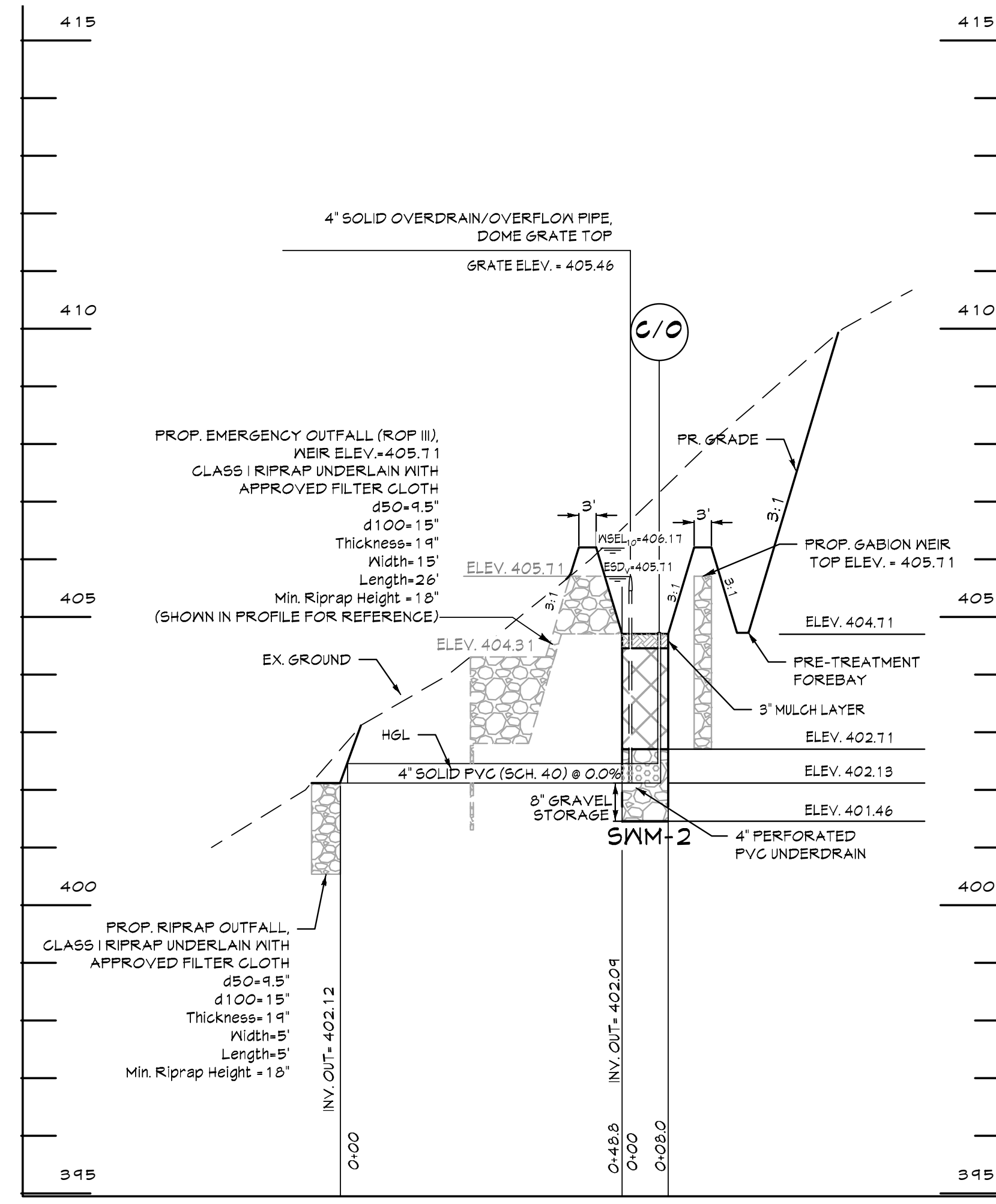
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/12/2026



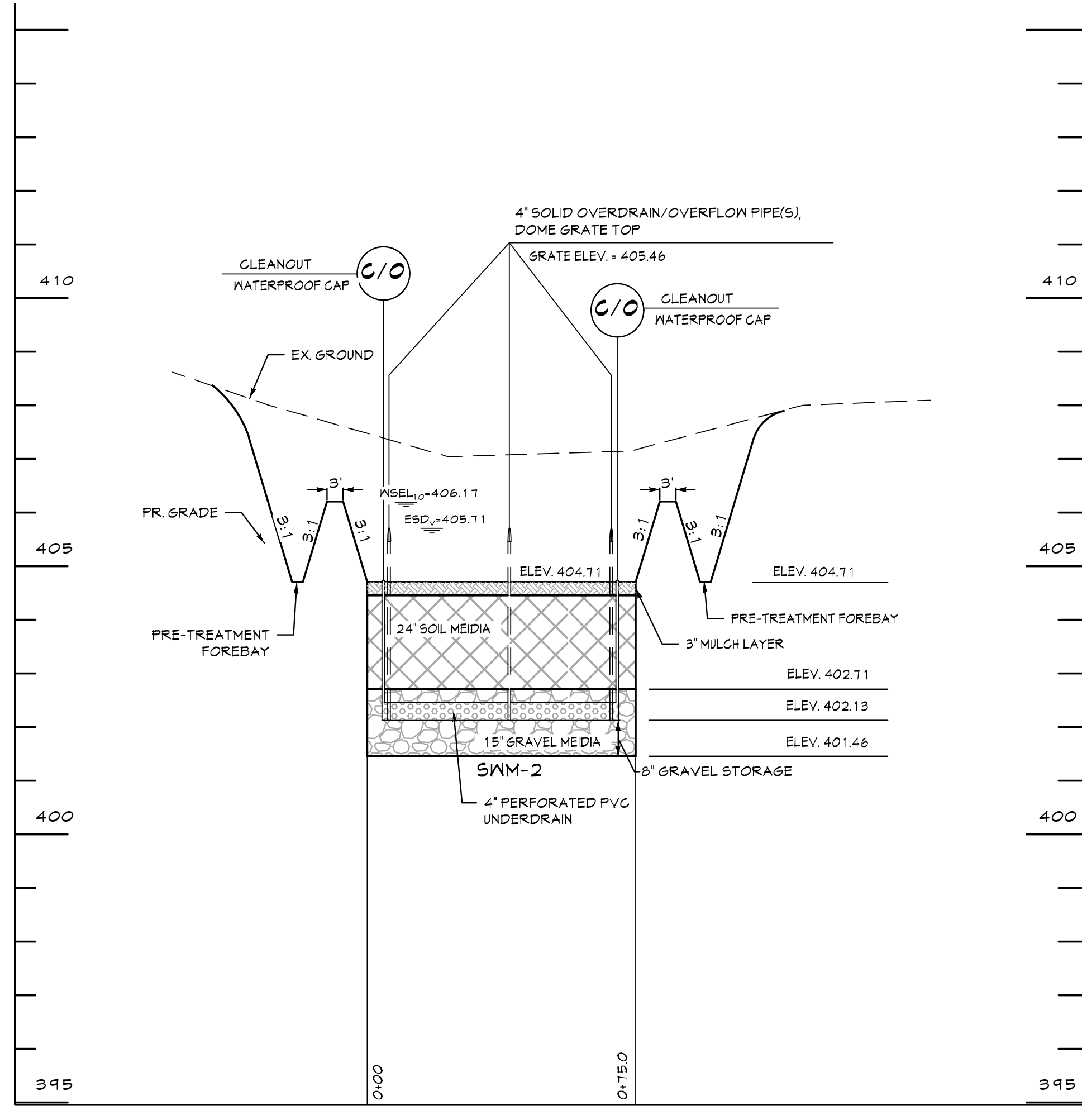
DRAWN BY: JLA
 DESIGN BY: JLA
 SCALE: AS SHOWN

REVIEW BY: PVM
 REVIEW DATE: 2-15-2024
 DRAWING: 16 of 27

SDP-23-002 PROJECT No.: 211182.00



SWM-2 BIORETENTION FACILITY (F-6) PROFILE
SECTION A-A'
 SCALE: H: 1"=20'
 V: 1"=2'



SWM-2 BIORETENTION FACILITY (F-6) PROFILE
SECTION B-B'
 SCALE: H: 1"=20'
 V: 1"=2'

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development and Planning Division	Date
Chief, Division of Planning and Development	Date
Director	Date

Digitally signed by Piero Mellits
 DN: C=US, E=pmellits@kleinfelder.com,
 O=Kleinfelder / Century Engineering,
 OU=Civil Engineering, CN=Piero Mellits
 Date: 2024.02.20 10:44:58-05'00'

Piero Mellits

B.3.B Specifications for Bioretention

1. Material Specifications

The allowable materials to be used in bioretention area are detailed in Table B.3.2.

2. Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the bioretention area that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.

The planting soil shall be tested and shall meet the following criteria:

Table with 2 columns: Property (pH range, organic matter, magnesium, phosphorus, potassium, soluble salts) and Value (5.2 - 7.0, 1.5 - 4%, 35 lb./ac, 75 lb./ac, 85 lb./ac, not to exceed 500 ppm).

All bioretention areas shall have a minimum of one test. Each test shall consist of both the standard soil test for pH, phosphorus, and potassium and additional tests of organic matter, and soluble salts.

Since different labs calibrate their testing equipment differently, all testing results shall come from the same testing facility.

Should the pH fall out of the acceptable range, it may be modified (higher) with lime or (lower) with iron sulfate plus sulfur.

3. Compaction

It is very important to minimize compaction of both the base of the bioretention area and the required backfill. When possible, use excavation hoes to remove original soil.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin.

4. Plant Material

Recommended plant material for bioretention areas can be found in Appendix A, Section A.2.3.

5. Plant Installation

Mulch should be placed to a uniform thickness of 2" to 3". Shredded hardwood mulch is the only accepted mulch. Pine mulch and wood chips will float and move to the perimeter of the bioretention area during a storm event and are not acceptable.

Root stock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality.

6. Underdrains

Underdrains are to be placed on a 3'-0" wide section of filter cloth. Pipe is placed next, followed by the gravel bedding. The ends of underdrain pipes not terminating in an observation well shall be capped.

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

The bioretention facility may not be constructed until all contributing drainage area has been stabilized.

Table with 2 columns: Role (Chief, Director) and Name/Signature (Bill Edmondson, Lynda Eisenberg). Includes date 3/8/2024 and 3/11/2024.

B.4.C Specifications for Micro-Bioretention. Rain Gardens, Landscape Infiltration & Infiltration Berms

1. Material Specifications

The allowable materials to be used in these practices are detailed in Table B.4.1.

2. Filtering Media or Planting Soil

The soil shall be a uniform mix, free of stones, stumps, roots or other similar objects larger than two inches. No other materials or substances shall be mixed or dumped within the micro-bioretention practice that may be harmful to plant growth, or prove a hindrance to the planting or maintenance operations.

The planting soil shall be tested and shall meet the following criteria:

- Soil Component - Loamy Sand or Sandy Loam (USDA Soil Textural Classification)
Organic Content - Minimum 10% by dry weight (ASTM D 2974).
Clay Content - Media shall have a clay content of less than 5%.
pH Range - Should be between 5.5 - 7.0.

There shall be at least one soil test per project. Each test shall consist of both the standard soil test for pH, and additional tests of organic matter, and soluble salts.

3. Compaction

It is very important to minimize compaction of both the base of bioretention practices and the required backfill. When possible, use excavation hoes to remove original soil.

Compaction can be alleviated at the base of the bioretention facility by using a primary tilling operation such as a chisel plow, ripper, or subsoiler.

Rototill 2 to 3 inches of sand into the base of the bioretention facility before backfilling the optional sand layer.

When backfilling the topsoil over the sand layer, first place 3 to 4 inches of topsoil over the sand, then rototill the sand/topsoil to create a gradation zone.

When backfilling the bioretention facility, place soil in lifts 12" to 18". Do not use heavy equipment within the bioretention basin.

4. Plant Material

Recommended plant material for micro-bioretention practices can be found in Appendix A, Section A.2.3.

5. Plant Installation

Compost is a better organic material source, is less likely to float, and should be placed in the invert and other low areas. Mulch should be placed in surrounding to a uniform thickness of 2" to 3".

Rootstock of the plant material shall be kept moist during transport and on-site storage. The plant root ball should be planted so 1/8" of the ball is above final grade surface.

Trees shall be braced using 2" by 2" stakes only as necessary and for the first growing season only. Stakes are to be equally spaced on the outside of the tree ball.

Grasses and legume seed should be drilled into the soil to a depth of at least one inch. Grass and legume plugs shall be planted following the non-grass ground cover planting specifications.

The topsoil specifications provide enough organic material to adequately supply nutrients from natural cycling. The primary function of the bioretention structure is to improve water quality.

6. Underdrains

Underdrains should meet the following criteria:

- Pipe- Should be 4" to 6" diameter, slotted or perforated rigid plastic pipe (ASTMF 758, Type PS 28, or AASHTO-M-278) in a gravel layer.
Perforations - If perforated pipe is used, perforations should be 3/8" diameter located 6" on center with a minimum of four holes per row.
Gravel - The gravel layer (No. 57 stone preferred) shall be at least 3" thick above and below the underdrain.

The main collector pipe for underdrain systems shall be constructed at a minimum slope of 0.5%. Observation wells and/or clean-out pipes must be provided (one minimum per every 1000 square feet of surface area).

7. Miscellaneous

These practices may not be constructed until all contributing drainage area has been stabilized

Appendix B.4. Construction Specifications for Environmental Site Design Practices

Table B.4.1 Materials Specifications for Micro-Bioretention, Rain Gardens & Landscape Infiltration-. Columns: Material, Specification, Size, Notes.

Table B.3.2 Materials Specifications for Bioretention

Table with 4 columns: Material, Specification, Size, Notes. Lists materials like plantings, mulch, geotextile, underdrain gravel, etc.

OPERATION AND MAINTENANCE SCHEDULE FOR BIO-RETENTION (F-6)

- The Owner shall maintain the plant material, mulch layer and soil layer annually.
The Owner shall perform a plant in the spring and in the fall of each year.
The Owner shall inspect the mulch each spring.
The Owner shall correct soil erosion on an as needed basis.

OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF ROOFTOP RUNOFF (N-1), DISCONNECTION OF NON-ROOFTOP RUNOFF (N-2)]

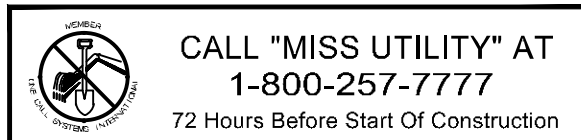
- Maintenance of areas receiving disconnected runoff is generally no different than that required for other lawn or landscaped areas.
Maintenance of areas receiving runoff are protected from future compaction or development of impervious area.

APPLICANT/PETITIONER: CHABERTON SOLAR LIME KILN LLC, 1601 MERRIETTA STREET, SUITE 100, DENVER, CO 80202

CURRENT OWNER(S): ROBINSON KATHERINE LOUISE, 265 YARDARM PLAZA, ANNAPOLIS, MD 21401

SROCK JANET MARIE ET AL, 402 BOULDER COURT, RICHMOND, NC 28874

ENGINEER: CENTURY ENGINEERING LLC, 16901 MELFORD BLVD, SUITE 130, BOWIE, MD 20715



CALL "MISS UTILITY" AT 1-800-257-7777, 72 Hours Before Start Of Construction

DATUM: HORIZONTAL DATUM: NAD 83 (2011), VERTICAL DATUM: NAVD 88

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

Table with 3 columns: DATE, BY, REVISIONS. Includes a grid for tracking changes.



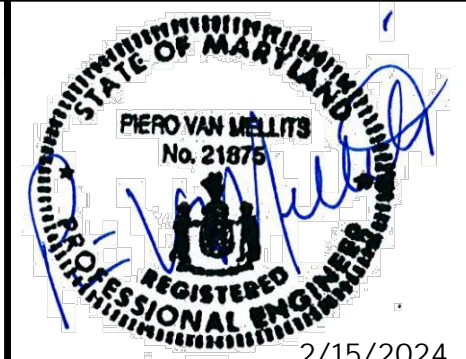
16901 Melford Boulevard, Ste 130, Bowie, MD 20715, Phone: 443.589.2400, Fax: 443.589.2401, www.centuryeng.com

STORMWATER MANAGEMENT NOTES, Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD, Howard County, Maryland, Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5, ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.



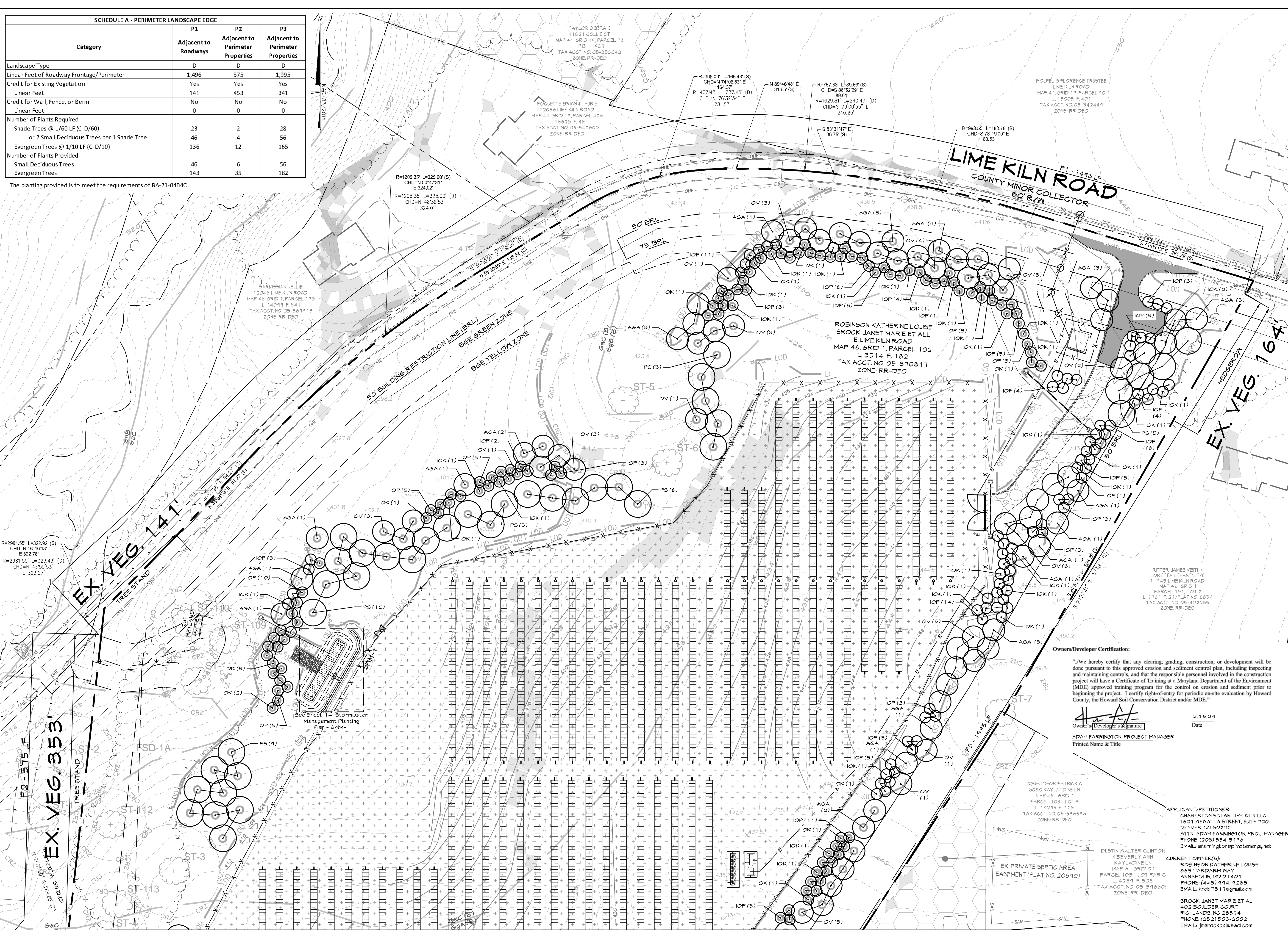
DRAWN BY: JLA, DESIGN BY: JLA, SCALE: AS SHOWN, PROJECT No.: 211182.00

REVIEW BY: PVM, REVIEW DATE: 2-15-2024, DRAWING: 17 of 27

T:\2023\1\Facilities\211182.00 Project Lime Kiln Solar Site\Civil\ACADD\Drawings\SDP_211182.00 (SDP-15-17) SWM Notes & Details.dwg Feb 15, 2024 1:02pm Janderson

SCHEDULE A - PERIMETER LANDSCAPE EDGE			
Category	P1	P2	P3
Landscape Type	D	D	D
Linear Feet of Roadway Frontage/Perimeter	1,496	575	1,995
Credit for Existing Vegetation	Yes	Yes	Yes
Linear Feet	141	453	341
Credit for Wall, Fence, or Berm	No	No	No
Linear Feet	0	0	0
Number of Plants Required			
Shade Trees @ 1/60 LF (C-D/60)	23	2	28
or 2 Small Deciduous Trees per 1 Shade Tree	46	4	56
Evergreen Trees @ 1/10 LF (C-D/10)	136	12	165
Number of Plants Provided			
Small Deciduous Trees	46	6	56
Evergreen Trees	143	35	182

The planting provided is to meet the requirements of BA-21-0404C.



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0 - 24.9% Slope Areas
- >25% Steep Slope Areas
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap

DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 88

- DATA SOURCE**
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Mellford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

LANDSCAPE PLAN - NORTH
Chaberton Solar Lime Kiln
 11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 PENNATA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON PROJ. MANAGER
 PHONE: (203) 554-5146
 EMAIL: afarrington@onepivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 265 YAKPARKWAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 944-4285
 EMAIL: krob7517@gmail.com

SROCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLANDS, NC 28574
 PHONE: (252) 909-2002
 EMAIL: jmsrock@limekiln.com

ENGINEER:
 CENTURY ENGINEERING, LLC
 16901 MELLFORD BLVD, SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PELLETTI, PE
 PHONE: (443) 594-2400
 EMAIL: p.mellitti@centuryeng.com

DRAWN BY: CRS
 DESIGN BY: CRS
 SCALE: AS SHOWN
 PROJECT No.: 211182.00

REVIEW BY: MJP
 REVIEW DATE: 2/15/2024
 DRAWING: 18 of 27

Owners/Developer Certification:
 "I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

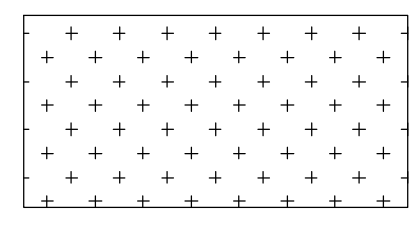
[Signature]
 2.16.24
 Date
 Owner's (Developer's) Signature
 ADAM FARRINGTON, PROJECT MANAGER
 Printed Name & Title

APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>[Signature]</i>	3/8/2024
Chief, Development Planning Division	Date
<i>[Signature]</i>	3/11/2024
Chief, Division of Land Development	Date
<i>[Signature]</i>	3/11/2024
Director	Date

LANDSCAPE PLAN
 SCALE: 1"=50'

MATCHLINE-SEE SHEET 19

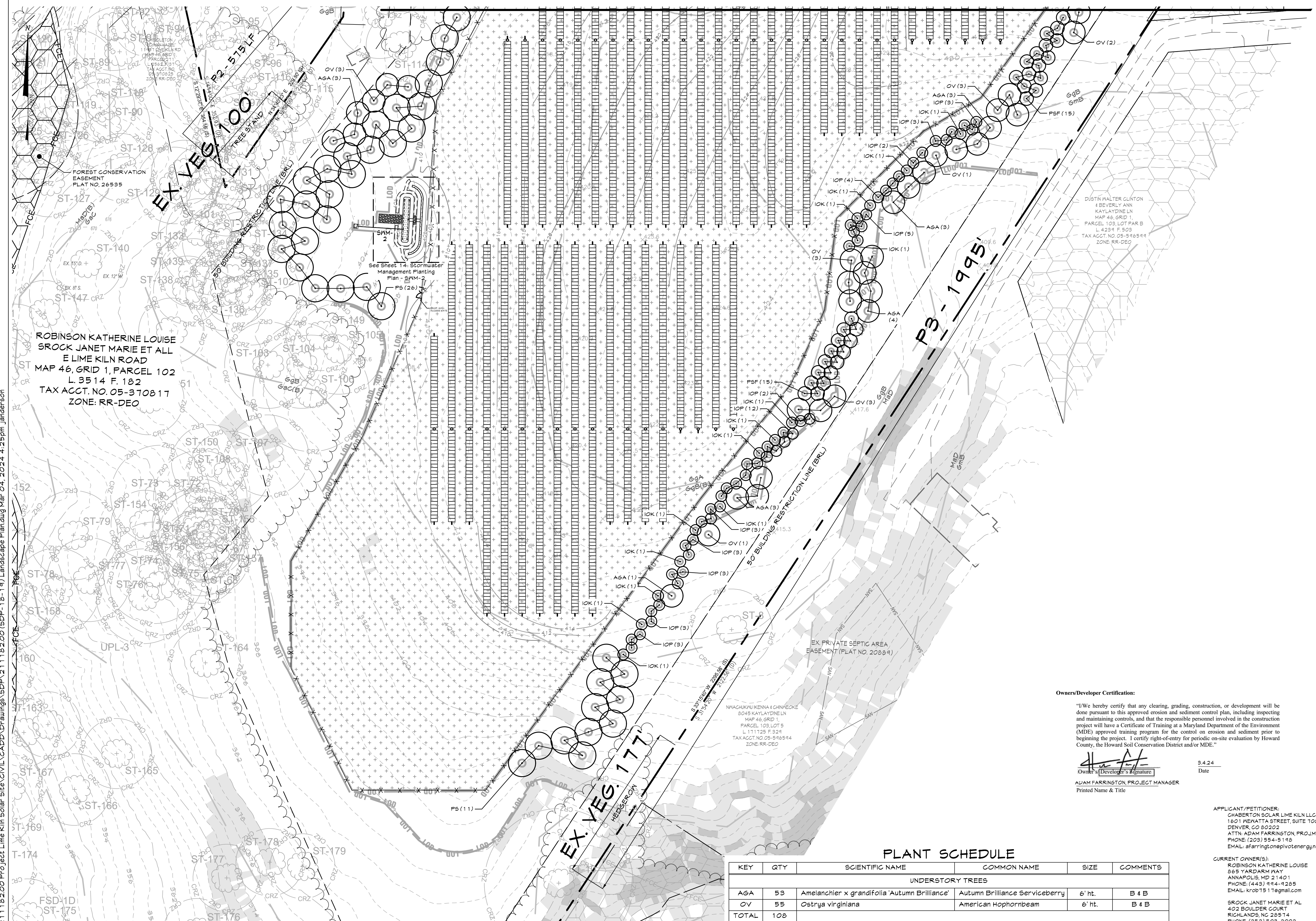


Pollinator Habitat Seed Mix
 (See Sheet 20 for mix schedule)

Piero Mellitti
 Licensed Professional Engineer
 License No. 1008
 Expiration Date: 05/20/2024

T:\2021-1\Facilities\2.11.18.2.00 Project_Lime Kiln Solar_Site\CIVIL\CADD\Drawings_SDP\2.11.18.2.00 (SDP-18-1) Landscape Planning Feb 15, 2024 1:03pm janderson

MATCHLINE-SEE SHEET 18



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Wetlands
- Existing Wetlands Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0 - 24.9% Slope Areas
- >25% Steep Slope Areas
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap

CALL "MISS UTILITY" AT
1-800-257-7777
72 Hours Before Start Of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

- DATA SOURCE
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

LANDSCAPE PLAN - SOUTH
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.
LICENSE No.: 1008
EXPIRATION DATE: 05/20/2024
3/4/2024

DRAWN BY: CRS	REVIEW BY: MJP
DESIGN BY: CRS	REVIEW DATE: 3/4/2024
SCALE: AS SHOWN	DRAWING: 19 of 27
PROJECT No.: 211182.00	SDP-23-002

Owners/Developer Certification:
"I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

Adam Farrington, Project Manager
Printed Name & Title

PLANT SCHEDULE

KEY	QTY	SCIENTIFIC NAME	COMMON NAME	SIZE	COMMENTS
UNDERSTORY TREES					
AGA	53	Amelanchier x grandifolia 'Autumn Brilliance'	Autumn Brilliance Serviceberry	6' ht.	B 4 B
OV	55	Ostrya virginiana	American Hophornbeam	6' ht.	B 4 B
TOTAL	108				
EVERGREEN TREES					
IOK	60	Ilex opaca 'Jersey Knight'	Jersey Knight American Holly	6' ht.	B 4 B
IOP	195	Ilex opaca 'Jersey Princess'	Jersey Princess American Holly	6' ht.	B 4 B
PS	75	Pinus strobus	Eastern White Pine	6' ht.	B 4 B
PSF	30	Pinus strobus 'Fastigiata'	Columnar Eastern White Pine	6' ht.	B 4 B
TOTAL	360				

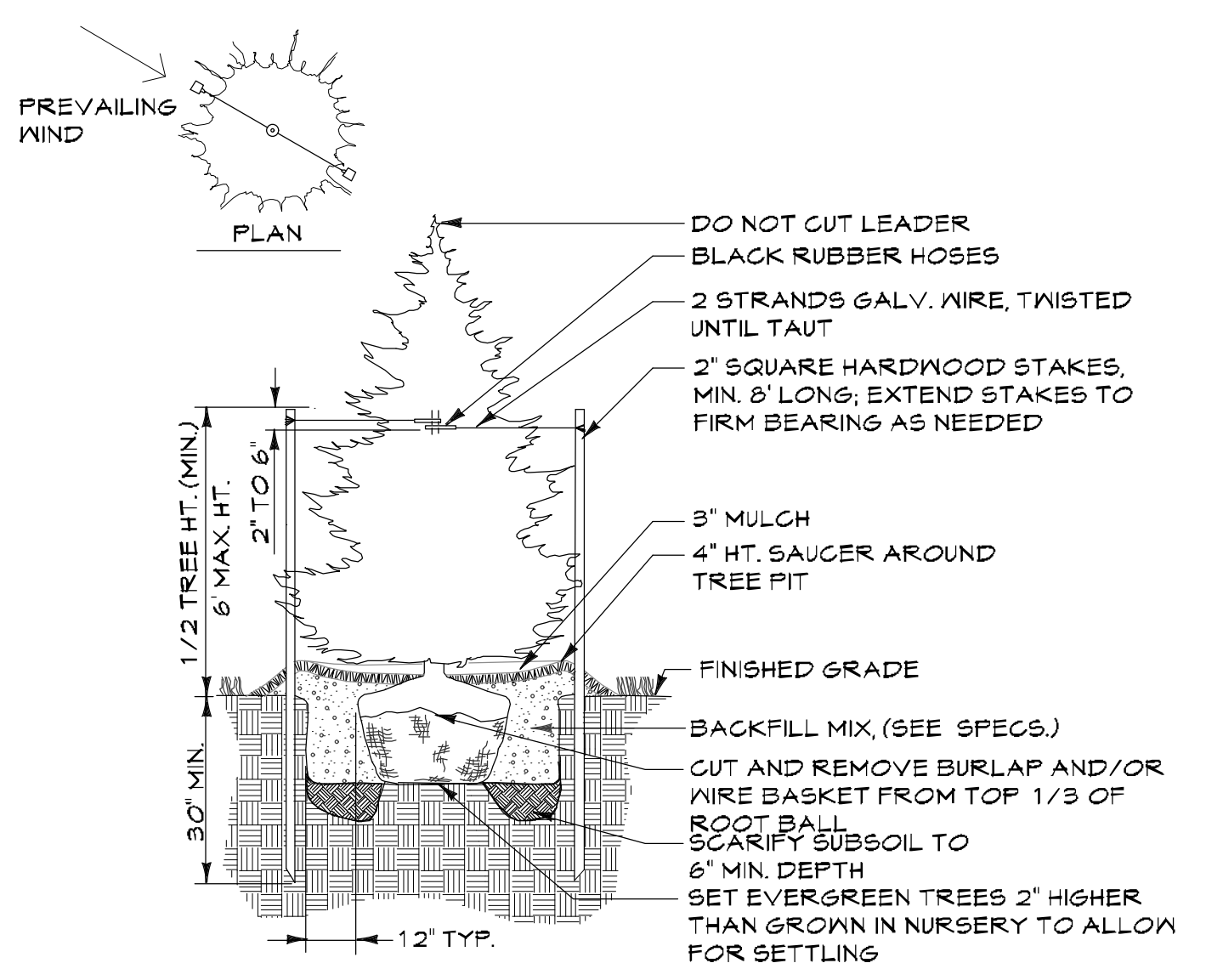
LANDSCAPE PLAN



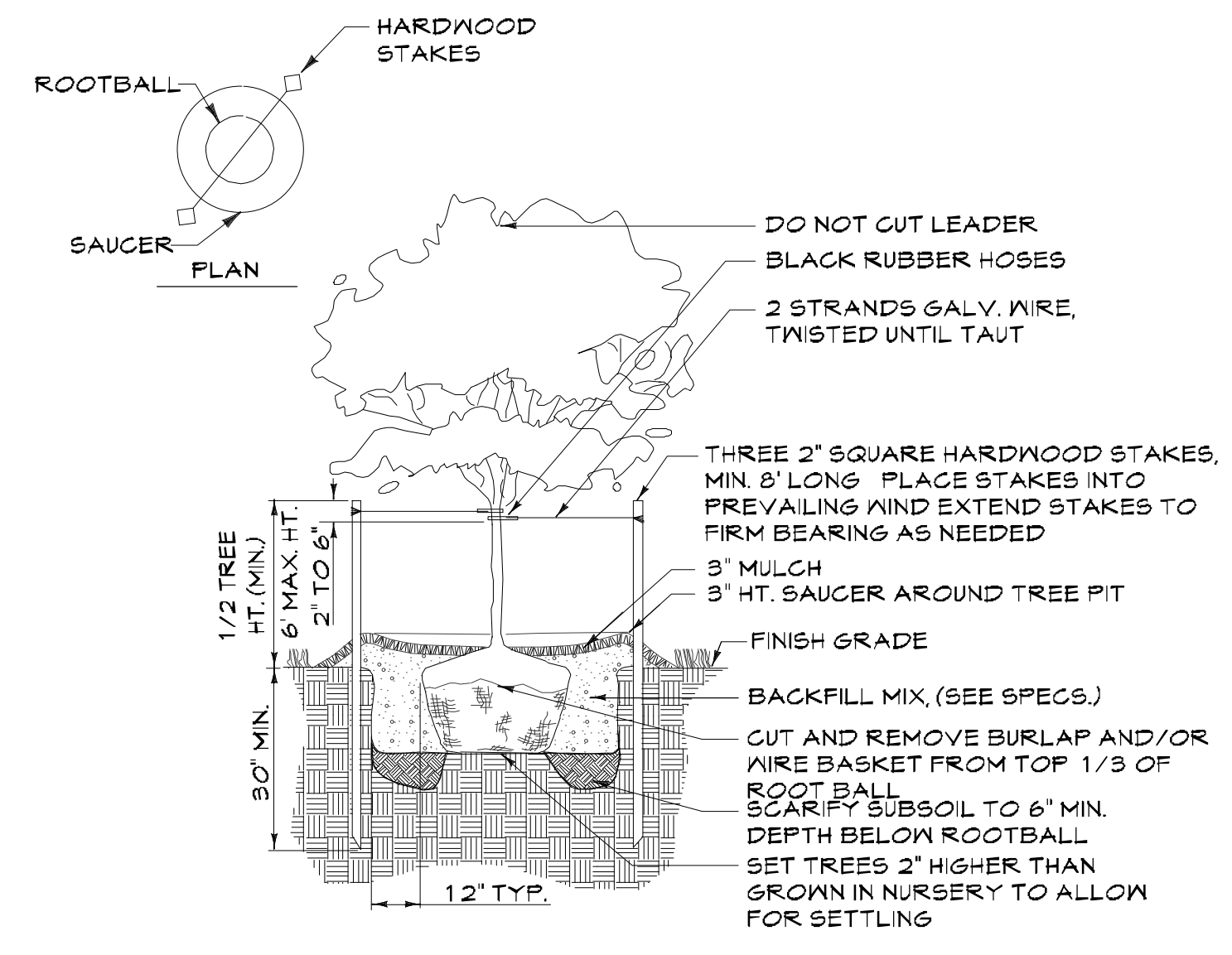
Pollinator Habitat Seed Mix
(See Sheet 18 for mix schedule)

APPROVED: DEPARTMENT OF PLANNING AND ZONING
3/8/2024
Chief, Development Planning Division
3/11/2024
Chief, Division of Planning
3/11/2024
Director
Date

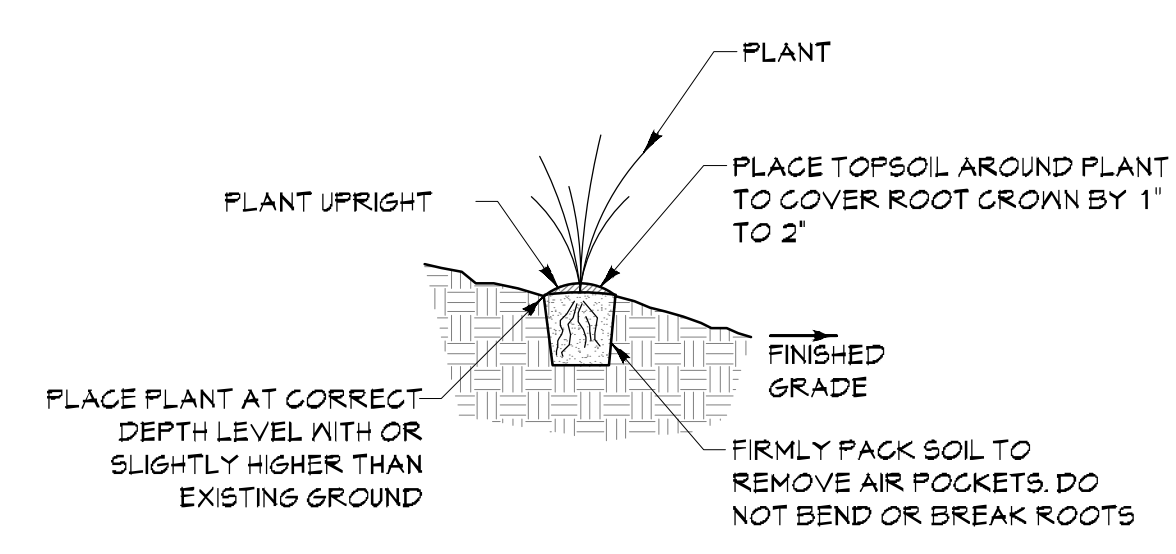
T:\2022\1\Facilities\2.11.182.00 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\2.11.182.00 (SDP-18-1-14) Landscape Planning Mar 04, 2024 4:25pm janderson



EVERGREEN TREE PLANTING
Not To Scale



FLOWERING TREE PLANTING
Not To Scale



GROUNDCOVER PLANTING
Not To Scale

POLLINATOR HABITAT SEED MIX

DESCRIPTION	BULK QUANTITY	PLS QUANTITY	UOM
ROUNDSEED PANICGRASS	0.311	0.350	LB PLS
PATH RUSH, PA ECOTYPE	0.066	0.050	LB PLS
PURPLE LOVEGRASS, FORT INDIANTOWN GAP, PA ECOTYPE	0.023	0.020	LB PLS
SENSITIVE PEA, NC ECOTYPE	0.082	0.080	LB PLS
BLACKEYED SUSAN	0.123	0.120	LB PLS
LANCELEAF COREOPSIS	0.113	0.100	LB PLS
MISTFLOWER, VA ECOTYPE	0.008	0.005	LB PLS
BUTTERFLY MILKWEED	0.020	0.015	LB PLS
AROMATIC ASTER, PA ECOTYPE	0.019	0.010	LB PLS
NARROWLEAF MOUNTAINMINT	0.024	0.020	LB PLS
GOLDEN ALEXANDERS, PA ECOTYPE	0.023	0.020	LB PLS
NARROWLEAF BLUE EYED GRASS	0.032	0.030	LB PLS
EASTERN GRAY BEARDTONGUE	0.005	0.005	LB PLS
HAIRY BEARDTONGUE	0.006	0.005	LB PLS
CALICO ASTER	0.013	0.010	LB PLS
AUTUMN BENTGRASS, ALBANY PINE BUSH NY ECOTYPE	0.151	0.150	LB PLS

PLANTING NOTES

- Plant material substitutions will not be accepted without approval of the Landscape Architect.
- All shrubs and groundcover areas shall be planted in continuous prepared planting beds.
- All shrub beds shall be mulched with hardwood mulch as detailed and specified except where noted on plans.
- Maintain positive drainage out of planting beds at a minimum of two percent slope.
- Plant quantities are provided for the convenience of the contractor. If discrepancies exist between quantities shown on the plan and those shown on the plant list, the quantities on the plan shall take precedence.
- All areas within contract limits disturbed during or prior to construction not designated to receive plantings and mulch shall be fine graded and seeded in accordance with planting and construction.
- The contractor shall notify Miss Utility, (800-257-7777) a minimum of three working days prior to planting and construction.
- All plant material shall be nursery grown and shall conform to American Nurserymen Association Standards.
- All planting procedures shall conform to Landscape Contractors Association Specification Guidelines for Baltimore/Washington Metropolitan Area (latest edition) and Century Engineering, Inc. specifications.
- Contractor shall test pit prior to plant installation.

MINIMUM LANDSCAPE MAINTENANCE REQUIREMENTS

- Lawn areas shall be mowed to a height of 2 to 3 inches and not allowed to reach a height of 4 inches before mowing.
- All curbs and walks shall be edged as needed.
- All lawn areas adjacent to building faces or structures shall be trimmed.
- A slow release nitrogen balanced fertilizer with a 2-1-1 ratio shall be applied at a rate of 2 pounds of nitrogen per 1000 square feet in September, October, and February.
- Lime shall be applied at the rate determined by a soils report.
- It is recommended that lawn areas be treated in mid-March to early April with pre-emergent herbicide (Betasan) or equal applied at the manufacturer's rate.
- A post-emergent herbicide (Trimec) or equal is recommended to be sprayed on lawn areas in the late spring or early fall. Follow manufacturer's rates and recommendations.
- Insecticides and fungicides are recommended for insect and disease control.
- Reseed bare areas of lawn as necessary. Yearly aeration is recommended.
- All trash, litter, and debris shall be removed from lawn areas, parking lots, and shrub beds as needed.
- Mulch all shrub and groundcover beds yearly with 3 inches of shredded hardwood bark.
- Permit shrubs and trees to grow and enlarge to their design size. Consult project Landscape Architect for details.
- Prune trees in accordance with Landscape Specification Guidelines for Baltimore-Washington Metropolitan Areas.

CALL "MISS UTILITY" AT
1-800-257-7777
72 Hours Before Start Of Construction

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 83

DATA SOURCE

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING

16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

LANDSCAPE DETAILS
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

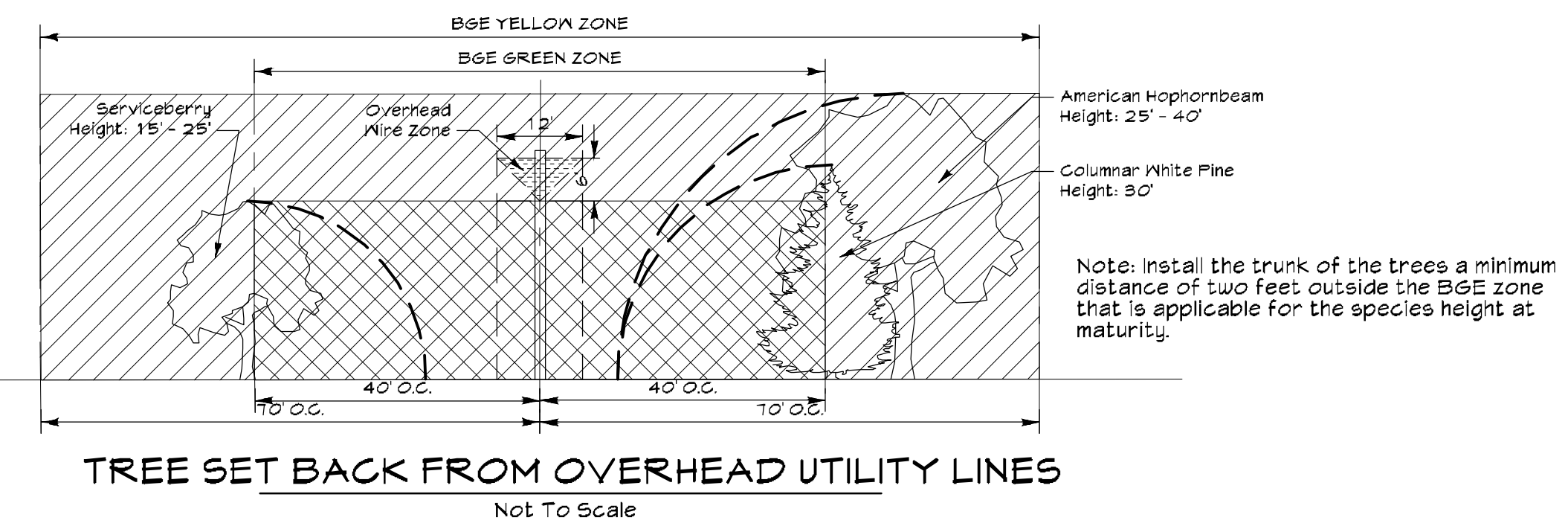
LICENSE No.: 1008
EXPIRATION DATE: 05/20/2024

2-15-2024

DRAWN BY: CRS
DESIGN BY: CRS

REVIEW BY: MJP
REVIEW DATE: 2-15-2024

SCALE: AS SHOWN
DRAWING: 20 of 27



TREE SET BACK FROM OVERHEAD UTILITY LINES
Not To Scale

APPROVED: DEPARTMENT OF PLANNING AND ZONING

<i>Bill Edmondson</i>	3/8/2024
Chief, Development and Planning Division	Date
<i>Lynnda Eisenberg</i>	3/11/2024
Chief, Division of Planning and Development	Date
Director	Date

Owners/Developer Certification:

"I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

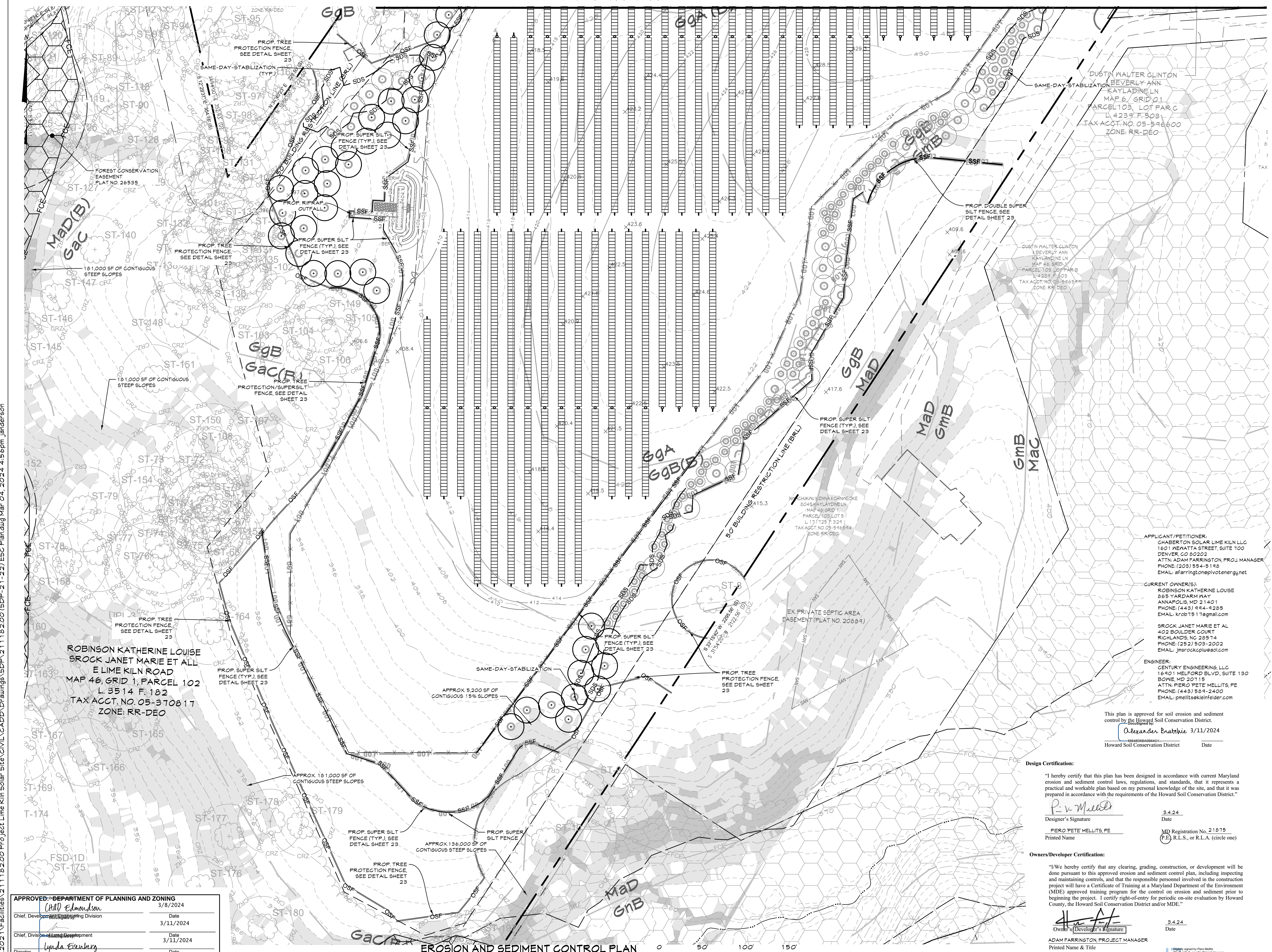
Piero Mellits
Owner's Signature
Date: 2.16.24

ADAM FARRINGTON, PROJECT MANAGER
Printed Name & Title

Piero Mellits
2024.02.20 10:47:40 AM EST

T:\2023\1\Facilities\2.11.18.200 Proj\sect Lime Kiln Solar_Site\CIVIL\CADD\Drawings\SDP\2.11.18.200 (SDP-20) Landscape Details.dwg May 01, 2023 3:15:53pm_janderson

MATCHLINE-SEE SHEET 2 1



EXISTING LEGEND

- Site Property Boundary
- Existing Minor Contour
- Existing Major Contour
- Existing Stream
- Existing Stream Buffer
- Existing Tree Line
- Existing Drive
- Existing Building
- Existing Overhead Electric
- Existing Buried Electric
- Existing BGE Utility Pole
- Existing Fence Line
- Soil Line
- Existing Sanitary Sewer
- 15.0-24.9% Slope Areas
- >25% Slope Areas (Steep Slopes)
- Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area
- Proposed Limit of Disturbance
- Proposed Grades
- Proposed Overhead Electric
- Proposed Underground Electric
- Proposed Utility Pole
- Proposed Solar Panels
- Proposed Fence
- Proposed Concrete Pad
- Proposed Gravel Drive
- Proposed Asphalt Paving
- Proposed Stormwater Management Facility
- Storm Drain
- Riprap

SEDIMENT CONTROL LEGEND

- SDS Same-Day-Stabilization
- SSF Super Silt Fence
- OSF Orange Safety Fence (Tree Protection)
- Stabilized Construction Entrance
- Staging Area/Stockpile Area

CALL "MISS UTILITY" AT 1-800-257-7777 72 Hours Before Start of Construction

DATUM: HORIZONTAL DATUM: NAD 83 (2011) VERTICAL DATUM: NAVD 88

- DATA SOURCE
- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
 - Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

EROSION AND SEDIMENT CONTROL PLAN 2 Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD Howard County, Maryland Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE NO.: 21875
 EXPIRATION DATE: 2/12/2026



DRAWN BY: JLA	REVIEW BY: PVM
DESIGN BY: JLA	REVIEW DATE: 3-4-2024
SCALE: AS SHOWN	DRAWING: 22 of 27
PROJECT No.: 211182.00	SDP-23-002

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1801 MERRITT STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (205) 554-5148
 EMAIL: afarrington@pvtenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 805 YARDMAN WAY
 ANNAPOLIS, MD 21401
 PHONE: (443) 994-9285
 EMAIL: kroc7517@gmail.com

SROCK JANET MARIE ET AL
 402 BOULDER COURT
 RICHLANDS, MD 20874
 PHONE: (252) 503-2002
 EMAIL: jmsrock@plu.com

ENGINEER:
 CENTURY ENGINEERING, LLC
 16901 MELFORD BLVD., SUITE 130
 BOWIE, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.
 Alexander Bratovic, 3/11/2024
 Howard Soil Conservation District Date

Design Certification:
 "I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

P. v. Mellits
 Designer's Signature
 PIERO PETE MELLITS, PE
 Printed Name
 3.4.24
 Date
 MD Registration No. 21875
 (P.E., R.L.S., or R.L.A. (circle one))

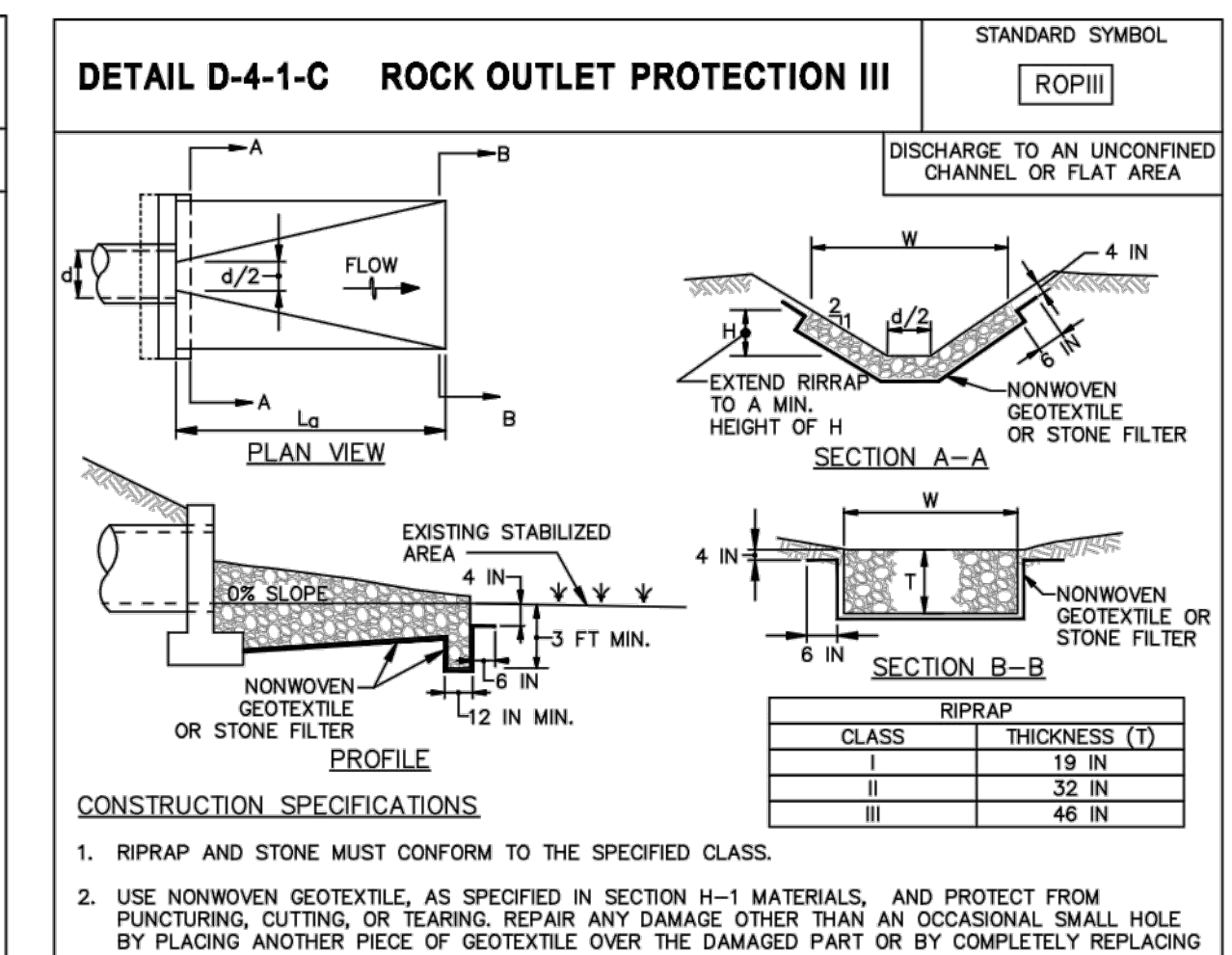
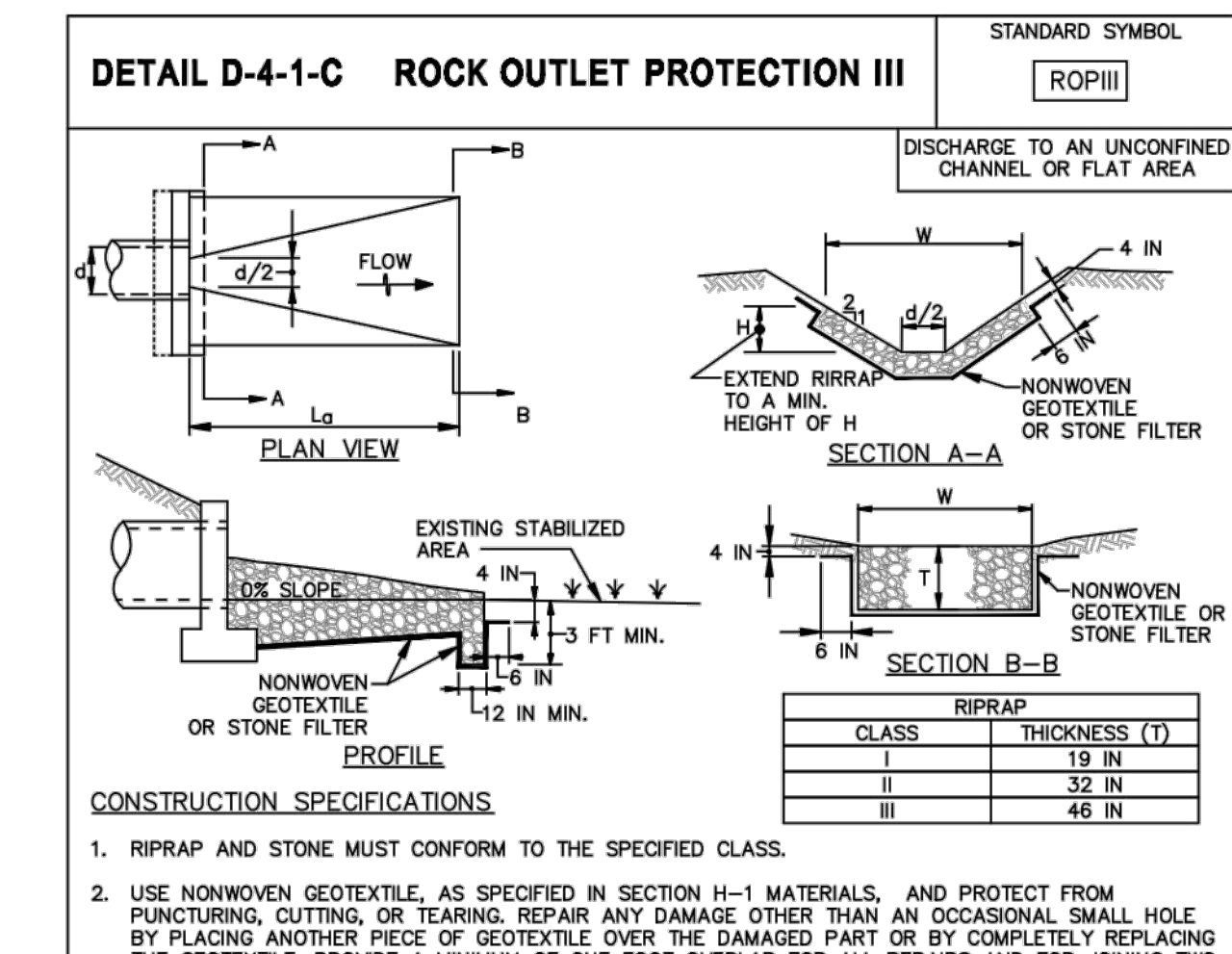
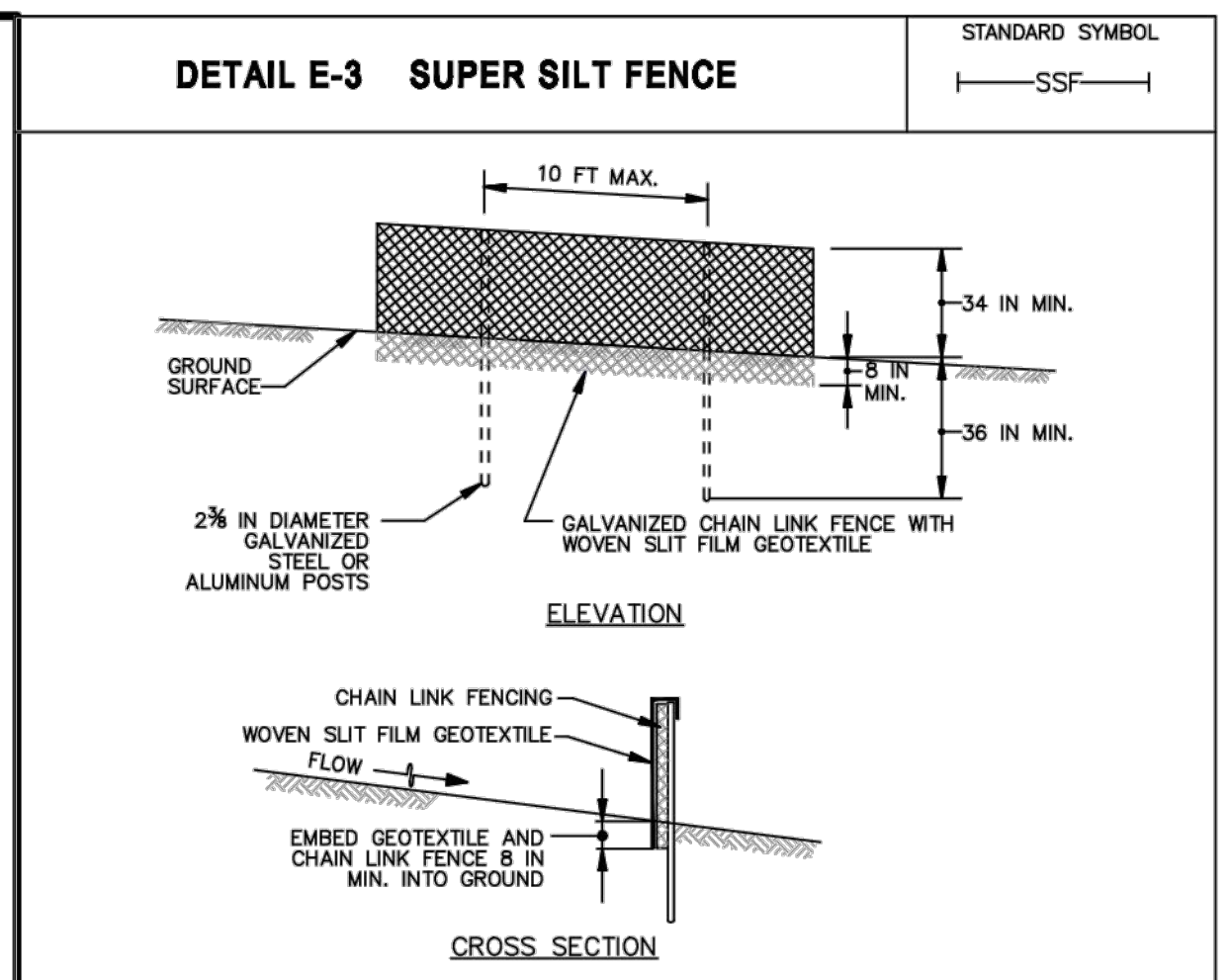
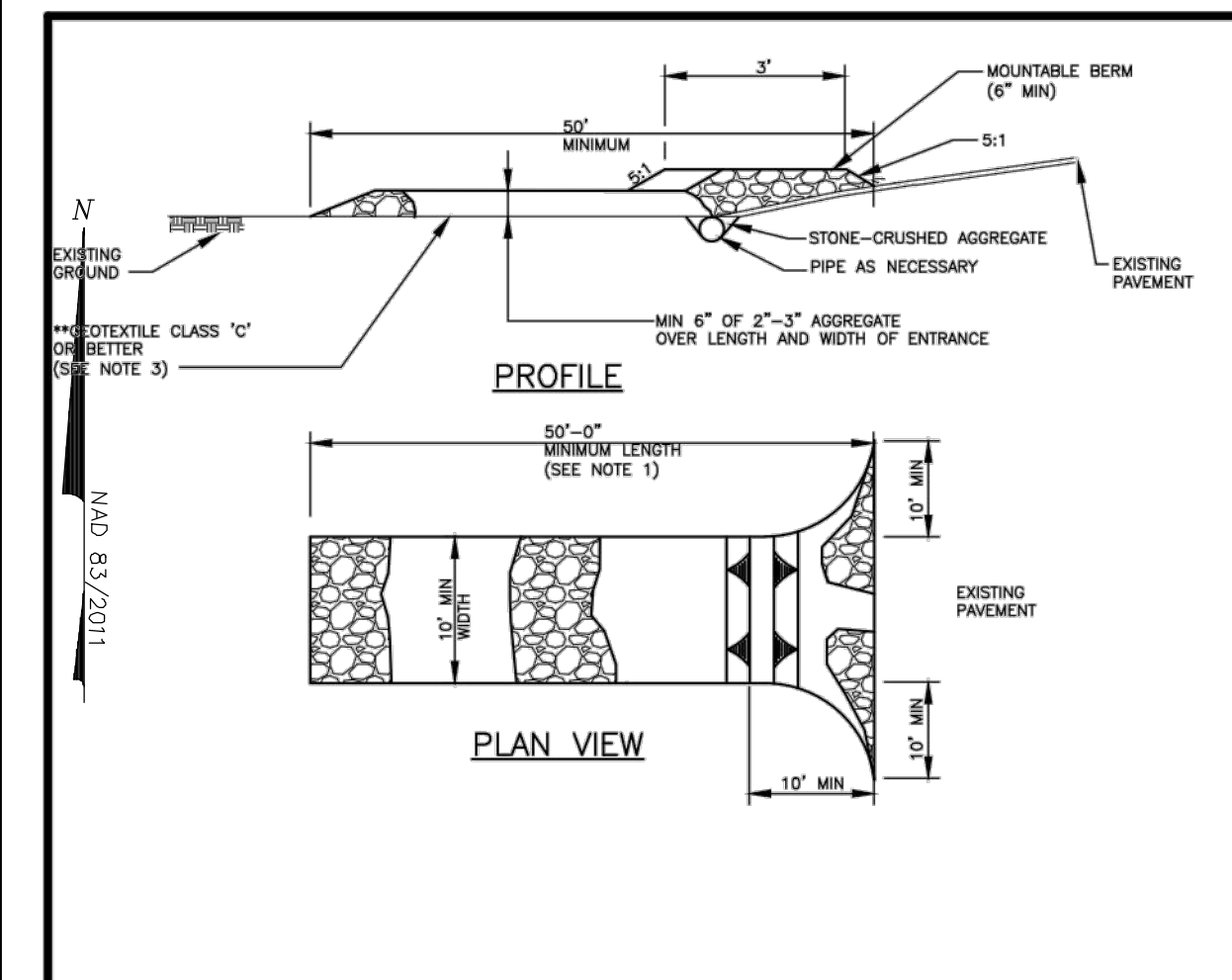
Owners/Developer Certification:
 "I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

Adam Farrington
 Owner's/Developer's Signature
 ADAM FARRINGTON, PROJECT MANAGER
 Printed Name & Title
 3.4.24
 Date

APPROVED: DEPARTMENT OF PLANNING AND ZONING
 3/8/2024
 Chief, Development Planning Division
 Date
 3/11/2024
 Chief, Division of Planning Department
 Date
 3/11/2024
 Director
 Date

EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=50'
 0 50 100 150

T:\2021\Facilities\211182.00 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\211182.00 (SDP-21-22) ESC Planning Mar 04, 2024, 4:56pm_janderson



NOTES:

- LENGTH - MINIMUM OF 50' (30' FOR SINGLE RESIDENCE LOT).
- WIDTH - 10' MINIMUM SHOULD BE MAINTAINED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
- GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. *IN THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
- STONE-CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
- SURFACE WATER-ALL SURFACE WATER FLOWING TO OR DIRECTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SIZED ACCORDING TO THE DRAINAGE. WHEN THE SIZE IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM DIAMETER IS REQUIRED.
- LOCATION-A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF STABILIZED CONSTRUCTION ENTRANCE.
- STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. ADDITIONAL ENTRANCES ARE PROHIBITED.

CONSTRUCTION SPECIFICATIONS

- INSTALL 2 1/2 INCH DIAMETER GALVANIZED STEEL POSTS OF 0.095 INCH WALL THICKNESS AND SIX FOOT LENGTH SPACED NO FURTHER THAN 10 FEET APART. DRIVE THE POSTS A MINIMUM OF 36 INCHES INTO THE GROUND.
- FASTEN 9 GAUGE OR HEAVIER GALVANIZED CHAIN LINK FENCE (2 3/4 INCH MAXIMUM OPENING) 42 INCHES IN HEIGHT SECURELY TO THE FENCE POSTS WITH WIRE TIES OR HUG RINGS.
- FASTEN WOVEN SLIT FILM GEOTEXTILE AS SPECIFIED IN SECTION H-1 MATERIALS, SECURELY TO THE UPSLOPE SIDE OF CHAIN LINK FENCE WITH TIES SPACED EVERY 24 INCHES AT THE TOP AND MID SECTION. EMBED GEOTEXTILE AND CHAIN LINK FENCE A MINIMUM OF 8 INCHES INTO THE GROUND.
- WHERE ENDS OF THE GEOTEXTILE COME TOGETHER, THE ENDS SHALL BE OVERLAPPED BY 6 INCHES, FOLDED, AND STAPLED TO PREVENT SEDIMENT BY PASS.
- EXTEND BOTH ENDS OF THE SUPER SILT FENCE A MINIMUM OF FIVE HORIZONTAL FEET UPSLOPE AT 45 DEGREES TO THE MAIN FENCE ALIGNMENT TO PREVENT RUNOFF FROM GOING AROUND THE ENDS OF THE SUPER SILT FENCE.
- PROVIDE MANUFACTURER CERTIFICATION TO THE INSPECTION/ENFORCEMENT AUTHORITY SHOWING THAT GEOTEXTILE USED MEETS THE REQUIREMENTS IN SECTION H-1 MATERIALS.
- REMOVE ACCUMULATED SEDIMENT AND DEBRIS WHEN BULGES DEVELOP IN FENCE OR WHEN SEDIMENT REACHES 25% OF FENCE HEIGHT. REPLACE GEOTEXTILE IF TORN. IF UNDERMINING OCCURS, REINSTALL CHAIN LINK FENCING AND GEOTEXTILE.

CONSTRUCTION SPECIFICATIONS

- RRIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (3/4 TO 1 1/2 INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RRIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RRIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RRIPRAP.
- CONSTRUCT RRIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RRIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RRIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RRIPRAP DISLOGGED RRIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

CONSTRUCTION SPECIFICATIONS

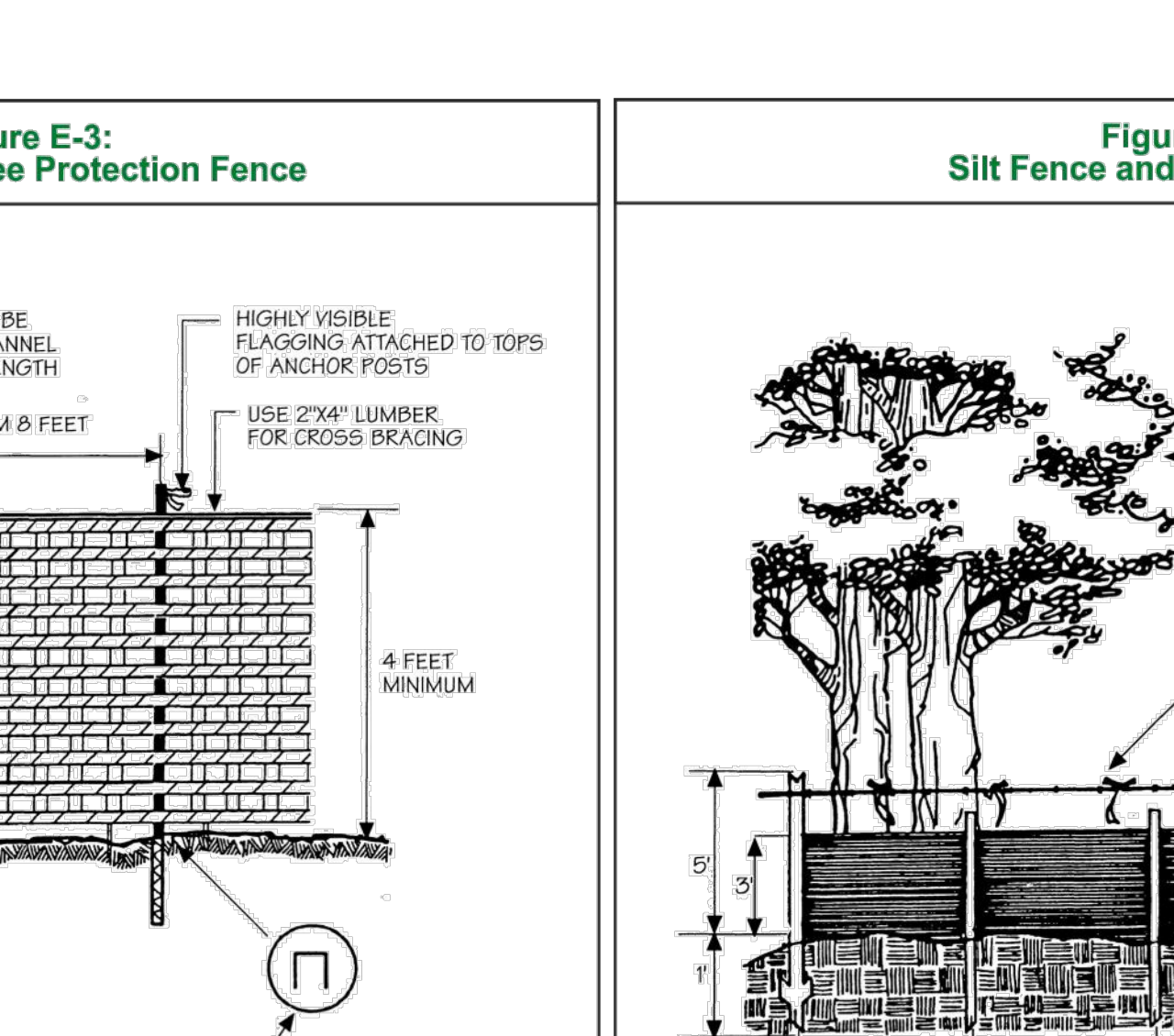
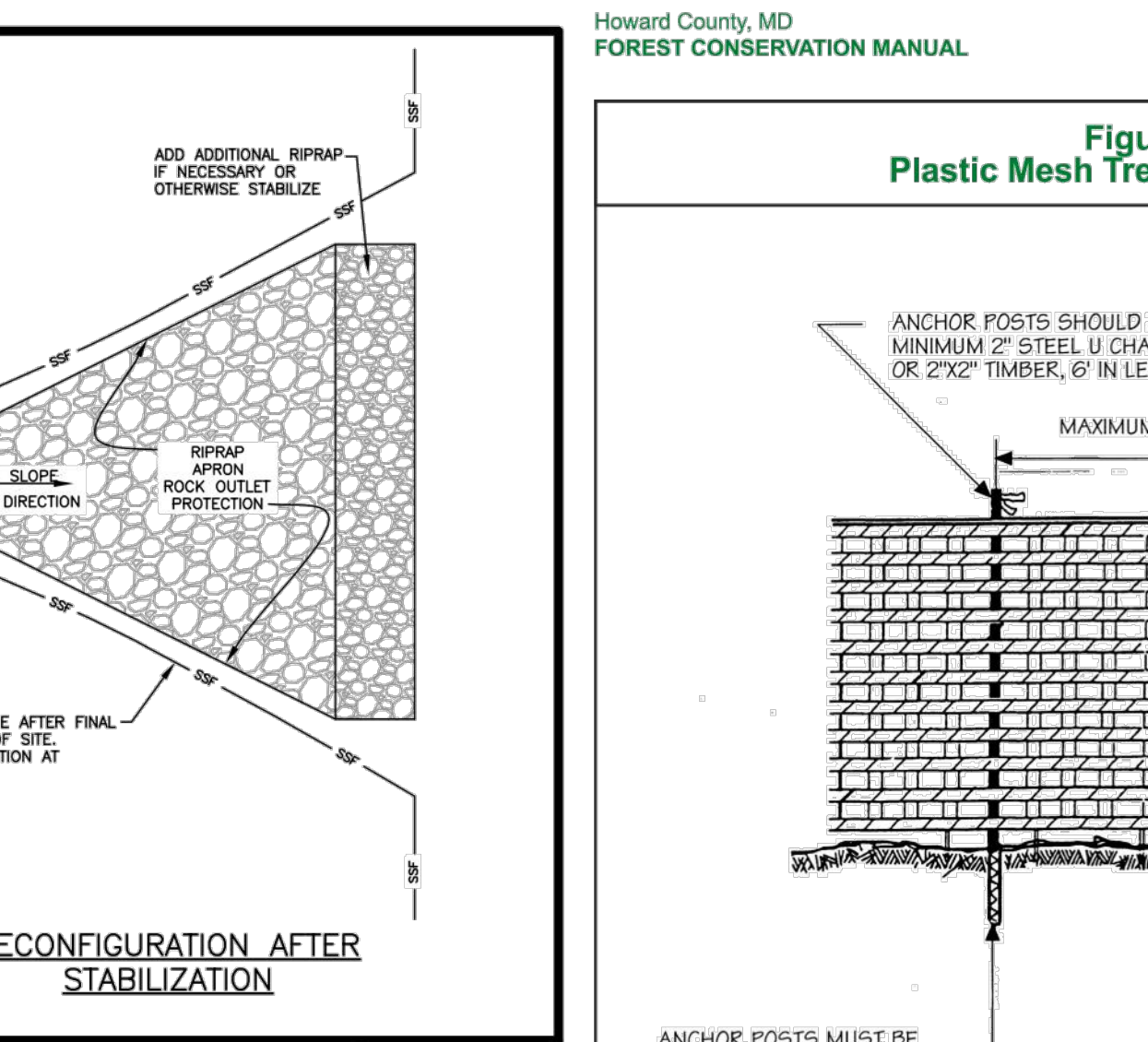
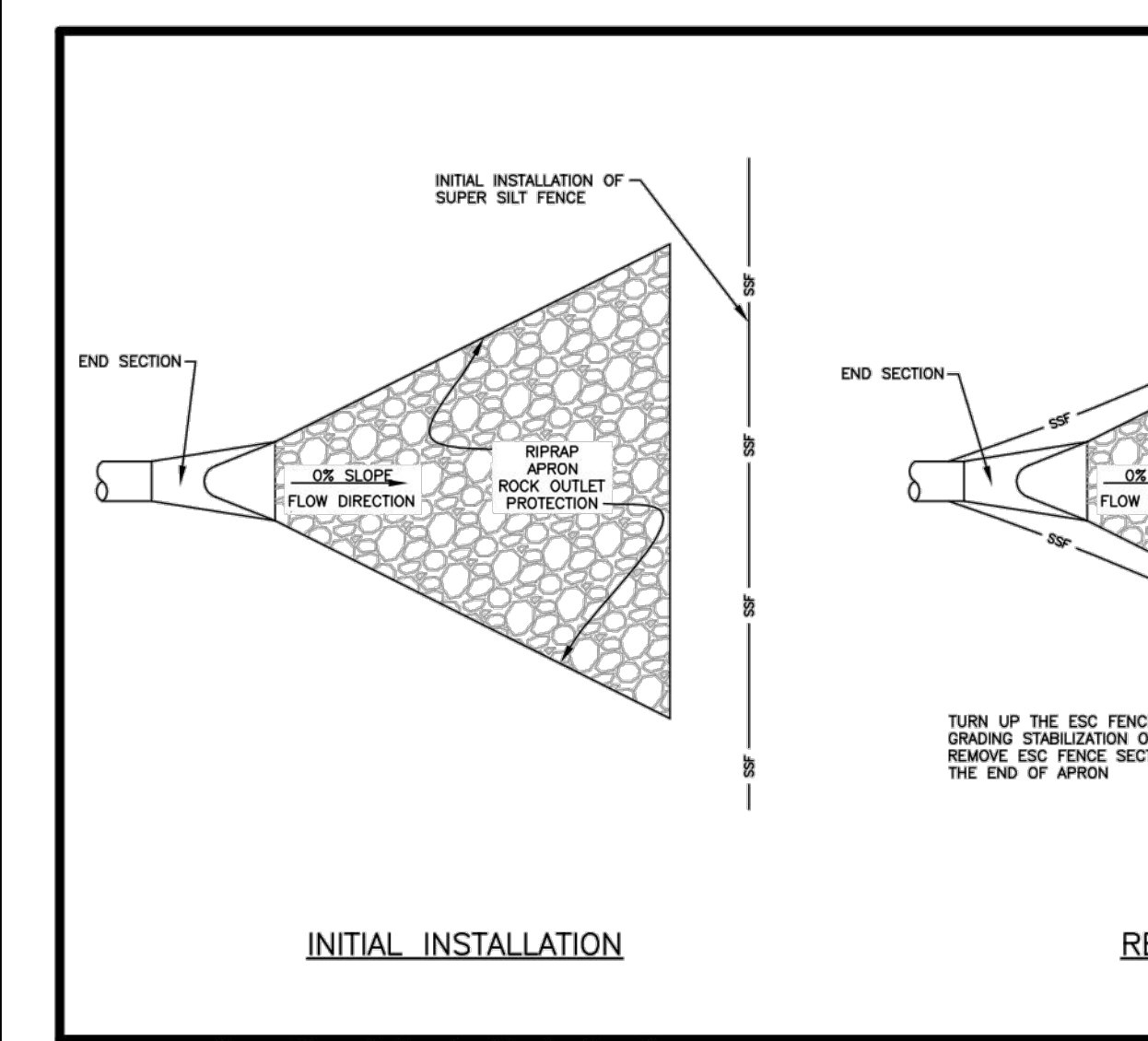
- RRIPRAP AND STONE MUST CONFORM TO THE SPECIFIED CLASS.
- USE NONWOVEN GEOTEXTILE, AS SPECIFIED IN SECTION H-1 MATERIALS, AND PROTECT FROM PUNCTURING, CUTTING, OR TEARING. REPAIR ANY DAMAGE OTHER THAN AN OCCASIONAL SMALL HOLE BY PLACING ANOTHER PIECE OF GEOTEXTILE OVER THE DAMAGED PART OR BY COMPLETELY REPLACING THE GEOTEXTILE. PROVIDE A MINIMUM OF ONE FOOT OVERLAP FOR ALL REPAIRS AND FOR JOINING TWO PIECES OF GEOTEXTILE TOGETHER.
- PREPARE THE SUBGRADE FOR GEOTEXTILE OR STONE FILTER (3/4 TO 1 1/2 INCH MINIMUM STONE FOR 6 INCH MINIMUM DEPTH) AND RRIPRAP TO THE REQUIRED LINES AND GRADES. COMPACT ANY FILL REQUIRED IN THE SUBGRADE TO A DENSITY OF APPROXIMATELY THAT OF THE SURROUNDING UNDISTURBED MATERIAL.
- EXTEND GEOTEXTILE AT LEAST 6 INCHES BEYOND EDGES OF RRIPRAP AND EMBED AT LEAST 4 INCHES AT SIDES OF RRIPRAP.
- CONSTRUCT RRIPRAP OUTLET TO FULL COURSE THICKNESS IN ONE OPERATION AND IN SUCH A MANNER AS TO AVOID DISPLACEMENT OF UNDERLYING MATERIALS. PLACE STONE FOR RRIPRAP OUTLET IN A MANNER THAT WILL ENSURE THAT IT IS REASONABLY HOMOGENOUS WITH THE SMALLER STONES AND SPALLS FILLING THE VOIDS BETWEEN THE LARGER STONES. PLACE RRIPRAP IN A MANNER TO PREVENT DAMAGE TO THE FILTER BLANKET OR GEOTEXTILE. HAND PLACE TO THE EXTENT NECESSARY.
- WHERE NO ENDWALL IS USED, CONSTRUCT THE UPSTREAM END OF THE APRON SO THAT THE WIDTH IS TWO TIMES THE DIAMETER OF THE OUTLET PIPE, AND EXTEND THE STONE UNDER THE OUTLET BY A MINIMUM OF 18 INCHES.
- CONSTRUCT APRON WITH 0% SLOPE ALONG ITS LENGTH AND WITHOUT OBSTRUCTIONS. PLACE STONE SO THAT IT BLENDS IN WITH EXISTING GROUND.
- MAINTAIN LINE, GRADE, AND CROSS SECTION. KEEP OUTLET FREE OF EROSION. REMOVE ACCUMULATED SEDIMENT AND DEBRIS. AFTER HIGH FLOWS INSPECT FOR SCOUR AND RRIPRAP DISLOGGED RRIPRAP. MAKE NECESSARY REPAIRS IMMEDIATELY.

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS APPROVED: <i>[Signature]</i> DATE: 5/7/2017 TITLE: Chief, Bureau of Engineering	Stabilized Construction Entrance	Detail G-6.01
--	-------------------------------------	------------------

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION



HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS APPROVED: <i>[Signature]</i> DATE: 5/20/2017 TITLE: Chief, Bureau of Engineering	SEDIMENT CONTROL FENCE RECONFIGURATION After Stabilization	Detail D-5.53
---	---	------------------

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPROVED: DEPARTMENT OF PLANNING AND ZONING

Chief, Development Review Division	Date
3/11/2024	
Chief, Division of Planning and Development	Date
3/11/2024	
Director	Date

Notes:

- Blaze orange or blue plastic mesh fence for forest protection device, only.
- Boundaries of Retention Area will be established as part of the Forest Conservation Plan review process.
- Stake and flag boundaries of Retention Area prior to installing device.
- Avoid damage to critical root zone. Do not damage or sever large roots when installing posts.
- Protection signs are required, see Figures E-1 and E-2.
- Maintain device throughout construction.

Source: Adapted from Prince George's County, Maryland: Woodland Conservation Manual and State Forest Conservation Technical Manual, 1991

Notes:

- Silt fence to be heeled into the soil.
- Boundaries of Retention Area will be established as part of the Forest Conservation Plan review process.
- Stake and flag boundaries of Retention Area prior to installing device.
- Avoid root damage when placing anchor posts.
- Maintain device throughout construction.
- Protection signs are also required, see Figures E-1 and E-2.
- Locate fence outside the Critical Root Zone.
- Install tree protection fence at the limit of disturbance (LOD).

Source: Adapted from Steve Clark & Associates/ACRT, Inc.

Design Certification:

"I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, and that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

DocuSigned by:
Alexander Bratovic
3/11/2024

PIERO PETE MELLITS, PE
Printed Name

2/15/24
Date

MD Registration No. 21875
P.E. R.L.S., or R.L.A. (circle one)

Owners/Developer Certification:

"I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

ADAM FARRINGTON, PROJECT MANAGER
Printed Name & Title

2.16.24
Date

HOWARD COUNTY DEPARTMENT OF PUBLIC WORKS APPROVED: <i>[Signature]</i> DATE: 5/20/2017 TITLE: Chief, Bureau of Engineering	SEDIMENT CONTROL FENCE RECONFIGURATION After Stabilization	Detail D-5.53
---	---	------------------

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL		
U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE	2011	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION

APPLICANT/PETITIONER:
 CHABERTON SOLAR LIME KILN LLC
 1601 PIENATTA STREET, SUITE 100
 DENVER, CO 80202
 ATTN: ADAM FARRINGTON, PROJ. MANAGER
 PHONE: (203) 554-5198
 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S):
 ROBINSON KATHERINE LOUISE
 285 YARDMAN PLAZA
 ANNAPOLIS, MD 21401
 PHONE: (443) 944-9285
 EMAIL: krob151@gmail.com

ENGINEER:
 CENTURY ENGINEERING LLC
 16901 Melford Blvd., Ste 130
 Bowie, MD 20715
 ATTN: PIERO PETE MELLITS, PE
 PHONE: (443) 589-2400
 EMAIL: pmellits@centuryeng.com

DATUM:
 HORIZONTAL DATUM: NAD 83 (2011)
 VERTICAL DATUM: NAVD 83

DATA SOURCE:

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS

CENTURY ENGINEERING
 16901 Melford Boulevard, Ste 130, Bowie, MD 20715
 Phone: 443.589.2400 Fax: 443.589.2401
 www.centuryeng.com

EROSION & SEDIMENT CONTROL DETAILS
Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
 Howard County, Maryland
 Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.
 LICENSE No.: 21875
 EXPIRATION DATE: 2/15/2026

PIERO VAN MELLITS
 No. 21875
 REGISTERED PROFESSIONAL ENGINEER

2/15/2024

DRAWN BY: JLA	REVIEW BY: PVM
DESIGN BY: JLA	REVIEW DATE: 2-15-2024

SCALE: AS SHOWN
 PROJECT No.: 211182.00
 DRAWING: 23 of 27

T:\2021\Facilities\211182.00 Project Lime Kiln Solar Site\CIVIL\CADD\Drawings\SDP\211182.00 (SDP-23-24) ES Notes and Details.dwg Feb 15, 2024 1:05pm janderfson

B-4 STANDARDS AND SPECIFICATIONS

FOR

VEGETATIVE STABILIZATION

Definition

Using vegetation as cover to protect exposed soil from erosion.

Purpose

To promote the establishment of vegetation on exposed soil.

Conditions Where Practice Applies

On all disturbed areas not stabilized by other methods. This specification is divided into sections on incremental stabilization; soil preparation, soil amendments and topsoiling; seeding and mulching; temporary stabilization; and permanent stabilization.

Effects on Water Quality and Quantity

Stabilization practices are used to promote the establishment of vegetation on exposed soil. When soil is stabilized with vegetation, the soil is less likely to erode and more likely to allow infiltration of rainfall, thereby reducing sediment loads and runoff to downstream areas.

Planting vegetation in disturbed areas will have an effect on the water budget, especially on volumes and rates of runoff, infiltration, evaporation, transpiration, percolation, and groundwater recharge. Over time, vegetation will increase organic matter content and improve the water holding capacity of the soil and subsequent plant growth.

Vegetation will help reduce the movement of sediment, nutrients, and other chemicals carried by runoff to receiving waters. Plants will also help protect groundwater supplies by assimilating those substances present within the root zone.

Sediment control practices must remain in place during grading, seedbed preparation, seeding, mulching, and vegetative establishment.

Adequate Vegetative Establishment

Inspect seeded areas for vegetative establishment and make necessary repairs, replacements, and reseedings within the planting season.

- 1. Adequate vegetative stabilization requires 95 percent groundcover.
2. If an area has less than 40 percent groundcover, restabilize following the original recommendations for lime, fertilizer, seedbed preparation, and seeding.
3. If an area has between 40 and 94 percent groundcover, over-seed and fertilize using half of the rates originally specified.
4. Maintenance fertilizer rates for permanent seeding are shown in Table B.6.

B-4-4 STANDARDS AND SPECIFICATIONS

FOR

TEMPORARY STABILIZATION

Definition

To stabilize disturbed soils with vegetation for up to 6 months.

Purpose

To use fast growing vegetation that provides cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for a period of 6 months or less. For longer duration of time, permanent stabilization practices are required.

Criteria

- 1. Select one or more of the species or seed mixtures listed in Table B.1 for the appropriate Plant Hardness Zone (from Figure B.3), and enter them in the Temporary Seeding Summary below along with application rates, seeding dates and seeding depths. If this Summary is not put on the plan and completed, then Table B.1 plus fertilizer and lime rates must be put on the plan.
2. For sites having soil tests performed, use and show the recommended rates by the testing agency. Soil tests are not required for Temporary Seeding.
3. When stabilization is required outside of a seeding season, apply seed and mulch or straw mulch alone as prescribed in Section B-4-3.A.1.b and maintain until the next seeding season.

Temporary Seeding Summary

Table with columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, Fertilizer Rate (10-20-20), Lime Rate. Rows include ANNUAL RYEGRASS, BARLEY, CEREAL RYE, PEARL MILLET.

NOTES: 1. Seeding rates for the warm-season grasses are in pounds of Pure Live Seed (PLS). Actual planting rates shall be adjusted to reflect percent seed germination and purity, as tested. Adjustments are usually not needed for the cool-season grasses.
2. For sandy soils, plant needs at twice the depth listed above.
3. The planting dates listed are averages for each Zone and may require adjustment to reflect local conditions, especially near the boundaries of the zone.

Table B.5: Recommended Planting Dates for Permanent Cover in Maryland

Table with columns: Type of Plant Material, Plant Hardness Zones (5b and 6a, 6b, 7a and 7b), Application Rate, Seeding Dates, Seeding Depths.

B-4-5 STANDARDS AND SPECIFICATIONS

FOR

PERMANENT STABILIZATION

Definition

To stabilize disturbed soils with permanent vegetation.

Purpose

To use long-lived perennial grasses and legumes to establish permanent ground cover on disturbed soils.

Conditions Where Practice Applies

Exposed soils where ground cover is needed for 6 months or more.

Criteria

- A. Seed Mixtures
1. General Use
a. Select one or more of the species or mixtures listed in Table B.3 for the appropriate Plant Hardness Zone (from Figure B.3) and based on the site condition or purpose found on Table B.2. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The Summary is to be placed on the plan.
b. Additional planting specifications for exceptional sites such as shorelines, stream banks, or dunes or for special purposes such as wildlife or aesthetic treatment may be found in USDA-NRCS Technical Field Office Guide, Section 342 - Critical Area Planting.
c. For sites having disturbed area over 5 acres, use and show the rates recommended by the soil testing agency.
d. For areas receiving low maintenance, apply urea form fertilizer (46-0-0) at 3 1/2 pounds per 1000 square feet (150 pounds per acre) at the time of seeding in addition to the soil amendments shown in the Permanent Seeding Summary.
2. Turfgrass Mixtures
a. Areas where turfgrass may be desired include lawns, parks, playgrounds, and commercial sites which will receive a medium to high level of maintenance.
b. Select one or more of the species or mixtures listed below based on the site conditions or purpose. Enter selected mixture(s), application rates, and seeding dates in the Permanent Seeding Summary. The summary is to be placed on the plan.
i. Kentucky Bluegrass: Full Sun Mixture: For use in areas that receive intensive management. Irrigation required in the areas of central Maryland and Eastern Shore. Recommended Certified Kentucky Bluegrass Cultivars Seeding Rate: 1.5 to 2.0 pounds per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
ii. Kentucky Bluegrass/Perennial Ryegrass: Full Sun Mixture: For use in full sun areas where rapid establishment is necessary and when turf will receive medium to intensive management. Certified Perennial Ryegrass Cultivars/Certified Kentucky Bluegrass Seeding Rate: 2 pounds mixture per 1000 square feet. Choose a minimum of three Kentucky bluegrass cultivars with each ranging from 10 to 35 percent of the total mixture by weight.
iii. Tall Fescue/Kentucky Bluegrass: Full Sun Mixture: For use in drought prone areas and/or for areas receiving low to medium management in full sun to medium shade. Recommended mixture includes; Certified Tall Fescue Cultivars 95 to 100 percent, Certified Kentucky Bluegrass Cultivars 0 to 5 percent. Seeding Rate: 5 to 8 pounds per 1000 square feet. One or more cultivars may be blended.
iv. Kentucky Bluegrass/Fine Fescue: Shade Mixture: For use in areas with shade in Bluegrass lawns. For establishment in high quality, intensively managed turf area. Mixture includes; Certified Kentucky Bluegrass Cultivars 30 to 40 percent and Certified Fine Fescue and 60 to 70 percent. Seeding Rate: 1 1/2 to 3 pounds per 1000 square feet.
Notes: Select turfgrass varieties from those listed in the most current University of Maryland Publication, Agronomy Memo #77, "Turfgrass Cultivar Recommendations for Maryland"

Choose certified material. Certified material is the best guarantee of cultivar purity. The certification program of the Maryland Department of Agriculture, Turf and Seed Section, provides a reliable means of consumer protection and assures a pure genetic line

- c. Ideal Times of Seeding for Turf Grass Mixtures
Western MD: March 15 to June 1, August 1 to October 1 (Hardness Zones: 5b, 6a)
Central MD: March 1 to May 15, August 15 to October 15 (Hardness Zone: 6b)
Southern MD, Eastern Shore: March 1 to May 15, August 15 to October 15 (Hardness Zones: 7a, 7b)
d. Till areas to receive seed by disking or other approved methods to a depth of 2 to 4 inches, level and rake the areas to prepare a proper seedbed. Remove stones and debris over 1 1/2 inches in diameter. The resulting seedbed must be in such condition that future mowing of grasses will pose no difficulty.
e. If soil moisture is deficient, supply new seedlings with adequate water for plant growth (1/2 to 1 inch every 3 to 4 days depending on soil texture) until they are firmly established. This is especially true when seedlings are made late in the planting season, in abnormally dry or hot seasons, or on adverse sites. Permanent Seeding Summary

Table with columns: No., Species, Application Rate (lb/ac), Seeding Dates, Seeding Depths, Fertilizer Rate (10-20-20), Lime Rate. Row includes TALL FESCUE, KENTUCKY BLUE GRASS.

B. Sod: To provide quick cover on disturbed areas (2:1 grade or flatter).

1. General Specifications

- a. Class of turfgrass sod must be Maryland State Certified. Sod labels must be made available to the foreman and inspector.
b. Sod must be machine cut at a uniform soil thickness of 3/4 inch, plus or minus 1/4 inch, at the time of cutting. Measurement for thickness must exclude top growth and thatch. Broken pads and torn or uneven ends will not be acceptable.
c. Standard size sections of sod must be strong enough to support their own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section.
d. Sod must not be harvested or transplanted when moisture content (excessively dry or wet) may adversely affect its survival.
e. Sod must be harvested, delivered, and installed within a period of 36 hours. Sod not transported within this period must be approved by an agronomist or soil scientist prior to its installation.
2. Sod Installation
a. During periods of excessively high temperature or in areas having dry subsoil, lightly irrigate the subsoil immediately prior to laying the sod.
b. Lay the first row of sod in a straight line with subsequent rows placed parallel to it and tightly wedged against each other. Stagger lateral joints to promote more uniform growth and strength. Ensure that sod is not stretched or overlapped and that all joints are butted tight in order to prevent voids which would cause air drying of the roots.
c. Wherever possible, lay sod with the long edges parallel to the contour and with staggering joints. Roll and tamp, peg or otherwise secure the sod to prevent slippage on slopes. Ensure solid contact exists between sod roots and the underlying soil surface.
d. Water the sod immediately following rolling and tamping until the underside of the new sod pad and soil surface below the sod are thoroughly wet. Complete the operations of laying, tamping and irrigating for any piece of sod within eight hours.

B-4-8 STANDARDS AND SPECIFICATIONS

FOR

STOCKPILE AREA

Definition

A mound or pile of soil protected by appropriately designed erosion and sediment control measures.

Purpose

To provide a designated location for the temporary storage of soil that controls the potential for erosion, sedimentation, and changes to drainage patterns.

Conditions Where Practice Applies

Stockpile areas are utilized when it is necessary to salvage and store soil for later use.

Criteria

- 1. The stockpile location and all related sediment control practices must be clearly indicated on the erosion and sediment control plan.
2. The footprint of the stockpile must be sized to accommodate the anticipated volume of material and based on a side slope ratio no steeper than 2:1. Benching must be provided in accordance with Section B-3 Land Grading.
3. Runoff from the stockpile area must drain to a suitable sediment control practice.
4. Access the stockpile area from the upgrade side.
5. Clear water runoff into the stockpile area must be minimized by use of a diversion device such as an earth dike, temporary swale or diversion fence. Provisions must be made for discharging concentrated flow in a non-erosive manner.
6. Where runoff concentrates along the toe of the stockpile fill, an appropriate erosion/sediment control practice must be used to intercept the discharge.
7. Stockpiles must be stabilized in accordance with the 3/7 day stabilization requirement as well as Standard B-4-1 Incremental Stabilization and Standard B-4-4 Temporary Stabilization.
8. If the stockpile is located on an impervious surface, a liner should be provided below the stockpile to facilitate cleanup. Stockpiles containing contaminated material must be covered with impermeable sheeting.

Maintenance

The stockpile area must continuously meet the requirements for Adequate Vegetative Establishment in accordance with Section B-4 Vegetative Stabilization. Side slopes must be maintained at no steeper than a 2:1 ratio. The stockpile area must be kept free of erosion. If the vertical height of a stockpile exceeds 20 feet for 2:1 slopes, 30 feet for 3:1 slopes, or 40 feet for 4:1 slopes, benching must be provided in accordance with Section B-3 Land Grading.

STANDARD SEDIMENT CONTROL NOTES

- 1. A pre-construction meeting must occur with the Howard County Department of Public Works, Construction Inspection Division (CID), 410-313-1855 after the final LOD and protected areas are marked clearly in the field. A minimum of 48 hour notice to CID must be given at the following stages:
a. Prior to the start of earth disturbance.
b. Upon completion of the installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading.
c. Prior to the start of another phase of construction or opening of another grading unit.
d. Prior to the removal or modification of sediment control practices.
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
3. Following initial soil disturbance or re-disturbance, permanent or temporary stabilization is required within three (3) calendar days as to the surface of all perimeter contours, dikes, swales, ditches, perimeter slopes, and all slopes steeper than 3 horizontal to 1 vertical (3:1); and seven (7) calendar days as to all other disturbed areas on the project site except for those areas under active grading.
4. All disturbed areas must be stabilized within the time period specified above in accordance with the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for topsoil (Sec. B-4-2), permanent seeding (Sec. B-4-5), temporary seeding (Sec. B-4-4) and mulching (Sec. B-4-3). Temporary stabilization with mulch alone can only be applied between the fall and spring seeding dates if the ground is frozen. Incremental stabilization (Sec. B-4-1) specifications shall be enforced in areas with US of cut and/or fill Stockpiles (Sec. B-4-8) in excess of 20 ft. must be benched with stable outlet. All concentrated flow, steep slope, and highly erodible areas shall receive soil stabilization matting (Sec. B-4-6).
5. All sediment control structures are to remain in place, and are to be maintained in operative condition until permission for their removal has been obtained from the CID.
6. Site Analysis:
Total Area of Site: 57.9 Acres
Area Disturbed: 18.55 Acres
Area to be roofed or paved: 0.24 Acres
Area to be vegetatively stabilized: 19.31 Acres
Total Cut: 1,500 Cu Yds.
Total Fill: 1,500 Cu Yds.
Offsite waste/borrow area location: N/A
7. Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
8. Additional sediment control must be provided, if deemed necessary by the CID. The site and all controls shall be inspected by the contractor weekly, and the next day after each rain event. A written report by the contractor, made available upon request, is part of every inspection and should include:
- Inspection date
- Inspection type (routine, pre-storm event, during rain event)
- Name and title of inspector
- Weather information (current conditions as well as time and amount of last recorded precipitation)
- Brief description of project's status (e.g. percent complete) and/or current activities
- Evidence of sediment discharges
- Identification of plan deficiencies
- Identification of sediment controls that require maintenance
- Identification of missing or improperly installed sediment controls
- Compliance status regarding the sequence of construction and stabilization requirements
- Photographs
- Monitoring/sampling
- Maintenance and/or corrective action performed
- Other Inspection Items as required by the General Permit for Stormwater Associated with Construction Activities (NPDES, MDE).
9. Trenches for the construction of utilities is limited to three pipe lengths or that which can and shall be back-filled and stabilized by the end of each workday, whichever is shorter.
10. Any major changes or revisions to the plan or sequence of construction must be reviewed and approved by the HSCD prior to proceeding with construction. Minor revisions may allowed by the CID per the list of HSCD-approved field changes.
11. Disturbance shall not occur outside the LOD. A project is to be sequenced so that grading activities begin on one grading unit (maximum acreage of 20 ac. per grading unit) at a time. Work may proceed to a subsequent grading unit when at least 80 percent of the disturbed area in the preceding grading unit has been stabilized and approved by the CID. Unless otherwise specified and approved by the HSCD, no more than 90 acres cumulatively may be disturbed at a given time.
12. Wash water from any equipment, vehicles, wheels, pavement, and other sources must be treated in a sediment basin or other approved washout structure.
13. Topsoil shall be stockpiled and preserved on-site for redistribution onto final grade.
14. All Silt Fence and Super Silt Fence shall be placed on the contour, or be imbricated at 25' maximum intervals, with lower ends curved uphill by 2' in elevation.
15. Stream channels must not be disturbed during the following restricted time periods (inclusive):
Use I and IP March 1 - June 15
Use III and HIP October 1 - April 30
Use IV March 1 - May 31
16. A copy of this plan, the 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and associated permits shall be on-site and available when the site is active.

B-4-2 STANDARDS AND SPECIFICATIONS

FOR

SOIL PREPARATION, TOPSOILING, AND SOIL AMENDMENTS

Definition

The process of preparing the soils to sustain adequate vegetative stabilization.

Purpose

To provide a suitable soil medium for vegetative growth.

Conditions Where Practice Applies

Where vegetative stabilization is to be established.

Criteria

- A. Soil Preparation
1. Temporary Stabilization
a. Seedbed preparation consists of loosening soil to a depth of 3 to 5 inches by means of suitable agricultural or construction equipment, such as disc harrows or chisel plows or rippers mounted on construction equipment. After the soil is loosened, it must not be rolled or dragged smooth but left in the roughened condition. Slopes 3:1 or flatter are to be tracked with ridges running parallel to the contour of the slope.
b. Apply fertilizer and lime as prescribed on the plans.
c. Incorporate lime and fertilizer into the top 3 to 5 inches of soil by disking or other suitable means.
2. Permanent Stabilization
a. A soil test is required for any earth disturbance of 5 acres or more. The minimum soil conditions required for permanent vegetative establishment are:
i. Soil pH between 6.0 and 7.0.
ii. Soluble salts less than 500 parts per million (ppm).
iii. Soil contains less than 40 percent clay but enough fine grained material (greater than 30 percent silt plus clay) to provide the capacity to hold a moderate amount of moisture. An exception: if loessgrass will be planted, then a sandy soil (less than 30 percent silt plus clay) would be acceptable.
iv. Soil contains 1.5 percent minimum organic matter by weight.
v. Soil contains sufficient pore space to permit adequate root penetration.
b. Application of amendments or topsoil is required if on-site soils do not meet the above conditions.
c. Graded areas must be maintained in a true and even grade as specified on the approved plan, then scarified or otherwise loosened to a depth of 3 to 5 inches.
d. Apply soil amendments as specified on the approved plan or as indicated by the results of a soil test.
e. Mix soil amendments into the top 3 to 5 inches of soil by disking or other suitable means. Rake lawn areas to smooth the surface, remove large objects like stones and branches, and ready the area for seed application. Loosen surface soil by dragging with a heavy chain or other equipment to roughen the surface where site conditions will not permit normal seedbed preparation. Track slopes 3:1 or flatter with tracked equipment leaving the soil in an irregular condition with ridges running parallel to the contour of the slope. Leave the top 1 to 3 inches of soil loose and friable. Seedbed loosening may be unnecessary on newly disturbed areas.

B. Topsoiling

- 1. Topsoil is placed over prepared subsoil prior to establishment of permanent vegetation. The purpose is to provide a suitable soil medium for vegetative growth. Soils of concern have low moisture content, low nutrient levels, low pH, materials toxic to plants, and/or unacceptable soil gradation.
2. Topsoil salvaged from an existing site may be used provided it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-NRCS.
3. Topsoiling is limited to areas having 2:1 or flatter slopes where:
a. The texture of the exposed subsoil/parent material is not adequate to produce vegetative growth.
b. The soil material is so shallow that the rooting zone is not deep enough to support plants or furnish continuing supplies of moisture and plant nutrients.
c. The original soil to be vegetated contains material toxic to plant growth.
d. The soil is so acidic that treatment with limestone is not feasible.
4. Areas having slopes steeper than 2:1 require special consideration and design.
5. Topsoil Specifications: Soil to be used as topsoil must meet the following criteria:
a. Topsoil must be a loam, sandy loam, clay loam, silt loam, sandy clay loam, or loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Topsoil must not be a mixture of contrasting textured subsoils and must contain less than 5 percent by volume of cinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1 1/2 inches in diameter.
b. Topsoil must be free of noxious plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
c. Topsoil substitutes or amendments, as recommended by a qualified agronomist or soil scientist and approved by the appropriate approval authority, may be used in lieu of natural topsoil.
6. Topsoil Application
a. Erosion and sediment control practices must be maintained when applying topsoil.
b. Uniformly distribute topsoil in a 5 to 8 inch layer and lightly compact to a minimum thickness of 4 inches. Spreading is to be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations must be corrected in order to prevent the formation of depressions or water pockets.
c. Topsoil must not be placed if the topsoil or subsoil is in a frozen or muddy condition, when the subsoil is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.

C. Soil Amendments (Fertilizer and Lime Specifications)

- 1. Soil tests must be performed to determine the exact ratios and application rates for both lime and fertilizer on sites having disturbed areas of 5 acres or more. Soil analysis may be performed by a recognized private or commercial laboratory. Soil samples taken for engineering purposes may also be used for chemical analysis.
2. Fertilizers must be uniform in composition, free flowing and suitable for accurate application by appropriate equipment. Manure may be substituted for fertilizer with prior approval from the appropriate approval authority. Fertilizers must all be delivered to the site fully labeled according to the applicable laws and must bear the name, trade name or trademark and warranty of the producer.
3. Lime materials must be ground limestone (hydrated or burnt lime) may be substituted except when hydroxylating which contains at least 50 percent total oxides (calcium oxide plus magnesium oxide). Limestone must be ground to such fineness that at least 50 percent will pass through a #100 mesh sieve and 98 to 100 percent will pass through a #20 mesh sieve.
4. Lime and fertilizer are to be evenly distributed and incorporated into the top 3 to 5 inches of soil by disking or other suitable means.
5. Where the subsoil is either highly acidic or composed of heavy clays, spread ground limestone at the rate of 4 to 8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil.

SEQUENCE OF CONSTRUCTION

- 1. Notify Howard County Department of Public Works, Construction Inspection Division, (410) 313-4400 at least 48 hours before starting work.
2. Contact Miss Utility at 1-800-257-7171 at least 3 days in advance of starting work shown on plans.
3. Clear and grub for sediment erosion control measures or devices only. (DURATION = 1 WEEK)
4. Install sediment and erosion control measures and devices, including:
a. Stabilized Construction Entrance
b. Super Silt Fence, Double rows of super silt fence shall be installed at the direction of the Sediment Control Inspector.
c. Immediately upon completion of installation, stabilize all disturbed areas with permanent seed and soil stabilization matting, seed 4 mulch or solid sodding. (DURATION = 1 WEEK)
5. With the approval from the Sediment Control Inspector, clear and grub remainder of site. Contractor shall make daily inspections and maintain all sediment control measures as required including but not limited to the removal of all accumulated sediment. (DURATION = 1 WEEK)
6. Begin site grading as shown on the Grading Plans and install level spreaders. Begin installing solar panel foundations, solar panels, electrical equipment, etc. Per daily stabilization note, install landscaping and vehicle turn around areas as shown on plans. (DURATION = 3 MONTHS)
7. Begin installing the perimeter security fence. Fence installation will need to be stabilized daily to ensure no sediment laden runoff drains off-site. (DURATION = 2 WEEKS)
8. Once all contributing drainage areas are completed and stabilized with established vegetation and with the approval of the Sediment Control Inspector, begin construction of stormwater management facilities including two bio-retention (P-6) facilities, per the approved Stormwater Management Plans. (DURATION = 2 WEEKS)
9. Once remaining areas are completed and stabilized with established vegetation and with approval of the Sediment Control Inspector, remove all remaining sediment control measures and stabilize those areas disturbed by this process. (DURATION = 1 WEEK)

This plan is approved for soil erosion and sediment control by the Howard Soil Conservation District.

Designed by: 3/11/2024
Alexander Bratkov
Howard Soil Conservation District Date

Design Certification:

I hereby certify that this plan has been designed in accordance with current Maryland erosion and sediment control laws, regulations, and standards, that it represents a practical and workable plan based on my personal knowledge of the site, and that it was prepared in accordance with the requirements of the Howard Soil Conservation District."

Signature: P. V. Mellits, PE
Date: 2/15/24
MD Registration No. 21875
Printed Name: PIERO PETER MELLITS, PE
(P.E.) R.L.S., or R.L.A. (circle one)

Owners/Developer Certification:

"I/we hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

Signature: Adam Farrington
Date: 2.16.24
Printed Name & Title: ADAM FARRINGTON, PROJECT MANAGER

DATUM:
HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

DATA SOURCE

- 1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

Table with columns: DATE, BY, REVISIONS

CENTURY ENGINEERING

16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

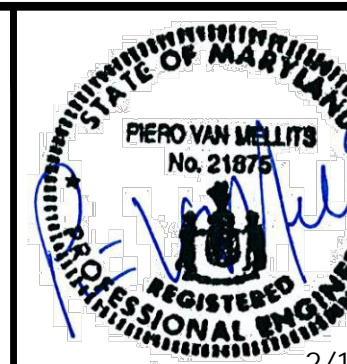
EROSION & SEDIMENT CONTROL NOTES

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE No.: 21875 EXPIRATION DATE: 2/12/2026



ENGINEER: CENTURY ENGINEERS, LLC
16901 MELFORD BLVD, SUITE 130
BOWIE, MD 20715
ATTN: PIERO PETER MELLITS, PE
PHONE: (443) 589-2402
EMAIL: pmellits@centuryeng.com

DRAWN BY: JLA REVIEW BY: PVM
DESIGN BY: JLA REVIEW DATE: 2-15-2024
SCALE: AS SHOWN DRAWING: 24 of 27

SDP-23-002 PROJECT No.: 211182.00

Piero Mellits

Digitally signed by Piero Mellits, DN: c=US, E=pmellits@centuryeng.com, OU=Century Engineering, CN=Piero Mellits, Date: 2024.02.20 10:50:11-0500

FOREST CONSERVATION WORKSHEET FOR: Chaberton Solar Lime Kiln

Table with 4 columns: Item, Description, Value, Unit. Rows include Net Tract Area (A-D) and Land Use Category (E-F).

Table with 4 columns: Item, Description, Value, Unit. Rows include Existing Forest Cover (G-I) and Break Even Point (J-K).

Table with 4 columns: Item, Description, Value, Unit. Rows include Proposed Forest Clearing (L-M) and Planting Requirements Inside Watershed (N-V).

Table with 4 columns: Item, Description, Value, Unit. Rows include Planting Requirements Outside Watershed (W-Z) and Total Planting (AA-DD).

Table with 4 columns: Item, Description, Value, Unit. Rows include Total Planting within Development Site Watershed (W-Z) and Total Aforestation Required (AA-DD).

Table with 4 columns: Item, Description, Value, Unit. Rows include Remaining Planting within Watershed for Reforestation Credit (Y-Z) and Reforestation for Clearing below the Reforestation Threshold (AA-DD).

Table with 4 columns: Item, Description, Value, Unit. Rows include Reforestation for Clearing below the Reforestation Threshold (AA-DD) and Total Aforestation and Reforestation Requirement (DD).

Table with 4 columns: Item, Description, Value, Unit. Rows include Total Aforestation and Reforestation Requirement (DD).

Date: Feb. 14, 2023

Table with 5 columns: Sheet, Gross Tract Area (ac), 100-Year Floodplain (ac), Net Tract Area (ac), Existing Forest Cover in Net Tract Area (ac), Forest Cover in Forest Conservation Easement (ac), Forest Cover Retained but Not in Forest Conservation Easement (ac).

TREE PRESERVATION AND RETENTION NOTES

- 1. All woodlands designated on this plan for preservation are the responsibility of the property owner... 2. Tree and woodland conservation methods such as root pruning shall be conducted as noted on this plan... 3. The location of all temporary tree protection fencing (TFPs) shown on this plan shall be flagged or staked in the field prior to the pre-construction meeting... 4. All temporary tree protection fencing required by this plan shall be installed prior to commencement of clearing and grading... 5. Woodland preservation areas shall be posted with signage as shown on the plans at the same time as the temporary TFP installation.

TABLE 2: SSURGO SOILS

Table with 6 columns: SOIL SYMBOL, SOIL UNIT NAME, PERCENT SLOPE, K VALUE, HYDRIC (Y/N), HYDRIC COMPONENTS. Lists soil types like Co*, GaC*, GgA, etc.

*Soils with a K value greater than 0.35 on slopes of 15% or more; or hydric soils

EXISTING LEGEND

- Site Property Boundary, Existing Minor Contour, Existing Major Contour, Existing Stream, Existing Stream Buffer, Existing Wetlands, Existing Wetlands Buffer, Existing Tree Line, Existing Drive, Existing Building, Existing Overhead Electric, Existing Buried Electric, Existing BGE Utility Pole, Existing Fence Line, Soil Line, Existing Sanitary Sewer, 15.0 - 24.9% Slope Areas, >25% Steep Slope Areas, Existing Forest Conservation Easement

PROPOSED LEGEND

- Conditional Use (CU) Area, Proposed Limit of Disturbance, Proposed Grades, Proposed Overhead Electric, Proposed Underground Electric, Proposed Utility Pole, Proposed Solar Panels, Proposed Fence, Proposed Concrete Pad, Proposed Gravel Drive, Proposed Stormwater Management Facility, Storm Drain, Riprap

CALL "MISS UTILITY" AT 1-800-257-7777 72 Hours Before Start of Construction

DATUM: HORIZONTAL DATUM: NAD 83 (2011) VERTICAL DATUM: NAVD 88

- DATA SOURCE: 1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records. 2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

Table with 3 columns: DATE, BY, REVISIONS

CENTURY ENGINEERING logo and address: 16901 Melford Boulevard, Ste 130, Bowie, MD 20715

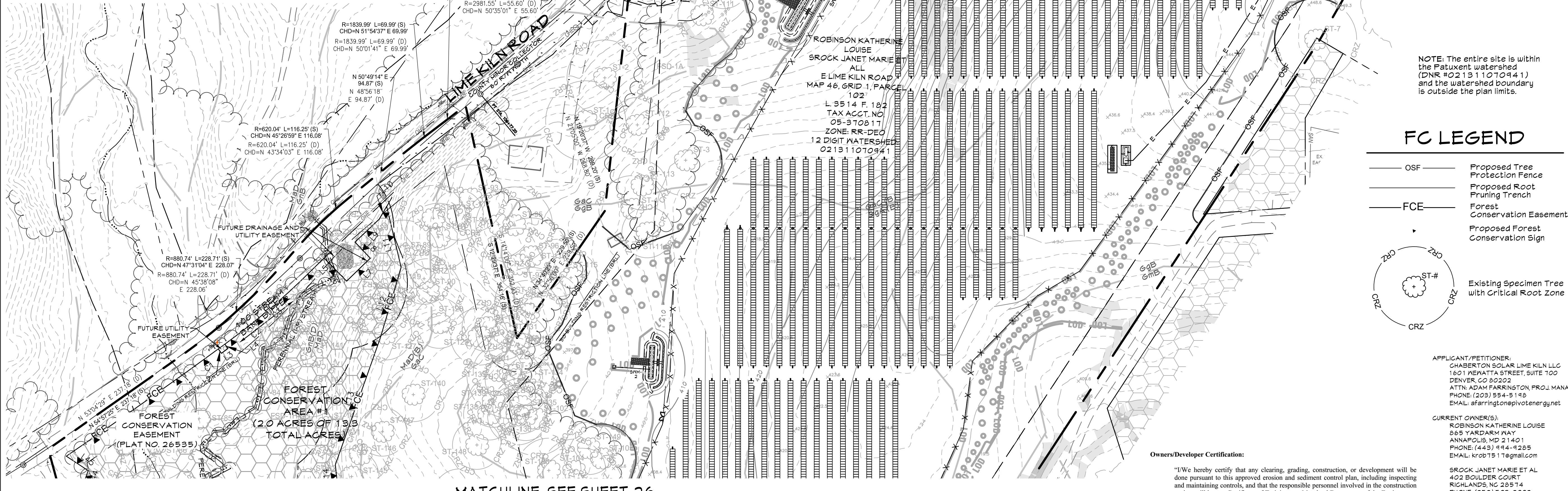
FOREST CONSERVATION PLAN - NORTH Chaberton Solar Lime Kiln 11959 Lime Kiln Road, Fulton, MD

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

DRAWN BY: CRS DESIGN BY: CRS SCALE: AS SHOWN PROJECT No.: 211182.00 REVIEW BY: MJP REVIEW DATE: 3/4/2024 DRAWING: 25 of 27

FC LEGEND

- OSF Proposed Tree Protection Fence, Proposed Root Pruning Trench, FCE Forest Conservation Easement, Proposed Forest Conservation Sign, Existing Specimen Tree with Critical Root Zone



MATCHLINE-SEE SHEET 26

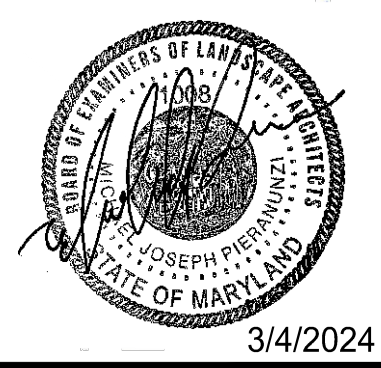
FOREST CONSERVATION PLAN SCALE: 1"=80'



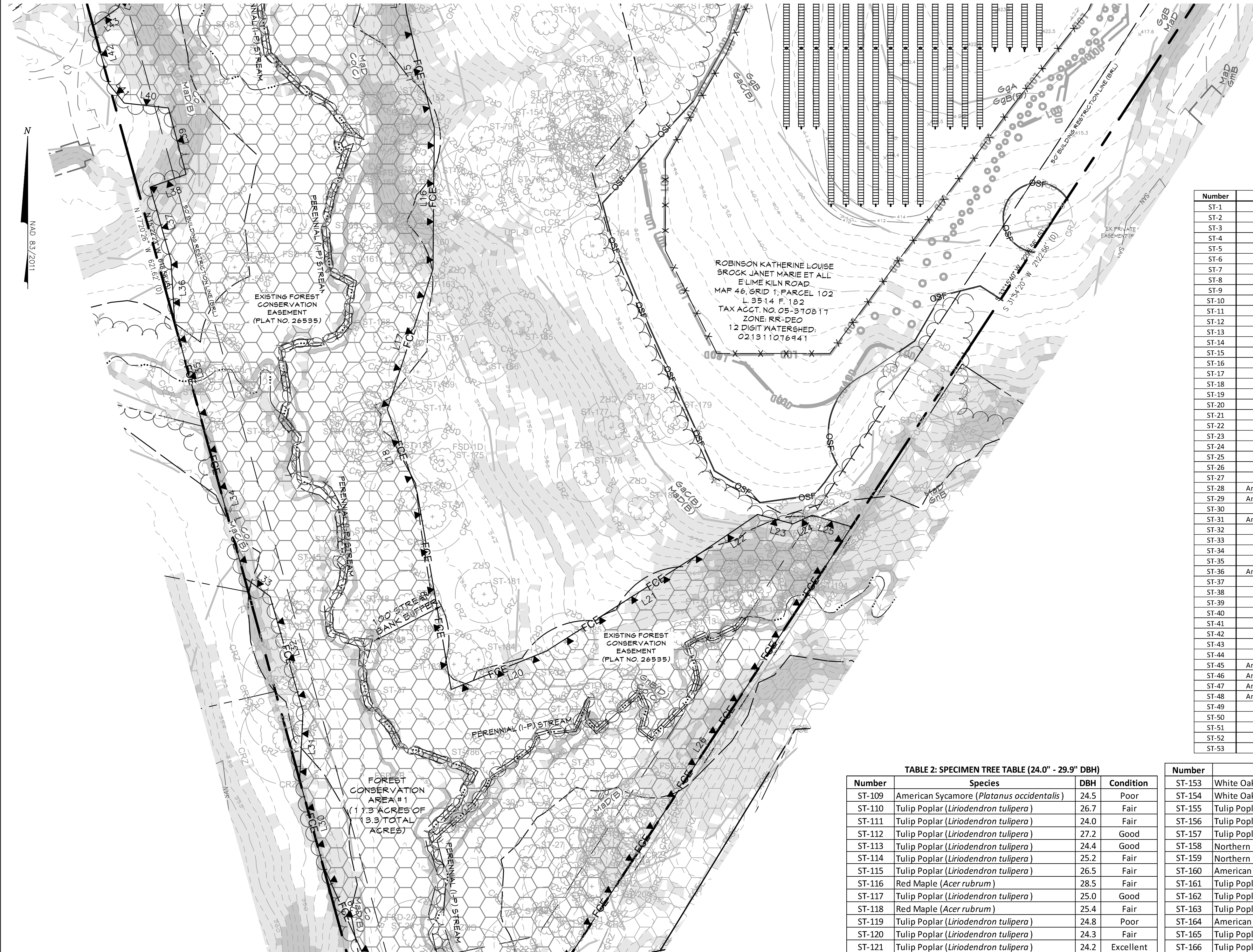
APPROVED: DEPARTMENT OF PLANNING AND ZONING 3/8/2024 Chief, Development and Planning Division Date 3/11/2024 Chief, Division of Planning and Development Date 3/11/2024 Director Date

Owners/Developer Certification: I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan... ADAM FARRINGTON, PROJECT MANAGER Printed Name & Title

APPLICANT/PETITIONER: CHABERTON SOLAR LIME KILN LLC 1601 NEWATTA STREET, SUITE 100 DENVER, CO 80202 ATTN: ADAM FARRINGTON, PROJ. MANAGER PHONE: (203) 554-5118 EMAIL: afarrington@pivotenergy.net



MATCHLINE-SEE SHEET 25



FOREST CONSERVATION LEGEND

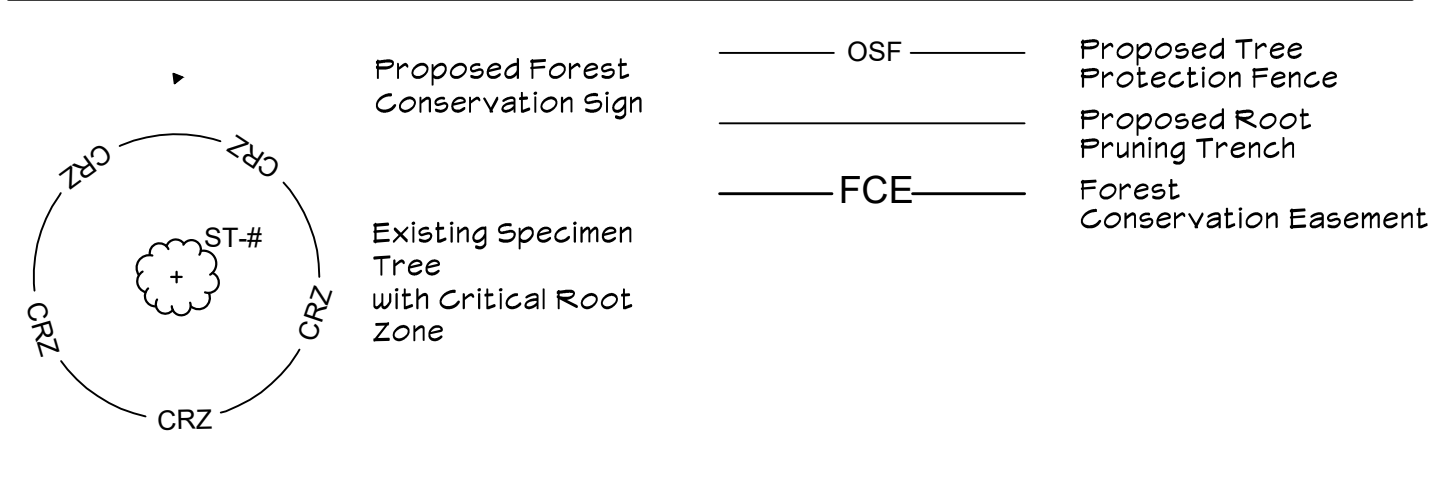


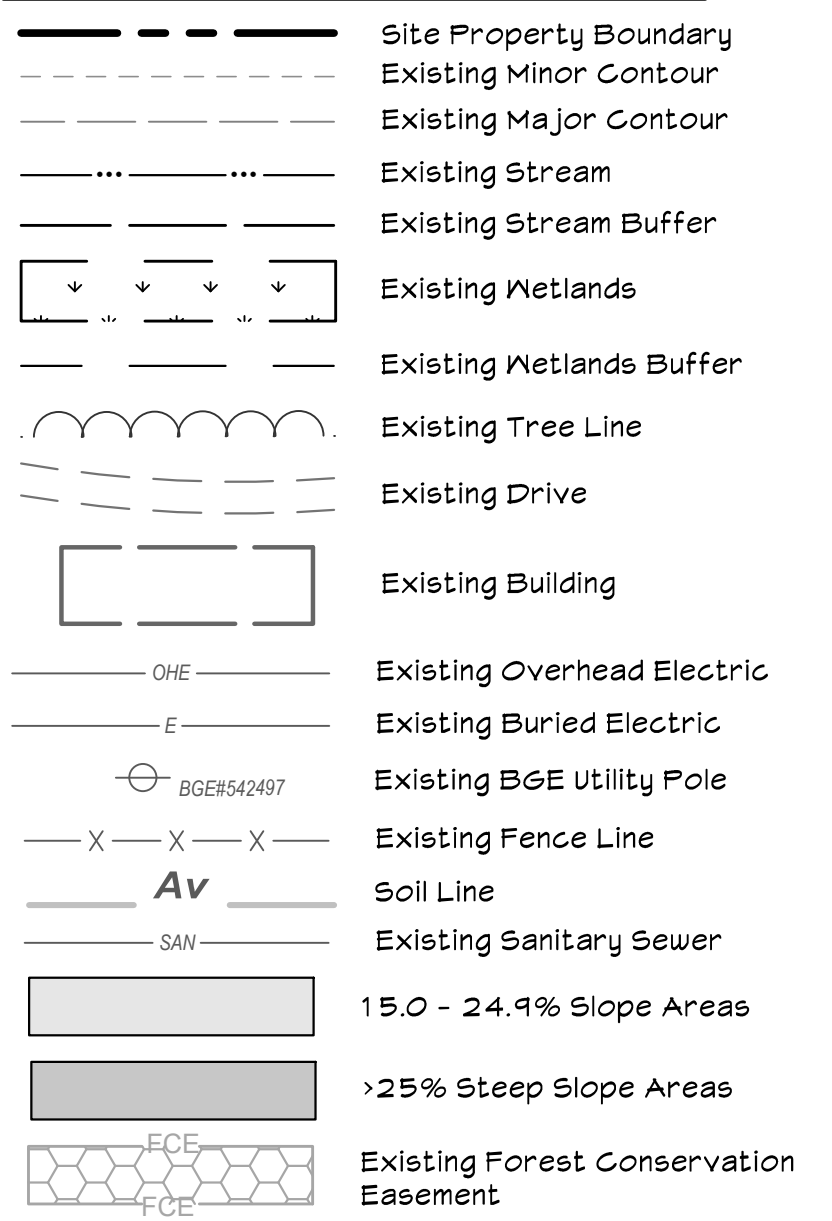
TABLE 1: SPECIMEN TREE TABLE (>=30")

Table with 4 columns: Number, Species, DBH, Condition. Lists specimen trees such as Tulip tree (Liriodendron tulipifera), American sycamore (Platanus occidentalis), and Northern red oak (Quercus rubra) with their respective measurements and health status.

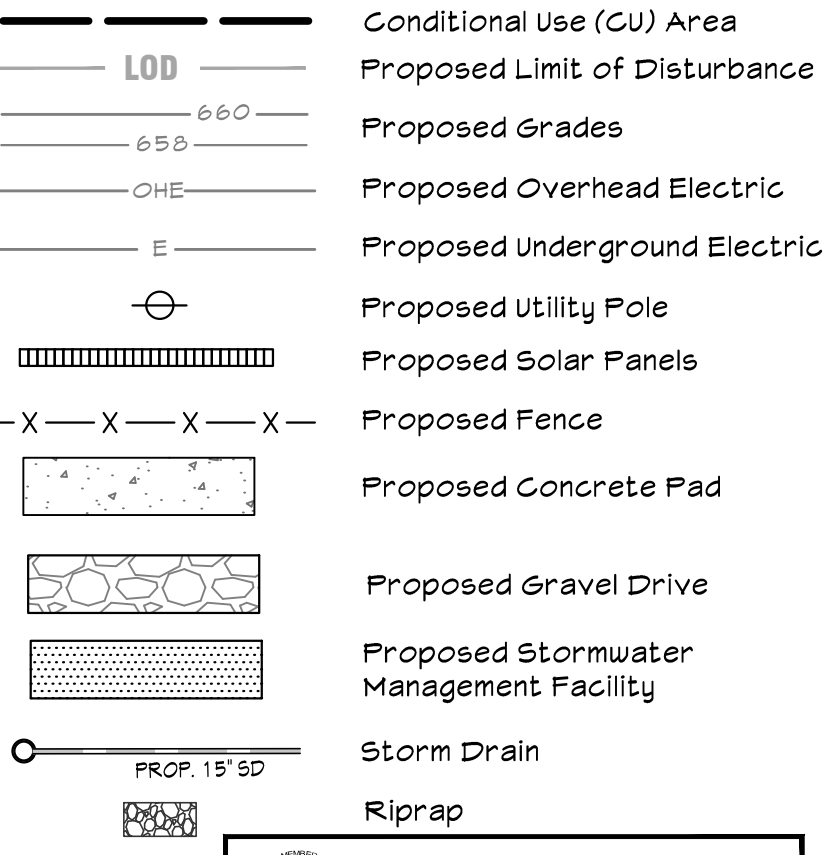
TABLE 2: SPECIMEN TREE TABLE (24.0' - 29.9' DBH)

Table with 4 columns: Number, Species, DBH, Condition. Lists specimen trees with DBH between 24.0' and 29.9', including White Oak (Quercus alba) and Tulip Poplar (Liriodendron tulipifera).

EXISTING LEGEND



PROPOSED LEGEND



DATUM: HORIZONTAL DATUM: NAD 83 (2011) VERTICAL DATUM: NAVD 88

- 1. Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records. 2. Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

Table with 3 columns: DATE, BY, REVISIONS. Shows revision history for the plan.

CENTURY ENGINEERING logo and contact information: 16901 Melford Boulevard, Ste 130, Bowie, MD 20715. Phone: 443.589.2400. Fax: 443.589.2401. www.centuryeng.com

FOREST CONSERVATION PLAN - SOUTH Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD Howard County, Maryland Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5 ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE No.: 1008 EXPIRATION DATE: 05/20/2024 3/4/2024

DRAWN BY: CRS REVIEW BY: MJP DESIGN BY: CRS REVIEW DATE: 3/4/2024 SCALE: AS SHOWN DRAWING: 26 of 27 PROJECT No.: 211182.00

FOREST CONSERVATION PLAN

SCALE: 1"=80'



Table with 5 columns: GROSS TRACT AREA (ac), 100-YEAR FLOODPLAIN (ac), NET TRACT AREA (ac), FOREST COVER IN NET TRACT AREA (ac), FOREST COVER IN FOREST CONSERVATION EASEMENT (ac), FOREST COVER RETAINED BUT NOT IN FOREST CONSERVATION EASEMENT (ac). Values: 25.3, 0.0, 25.3, 17.2, 11.3, 6.0.

APPROVED: DEPARTMENT OF PLANNING AND ZONING. Chief, Development Planning Division: 3/8/2024. Chief, Development: 3/11/2024. Director: 3/11/2024.

FOREST CONSERVATION EASEMENT LINE TABLE

Table with 6 columns: LINE, BEARING, DISTANCE, LINE, BEARING, DISTANCE. Lists boundary lines for the forest conservation easement.

Table with 7 columns: CURVE, RADIUS, ARC LENGTH, CHORD LENGTH, CHORD BEARING, DELTA ANGLE, TANGENT. Lists curve data for the easement boundary.

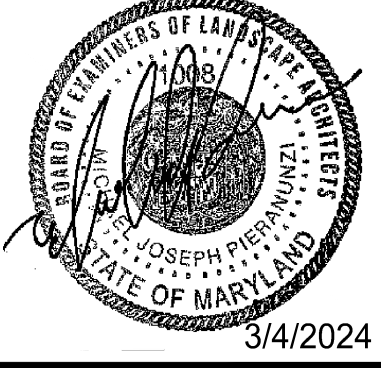
Maryland State Champion Trees dbh: Acer rubrum (Red Maple): 86.90' dbh Garya glabra (Pignut Hickory): 47.43' dbh Juglans nigra (Black Walnut): 74.48' dbh Liriodendron tulipifera (Tulip Tree): 97.08' dbh Platanus occidentalis (American Sycamore): 103.77' dbh Prunus serotina (Black Cherry): 63.98' dbh Quercus alba (White Oak): 88.81' dbh Quercus rubra (Northern Red Oak): 91.94' dbh

APPLICANT/PETITIONER: CHABERTON SOLAR LIME KILN LLC 1601 KEWATTA STREET, SUITE 100 DENVER, CO 80202 ATTN: ADAM FARRINGTON PROJ. MANAGER PHONE: (203) 554-5198 EMAIL: afarrington@pivotenergy.net

CURRENT OWNER(S): ROBINSON KATHERINE LOUISE 865 YARDARM WAY ANNAPOLIS, MD 21401 PHONE: (443) 944-9285 EMAIL: krob151@gmail.com

ENGINEER: CENTURY ENGINEERING, LLC 16901 MELFORD BLVD, SUITE 130 BOWIE, MD 20715 ATTN: PIERO PETER MELLITS, PE PHONE: (443) 589-2400 EMAIL: pmellits@centuryeng.com

Owners/Developer Certification: I/We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE.



TREE PRESERVATION SPECIFICATIONS

TREE PROTECTION ZONE

The Contractor shall provide and install tree protection fencing to protect all existing trees that are to be preserved. The tree protection fencing shall be placed as indicated on Sheet 1 of this Tree Conservation Plan so that the Critical Root Zone (CRZ) within the Tree Protection Zone (TPZ) of the trees to remain shall be guarded to ensure future tree health and stability. The final TPZ shall be set as part of the review process and preconstruction meeting. The Contractor shall install all tree protection fencing before site clearing or construction activities begin.

The Contractor shall not disturb the soil within the TPZ and shall maintain the natural grade within the TPZ. Surface drainage shall not be altered so as to direct water into or out of the TPZ. Construction trailers, traffic, and storage areas shall remain outside fenced areas at all times. No materials, equipment, spoil, or waste/washout water shall be deposited, stored, or parked within the fenced tree protection zone. Spoil from grading shall not be placed within the tree protection zone.

If excavation must occur within the TPZ to meet the project scope, a Maryland Licensed Tree Expert or an International Society of Arboriculture Certified Arborist (ISA-CA) hired by the Contractor shall determine where tunneling, hand work, and root pruning are required. The Contractor shall complete all required root pruning before grading begins (see Root Pruning Specifications on this sheet). Utilities that must pass through the TPZ to meet project scope shall tunnel under the roots if possible. If tunneling is not possible, the Contractor shall, within the TPZ, dig the trench by hand, bridging roots greater than one inch in diameter. Soil removed from the trenches within the TPZ shall be placed on the side of the trench away from the tree(s) and replaced as soon as possible. Utility junction boxes, splice boxes, and manholes shall not be placed within the TPZ. If the Contractor must replace existing pavement within the TPZ to meet the project scope, then the Contractor shall replace the pavement in a manner that will limit root damage to the trees that are to remain. Pavement shall only be cut to its depth.

ADDITIONAL TREE PRESERVATION NOTES

The Contractor shall accomplish the following work before any demolition or site clearing activity occurs within 100 feet of the trees to be preserved:

- The limits of all tree protection zones shall be staked in the field at the preconstruction meeting and flagged prior to trenching.
- Structures and underground features to be removed within the tree protection zone shall use the smallest equipment possible, and operate from outside the tree protection zone.
- Additional tree pruning required for clearance during construction shall be performed by an ISA certified arborist/Maryland Licensed Tree Expert and not by construction personnel. All trees shall be pruned in accordance with the provided Tree Pruning Specifications (see below).
- Any root damage during demolition, grading, or construction shall be exposed to sound tissue and cut cleanly with a saw.
- The Contractor shall maintain fire-safe areas around fenced areas. The Contractor shall insure that no heat sources, flames, ignition sources, or smoking is allowed near mulch or trees.

TREE PROTECTION FENCE SPECIFICATIONS

The Contractor shall use a minimum four-foot tall welded wire fencing securely anchored into the ground with eight (8) foot minimum metal "T" fence posts driven a minimum of three (3) feet into the ground. The Contractor shall space the fence posts a maximum of ten (10) feet on-center. Fencing shall be secured to the fence posts and flagged. All sections of tree protection fencing should be clearly marked with signs stating that the area within is a Tree Protection Zone and that grading, excavation, equipment parking, storage of materials, and all other activities that would disturb or compact the soil is strictly prohibited in this area. The signage should be in English and Spanish and clearly state any consequences that are associated with violations. Fencing shall meet or exceed local ordinances.

ROOT PRUNING SPECIFICATIONS

Before demolition, trees that require root pruning (as indicated on Sheet 1) shall be pruned by an ISA certified arborist one (1) foot outside the tree protection zone by cutting all roots cleanly to a depth of 18 inches. The trench shall be a maximum of six (6) inches wide. Roots shall be cut by manually digging a trench and cutting exposed roots with a saw, vibrating knife, rock saw, or other approved root-pruning equipment. Soil removed from the trenches shall be placed on the side of the trench away from the tree(s) and replaced as soon as possible. The Contractor shall cover the back-filled trenches with 3" of mulch.

The trench shall be erected in line with the tree protection fence. The exact location of the trench shall be determined in the field in coordination with the Forest Conservation (FC) Inspector.

TREE STRESS REDUCTION TECHNIQUES SPECIFICATIONS

TREE CROWN REDUCTION AND/OR PRUNING SPECIFICATIONS

If the County Inspector requires crown reduction and/or pruning, the Contractor shall comply with the following specifications:

- A Maryland Licensed Tree Expert shall provide crown reduction and pruning. The arborist or tree worker shall provide proof of workers compensation and general liability insurance.
- The Tree Expert shall prune in accordance with the *Tree Pruning Guidelines* (International Society of Arboriculture) and/or the ANSI A300 Pruning Standards (American National Standard for Tree Care Operations) and adhere to the most recent edition of ANSI Z133.1.
- The Tree Expert shall prune all protected trees to:
 - clear the crown of diseased, crossing, weak, and dead wood to a minimum size of 1 1/2 inches diameter;
 - provide eight (8) feet of clearance over walkways and courtyards;
 - remove stubs, cutting outside the woundwood tissue that has formed around the branch;
 - reduce end weight on heavy, horizontal branches by selectively removing small diameter branches, no greater than two to three inches (2-3") near the ends of the scaffolds; and
 - preserve the natural character of the tree.
- The Tree Expert shall not perform pruning during periods of flight of adult boring insects because fresh wounds attracts pests. Prune only when the danger of infestation is past.
- The Tree Expert shall avoid pruning cuts larger than four inches (4") except for dead wood.
- Whenever possible, the Tree Expert shall avoid pruning cuts that exposes heartwood.
- The Tree Expert shall remove no more than twenty percent (20%) of the live foliage within the tree(s).
- The Tree Expert shall not remove the central leader/
- The Tree Expert shall not strip out interior branches.
- The Tree Expert shall tie back branches where temporary clearance is required for demolition, grading, and construction access to hold them out of the clearance zone.
- While in the tree, the arborist shall perform an aerial inspection to identify defects that require treatment. Any additional work needed shall be reported to the owner.

WATERING SPECIFICATIONS

If the County Inspector requires watering of the tree(s) to remain, the Contractor shall comply with the following specifications:

- The Contractor shall water the trees to remain during times of low rainfall (less than 1" of rain per 14 day period) twice per six day period at four hours per event.
- The Contractor shall water the entire critical root zone of the tree(s) with the prescription.

FERTILIZATION SPECIFICATIONS

If the County Inspector requires fertilization of the tree(s) to remain, the Contractor shall comply with the following specifications:

- The Contractor shall use a slow release fertilizer at a rate of no less than 1 lb. of N/1000² and no more than 1.5 lb. of N/1000².
- The Owner shall provide proof to the County Inspector of the rates of nitrogen installed if fertilization is not done by a Maryland Licensed Tree Expert.

SOIL COMPACTION MITIGATION SPECIFICATIONS

If the County Inspector requires soil compaction mitigation, the Contractor shall comply with the following specifications:

- If **vertical mulching** is used the Contractor shall drill holes 2 - 2 1/2 inches in diameter and 12 to 18 inches deep into the compacted soil. The holes shall encompass the critical root zones of the affected tree(s) and spaced two (2) feet apart in a grid pattern. The Contractor shall fill the holes with a porous material mixture such as leaf mulch, perlite, pea gravel, or vermiculite.
- If **radial mulching/trenching** is used the Contractor shall make radial trenches in a spoke pattern around the tree. The trenches shall have soil replacement done by using a mixture of topsoil, organic mixes, leaf mulch, or vermiculite. The trenches shall start at least four feet from the base of the tree, extend out at least 10 feet but no closer than five (5) feet from each other.
- If an **air spade** is used the Contractor shall remove the compacted soil and immediately replace the soil removed with a highly organic soil mix.

PEST AND PATHOGEN CONTROL SPECIFICATIONS

- The Contractor shall treat any affected trees that experience an insect or disease infestation during the construction phase of this project to control and/or eliminate the infestation at the property owner's expense.
- A Licensed Tree Expert and a Certified Pesticide Applicator with the State of Maryland shall carry out the treatment.

Appendix E
EXAMPLE DETAILS AND SPECIFICATIONS

Figure E-1: Construction Signs

February 2021 139

Appendix E
EXAMPLE DETAILS AND SPECIFICATIONS

Figure E-2: Forest Conservation Easement Signs (continued)

February 2021 141

Howard County, MD
FOREST CONSERVATION MANUAL

Figure E-2: Forest Conservation Easement Signs

February 2021 140

T:\2021\Facilities\2.11182.00 Proj\sect_Lime Kiln Solar_Site\CIVIL\CADD\Drawings\SDP\2.11182.00 (SDP-27) Forest Conservation Details.dwg Feb 15, 2024 1:06pm_janderson

APPROVED BY DEPARTMENT OF PLANNING AND ZONING	
<i>(Signature)</i>	3/8/2024
Chief, Development and Planning Division	Date
<i>(Signature)</i>	3/11/2024
Chief, Division of Land Development	Date
<i>(Signature)</i>	3/11/2024
Director	Date

Owners/Developer Certification:

"We hereby certify that any clearing, grading, construction, or development will be done pursuant to this approved erosion and sediment control plan, including inspecting and maintaining controls, and that the responsible personnel involved in the construction project will have a Certificate of Training at a Maryland Department of the Environment (MDE) approved training program for the control on erosion and sediment prior to beginning the project. I certify right-of-entry for periodic on-site evaluation by Howard County, the Howard Soil Conservation District and/or MDE."

(Signature)
Owner or Developer's Signature

2.16.24
Date

ADAM FARRINGTON, PROJECT MANAGER
Printed Name & Title

Piero Mellits

SDP-23-002

DATUM:

HORIZONTAL DATUM: NAD 83 (2011)
VERTICAL DATUM: NAVD 88

DATA SOURCE

- Existing topography provided from aerial survey by McKenzie Snyder, Inc and field run survey by Century Engineering (dated April, 2022) and supplemented with best available Howard County GIS records.
- Contractor is responsible for verifying and test-pitting to confirm existing utility locations.

DATE	BY	REVISIONS



16901 Melford Boulevard, Ste 130, Bowie, MD 20715
Phone: 443.589.2400 Fax: 443.589.2401
www.centuryeng.com

FOREST CONSERVATION DETAILS

Chaberton Solar Lime Kiln

11959 Lime Kiln Road, Fulton, MD
Howard County, Maryland
Zone RR-DEO, Tax Map 46, Parcel 102, Election District 5
ECP-22-058 / SDP-23-002

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED LANDSCAPE ARCHITECT UNDER THE LAWS OF THE STATE OF MARYLAND.

LICENSE No.: 1008
EXPIRATION DATE: 05/20/2024

2/15/2024

DRAWN BY: CRS REVIEW BY: MJP
DESIGN BY: CRS REVIEW DATE: 2/15/2024

SCALE: AS SHOWN DRAWING: 27 of 27
PROJECT No.: 211182.00

