

GENERAL NOTES

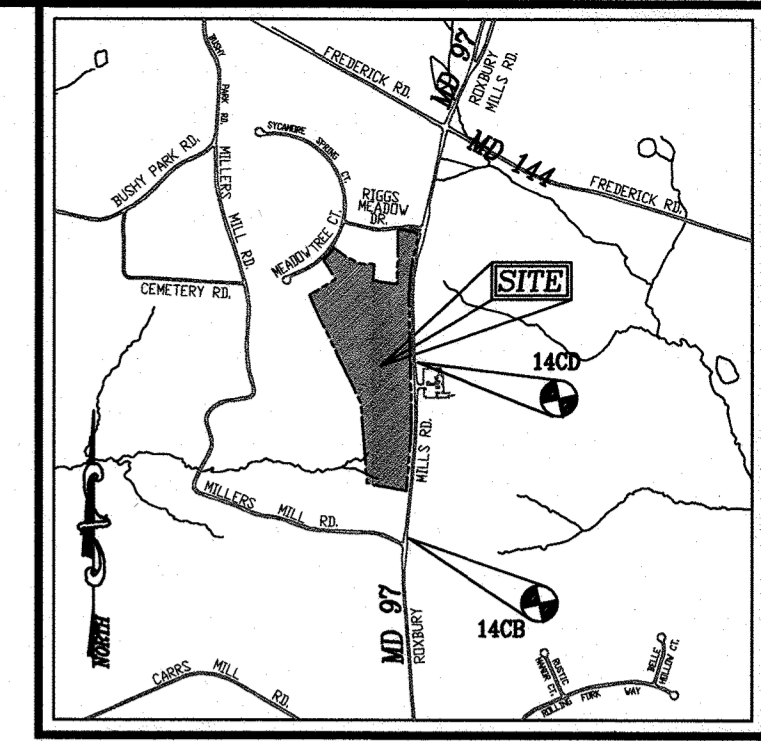
- THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
- THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON AN ALTA SURVEY PERFORMED BY CENTURY ENGINEERING ON FEBRUARY 2021 AND OFFSITE TOPOGRAPHY IS FROM HOWARD COUNTY, MD GIS.
- BEARINGS AND DISTANCES SHOWN HEREON WERE ACQUIRED FROM AN ALTA SURVEY PERFORMED BY CENTURY ENGINEERING ON FEBRUARY 2021.
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL WHICH IS BASED UPON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENT NOS. 14CD AND 14CB WERE USED FOR THIS PROJECT.
- THE SUBJECT PROPERTY IS ZONED "RC-DEO" IN ACCORDANCE WITH THE 10/6/13 ZONING REGULATIONS, AND IS SUBJECT TO THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS EFFECTIVE 10/2/03 PER COUNCIL BILL 75-2003.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE WETLANDS, STREAM(S) OR THEIR REQUIRED BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100-YEAR FLOODPLAIN.
- THERE IS NO 100 YEAR FLOODPLAIN LOCATED ON-SITE.
- STEEP SLOPES ARE NOT LOCATED ON-SITE.
- FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH THE FUTURE SITE DEVELOPMENT PLAN.
- WETLANDS AND THEIR BUFFERS SHOWN ON-SITE ARE BASED ON THE ENVIRONMENTAL REPORT BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED OCTOBER 20, 2021.
- A STREAM AND ITS BUFFER SHOWN ON-SITE ARE BASED ON THE ENVIRONMENTAL REPORT BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED OCTOBER 20, 2021.
- GEOLOGICAL INVESTIGATIONS SHALL BE COMPLETED AND SUBMITTED WITH THE SITE DEVELOPMENT PLANS.
- A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
- ROXBURY MILLS ROAD (MD 97) IS CLASSIFIED AS A MINOR ARTERIAL ROAD. MEADOW TREE COURT AND RIGGS MEADOW DRIVE ARE CLASSIFIED AS PUBLIC ROADS.
- MILLERS MILL ROAD IS LOCATED 534'± SOUTH OF THE SUBJECT PROPERTY AND IS CONSIDERED A SCENIC ROAD.
- THERE IS A HISTORIC STRUCTURE (POWELL LOG CABIN) SOUTH OF THE PROPERTY. THE HOWARD COUNTY HISTORIC SITE INVENTORY NUMBER IS HQ CO-102.
- STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF NON-STRUCTURAL PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. THESE PRACTICES INCLUDE NON-ROOF TOP DISCONNECTION (N-2), AND LEVEL SPREADER. THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PLAN. REVIEW OF THIS PROJECT FOR COMPLIANCE WITH THE HOWARD COUNTY SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AND THE HOWARD COUNTY ZONING REGULATIONS SHALL OCCUR AT THE SUBDIVISION PLAN/PLAT AND/OR SITE DEVELOPMENT PLAN AND/OR RED-LINE REVISION PROCESS. THE APPLICANT AND CONSULTANT SHOULD EXPECT ADDITIONAL AND MORE DETAILED REVIEW COMMENTS (INCLUDING COMMENTS THAT MAY ALTER THE OVERALL SITE DESIGN) AS THIS PROJECT PROGRESSES THROUGH THE PLAN REVIEW PROCESS.
- APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING AND ADDRESS THE PROJECT TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
- ISOLATED, SURFACE SMOOTHING AND/OR FINE GRADING MAY BE REQUIRED TO SUPPORT SOLAR EQUIPMENT INSTALLATION. HOWEVER, NO MASS GRADING WILL BE REQUIRED. ISOLATED FINE GRADES WILL BE PROVIDED WITH SITE DEVELOPMENT PLAN SUBMISSION, AS REQUIRED.
- THERE IS AN EXISTING STRUCTURE LOCATED ON THE PROPERTY, WHICH IS TO REMAIN.
- UPON DECOMMISSIONING OF THE SOLAR FACILITY THE PETITIONER/OPERATOR WILL REMOVE LANDSCAPING AND STORMWATER MANAGEMENT PRACTICES AND RESTORE ACCORDINGLY (AT THE REQUEST OF THE PROPERTY OWNER).
- ALL ACCESS DRIVES FROM THE PUBLIC ROAD TO THE EQUIPMENT PAD TO BE 12' MINIMUM WIDTH AND CAPABLE OF SUPPORTING FIRE DEPARTMENT VEHICLES.
- CONDITIONAL USE APPROVAL IS REQUIRED TO PERMIT A COMMERCIAL GROUND-MOUNT SOLAR COLLECTOR FACILITY. THE CONDITIONAL USE MUST BE APPROVED PRIOR TO SUBMISSION OF THE SITE DEVELOPMENT PLAN.

ENVIRONMENTAL CONCEPT PLAN

INDIAN ONE SOLAR

RIGGS MEADOW, PRESERVATION PARCEL 'B'

COOKSVILLE, MARYLAND 21723



VICINITY MAP
SCALE: 1"=2000'
ADC MAP COORDINATES: PAGE 17 / GRID A1

- LEGENDS:**
- PARCEL BOUNDARY
 - ADJACENT BOUNDARY
 - 50' SOLAR SETBACK
 - BUILDING RESTRICTION LINE

BENCHMARKS

HOWARD COUNTY BENCHMARK 14CD	N 599,903.908	E 1,306,524.309	ELEV.: 602.39'
HOWARD COUNTY MONUMENT			
HOWARD COUNTY BENCHMARK 14CB	N 598,079.749	E 1,306,428.279	ELEV.: 590.99'
HOWARD COUNTY MONUMENT			

SHEET INDEX

DESCRIPTION	SHEET NO.
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ENVIRONMENTAL SITE DESIGN NARRATIVE:

- THERE ARE ENVIRONMENTAL FEATURES LOCATED ON THE WESTERN AND SOUTHERN PARTS OF THE SITE. TREE BUFFERS ARE PRESENT AROUND THE PERIMETER OF THE SOUTHERN PORTION OF THE PROJECT AREA. WETLAND VEGETATION, AND A STREAM BUFFER IS PRESENT ALONG THE SOUTHERN PORTION OF THE PROJECT AREA BETWEEN THE TWO PROPOSED SOLAR ARRAY AREAS. THERE IS A FOREST LOCATED AT THE SOUTHWESTERN CORNER OF THE PROPERTY AND A TRIBUTARY STREAM RUNNING FROM EAST TO WEST THROUGH THE SOUTHERN PART OF THE PROPERTY. THERE IS NO PROPOSED DISTURBANCE TO THE WETLAND OR THE WETLAND BUFFER.
- THE SITE NATURALLY HAS TWO DRAINAGE AREAS. THE NORTHERN DRAINAGE AREA SLOPES FROM THE NORTH TO SOUTH AND WEST TO EAST BY SHEET FLOW, AND NATURAL SWALE. THE SOUTHERN DRAINAGE AREA SLOPES FROM NORTH TO SOUTH AND WEST TO EAST BY SHEET FLOW. NATURAL SWALE AND STREAM. THE SITE HAS FACILITY DESIGNED TO MAINTAIN THE NATURAL DRAINAGE PATTERNS, WITH NO CHANGES TO THE NATURAL DRAINAGE PATTERN.
- THE CONCEPTUAL REDUCTION IN IMPERVIOUS AREA THROUGH BETTER SITE DESIGN IS ACHIEVED THROUGH THE ENVIRONMENTAL SITE DESIGN (ESD) FOR THE PROJECT TO THE MAXIMUM EXTENT PRACTICABLE (MEP). THE RESULTS OF THE ENVIRONMENTAL SITE DESIGN FOR THIS PROJECT WILL REFLECT "WOODS IN GOOD CONDITION". THE ESD CONCEPT INCLUDES THE USE OF NON-ROOF TOP DISCONNECTION (N-2), AND LEVEL SPREADER.
- SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF A PROPOSED SILT FENCE PERIMETER CONTROLS. SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH CURRENT REQUIREMENTS AND SHALL BE APPROVED BY THE HOWARD SOIL CONSERVATION DISTRICT DURING THE FUTURE SITE DEVELOPMENT PLAN PHASE OF THE PROJECT.
- STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF NON-ROOF TOP DISCONNECTION (N-2), AND LEVEL SPREADER. PROPOSED PRACTICES HAVE BEEN MAXIMIZED TO THE EXTENT PRACTICAL. THE CALCULATED RAINFALL TARGET (PE) FOR THIS PROJECT IS 1.0", AND THE TOTAL RUNOFF VOLUME (ESD_v) REQUIRED IS 2,119 CF. THE CALCULATED RAINFALL PROVIDED (PE) FOR THIS PROJECT IS 1.0", AND THE TOTAL RUNOFF VOLUME (ESD_v) PROVIDED IS 2,157 CF.
- AT THIS CONCEPT STAGE OF DEVELOPMENT, NO DESIGN MANUAL WAIVERS ARE ANTICIPATED.

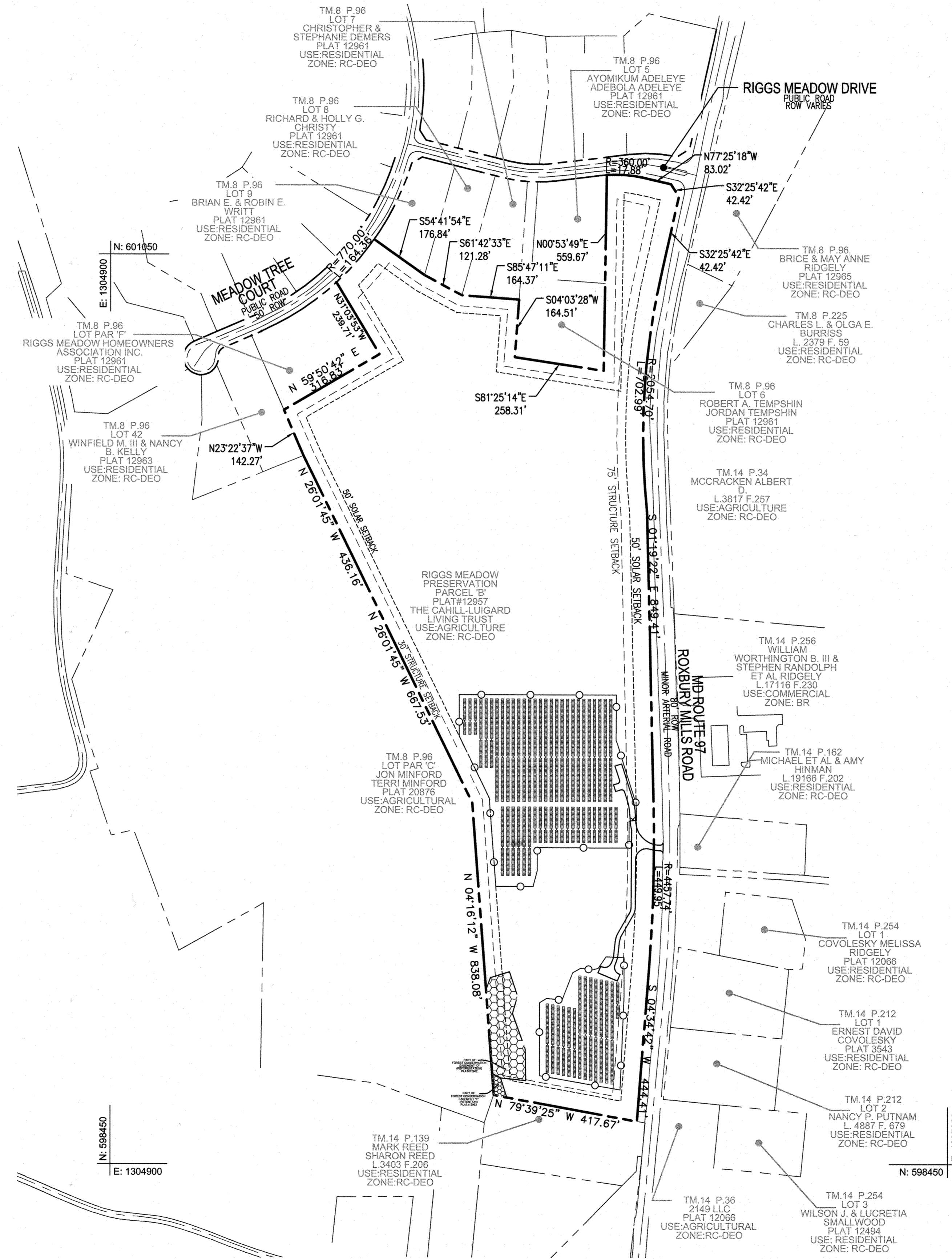
SITE ANALYSIS DATA CHART

A. TOTAL SITE AREA:	37.05 AC.
B. AREA OF PLAN SUBMISSION:	6.71 AC. (LOD & SOLAR AREA)
C. AREA OF WETLANDS AND BUFFERS:	120,071 SF OR 2.76 AC.
D. AREA OF FLOODPLAIN:	0.00 SF OR 0.00 AC.
E. AREA OF 100' STREAM BUFFER:	91,884 SF OR 2.11 AC.
F. AREA OF FOREST:	28,724± SF OR 0.66± AC.
G. AREA OF MODERATE SLOPES (15%-24.99%):	39,248 SF OR 0.90 AC.±
H. AREA OF STEEP SLOPES (25% & GREATER):	0.00 SF OR 0.00 AC.±
I. ERODIBLE SOILS:	1,613,898 SF OR 37.05 AC.±
J. LIMIT OF DISTURBED AREA:	292,456 SF OR 6.71 AC.±
K. PROPOSED USES FOR SITE AND STRUCTURES:	0.00 SF OR 0.00 AC.±
L. GREEN OPEN AREA:	6.43 AC.± (WITHIN LOD & SOLAR AREA)
M. PROPOSED IMPERVIOUS AREA:	0.28 AC.± (WITHIN LOD & SOLAR AREA)
N. PRESENT ZONING DESIGNATION:	RC-DEO
O. OPEN SPACE REQUIRED:	N/A
P. DPZ FILE REFERENCES:	F-97-040, F-97-041

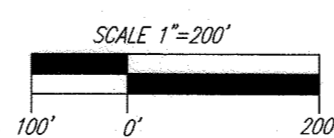
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 3-18-22 DATE

 CHIEF, DIVISION OF LAND DEVELOPMENT 2/17/22 DATE



LOCATION MAP
SCALE: 1"=200'



DEVELOPER
INDIAN ONE, LLC
6865 DEERPATH ROAD
SUITE 330
ELK RIDGE, MD 21075
PHONE: 410-709-4987

OWNER
THE CAHILL-LUGARD LIVING TRUST
11 MIDHURST ROAD
SILVER SPRING, MD 20910

NO.	REVISION	DATE

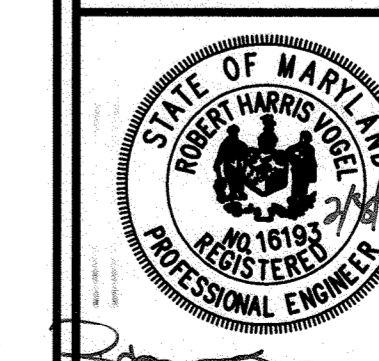
ENVIRONMENTAL CONCEPT PLAN
COVER SHEET

INDIAN ONE SOLAR
RIGGS MEADOW, PRESERVATION PARCEL 'B'
PLAT # 12957

TAX MAP & BLOCK 22, 4TH ELECTION DISTRICT ZONED RC-DEO PARCEL 9B
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

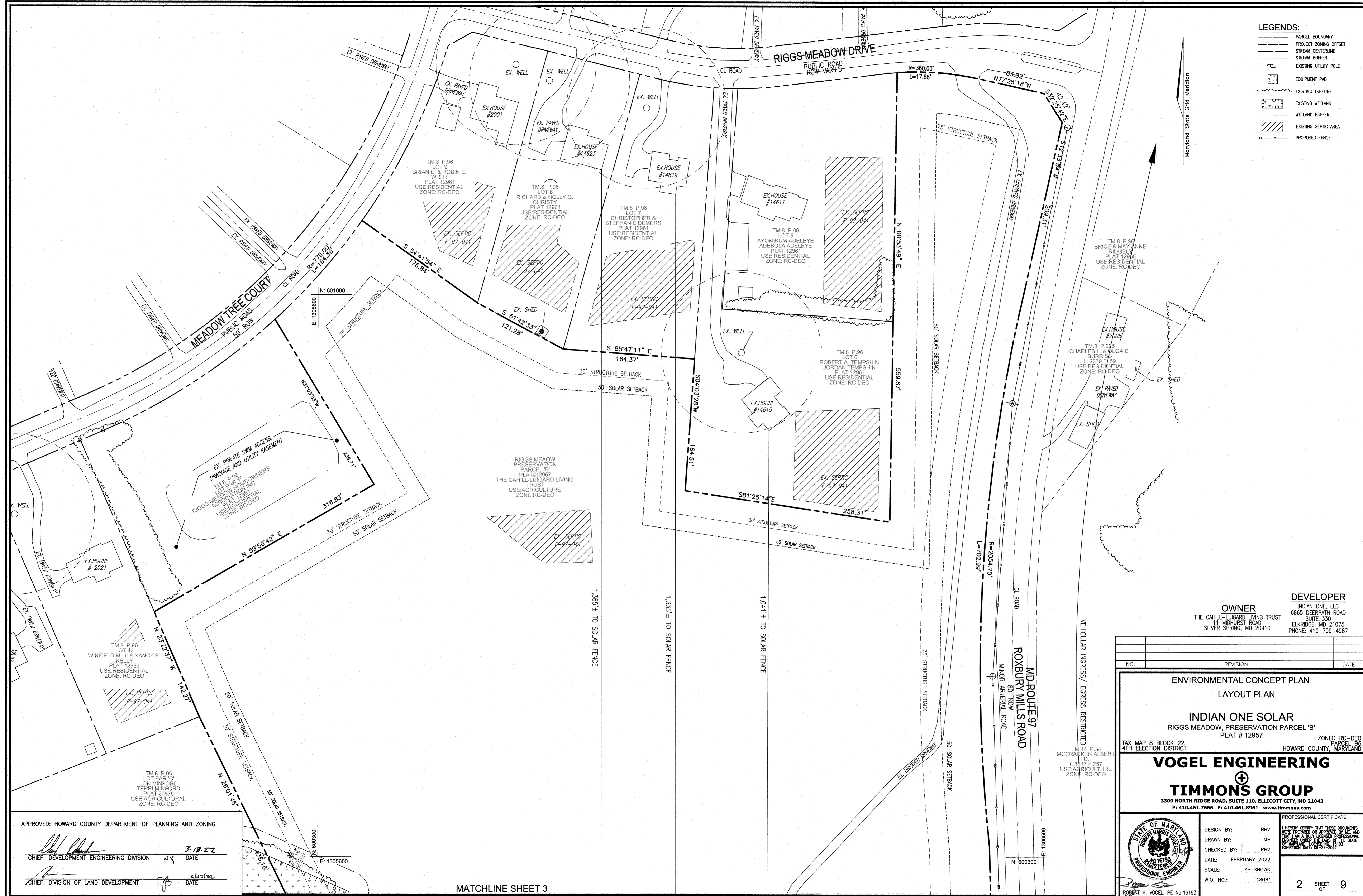
TIMMONS GROUP
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE
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. 16193, EXPIRATION DATE: 09-27-2022.

DESIGN BY: RHY
 DRAWN BY: IMH
 CHECKED BY: RHY
 DATE: FEBRUARY 2022
 SCALE: AS SHOWN
 W.O. NO.: 48061

1 SHEET OF 9



- LEGENDS:**
- PARCEL BOUNDARY
 - - - PROJECT ZONING OFFSET
 - - - STREAM CENTERLINE
 - - - STREAM BUFFER
 - EXISTING UTILITY POLE
 - EQUIPMENT PAD
 - ▨ EXISTING TREELINE
 - ▨ EXISTING WETLAND
 - ▨ WETLAND BUFFER
 - ▨ EXISTING SEPTIC AREA
 - PROPOSED FENCE

Maryland State Grid Meridian

DEVELOPER
INDIAN ONE, LLC
6865 DEERPATH ROAD
SUITE 330
ELK RIDGE, MD 21075
PHONE: 410-709-4987

OWNER
THE CAHILL-LUGARD LIVING TRUST
11 MIDHURST ROAD
SILVER SPRING, MD 20910

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN
LAYOUT PLAN**

INDIAN ONE SOLAR
RIGGS MEADOW, PRESERVATION PARCEL 'B'
PLAT # 12957

TAX MAP 8 BLOCK 22
4TH ELECTION DISTRICT

ZONED RC-DEO
PARCEL 96
HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

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DESIGN BY: RHV
DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2022
SCALE: AS SHOWN
W.O. NO.: 48061

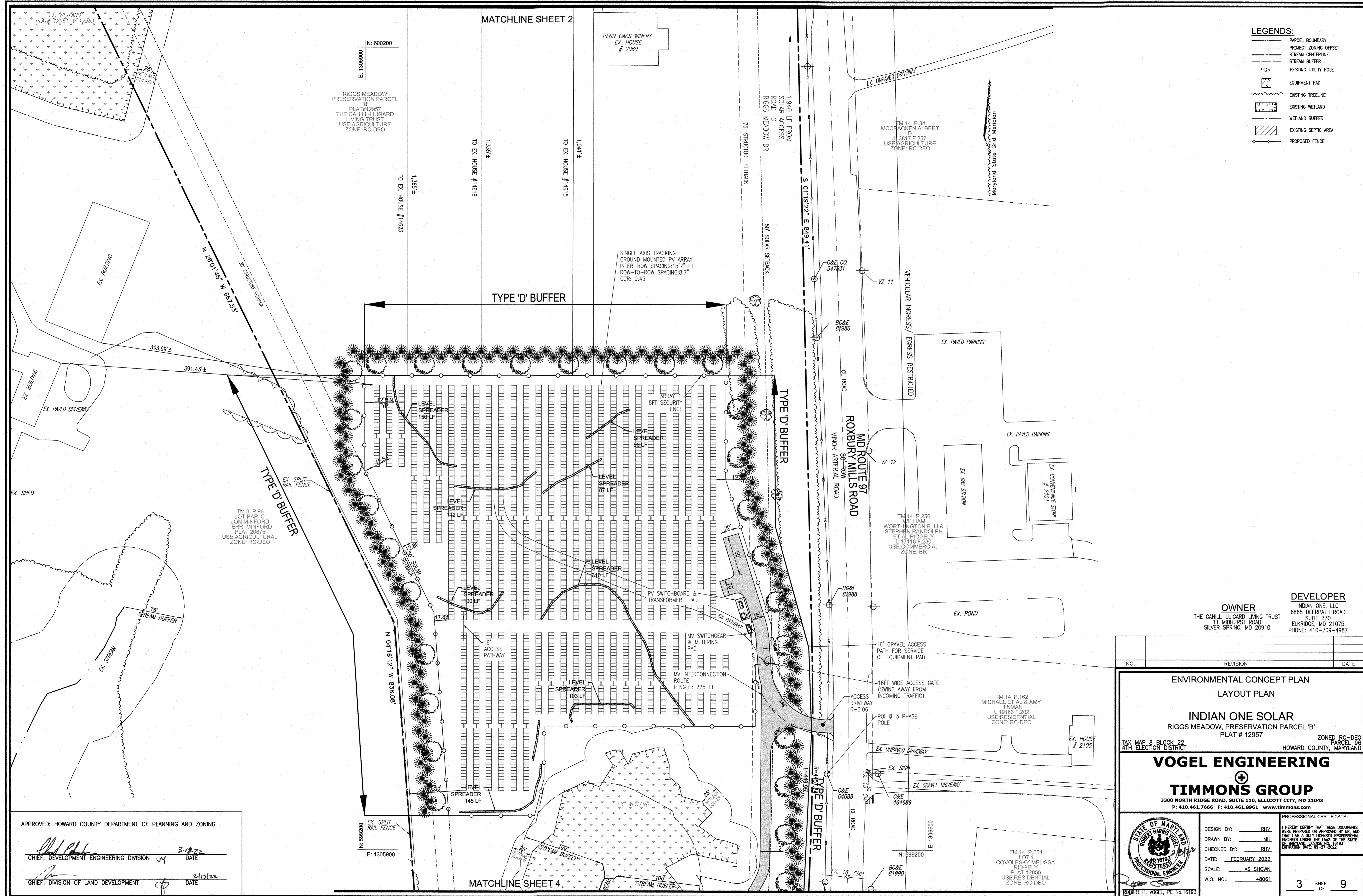
2 OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3.18.22
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/17/22
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

MATCHLINE SHEET 3



- LEGENDS:**
- PARCEL BOUNDARY
 - PROJECT ZONING OFFSET
 - STREAM CENTERLINE
 - STREAM BUFFER
 - EXISTING UTILITY POLE
 - EQUIPMENT PAD
 - EXISTING TREELINE
 - ▨ EXISTING WETLAND
 - ▨ WETLAND BUFFER
 - ▨ EXISTING SEPTIC AREA
 - PROPOSED FENCE

OWNER
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 6865 DEERPATH ROAD
 SUITE 330
 ELK RIDGE, MD 21075
 SILVER SPRING, MD 20910
 PHONE: 410-709-4987

DEVELOPER
 INDIAN ONE, LLC
 6865 DEERPATH ROAD
 SUITE 330
 ELK RIDGE, MD 21075
 SILVER SPRING, MD 20910
 PHONE: 410-709-4987

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN
 LAYOUT PLAN**

INDIAN ONE SOLAR
 RIGGS MEADOW, PRESERVATION PARCEL 'B'
 PLAT # 12957

TAX MAP 8 BLOCK 22
 4TH ELECTION DISTRICT

ZONED RC-DEO
 PARCEL 98
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
 +
TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE

DESIGN BY: RHY
 DRAWN BY: IMH
 CHECKED BY: RHY
 DATE: FEBRUARY 2022
 SCALE: AS SHOWN
 W.O. NO.: 4806L

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. 16193, EXPIRATION DATE: 06-27-2022.

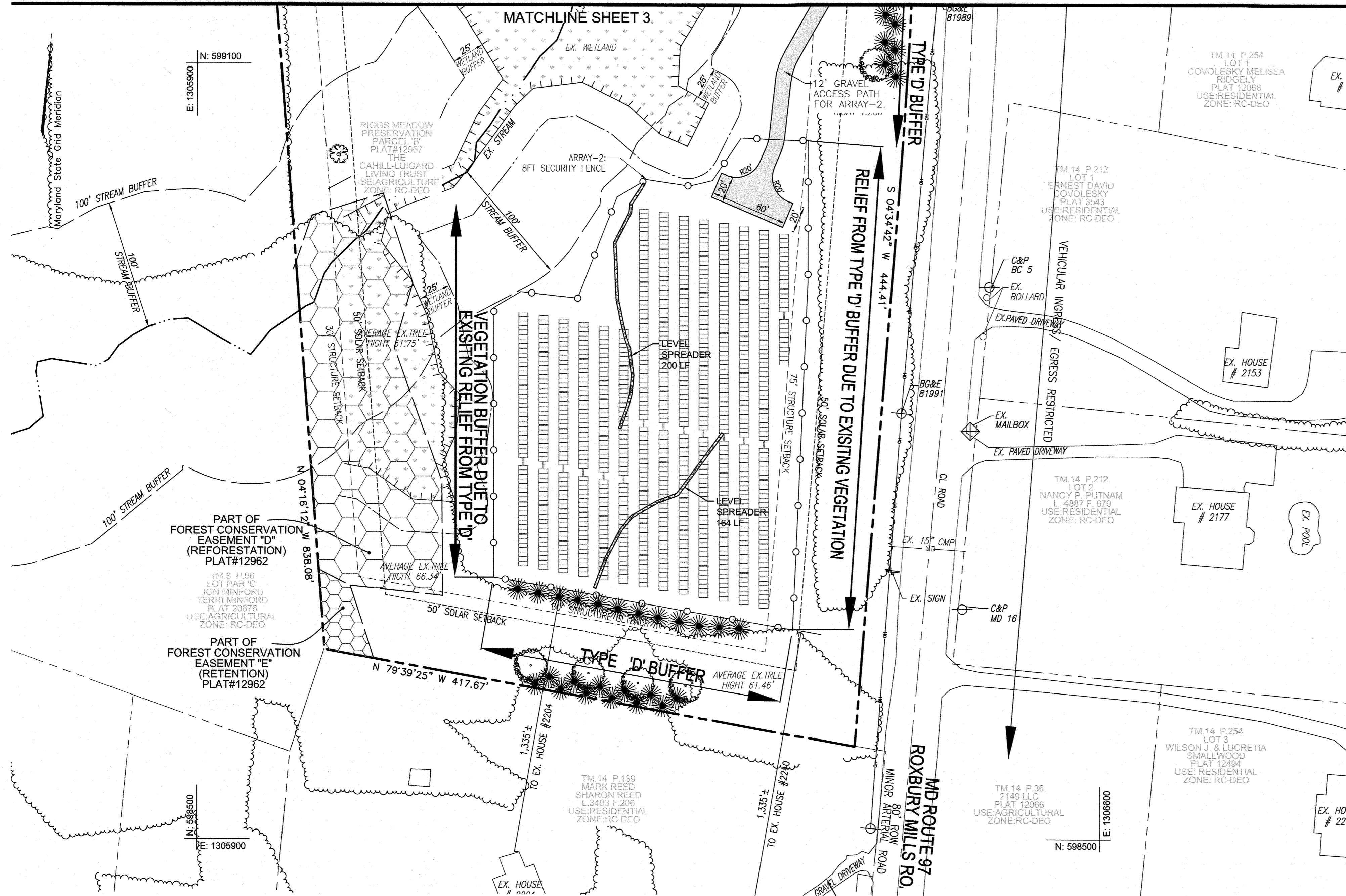
ROBERT H. VOGEL, PE No. 16193

STATE OF MARYLAND
 REGISTERED PROFESSIONAL ENGINEER

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/18/22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/17/22
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



- LEGENDS:**
- PARCEL BOUNDARY
 - - - PROJECT ZONING OFFSET
 - STREAM CENTERLINE
 - STREAM BUFFER
 - EXISTING UTILITY POLE
 - EQUIPMENT PAD
 - EXISTING TREELINE
 - ▨ EXISTING WETLAND
 - ▨ WETLAND BUFFER
 - ▨ EXISTING SEPTIC AREA
 - PROPOSED FENCE

OWNER
 INDIAN ONE, LLC
 6865 DEERPATH ROAD
 SUITE 330
 ELKCRIDGE, MD 21075
 PHONE: 410-709-4987

DEVELOPER
 THE CAHILL-LUGARD LIVING TRUST
 11 MIDHURST ROAD
 SILVER SPRING, MD 20910

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN
 LAYOUT PLAN**

INDIAN ONE SOLAR
 RIGGS MEADOW, PRESERVATION PARCEL 'B'
 PLAT # 12957

TAX MAP 8 & BLOCK 22
 4TH ELECTION DISTRICT

ZONED RC-DEO
 PARCEL 36
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

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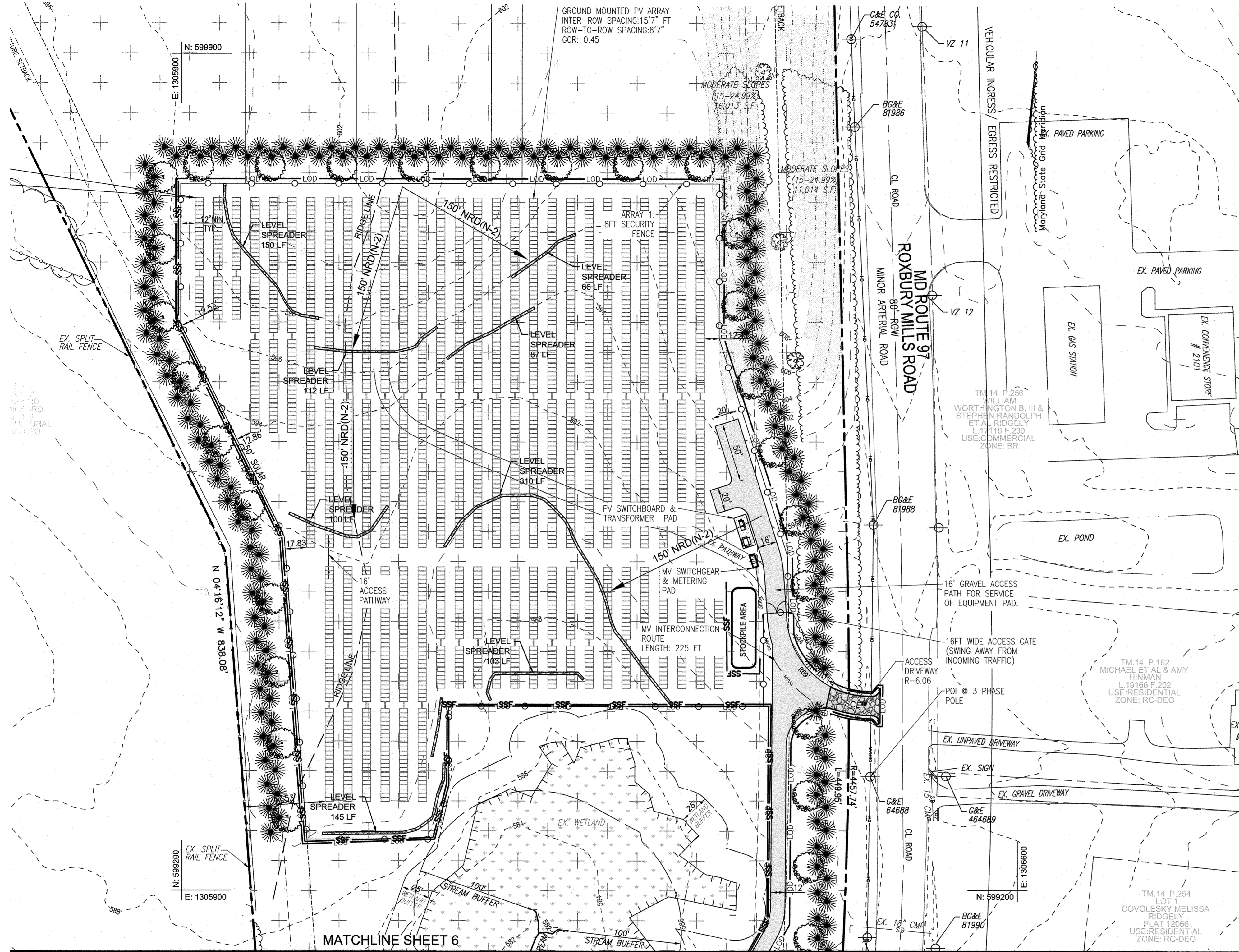
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4 SHEET OF 9

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-18-22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/17/22
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



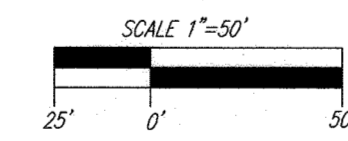
LEGENDS:

- PARCEL BOUNDARY
- 50' SOLAR SETBACK
- STREAM CENTERLINE
- STREAM BUFFER
- WETLAND BUFFER
- WETLAND BUFFER
- 610 EXISTING CONTOUR (10')
- 608 EXISTING CONTOUR (2')
- 610S SOILS BOUNDARY
- 610S WETLAND
- EXISTING TREELINE
- EQUIPMENT PAD
- PROPOSED FENCE
- LOD LIMIT OF DISTURBED AREA
- SSF SUPER SILT FENCE
- SLOPES (15%-24.99%)
- ERODIBLE SOILS
- PROPOSED CONTOUR (10')
- PROPOSED CONTOUR (2')

MATCHLINE SHEET 6

SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN

SCALE: 1"=50'



NOTE:
 - SILT FENCE IS TO BE REPLACED WITH SUPER SILT FENCE AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.
 - SILT FENCE SHALL BE CURLED UPHILL NO MORE THAN 35 FEET APART
 - DOUBLE ROWS OF SUPER SILT FENCE SHALL BE INSTALLED AT THE DIRECTION OF THE SEDIMENT CONTROL INSPECTOR.

NOTE:
 1. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN DITCHES AFTER CONSTRUCTION OF SOLAR ARRAY.
 2. CONTRACTOR SHALL MAINTAIN THAT RUNOFF IS DIRECTED TO THE INFILTRATION TRENCH FACILITY.

NOTES:
 1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT
 2. REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE FINAL PLAN AND SITE DEVELOPMENT PLAN STAGES; AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
 3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS, STEEP SLOPES OR FOREST THAT EXISTS WITHIN THE PROPOSED LIMIT OF DISTURBANCE.

HSCD NOTES:
 APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.

- THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING
- THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
- THE FINAL PLAN SUBMISSION SHALL PROVIDE A DRAINAGE AREA MAP SPECIFIC TO CHOSEN SEDIMENT CONTROLS.
- THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRC
GhB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.35	YES	YES
GhC	GLENVILLE LOAM, 8 TO 15 PERCENT SLOPES	B	0.43	YES	NO
GhB	GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.49	YES	YES
GhB	GLENVILLE LOAM, 3 TO 8 PERCENT SLOPES	B	0.37	YES	NO

SOILS NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-18-22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/12/22
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEVELOPER
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OWNER
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ENVIRONMENTAL CONCEPT PLAN
 SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN
 INDIAN ONE SOLAR
 RIGGS MEADOW, PRESERVATION PARCEL 'B'
 PLAT # 12957 ZONED RC-DEO
 PARCEL 98
 HOWARD COUNTY, MARYLAND

TAX MAP 8 BLOCK 22
 4TH ELECTION DISTRICT

VOGEL ENGINEERING
 +
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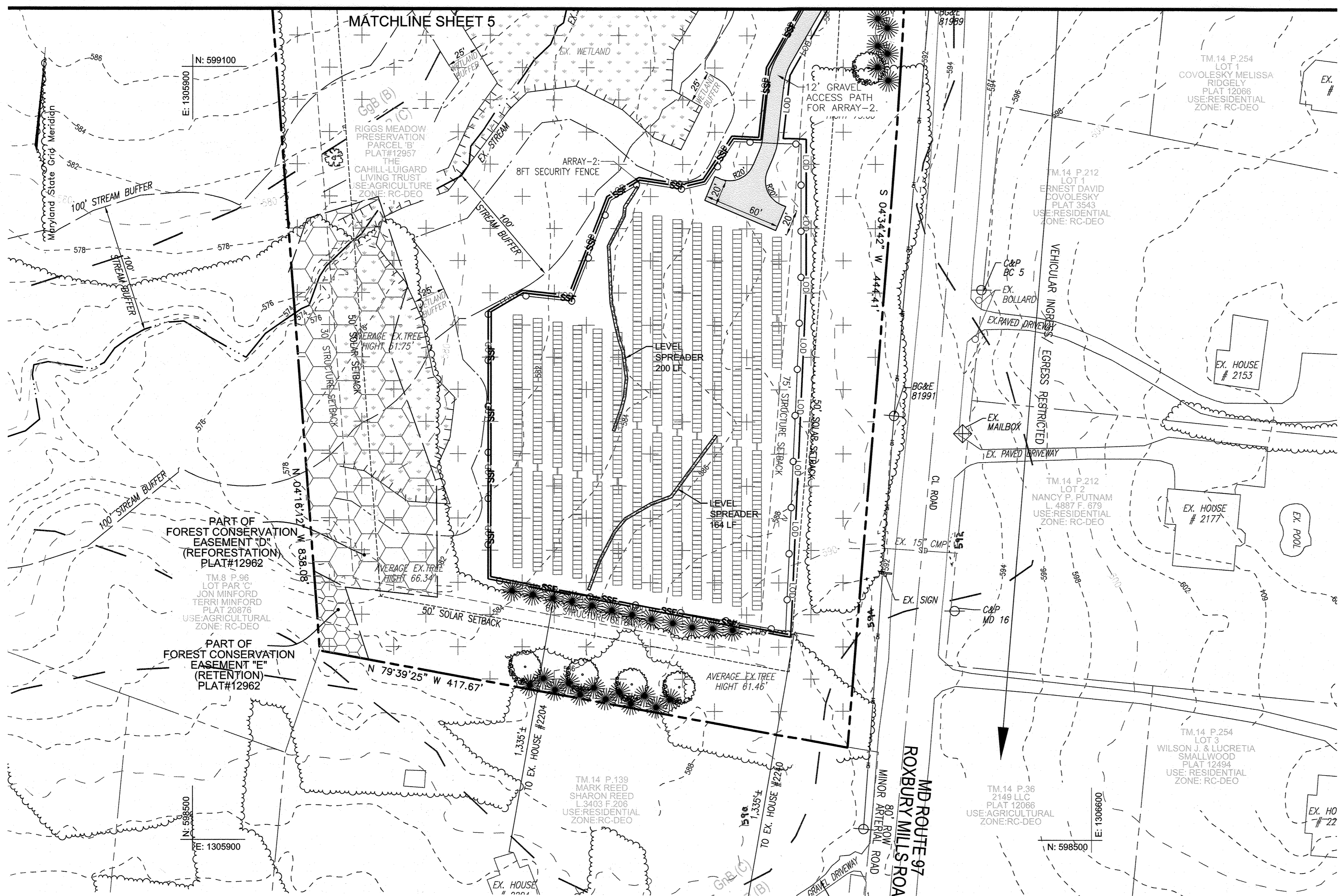
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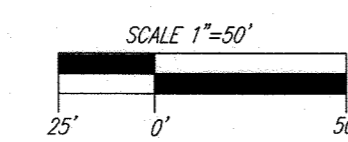
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ROBERT H. VOGEL, PE No. 16193

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- PARCEL BOUNDARY
 - 50' SOLAR SETBACK
 - STREAM CENTERLINE
 - STREAM BUFFER
 - WETLAND
 - WETLAND BUFFER
 - 610 EXISTING CONTOUR (10')
 - 608 EXISTING CONTOUR (2')
 - 606
 - 604
 - EXISTING TREELINE
 - EQUIPMENT PAD
 - PROPOSED FENCE
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 - SSF SUPER SILT FENCE
 - SLOPES (15%-24.9%)
 - ERODIBLE SOILS
 - 620 PROPOSED CONTOUR (10')
 - 620 PROPOSED CONTOUR (2')



SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN
 SCALE: 1"=50'



NOTE:
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 - SILT FENCE SHALL BE CURLED UP HILL. NO MORE THAN 35 FEET APART
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NOTE:
 1. CONTRACTOR SHALL MAINTAIN POSITIVE DRAINAGE IN DITCHES AFTER CONSTRUCTION OF SOLAR ARRAY.
 2. CONTRACTOR SHALL MAINTAIN THAT RUNOFF IS DIRECTED TO THE INFILTRATION TRENCH FACILITY.

NOTES:
 1. APPROVAL OF THIS ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED BUILDING AND/OR GRADING PERMIT
 2. REVIEW OF THIS PLAN FOR COMPLIANCE WITH ZONING AND SUBDIVISION AND SUBDIVISION AND LAND DEVELOPMENT REGULATIONS SHALL OCCUR AT THE FINAL PLAN AND SITE DEVELOPMENT PLAN STAGES, AND THEREFORE, THIS PLAN IS SUBJECT TO ADDITIONAL AND MORE DETAILED COMMENTS AS THE PLAN PROGRESSES THROUGH THE PERMIT PROCESS.
 3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS, STEEP SLOPES OR FOREST THAT EXISTS WITHIN THE PROPOSED LIMIT OF DISTURBANCE.

HSCD NOTES:
 APPROVAL OF THIS ENVIRONMENTAL CONCEPT PLAN (ECP) BY THE HOWARD SOIL CONSERVATION DISTRICT DOES NOT GRANT APPROVAL OF THE PROPOSED SEDIMENT CONTROL SCHEME.
 1. THE FINAL PLAN SHALL INCLUDE A SEQUENCE OF CONSTRUCTION WHICH SHALL DETAIL SEDIMENT & EROSION CONTROLS AND PHASING
 2. THE PROJECT SHALL ADDRESS ANY TEMPORARY STORMWATER MANAGEMENT REQUIREMENTS.
 3. THE FINAL PLAN SUBMISSION SHALL PROVIDE A DRAINAGE AREA MAP SPECIFIC TO CHOSEN SEDIMENT CONTROLS
 4. THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.

SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE	HYDRIC
GmB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	0.55	YES	YES
GcC	GLENNVILLE LOAM, 8 TO 15 PERCENT SLOPES	B	0.43	YES	NO
GmB	GLENNVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	C	0.49	YES	YES
GcB	GLENNVILLE LOAM, 3 TO 8 PERCENT SLOPES	B	0.37	YES	NO

SOILS NOTE:
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

DEVELOPER
 INDIAN ONE, LLC
 6865 DEERPATH ROAD
 SUITE 330
 ELK RIDGE, MD 21075
 PHONE: 410-709-4987

OWNER
 THE CAHILL-LUGARD LIVING TRUST
 11 MIDLURST ROAD
 SILVER SPRING, MD 20910

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
 SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN
 INDIAN ONE SOLAR
 RIGGS MEADOW, PRESERVATION PARCEL 'B'
 PLAT # 12957
 ZONED RC-DEO PARCEL 95
 HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING
 +
TIMMONS GROUP
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

PROFESSIONAL CERTIFICATE
 DESIGN BY: RHY
 DRAWN BY: IMH
 CHECKED BY: RHY
 DATE: FEBRUARY 2022
 SCALE: AS SHOWN
 W.O. NO.: 48061

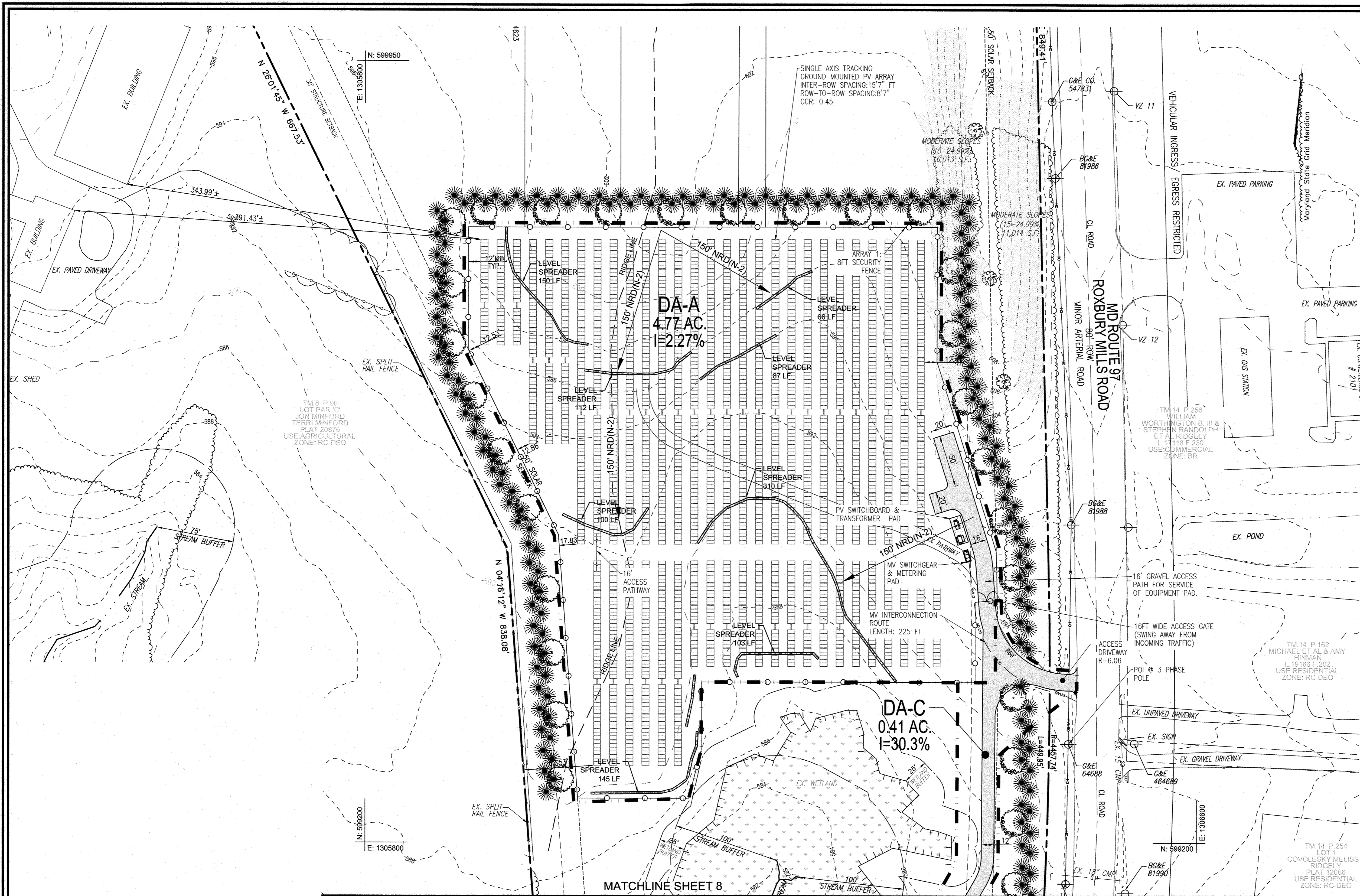
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193 EXPIRES 02/27/2022.

ROBERT H. VOGEL, PE No. 16193

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/18/22
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

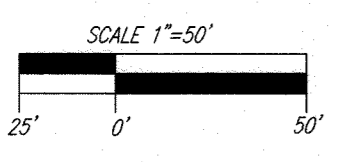
[Signature] 2/17/22
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE



- LEGENDS:**
- PARCEL BOUNDARY
 - 50' SOLAR SETBACK
 - STREAM CENTERLINE
 - STREAM BUFFER
 - WETLAND
 - WETLAND BUFFER
 - 610 EXISTING CONTOUR (10')
 - 608 EXISTING CONTOUR (2')
 - MELISSA SOILS BOUNDARY
 - EXISTING TREELINE
 - DRAINAGE AREA
 - PROPOSED CONTOUR (10')
 - PROPOSED CONTOUR (2')
 - TRANSFORMER PAD
 - PROPOSED FENCE
 - SLOPES (15%-24.99%)

**STORMWATER MANAGMENT
DRAINAGE AREA MAP**

SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3-18-22
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/17/22
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

DEVELOPER
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6865 DEERPATH ROAD
SUITE 330
ELKRIDGE, MD 21075
PHONE: 410-709-4987

OWNER
THE CAHILL-LUGARD LIVING TRUST
11 MIDLURST ROAD
SILVER SPRING, MD 20910

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP**

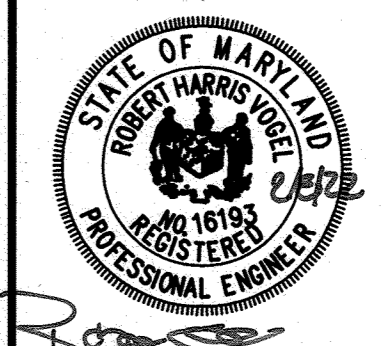
INDIAN ONE SOLAR
RIGGS MEADOW, PRESERVATION PARCEL 'B'
PLAT # 12957

TAX MAP 8 BLOCK 22 4TH ELECTION DISTRICT ZONED RC-DEO PARCEL 9B HOWARD COUNTY, MARYLAND

VOGEL ENGINEERING

TIMMONS GROUP

3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com

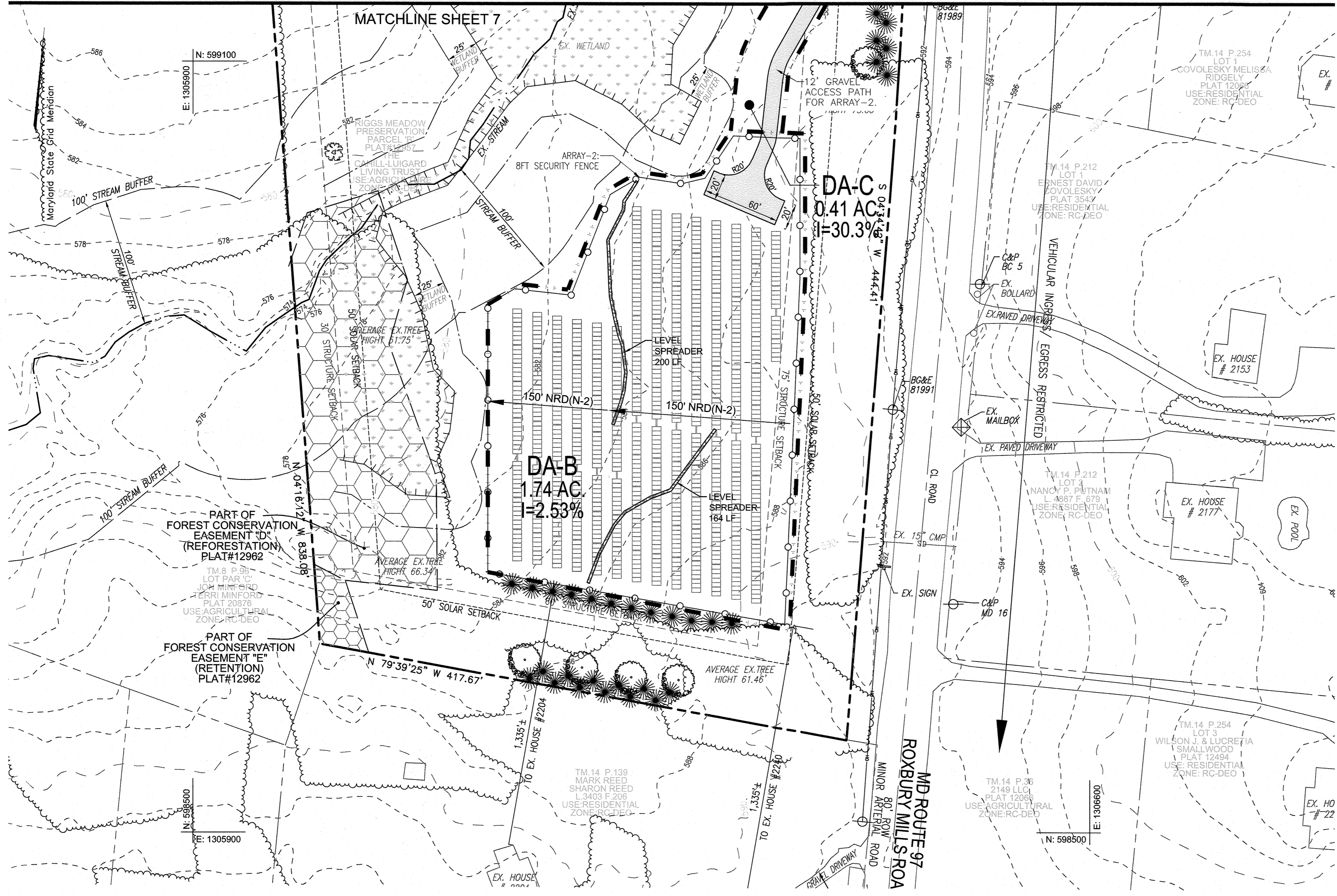


PROFESSIONAL CERTIFICATE

DESIGN BY: RHV
DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2022
SCALE: AS SHOWN
W.O. NO.: 4806L

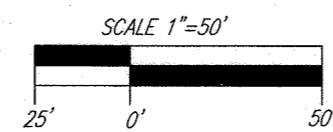
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- LEGENDS:**
- PARCEL BOUNDARY
 - - - 50' SOLAR SETBACK
 - STREAM CENTERLINE
 - STREAM BUFFER
 - WETLAND
 - WETLAND BUFFER
 - 610 EXISTING CONTOUR (10')
 - 600 EXISTING CONTOUR (2')
 - M1B2 SOILS BOUNDARY
 - M1B6 EXISTING TREELINE
 - DRAINAGE AREA
 - 420 PROPOSED CONTOUR (10')
 - 420 PROPOSED CONTOUR (2')
 - TRANSFORMER PAD
 - PROPOSED FENCE
 - SLOPES (15%-24.99%)



**STORMWATER MANAGEMENT
DRAINAGE AREA MAP**

SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION 3/18/22
 DATE

CHIEF, DIVISION OF LAND DEVELOPMENT 2/17/22
 DATE

OWNER
THE CAHILL-LUIGARD LIVING TRUST
11 MIDLURST ROAD
SILVER SPRING, MD 20910

DEVELOPER
INDIAN ONE, LLC
6865 DEERPATH ROAD
SUITE 330
ELK RIDGE, MD 21075
PHONE: 410-709-4987

NO.	REVISION	DATE

ENVIRONMENTAL CONCEPT PLAN
STORMWATER MANAGEMENT DRAINAGE AREA MAP

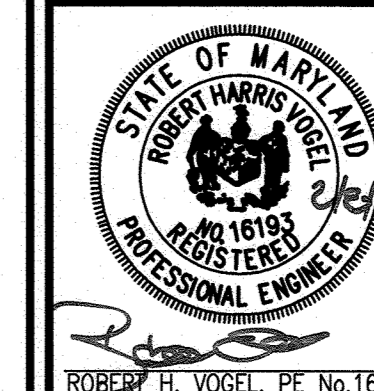
INDIAN ONE SOLAR
RIGGS MEADOW, PRESERVATION PARCEL 'B'
PLAT # 12957

TAX MAP 8 BLOCK 22 4TH ELECTION DISTRICT

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3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043
P: 410.461.7666 F: 410.461.8961 www.timmons.com



PROFESSIONAL CERTIFICATE

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DRAWN BY: IMH
CHECKED BY: RHV
DATE: FEBRUARY 2022
SCALE: AS SHOWN
W.O. NO.: 48061

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8 SHEET OF 9

N-2. DISCONNECTION OF NON ROOFTOP RUNOFF

CONSTRUCTION CRITERIA:

THE FOLLOWING ITEMS SHOULD BE ADDRESSED DURING THE CONSTRUCTION OF PROJECTS WITH PLANNED ROOFTOP DISCONNECTIONS:

- EROSION AND SEDIMENT CONTROL: EROSION AND SEDIMENT CONTROL PRACTICES (E.G., SEDIMENT TRAPS) SHALL NOT BE LOCATED IN VEGETATED AREAS RECEIVING DISCONNECTED RUNOFF
- SITE DISTURBANCE: CONSTRUCTION VEHICLES AND EQUIPMENT SHOULD AVOID AREAS RECEIVING DISCONNECTED RUNOFF TO MINIMIZE DISTURBANCE AND COMPACTION. SHOULD AREAS RECEIVING DISCONNECTED RUNOFF BECOME COMPACTED, SCARIFYING THE SURFACE OR ROTOTILLING THE SOIL TO A DEPTH OF FOUR TO SIX INCHES SHALL BE PERFORMED TO ENSURE PERMEABILITY. ADDITIONALLY, AMENDMENTS MAY BE NEEDED FOR TIGHT, CLAYEY SOILS.

INSPECTION:

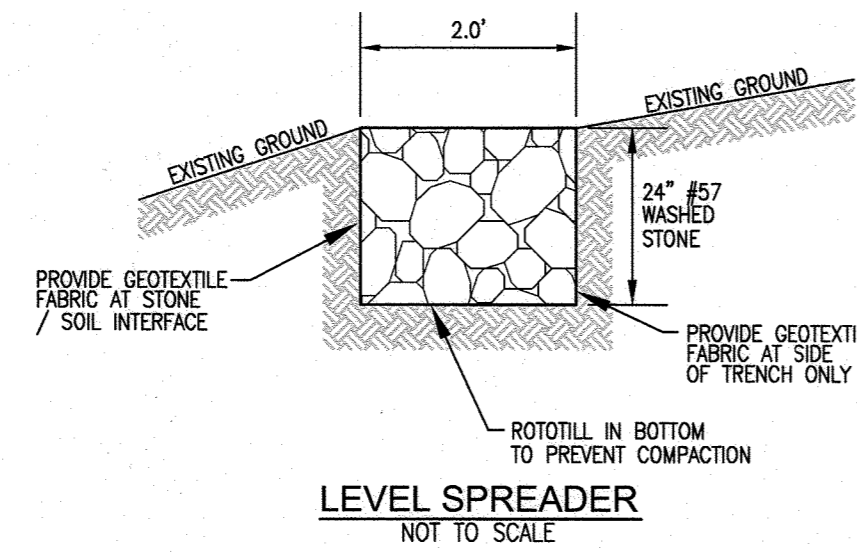
A FINAL INSPECTION SHALL BE CONDUCTED BEFORE USE AND OCCUPANCY APPROVAL TO ENSURE THAT SIZING FOR TREATMENT AREAS HAVE BEEN MET AND PERMANENT STABILIZATION HAS BEEN ESTABLISHED.

MAINTENANCE CRITERIA:

MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE AREAS RECEIVING RUNOFF SHOULD BE PROTECTED FROM FUTURE COMPACTION (E.G., BY PLANTING TREES OR SHRUBS ALONG THE PERIMETER). IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

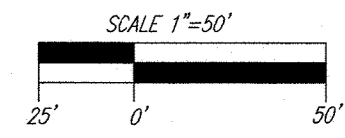
HOWARD COUNTY - OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED DISCONNECTION OF NON ROOFTOP RUNOFF (N-2)

A. MAINTENANCE OF AREAS RECEIVING DISCONNECTED RUNOFF IS GENERALLY NO DIFFERENT THAN THAT REQUIRED FOR OTHER LAWN OR LANDSCAPED AREAS. THE OWNER SHALL ENSURE THE AREAS RECEIVING RUNOFF ARE PROTECTED FROM FUTURE COMPACTION OR DEVELOPMENT OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.



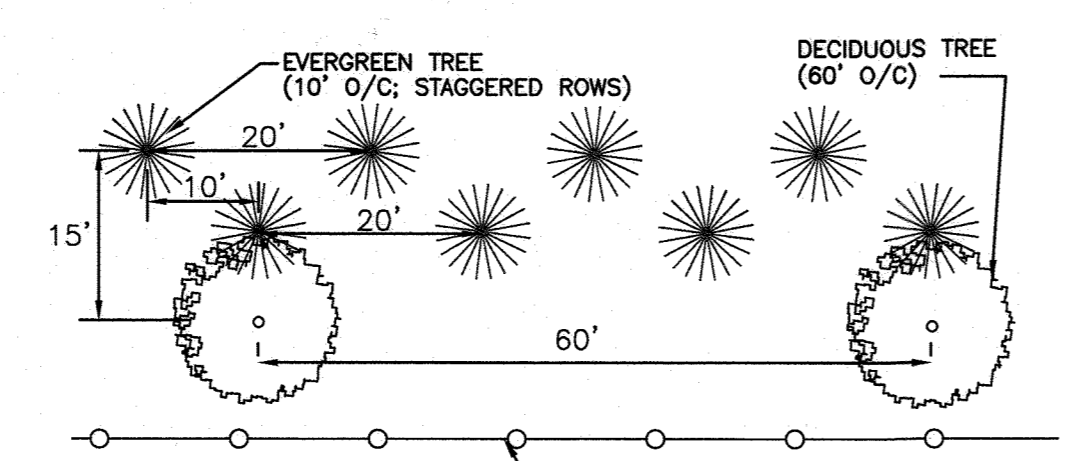
Indian One Solar- ECP - ESDv COMPUTATIONS

SITE AREA:		6.71	AC																		
TARGET P _e :		1.00	IN																		
SITE IMPERVIOUS:		4.11	PERCENT																		
SITE R _v :		0.0870																			
SITE ESD _v :		(Required)	2119																		
R _v =0.05+0.009X _i																					
P _e min=1.0" rainfall			(1.0x0.95x4)/12																		
P _e max=1yr rainfall=2.6"			(2.6x0.95x4)/12																		
DRAINAGE #	% IMPERV	R _v	DA (SF)	DA (AC)	1.0" VOLUME	MAXIMUM VOLUME	VOLUME PROVIDED*	IMPERV (SF)	IMPERV (AC)	GREEN AREA	REMARKS										
A	2.27	0.0704	207767	4.77	1219	3170	1219	4716	0.11	4.66	NON STRUCTURAL PRACTICE - NON-ROOFTOP DISCONNECT 1219 CF - EACH 75' DISCONNECT 1219 ESDv										1 EA
B	2.53	0.0727	75970	1.74	460	1197	460	1919	0.04	1.70	NON STRUCTURAL PRACTICE - NON-ROOFTOP DISCONNECT 460 CF - EACH 75' DISCONNECT 460 ESDv										1 EA
C	30.27	0.3225	17754	0.41	477	1240	477	5375	0.12	0.28	NON STRUCTURAL PRACTICE - NON-ROOFTOP DISCONNECT 477 CF - EACH 75' DISCONNECT 477 ESDv										1 EA
TOTAL	3.98	0.0859	301491	6.92	2157	5608	2157	12010	0.28	6.65											



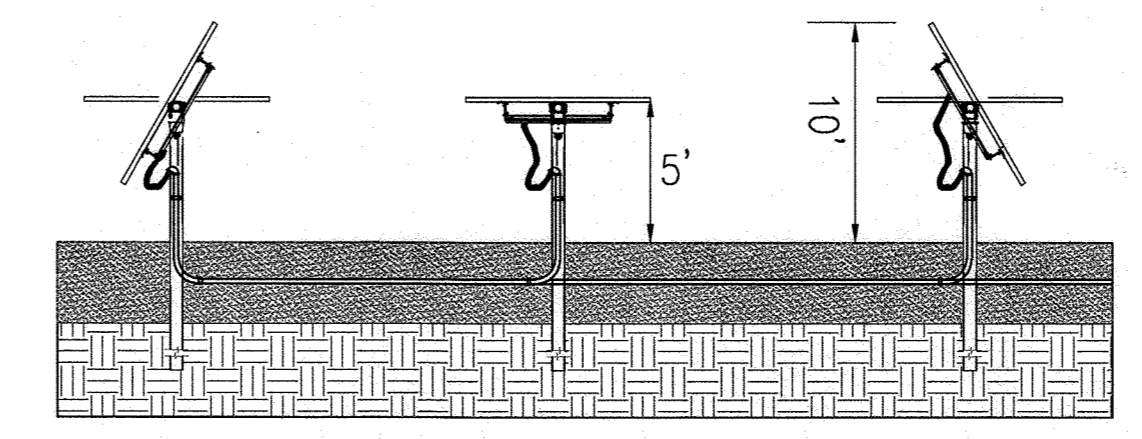
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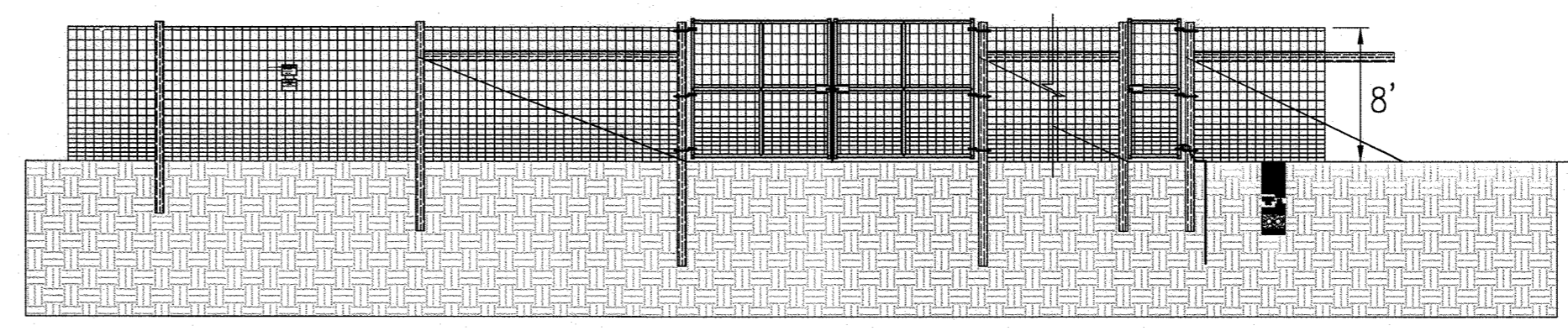


TYPE 'D' BUFFER PLANTING PATTERN DETAIL
NOT TO SCALE

- NOTES:**
- FENCE ALONG ALL SIDES OF THE SOLAR FACILITY SHALL BE WOVEN WIRE CATTLE FENCE INSTALLED AT A MINIMUM OF 8' IN HEIGHT.
 - TYPE 'D' BUFFER TREES SHALL CONSIST OF A DOUBLE ROW OF OFFSET EVERGREEN TREES PLANTED AT INTERVALS OF 10' ON CENTER; ROWS OFFSET 15'; AND DECIDUOUS TREES PLANTED AT 60' ON CENTER.
 - EVERGREEN TREE SPECIES MAY INCLUDE:
o ILEX OPECA / AMERICAN HOLLY (5'-6' HGT.)
 - DECIDUOUS TREE SPECIES MAY INCLUDE:
o ACER GINNALA / AMUR MAPLE (1 1/2"-3" CAL.)
 - OTHER LANDSCAPE SPECIES MAY BE APPROVED WITH APPROVAL OF HOWARD COUNTY.
 - TYPE 'D' BUFFER ALONG ROXBURY MILLS ROAD TO MEET BGE LOCATION AND SPECIES GUIDELINES.



RACKING DETAIL
NTS



FENCE DETAIL
GALVANIZED LIVESTOCK FENCE
NTS

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

[Signature] 3/18/22
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

[Signature] 2/17/22
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NO.	REVISION	DATE
ENVIRONMENTAL CONCEPT PLAN STORMWATER MANAGEMENT & SITE NOTES AND DETAILS INDIAN ONE SOLAR RIGGS MEADOW, PRESERVATION PARCEL 'B' PLAT # 12957		
TAX MAP 8 BLOCK 22 4TH ELECTION DISTRICT		ZONED RC-DEO PARCEL 916 HOWARD COUNTY, MARYLAND
VOGEL ENGINEERING TIMMONS GROUP 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043 P: 410.461.7666 F: 410.461.8961 www.timmons.com		
 DESIGN BY: RHV DRAWN BY: IMH CHECKED BY: RHV DATE: FEBRUARY 2022 SCALE: AS SHOWN W.O. NO.: 48061	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 16193, EXPIRATION DATE 02-27-2022.	
9		9
OF		OF