

**GENERAL NOTES**

1. THE PROJECT IS IN CONFORMANCE WITH THE LATEST HOWARD COUNTY STANDARDS UNLESS WAIVERS HAVE BEEN APPROVED.
2. THE EXISTING TOPOGRAPHY SHOWN HEREON IS BASED ON A TOPOGRAPHIC SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED FEBRUARY 2019, OFFSITE TOPOGRAPHY FROM HOWARD COUNTY GIS.
3. THIS PLAT IS BASED ON A BOUNDARY SURVEY PERFORMED BY ROBERT H. VOGEL ENGINEERING, INC. ON FEBRUARY, 2019.
4. 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. 0013 AND 158A WERE USED FOR THIS PROJECT.
5. 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.
6. 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.
7. EXISTING UTILITIES LOCATED FROM HOWARD COUNTY GIS. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION.
8. THERE IS NO 100 YEAR FLOODPLAIN LOCATED ON-SITE.
9. STEEP SLOPES OVER 20.000 SF CONTOURED ARE LOCATED ON-SITE.
10. FOREST CONSERVATION OBLIGATIONS FOR THIS PROJECT SHALL BE ADDRESSED BY A FOREST CONSERVATION PLAN SUBMITTED WITH THE FUTURE PLAN SUBMISSION.
11. FOREST STAND DELINEATION WAS PREPARED BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED FEBRUARY 19, 2020.
12. WETLANDS AND STREAMS SHOWN ON-SITE ARE BASED ON ENVIRONMENTAL REPORT BY ECO-SCIENCE PROFESSIONALS, INC. C/O MR. JOHN CANOLES, DATED FEBRUARY 19, 2020.
13. GEOTECHNICAL INVESTIGATIONS SHALL BE COMPLETED AND SUBMITTED WITH THE FUTURE SUBDIVISION PLANS.
14. A NOISE STUDY IS NOT REQUIRED FOR THIS SITE.
15. FREDERICK ROAD IS CLASSIFIED AS A MINOR ARTERIAL AND SYKESVILLE ROAD (MD 32) IS CLASSIFIED AS A PRINCIPAL ARTERIAL ROAD. TO THE BEST OF THE OWNERS KNOWLEDGE, THERE ARE NO BURIAL GROUNDS, CEMETERIES, OR HISTORIC STRUCTURES LOCATED ON THIS PROPERTY.
16. STORMWATER MANAGEMENT FOR THE PROJECT IS PROVIDED BY THE USE OF NON-STRUCTURAL AND MICRO-SCALE PRACTICES IN ACCORDANCE WITH ENVIRONMENTAL SITE DESIGN CRITERIA. NON-STRUCTURAL PRACTICES INCLUDE NON-ROOFTOP DISCONNECTION (N-2), MICRO-SCALE PRACTICES INCLUDE MICRO-BIORETENTION (M-6). THESE FACILITIES WILL BE PRIVATELY OWNED AND MAINTAINED.
17. 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.
18. 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.
19. THIS PROJECT IS SUBJECT TO ZONING AND LAND USE BOARD OF APPEALS CASE BA-18-0300. ON APRIL 14, 2020, THE ZONING AND LAND USE BOARD OF APPEALS GRANTED THE PETITION OF POWER52 ENERGY SOLUTIONS, LLC. PROVIDED THAT THE PETITIONER MEET CERTAIN CONDITIONS. THE PETITION IS GRANTED PROVIDED THAT THE PETITIONER MEET THE FOLLOWING CONDITIONS:
  1. THE PETITIONER SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND COUNTY LAWS AND REGULATIONS.

**ENVIRONMENTAL SITE DESIGN NARRATIVE:**

1. THERE ARE ENVIRONMENTAL FEATURES IN DIFFERENT LOCATIONS ON THE SITE. THIS AREA INCLUDES TWENTY-ONE SPECIMEN TREES, FOREST STANDS, STREAMS AND WETLAND AREA. ALL SPECIMEN TREES WILL BE RETAINED. THERE IS NO PROPOSED DISTURBANCE TO THE FOREST STANDS, STREAMS, STREAM BUFFERS, WETLAND OR THE WETLAND BUFFER.
2. THE SITE NATURALLY SLOPES FROM THE NORTH TO SOUTHWEST, NORTH TO SOUTHWEST AND FROM SOUTH TO NORTH EAST. THE SITE HAS BEEN DESIGNED TO MAINTAIN THE NATURAL DRAINAGE PATTERNS, WITH NO CHANGES TO THE NATURAL DRAINAGE PATTERN.
3. 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-ROOFTOP DISCONNECTION (N-2) AND MICRO-BIORETENTION (M-6).
4. SEDIMENT CONTROL FOR THIS SPECIFIC SITE PLAN WILL BE PROVIDED THROUGH THE USE OF SUPER 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.
5. STORMWATER MANAGEMENT FOR THE PROJECT SHALL BE MET THROUGH THE USE OF NON-ROOFTOP DISCONNECTION (N-2) AND MICRO-BIORETENTION (M-6). PROPOSED PRACTICES HAVE BEEN MAXIMIZED TO THE EXTENT PRACTICAL. THE CALCULATED RAINFALL TARGET (RT) FOR THIS PROJECT IS 1.07", AND THE TOTAL RUNOFF VOLUME (ESD) REQUIRED IS 6,424 CF. THE CALCULATED RAINFALL PROVIDED (FP) FOR THIS PROJECT IS 1.06", AND THE TOTAL RUNOFF VOLUME (ESD) PROVIDED IS 6,947 CF.
6. AT THIS CONCEPT STAGE OF DEVELOPMENT, NO DESIGN MANUAL WAIVERS ARE REQUIRED.

**SITE ANALYSIS DATA CHART**

A. TOTAL PROJECT AREA:	97.10 AC
B. AREA OF PLAN SUBMISSION:	97.10 AC
C. AREA OF WETLANDS AND BUFFERS:	528,422.32 SF OR 12.13 AC.
D. AREA OF FLOODPLAIN:	0.00 SF OR 0.00 AC.
E. AREA OF 100' STREAM BUFFER:	833,994.21 SF OR 19.15 AC.
F. AREA OF FOREST:	20.2 AC. ±
G. AREA OF STEEP SLOPES (25% & GREATER):	53,563 SF OR 1.23 AC. +/-
H. ERODIBLE SOILS:	3,366,853.97 SF OR 77.29 AC.
I. LIMIT OF DISTURBED AREA:	117,981 SF OR 2.71 AC. +/-
J. PROPOSED USES FOR SITE AND STRUCTURES:	SOLAR PANEL FARM
K. GREEN OPEN AREA:	65.45 AC. +/-
L. PROPOSED IMPERVIOUS AREA:	0.39 AC +/-
M. PRESENT ZONING DESIGNATION:	RC-DEO
N. OPEN SPACE REQUIRED:	N/A
O. DPZ FILE REFERENCES:	BA-18-0300

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Robert H. Vogel* 12.14.20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Robert H. Vogel* 1/15/20  
 CHIEF, DIVISION OF LAND DEVELOPMENT DATE

# ENVIRONMENTAL CONCEPT PLAN

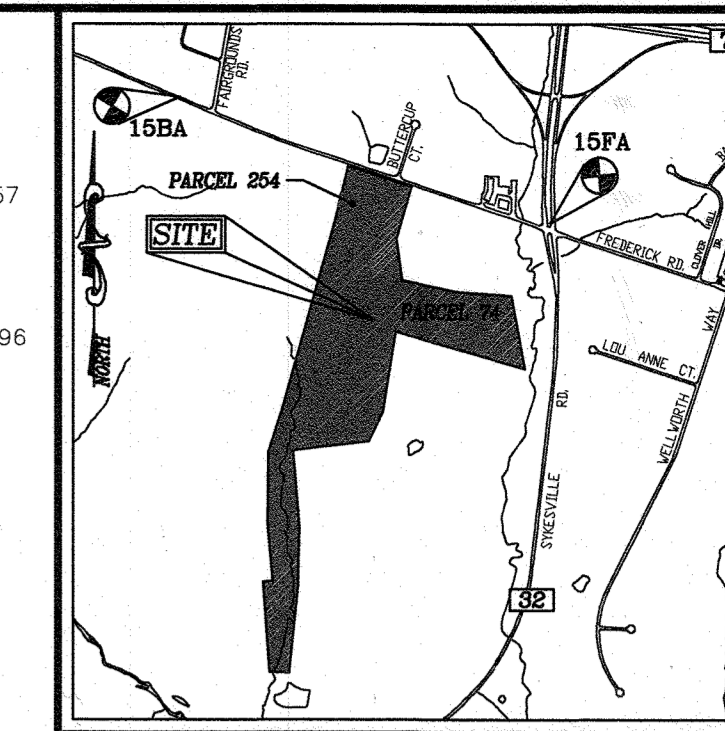
## TRIPLE CREEK SOLAR

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
 LIBER 17387 FOLIO 272  
 HOWARD COUNTY, MARYLAND

**BENCHMARKS**

HOWARD COUNTY BENCHMARK 0013  
 N 595,906.971 E 1,325,627.746 ELEV. 486.157  
 CONCRETE MONUMENT WITH DISC -  
 22.8' NORTH OF TRAFFIC POLE  
 29' EAST OF MD 32 SOUTHBOUND

HOWARD COUNTY BENCHMARK 158A  
 N 597,228.162 E 1,321,719.345 ELEV. 590.196  
 CONCRETE MONUMENT WITH DISC -  
 375' WEST OF FAIRGROUNDS ROAD  
 3' NORTH OF EDGE OF PAVEMENT  
 FREDERICK ROAD (MD 144)



**VICINITY MAP**  
 SCALE: 1"=2000'  
 ADC MAP COORDINATES: PAGE 18 / GRID B & C 3  
 GRID B 4 - B 5

**LEGEND:**

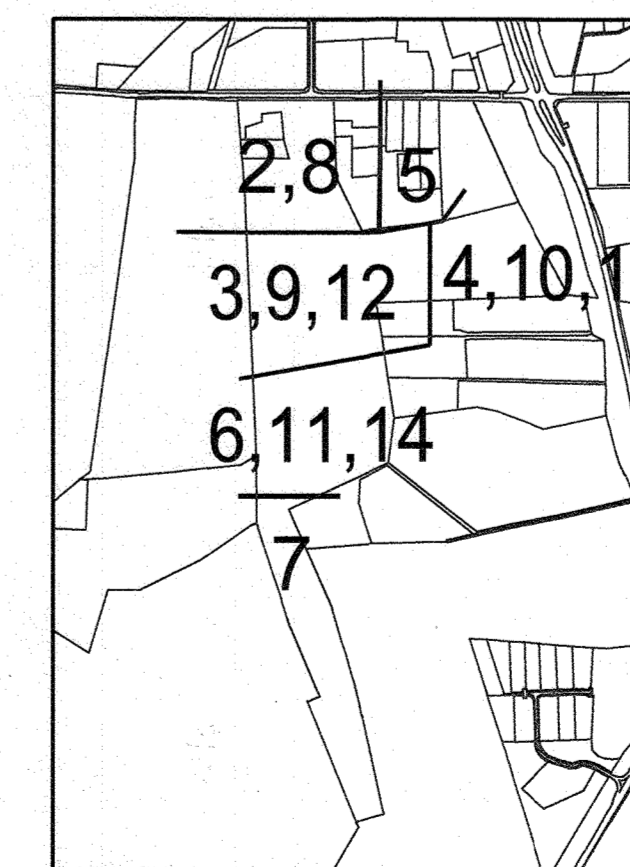
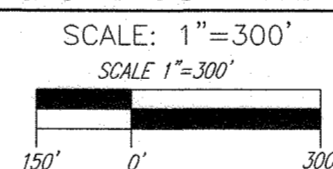
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- CENTERLINE OF EXISTING STREAM
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT

**SHEET INDEX**

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STORMWATER MANAGEMENT NOTES AND DETAILS	15 OF 15



**LOCATION MAP**



**SHEET KEY**

**DEVELOPER**

POWER 52 ENERGY SOLUTIONS  
 ATTN: JASON JANNATI  
 10020 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21042  
 PHONE: 410-988-8216  
 JUANNATI@POWER52ENERGY.COM

**OWNER**

TRIPLE CREEK FARM  
 PROPERTIES LLC  
 12855 ROUTE 144  
 WEST FRIENDSHIP, MD 21794  
 PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**

**COVER SHEET**

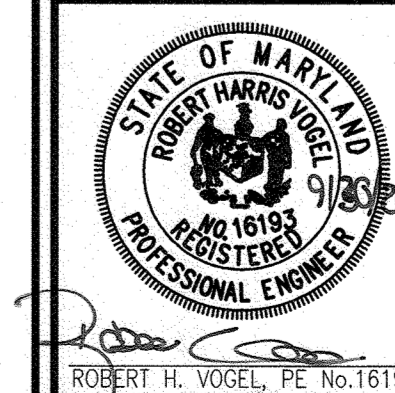
**TRIPLE CREEK SOLAR**

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TAX MAP 15 BLOCK 10  
 3RD ELECTION DISTRICT

ZONED RC-DEO  
 PARCELS 74 & 258  
 HOWARD COUNTY, MARYLAND

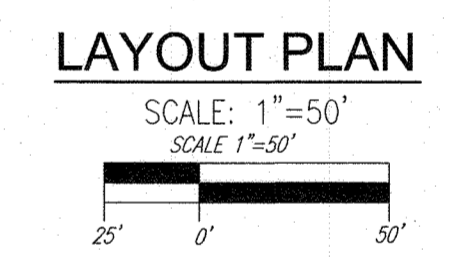
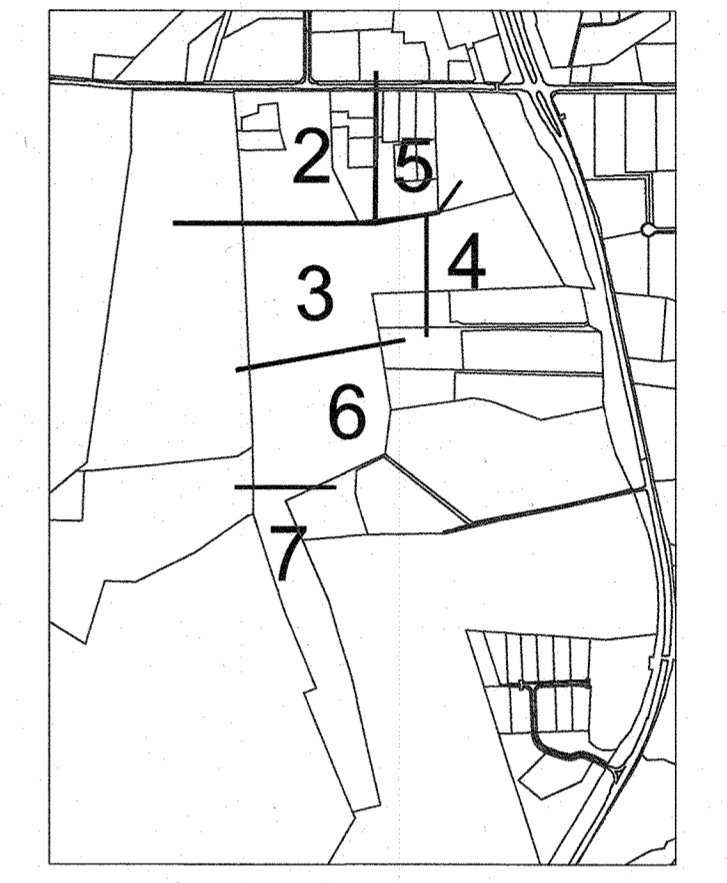
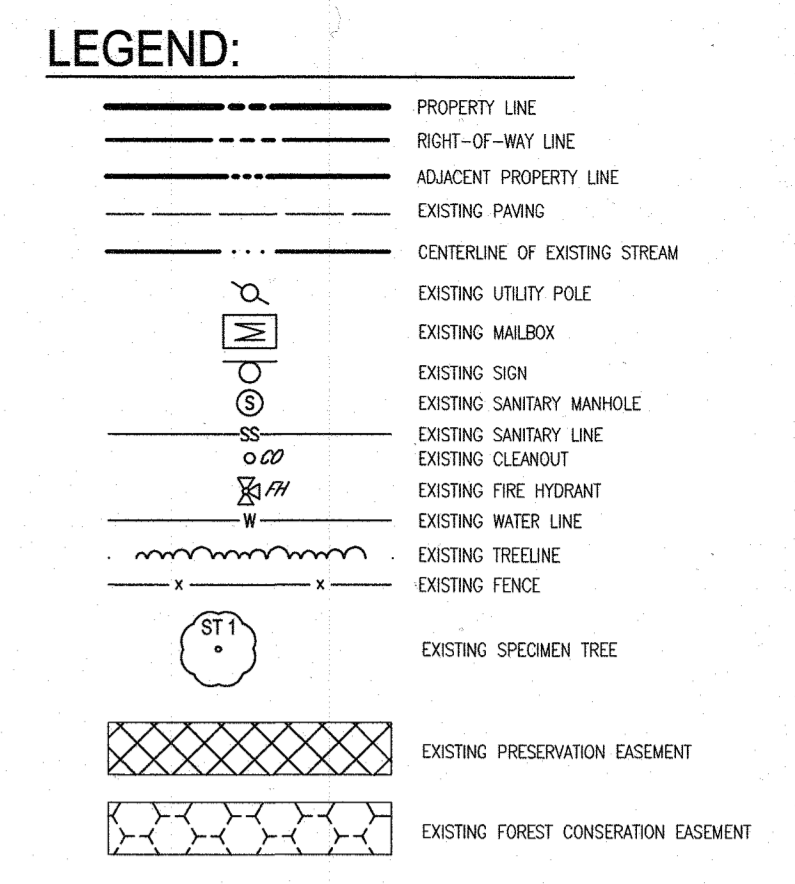
**ROBERT H. VOGEL ENGINEERING, INC.**  
 ENGINEERS • SURVEYORS • PLANNERS  
 3300 NORTH RIDGE ROAD, SUITE 110 TEL: 410.461.7666  
 ELLICOTT CITY, MD 21043 FAX: 410.461.8961



DESIGN BY: RHV  
 DRAWN BY: KG/IMH  
 CHECKED BY: RHV  
 DATE: JULY 2020  
 SCALE: AS SHOWN  
 W.O. NO.: 41657

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: 06-27-2025.





**DEVELOPER**  
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**LAYOUT PLAN  
TRIPLE CREEK SOLAR**

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STATE OF MARYLAND  
ROBERT H. VOGEL  
REGISTERED PROFESSIONAL ENGINEER  
NO. 16193  
EXPIRES 07-27-2022

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2 SHEET OF 15

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12.14.20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION

*[Signature]* 11/12/20  
CHIEF, DIVISION OF LAND DEVELOPMENT

MATCHLINE - SEE SHEET 3

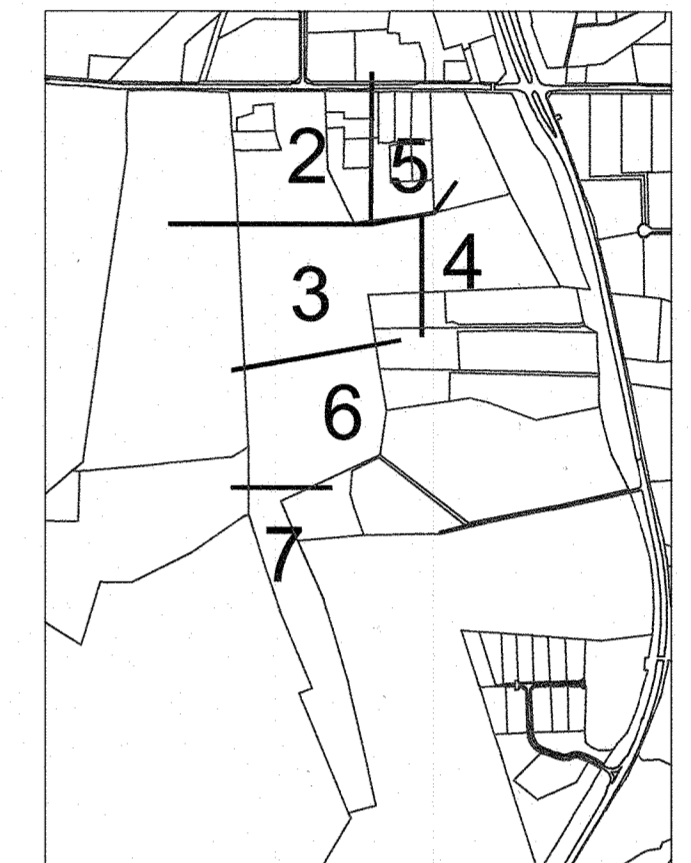
MATCHLINE - SEE SHEET 5



MATCHLINE - SEE SHEET 2

MATCHLINE  
SEE SHEET 5

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  - WETLAND BUFFER
  - PROPOSED FENCE
  - EXISTING SPECIMEN TREE
  - EXISTING PRESERVATION EASEMENT
  - EXISTING FOREST CONSERVATION EASEMENT



SHEET KEY

LAYOUT PLAN

SCALE: 1"=50'  
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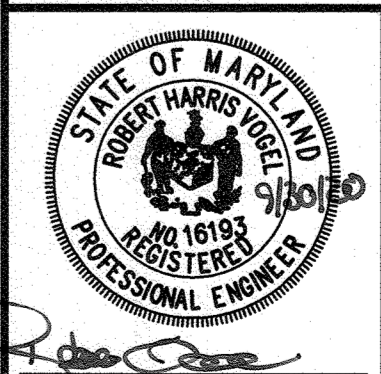
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TAX MAP 15 BLOCK 10 ZONED RC-DEO  
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EXPIRATION DATE 09-27-2022.

3 SHEET OF 15

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*[Signature]* 12/14/20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 11/12/20  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE SHEET 4

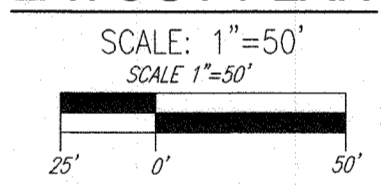


- LEGEND:**
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  - - - RIGHT-OF-WAY LINE
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  - EXISTING SPECIMEN TREE



**SHEET KEY**

**LAYOUT PLAN**



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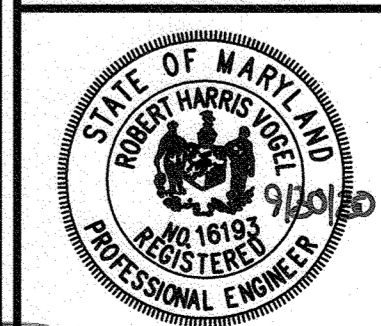
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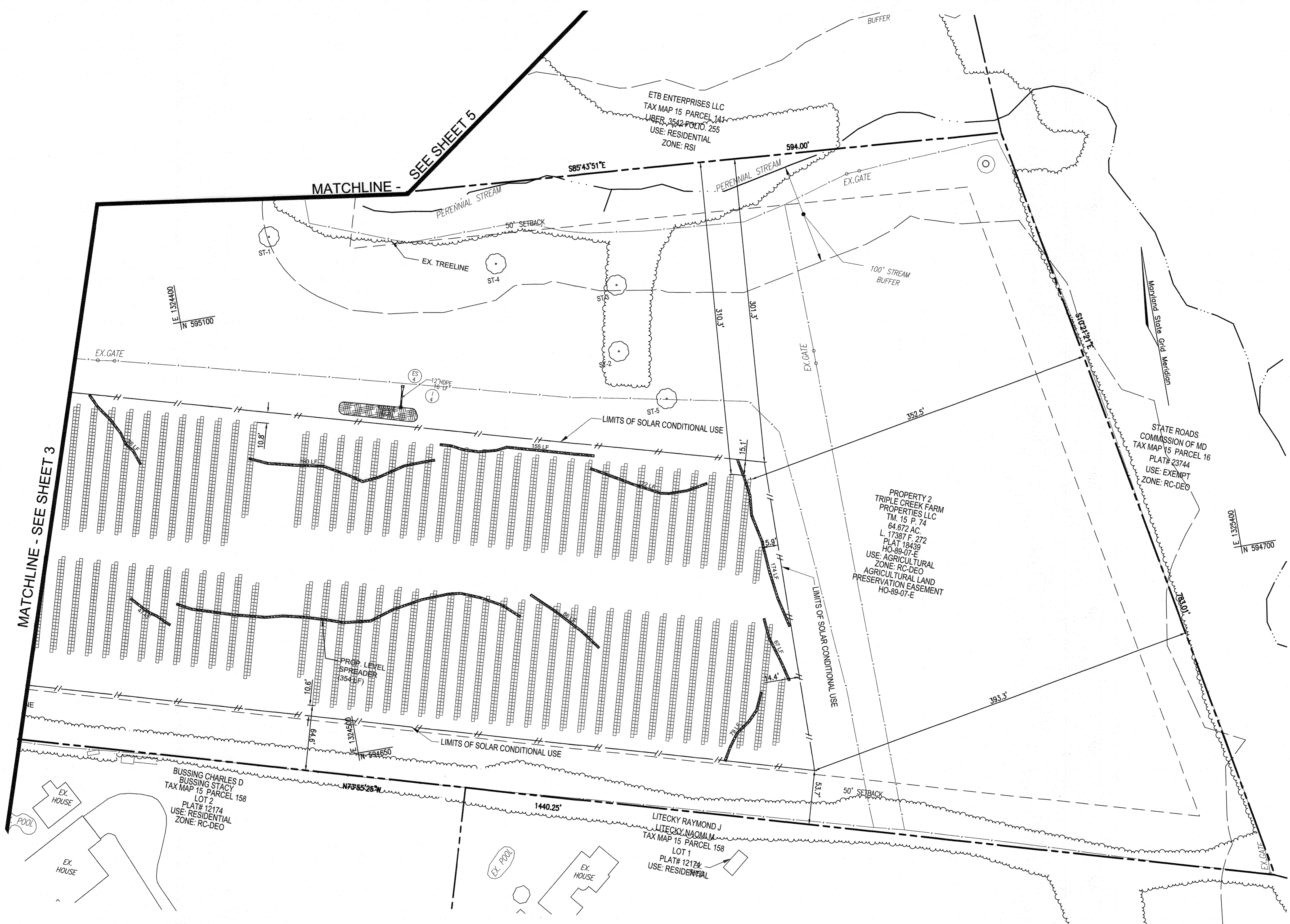


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DESIGN BY: RHV  
DRAWN BY: KS/JMH  
CHECKED BY: RHV  
DATE: JULY 2020  
SCALE: AS SHOWN  
W.O. NO.: 41657

4 SHEET OF 15

ROBERT H. VOGEL, P.E. NO. 16193



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

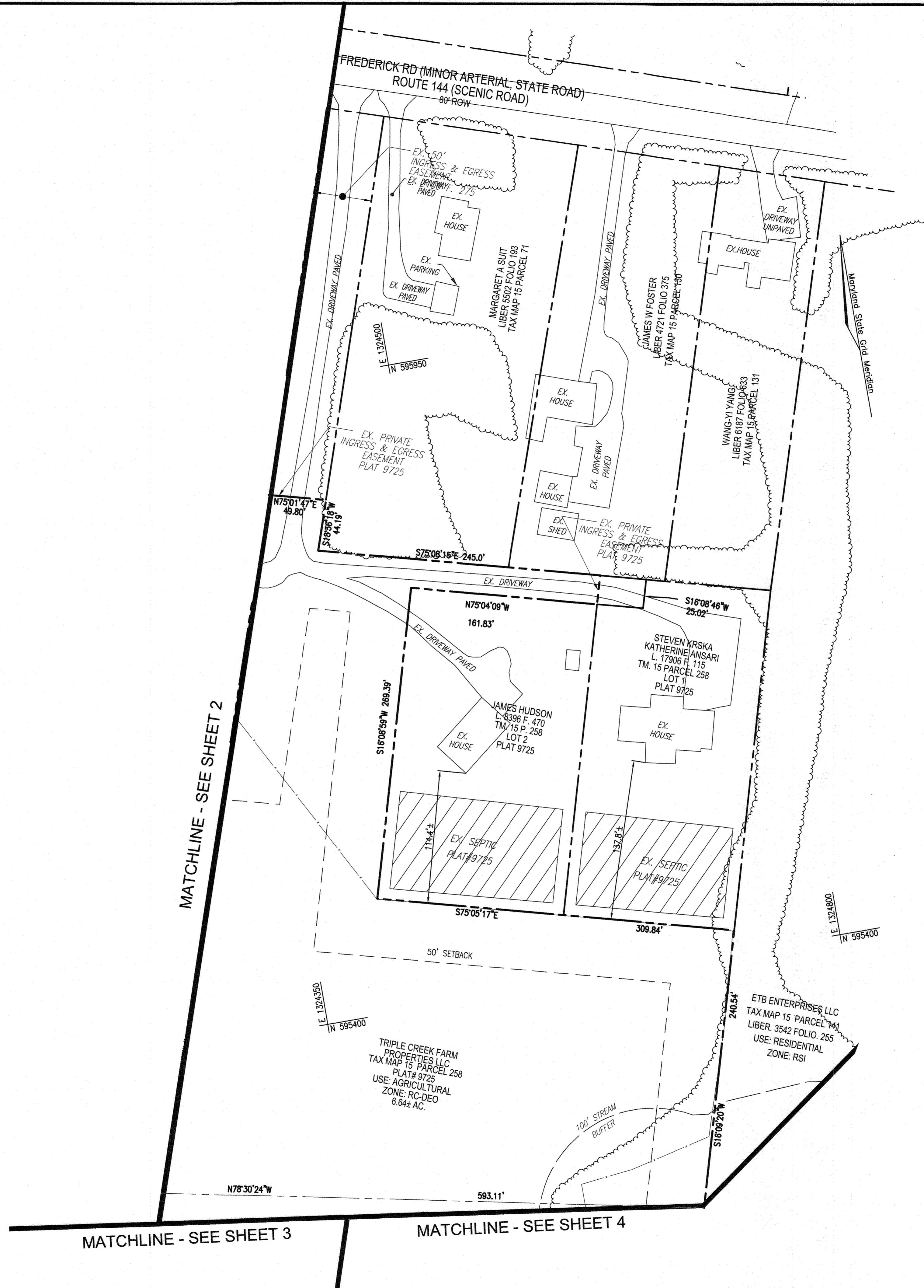
*Chief, Development Engineering Division* 12.14.20  
DATE

*Chief, Division of Land Development* 4/1/20  
DATE



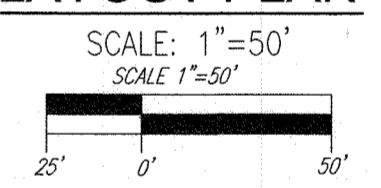
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	EXISTING TREE LINE
	EXISTING FENCE



**SHEET KEY**

**LAYOUT PLAN**



**DEVELOPER**  
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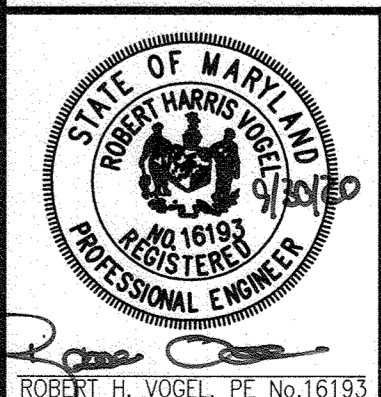
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**LAYOUT PLAN  
TRIPLE CREEK SOLAR**

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272

TAX MAP 15 BLOCK 10 ZONED RC-DEO  
3RD ELECTION DISTRICT PARCELS 74 & 258  
HOWARD COUNTY, MARYLAND

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DESIGN BY: R.H.V.  
DRAWN BY: KG/IMH  
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5 SHEET OF 15

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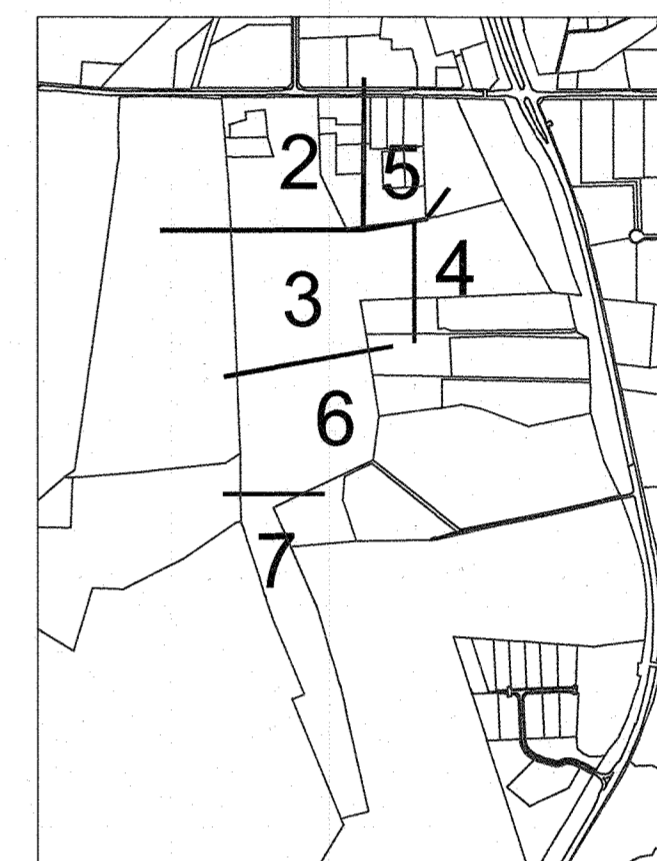
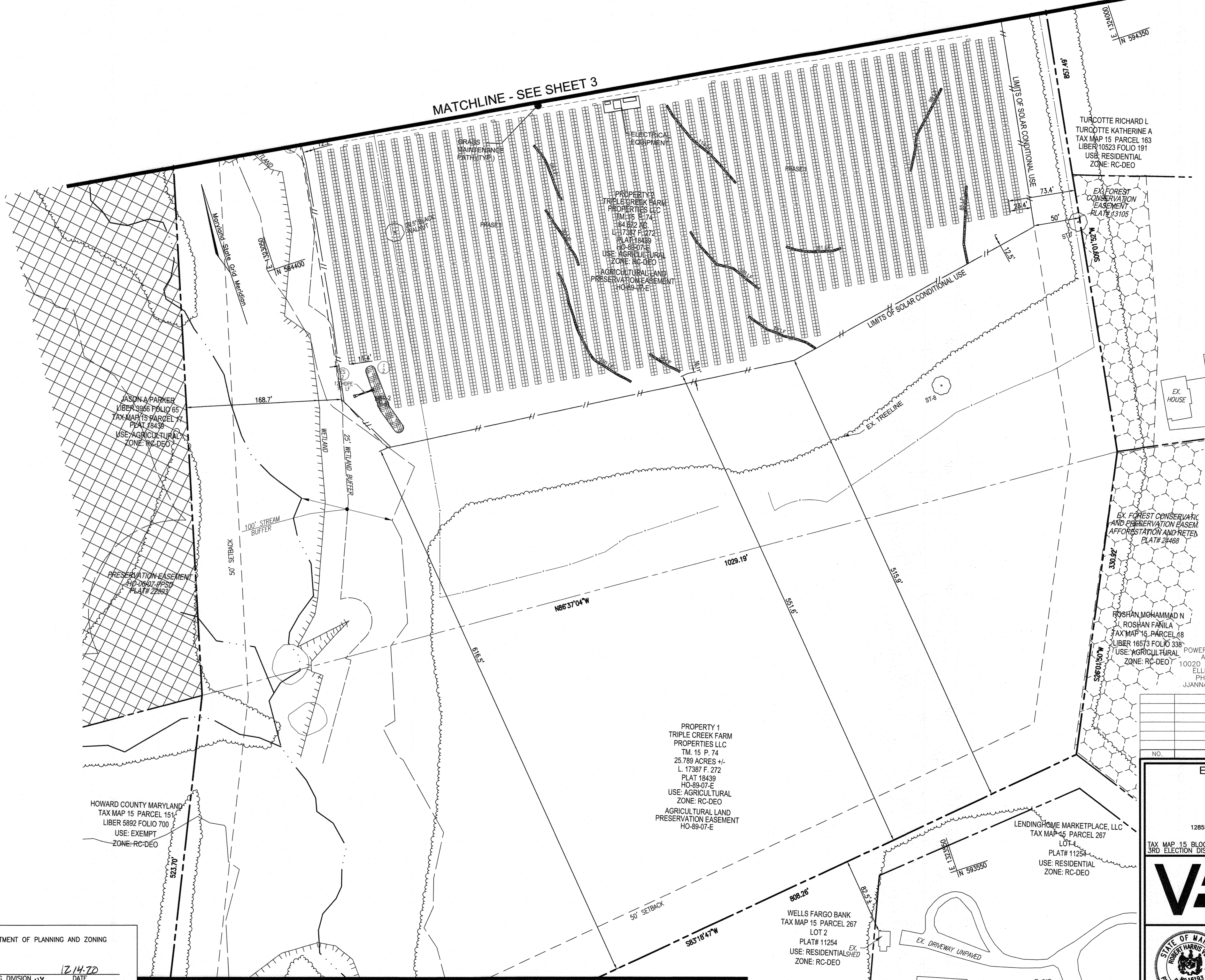
CHIEF, DEVELOPMENT ENGINEERING DIVISION 12.14.20  
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CHIEF, DIVISION OF LAND DEVELOPMENT 12/14/20  
DATE



MATCHLINE - SEE SHEET 3

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  - ▨ EXISTING PRESERVATION EASEMENT
  - ▩ EXISTING FOREST CONSERVATION EASEMENT



SHEET KEY

LAYOUT PLAN

SCALE: 1"=50'  
SCALE 1"=50'

DEVELOPER

POWER 52 ENERGY SOLUTIONS  
ATTN: JASON JANNATI  
10020 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MD 21042  
PHONE: 410-988-8216  
JJANNATI@POWER52ENERGY.COM

OWNER

TRIPLE CREEK FARM  
PROPERTIES, LLC  
12855 ROUTE 144  
WEST FRIENDSHIP, MD 21794  
PHONE:

PROPERTY 1  
TRIPLE CREEK FARM  
PROPERTIES LLC  
TM. 15 P. 74  
25.789 ACRES +/-  
L. 17387 F. 272  
PLAT 18439  
HO-89-07-E  
USE: AGRICULTURAL  
ZONE: RC-DEO  
AGRICULTURAL LAND  
PRESERVATION EASEMENT  
HO-89-07-E

HOWARD COUNTY MARYLAND  
TAX MAP 15 PARCEL 151  
LIBER 5892 FOLIO 700  
USE: EXEMPT  
ZONE: RC-DEO

LENDINGHOME MARKETPLACE, LLC  
TAX MAP 45 PARCEL 267  
LOT 4  
PLAT# 11254  
USE: RESIDENTIAL  
ZONE: RC-DEO

WELLS FARGO BANK  
TAX MAP 15 PARCEL 267  
LOT 2  
PLAT# 11254  
USE: RESIDENTIAL  
ZONE: RC-DEO

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 12/14/20

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 11/15/20

MATCHLINE - SEE SHEET 7

NO.	REVISION	DATE

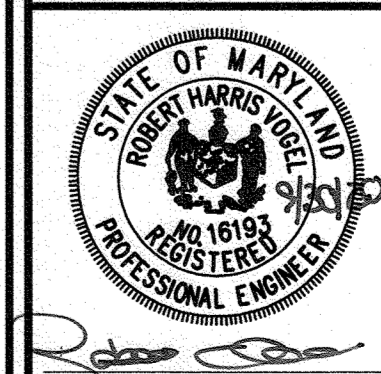
ENVIRONMENTAL CONCEPT PLAN

LAYOUT PLAN  
TRIPLE CREEK SOLAR

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272

TAX MAP 15 BLOCK 10  
3RD ELECTION DISTRICT  
ZONED RC-DEO  
PARCELS 74 & 258  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL**  
**ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
3300 NORTH RIDGE ROAD, SUITE 110 TEL: 410.461.7666  
ELLCOTT CITY, MD 21043 FAX: 410.461.8961



DESIGN BY: RHV  
DRAWN BY: KG/IMH  
CHECKED BY: RHV  
DATE: JULY 2020  
SCALE: AS SHOWN  
W.O. NO.: 41657

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



MATCHLINE - SEE SHEET 6

MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

MATCHLINE - SEE THIS SHEET

**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- CENTERLINE OF EXISTING STREAM
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREE LINE
- EXISTING FENCE
- WETLAND BOUNDARY
- WETLAND BUFFER
- PROPOSED FENCE
- EXISTING SPECIMEN TREE
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT

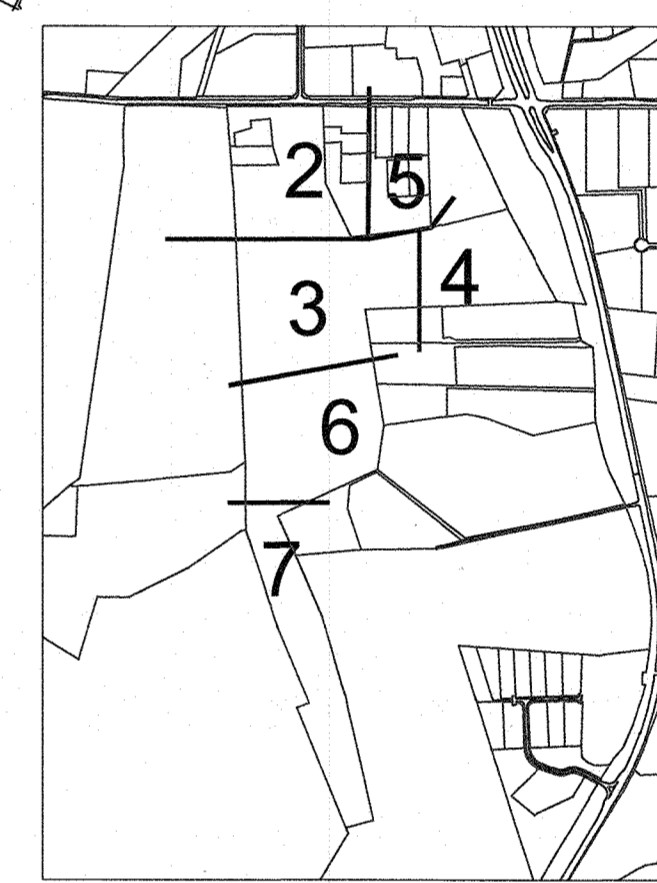
**LAYOUT PLAN**

SCALE: 1"=50'  
SCALE 1"=50'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*Chief Planning* 12.14.20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*Chief*  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE



SHEET KEY

**DEVELOPER**

POWER 52 ENERGY SOLUTIONS  
ATTN: JASON JANNATI  
10020 BALTIMORE NATIONAL PIKE  
ELlicOTT CITY, MD 21042  
PHONE: 410-988-8216  
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12855 ROUTE 144  
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PHONE:

NO.	REVISION	DATE

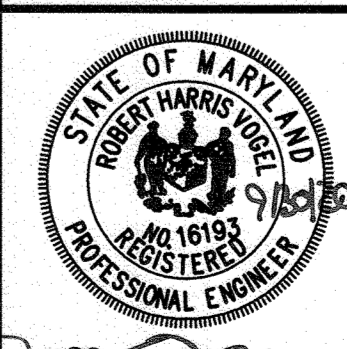
**ENVIRONMENTAL CONCEPT PLAN**

**LAYOUT PLAN  
TRIPLE CREEK SOLAR**

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
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TAX MAP 15 BLOCK 10 PARCELS 74 & 258  
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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EXPIRATION DATE: 09-27-2022

7 SHEET OF 15



**HSCD NOTES:**

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**NOTES:**

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3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS, STEEP SLOPES OR FOREST THAT EXISTS WITHIN THE PROPOSED LIMIT OF DISTURBANCE.

SPECIMEN TREE CHART				
KEY	SPECIES	SIZE (IN DBH)	CRZ (FT RADIUS)	COMMENTS
ST-1	BLACK CHERRY	37	55.5	GOOD
ST-2	RED MAPLE	33	49.5	GOOD
ST-3	RED MAPLE	34.5	51.75	GOOD
ST-4	RED MAPLE	33	49.5	POOR CONDITION, TRUNK ROT, ROOT COLLAR DAMAGE
ST-5	RED MAPLE	30.5	45.75	FAIR, MULTI-STEMMED WITH WEAK CONNECTIONS, SOME DIEBACK IN CANOPY
ST-6	BLACK CHERRY	31.5	47.25	FAIR, DIEBACK IN CANOPY
ST-7	BLACK CHERRY	42.5	63.75	POOR, MAJOR DIEBACK AND ROT
ST-8	33" POPLAR	50.5	75.75	GOOD
ST-9	RED OAK	30	45	POOR, SIGNIFICANT ROT
ST-10	BLACK WALNUT	46	69	GOOD IVY COVERED
ST-11	MULBERRY	36	54	POOR, MULTIPLE TRUNKS COMBINED TO FORM TRUNK, NOTABLE DIEBACK, POOR SHAPE
ST-12	BLACK CHERRY	31	46.5	FAIR CONDITION, SOME DIEBACK NOTED
ST-13	NORWAY MAPLE	33	49.5	POOR, MAJOR DIEBACK
ST-14	SILVER MAPLE	33	49.5	FAIR, SOME DIEBACK NOTED
ST-15	BLACK WALNUT	32	48	GOOD, CRZ IMPACTED BY ROAD
ST-16	NORWAY MAPLE	36	54	GOOD-NOT NATIVE
ST-17	RED MAPLE	31	46.5	GOOD
ST-18	SILVER MAPLE	38	57	POOR, TRUNK ROT, LIMB DIEBACK
ST-19	SILVER MAPLE	46	69	POOR, TRUNK ROT, LIMB DIEBACK
ST-20	BLACK CHERRY	32	48	POOR, STORM DAMAGE
ST-21	RED MAPLE	46	69	POOR, TRUNK WOUND

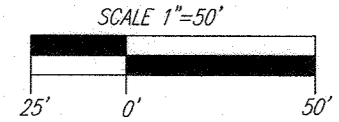
SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	HYDRO GROUP/K FACTOR	CRZ SLOPE PERCENT
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	NO B 0.23	NO
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	NO B 0.32	YES
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	NO B 0.37	YES
GpA	GLENGLE LOAM, 0 TO 3 PERCENT SLOPES	NO B 0.37	YES
GpB	GLENGLE LOAM, 3 TO 8 PERCENT SLOPES	NO B 0.37	YES
GmB	GLENGLE SILT LOAM, 3 TO 8 PERCENT SLOPES	YES C/D 0.55	YES
GpC	GLENGLE-BALD SILT LOAMS, 0 TO 8 PERCENT SLOPES	YES C 0.49	YES
BmB	BALD SILT LOAM, 0 TO 3 PERCENT SLOPES	YES C/D 0.49	NO
MkF	MANOR-BRINKLOW COMPLEX, 25 TO 65 PERCENT SLOPES	NO B 0.32	YES
LEA	LEA SILT LOAM		

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
K-FACTOR = Kw @ 0-4" DEPTH

**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.

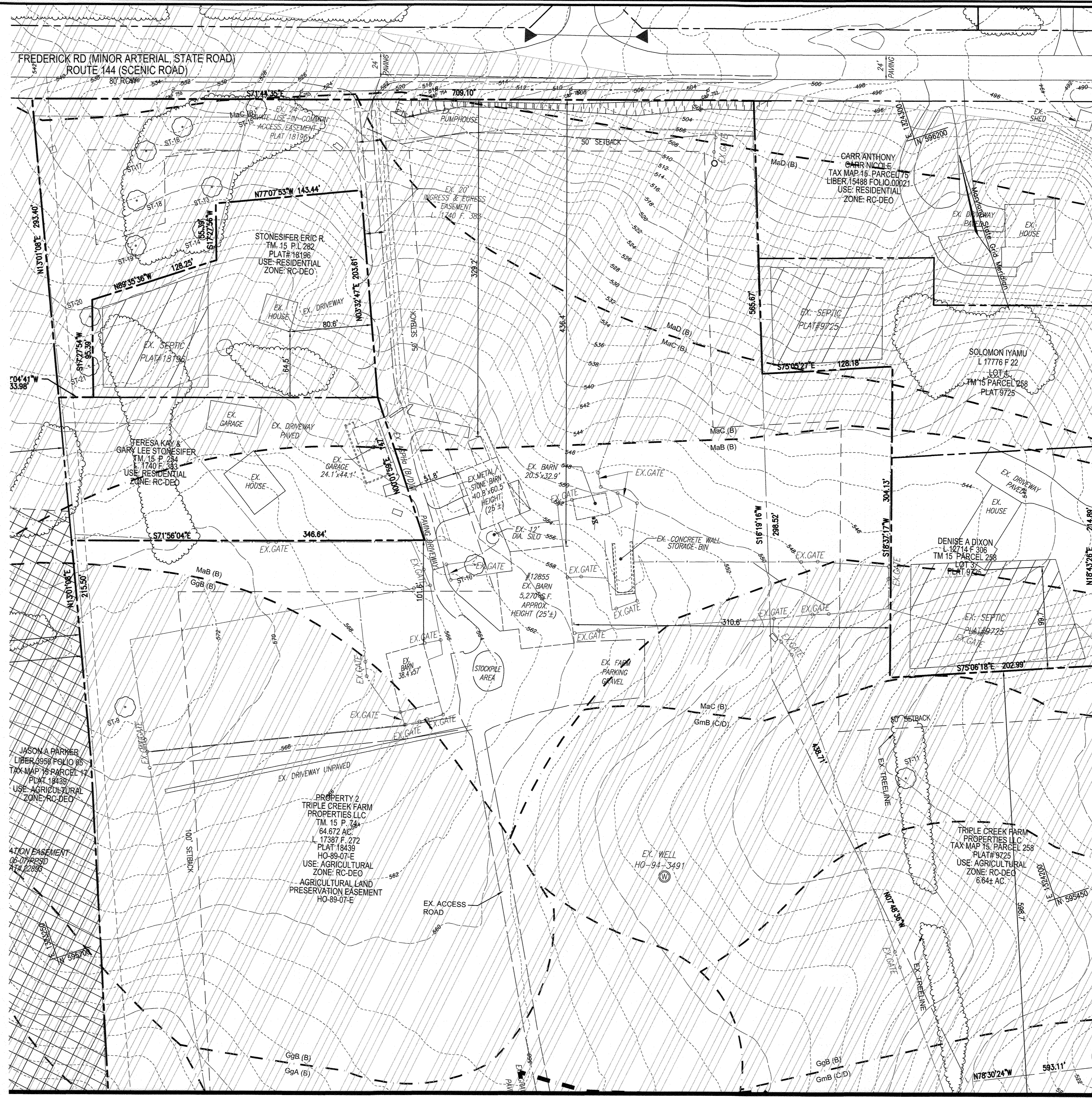
**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**

SCALE: 1"=50'



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

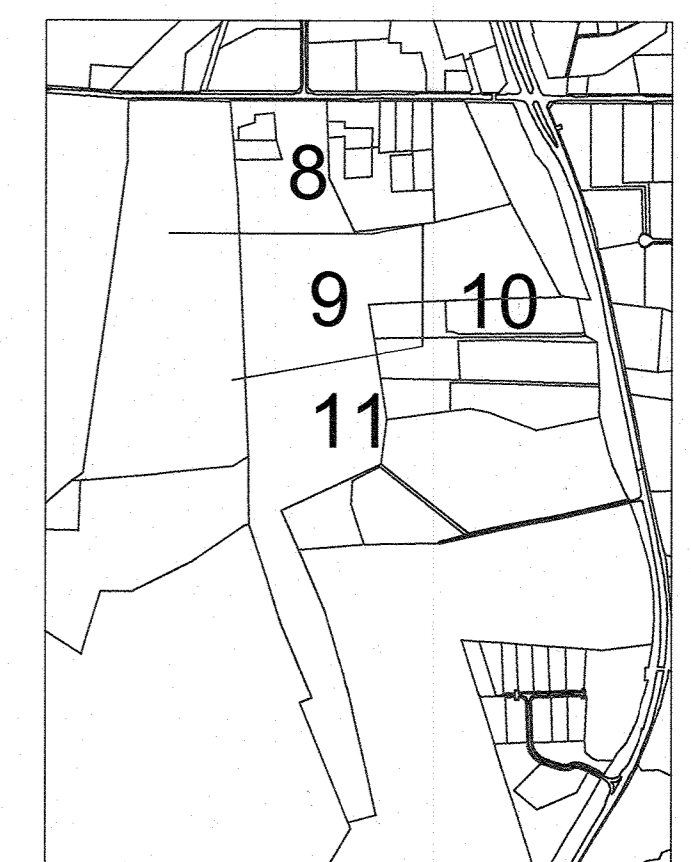
*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 12.14.20 DATE  
*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT 1/12/21 DATE



**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- CENTERLINE OF EXISTING STREAM
- EXISTING CONTOUR
- EXISTING UTILITY POLE
- EXISTING MANHOLE
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLENDARY
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREELINE
- EXISTING FENCE
- EXISTING SPECIMEN TREE
- SOILS BOUNDARY
- MaD (B)
- MaC (B)
- HIGHLY ERODIBLE SOILS
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT

**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.



**SHEET KEY**

**DEVELOPER**  
POWER 52 ENERGY SOLUTIONS  
ATTN: JASON JANNATI  
10020 BALTIMORE NATIONAL PIKE  
ELLIOTT CITY, MD 21042  
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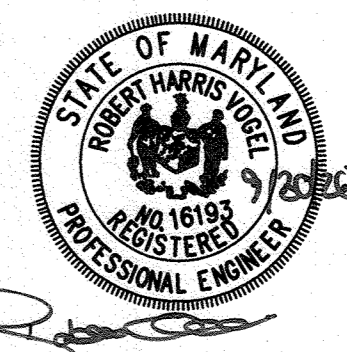
**OWNER**  
TRIPLE CREEK FARM PROPERTIES, LLC  
12855 ROUTE 144  
WEST FRIENDSHIP, MD 21794  
PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN  
SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN  
TRIPLE CREEK SOLAR**

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272  
TAX MAP 15 BLOCK 10  
3RD ELECTION DISTRICT  
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DESIGN BY: RHV  
DRAWN BY: KG/IMH  
CHECKED BY: RHV  
DATE: JULY 2020  
SCALE: AS SHOWN  
W.O. NO.: 41657

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. MY LICENSE NO. 16193 EXPIRES DATE: 08-27-2022

8 SHEET OF 15

MATCHLINE - SEE SHEET 9



MATCHLINE - SEE SHEET 8

**NOTES:**  
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 3. THERE ARE NO ENVIRONMENTAL FEATURES: FLOODPLAIN, WETLANDS, STREAMS, STEEP SLOPES OR FOREST THAT EXISTS WITHIN THE PROPOSED LIMIT OF DISTURBANCE.

KEY	SPECIES	SIZE (INDBH)	CRZ (FT RADIUS)	COMMENTS
ST-6	BLACK CHERRY	31.5	47.25	FAIR, DIEBACK IN CANOPY
ST-12	BLACK CHERRY	31	46.5	FAIR CONDITION, SOME DIEBACK NOTED

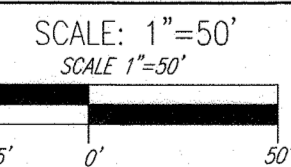
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 4. THE FINAL PLAN SUBMISSION SHALL PROVIDE COMPUTATIONS TO VERIFY VELOCITIES ALONG DIKES, SWALES AND AT DIKES OUTLET LOCATIONS.

SOILS LEGEND				
HOWARD COUNTY SOILS MAP #24				
SYMBOL	NAME / DESCRIPTION	HYDRO GROUP	FACTOR	CRZ SLOPE BY REGION
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.28 NO
Mac	MANOR LOAM, 8 TO 15 PERCENT SLOPES	NO	B	0.32 YES
Mad	MANOR LOAM, 15 TO 25 PERCENT SLOPES	NO	B	0.32 YES
GcA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	NO	B	0.37 YES
GcB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.37 YES
GmB	GLENELG SILT LOAM, 3 TO 8 PERCENT SLOPES	YES	C/D	0.55 YES
GcB	GLENELG-SILT LOAM, 0 TO 8 PERCENT SLOPES	YES	C	0.49 YES
BmB	BANKS SILT LOAM, 0 TO 3 PERCENT SLOPES	YES	C/D	0.49 NO
MmF	MANOR-BENKINLOAM COMPLEX, 25 TO 65 PERCENT SLOPES	NO	B	0.32 YES

TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
 K-FACTOR =  $K_w \cdot \theta \cdot 0.4^{\text{DEPTH}}$   
**NOTE:**  
 HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL PROBABILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

**NOTE:**  
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**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**



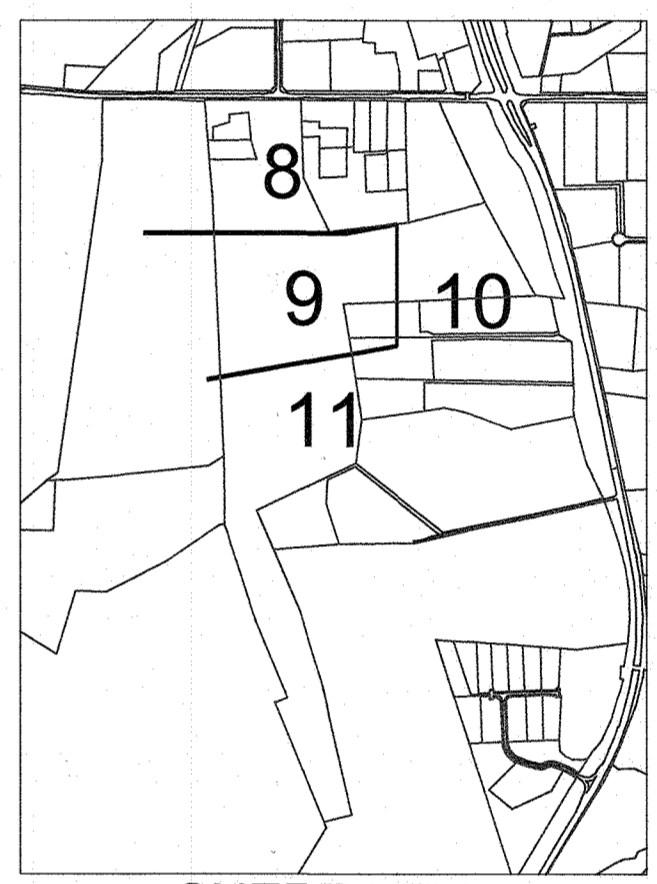
APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION, DATE: 12/14/20  
  
 CHIEF, DIVISION OF LAND DEVELOPMENT, DATE: 1/16/21



**LEGEND:**

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING PAVING
	CENTERLINE OF EXISTING STREAM
	EXISTING CONTOUR
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	PROPOSED FENCE
	WETLAND BOUNDARY
	WETLAND BUFFER
	EXISTING SPECIMEN TREE
	SOILS BOUNDARY
	HIGHLY ERODIBLE SOILS
	PROPOSED CONTOUR
	LIMIT OF DISTURBANCE
	STABILIZED CONSTRUCTION ENTRANCE
	SUPER SILT FENCE
	EARTH DIKE
	TEMPORARY STONE OUTLET STRUCTURE
	TSOS
	EXISTING PRESERVATION EASEMENT
	EXISTING FOREST CONSERVATION EASEMENT

MATCHLINE - SEE SHEET 10



SHEET KEY

**DEVELOPER**  
 POWER 52 ENERGY SOLUTIONS  
 ATTN: JASON JANNATI  
 10020 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21042  
 PHONE: 410-988-8216  
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**OWNER**  
 TRIPLE CREEK FARM PROPERTIES, LLC  
 12855 ROUTE 144  
 WEST FRIENDSHIP, MD 21794  
 PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**  
**TRIPLE CREEK SOLAR**

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DESIGN BY: RHV  
 DRAWN BY: KC/MLH  
 CHECKED BY: RHV  
 DATE: JULY 2020  
 SCALE: AS SHOWN  
 W.O. NO.: 41657

PROFESSIONAL CERTIFICATE  
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STATE OF MARYLAND  
 ROBERT H. VOGEL  
 REGISTERED PROFESSIONAL ENGINEER  
 NO. 16193

MATCHLINE - SEE SHEET 11



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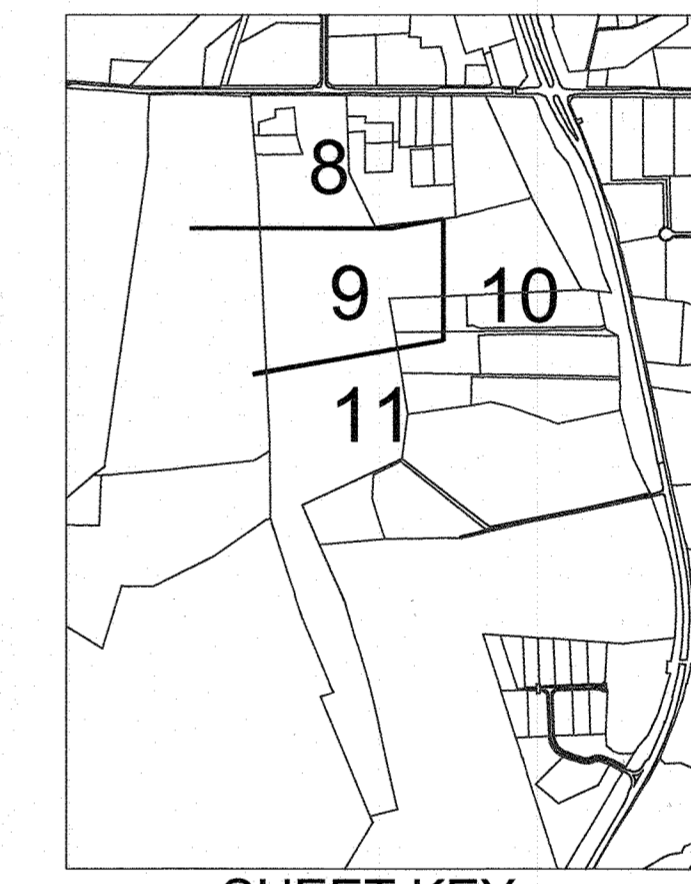
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SPECIMEN TREE CHART				
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- EXISTING WATER LINE
- EXISTING TREELINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING SPECIMEN TREE
- SOILS BOUNDARY
- STEEP SLOPE (>25%)
- HIGHLY ERODIBLE SOILS
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- EARTH DIKE
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT



**SHEET KEY**

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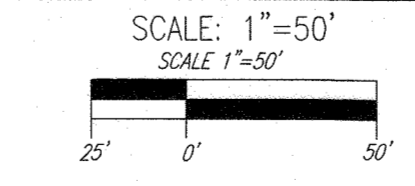
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TRIPLE CREEK FARM PROPERTIES, LLC  
12855 ROUTE 144  
WEST FRIENDSHIP, MD 21794  
PHONE:



SOILS LEGEND					
SYMBOL	NAME / DESCRIPTION	HYDRO GROUP	K FACTOR	<1% SLOPE W. DRIP OR MORE PERCENT	
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.23	NO
McC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	NO	B	0.32	YES
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	NO	B	0.32	YES
GcA	GLENNVILLE LOAM, 0 TO 3 PERCENT SLOPES	NO	B	0.37	YES
GcE	GLENNVILLE LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.37	YES
GmB	GLENNVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	YES	C/D	0.55	YES
GmE	GLENNVILLE-BALE SILT LOAMS, 0 TO 8 PERCENT SLOPES	YES	C	0.49	YES
BgA	BALE SILT LOAM, 0 TO 3 PERCENT SLOPES	YES	C/D	0.49	NO
MmF	MANOR-BRINKLOW COMPLEX, 25 TO 65 PERCENT SLOPES VERY ROCKY	NO	B	0.32	YES

**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.

**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION  
DATE: 12.14.20

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT  
DATE: 1/13/21

ENVIRONMENTAL CONCEPT PLAN  
SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN  
TRIPLE CREEK SOLAR

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272

TAX MAP 15 BLOCK 10  
3RD ELECTION DISTRICT

ZONED RC-DEO  
PARCELS 74 & 258  
HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
3300 NORTH RIDGE ROAD, SUITE 110 TEL: 410.461.7666  
ELLCOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV  
DRAWN BY: KG/IMH  
CHECKED BY: RHV  
DATE: JULY 2020  
SCALE: AS SHOWN  
W.O. NO.: 41657

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. MY EXPIRATION DATE IS 09-27-2022.

10 SHEET OF 15



**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.

**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.

SOILS LEGEND					
HOWARD COUNTY SOILS MAP #24					
SYMBOL	NAME / DESCRIPTION	HYDRO GROUP	K FACTOR	CLAY SLOPE PERCENT	
MdB	MANOR LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.28	NO
MdC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	NO	B	0.32	YES
MdD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	NO	B	0.32	YES
GdA	GLENELG LOAM, 0 TO 3 PERCENT SLOPES	NO	B	0.37	YES
GdB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	NO	B	0.37	YES
GdC	GLENELG LOAM, 8 TO 15 PERCENT SLOPES	NO	B	0.37	YES
GdD	GLENELG LOAM, 15 TO 25 PERCENT SLOPES	NO	B	0.37	YES
GdE	GLENELG LOAM, 25 TO 65 PERCENT SLOPES	NO	B	0.32	YES

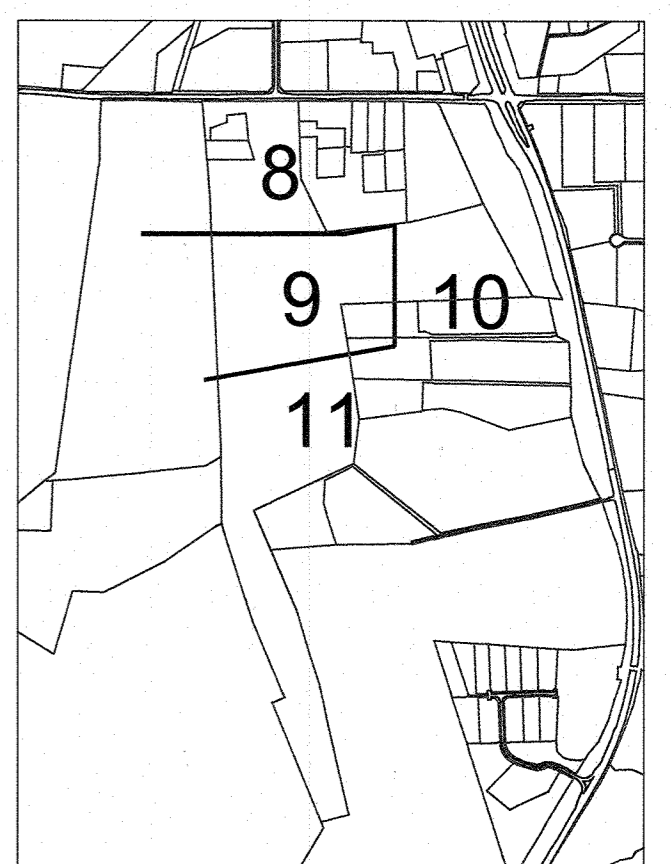
TAKEN FROM: USDA, SCS-WEB SOIL SURVEY, HOWARD COUNTY  
K-FACTOR = Kw @ 0-4" DEPTH

**NOTE:**  
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL CROSSLINK FACTOR K GREATER THAN 0.25 AND WITH A SLOPE GREATER THAN 5 PERCENT.

SPECIMEN TREE CHART				
KEY	SPECIES	SIZE (IN DBH)	CRZ (FT RADIUS)	COMMENTS
ST-7	BLACK CHERRY	42.5	63.75	POOR, MAJOR DIEBACK AND ROT
ST-8	33" POPLAR	50.5	75.75	GOOD

**LEGEND:**

- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING PAVING
- CENTERLINE OF EXISTING STREET
- EXISTING CONTOUR
- EXISTING UTILITY POLE
- EXISTING MALBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEARCUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREETRUNK
- EXISTING FENCE
- WETLAND BOUNDARY
- WETLAND BUFFER
- PROPOSED FENCE
- EXISTING SPECIMEN TREE
- SOILS BOUNDARY
- HIGHLY ERODIBLE SOILS
- PROPOSED CONTOUR
- LIMIT OF DISTURBANCE
- STABILIZED CONSTRUCTION ENTRANCE
- SUPER SILT FENCE
- EARTH DIKE
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT



**SHEET KEY LAYOUT PLAN**  
SCALE: 1"=50'  
SCALE: 1"=50'

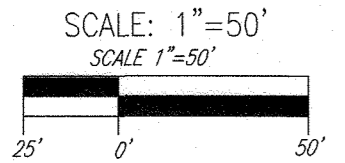
**DEVELOPER**  
POWER 52 ENERGY SOLUTIONS  
ATTN: JASON JANNATI  
10020 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD 21042  
PHONE: 410-988-8216  
JJANNATI@POWER52ENERGY.COM

**OWNER**  
TRIPLE CREEK FARM PROPERTIES LLC  
12855 ROUTE 144  
WEST FRIENDSHIP, MD 21794  
PHONE:



**NOTE:**  
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**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]* 12.14.20  
CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE

*[Signature]* 1/15/21  
CHIEF, DIVISION OF LAND DEVELOPMENT DATE

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**SOILS MAP, GRADING, EROSION AND SEDIMENT CONTROL PLAN**  
**TRIPLE CREEK SOLAR**  
12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272  
ZONED RC-DEO  
TAX MAP 15 BLOCK 10 PARCELS 74 & 258  
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
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ELLICOTT CITY, MD 21043 FAX: 410.461.8961

**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 # 16193, EXPIRATION DATE 08-27-2023.

DESIGN BY: RHY  
DRAWN BY: KG/IMH  
CHECKED BY: RHY  
DATE: JULY 2020  
SCALE: AS SHOWN  
W.O. NO.: 41657

11 SHEET OF 15



**LEGEND:**

- PROPERTY LINE
- - - RIGHT-OF-WAY LINE
- · - · - ADJACENT PROPERTY LINE
- - - EXISTING PAVING
- · - · - CENTERLINE OF EXISTING STREAM
- - - EXISTING CONTOUR
- EXISTING UTILITY POLE
- EXISTING MAILBOX
- EXISTING SIGN
- EXISTING SANITARY MANHOLE
- EXISTING SANITARY LINE
- EXISTING CLEANOUT
- EXISTING FIRE HYDRANT
- EXISTING WATER LINE
- EXISTING TREETRINE
- EXISTING FENCE
- PROPOSED FENCE
- EXISTING SPECIMEN TREE
- SOILS BOUNDARY
- PROPOSED CONTOUR
- EXISTING PRESERVATION EASEMENT
- EXISTING FOREST CONSERVATION EASEMENT
- SLOPES (<5%)
- SLOPES (5-10%)
- SLOPES (>10%)



**SHEET KEY**

MATCHLINE - SEE SHEET 13

**DEVELOPER**  
POWER 52 ENERGY SOLUTIONS  
ATTN: JASON JANNATI  
10020 BALTIMORE NATIONAL PIKE  
ELLICOTT CITY, MD 21042  
PHONE: 410-988-8216  
JJANNATI@POWER52ENERGY.COM

**OWNER**  
TRIPLE CREEK FARM  
PROPERTIES, LLC  
12855 ROUTE 144  
WEST FRIENDSHIP, MD 21794  
PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN  
STORMWATER MANAGEMENT  
DRAINAGE AREA MAP  
TRIPLE CREEK SOLAR**

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
LIBER 17387 FOLIO 272

TAX MAP 15 BLOCK 10 PARCELS 74 & 258  
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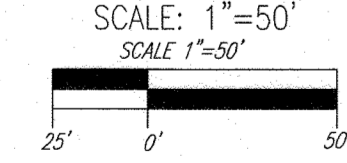
**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV  
DRAWN BY: KG/IMH  
CHECKED BY: RHV  
DATE: JULY 2020  
SCALE: AS SHOWN  
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12 SHEET OF 15

**STORMWATER MANAGEMENT  
DRAINAGE AREA MAP**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

*[Signature]*  
CHIEF, DEVELOPMENT ENGINEERING DIVISION 12.14.20  
DATE

*[Signature]*  
CHIEF, DIVISION OF LAND DEVELOPMENT 11/13/20  
DATE

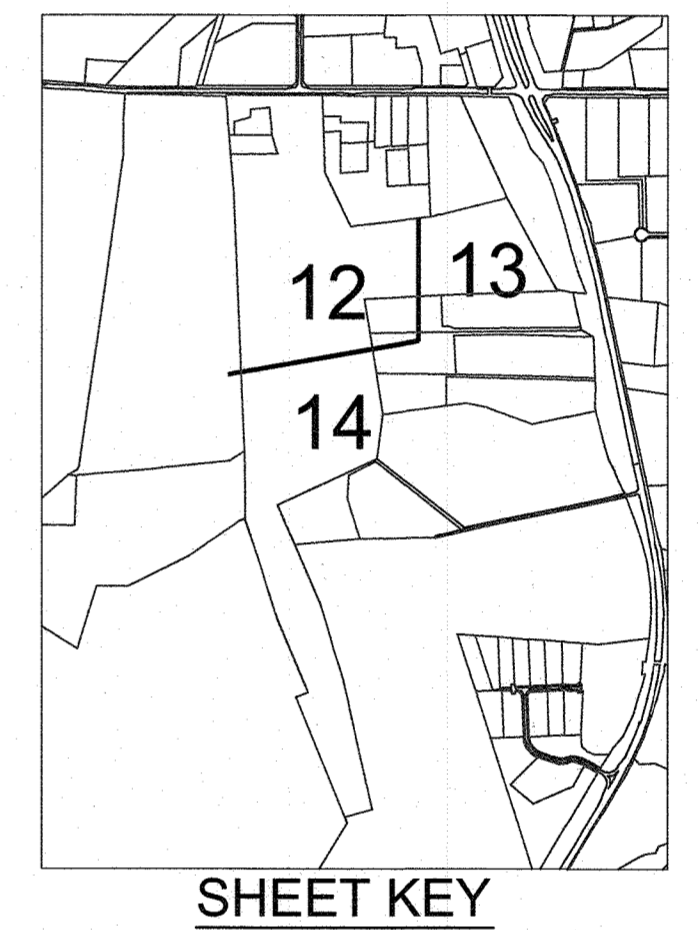


MATCHLINE - SEE SHEET 14



**LEGEND:**

	PROPERTY LINE
	RIGHT-OF-WAY LINE
	ADJACENT PROPERTY LINE
	EXISTING PAVING
	CENTERLINE OF EXISTING STREAM
	EXISTING CONTOUR
	EXISTING UTILITY POLE
	EXISTING MALBOX
	EXISTING SIGN
	EXISTING SANITARY MANHOLE
	EXISTING SANITARY LINE
	EXISTING CLEANOUT
	EXISTING FIRE HYDRANT
	EXISTING WATER LINE
	EXISTING TIELINE
	EXISTING FENCE
	PROPOSED FENCE
	EXISTING SPECIMEN TREE
	SOILS BOUNDARY
	PROPOSED CONTOUR
	EXISTING PRESERVATION EASEMENT
	EXISTING FOREST CONSERVATION EASEMENT
	STEEP SLOPE (>25%)
	SLOPES (<5%)
	SLOPES (5-10%)
	SLOPES (>10%)



<b>DEVELOPER</b>	<b>OWNER</b>
POWER 52 ENERGY SOLUTIONS ATTN: JASON JANNATI 10020 BALTIMORE NATIONAL PIKE ELLICOTT CITY, MD 21042 PHONE: 410-988-8216 JJANNATI@POWER52ENERGY.COM	TRIPLE CREEK FARM PROPERTIES LLC 12855 ROUTE 144 WEST FRIENDSHIP, MD 21794 PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**STORMWATER MANAGEMENT**  
**DRAINAGE AREA MAP**  
**TRIPLE CREEK SOLAR**  
 12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
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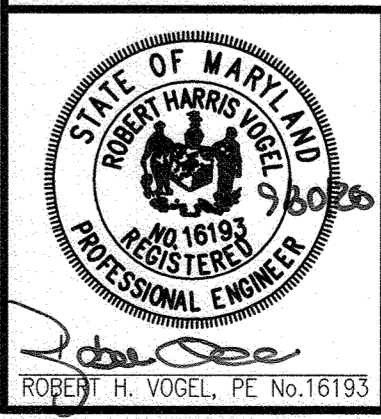
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DESIGN BY: RHV  
 DRAWN BY: KG/IMH  
 CHECKED BY: RHV  
 DATE: JULY 2020  
 SCALE: AS SHOWN  
 W.O. NO.: 41657

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. 15-116  
 EXPIRATION DATE: 09-27-2022

**13** SHEET OF **15**



**STORMWATER MANAGEMENT  
 DRAINAGE AREA MAP**  
 SCALE: 1"=50'  
 SCALE 1"=30'

APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION DATE: 12.14.20

CHIEF, DIVISION OF LAND DEVELOPMENT DATE: 11/20



MATCHLINE - SEE SHEET 12

- LEGEND:**
- PROPERTY LINE
  - - - RIGHT-OF-WAY LINE
  - - - ADJACENT PROPERTY LINE
  - - - EXISTING PAVING
  - - - CENTERLINE OF EXISTING STREAM
  - - - EXISTING CONTOUR
  - EXISTING UTILITY POLE
  - EXISTING MAILBOX
  - EXISTING SIGN
  - EXISTING SANITARY MANHOLE
  - EXISTING SANITARY LINE
  - EXISTING CLEANOUT
  - EXISTING FIRE HYDRANT
  - EXISTING WATER LINE
  - EXISTING TREELINE
  - EXISTING FENCE
  - WETLAND BOUNDARY
  - WETLAND BUFFER
  - PROPOSED FENCE
  - EXISTING SPECIMEN TREE
  - MaD (B)
  - MaC (B)
  - SOILS BOUNDARY
  - PROPOSED CONTOUR
  - EXISTING PRESERVATION EASEMENT
  - EXISTING FOREST CONSERVATION EASEMENT
  - STEEP SLOPE (>25%)
  - SLOPES (<5%)
  - SLOPES (5-10%)
  - SLOPES (>10%)



SHEET KEY

**DEVELOPER**  
 ATTN: JASON JANNATI  
 10020 BALTIMORE NATIONAL PIKE  
 ELLICOTT CITY, MD 21042  
 PHONE: 410-988-8216  
 JJANNATI@POWERS2ENERGY.COM

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 PROPERTIES, LLC  
 12855 ROUTE 144  
 WEST FRIENDSHIP, MD 21794  
 PHONE:

NO.	REVISION	DATE

**ENVIRONMENTAL CONCEPT PLAN**  
**STORMWATER MANAGEMENT**  
**DRAINAGE AREA MAP**  
**TRIPLE CREEK SOLAR**

12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
 LIBER 17387 FOLIO 272

TAX MAP 15 BLOCK 10  
 3RD ELECTION DISTRICT

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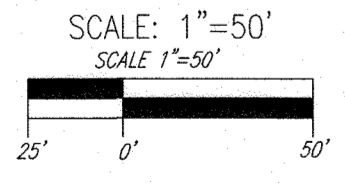
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14 SHEET OF 15

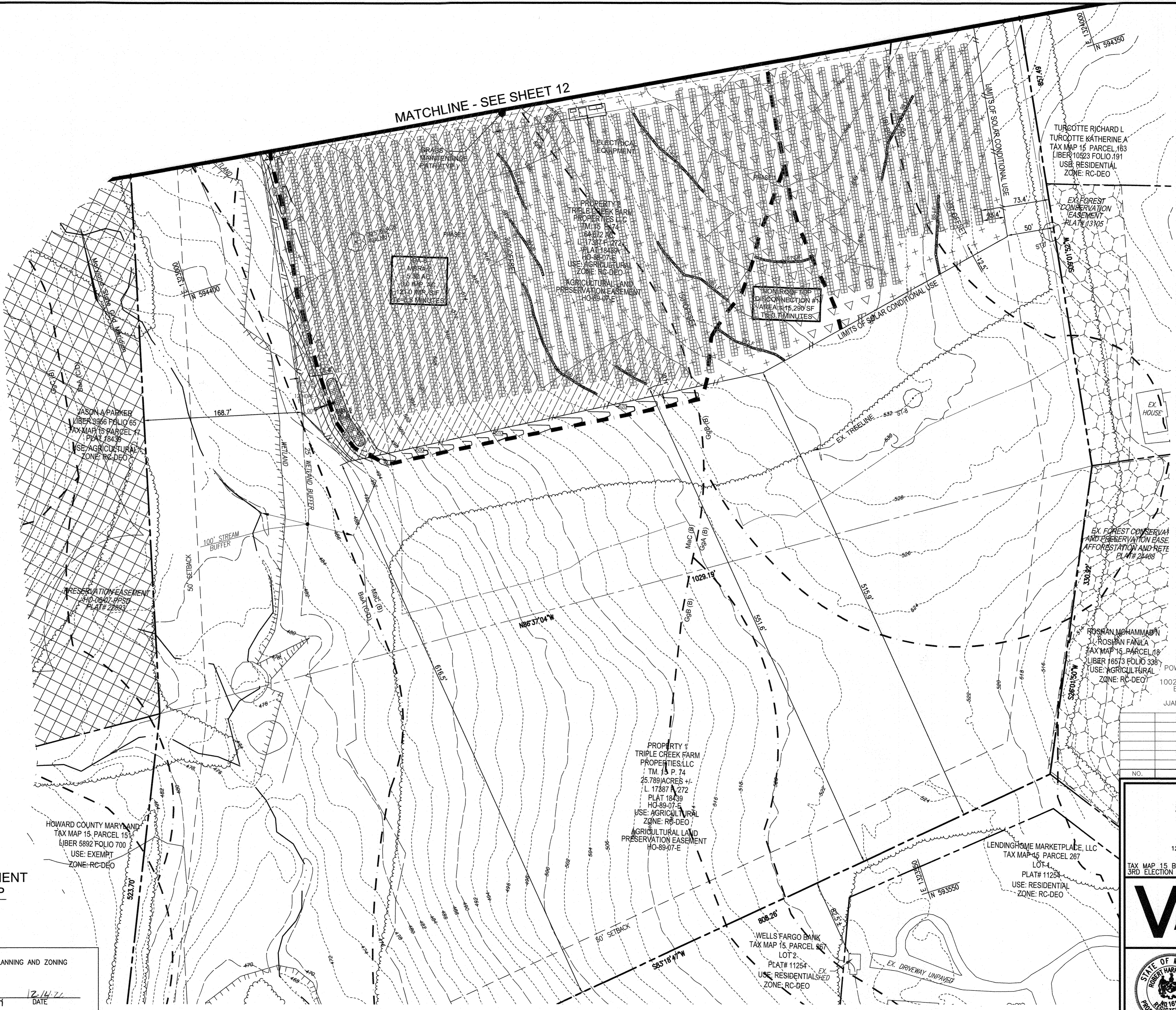
**STORMWATER MANAGEMENT**  
**DRAINAGE AREA MAP**



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING

\_\_\_\_\_  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION #1  
 DATE: 12/14/21

\_\_\_\_\_  
 CHIEF, DIVISION OF LAND DEVELOPMENT  
 DATE: 1/16/22





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, SCARPING 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)

- 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 OF IMPERVIOUS AREA. IN COMMERCIAL AREAS, FOOT TRAFFIC SHOULD BE DISCOURAGED AS WELL.

APPENDIX B.4.C SPECIFICATIONS FOR MICRO-BIORETENTION, RAIN GARDEN, LANDSCAPE INFILTRATION & INFILTRATION BERMS

1. MATERIAL SPECIFICATIONS 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 MIXTURE 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 PROVIDE A HINDRANCE TO THE PLANTING OR MAINTENANCE OPERATIONS. THE PLANTING SOIL SHALL BE FREE OF BERMUDA GRASS, QUACKGRASS, JOHNSON GRASS, OR OTHER NOXIOUS WEEDS AS SPECIFIED UNDER COMAR 15.08.01.05. 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). IN GENERAL, THIS CAN BE MET WITH A MIXTURE OF LOAMY SAND (60%-65%) AND COMPOST (35% TO 40%) OR SANDY LOAM (30%), CORNER SAND (30%), AND COMPOST (40%).
- CLAY CONTENT - MEDIA SHALL HAVE A CLAY CONTENT OF LESS THAN 5%.
- PH RANGE - SHOULD BE BETWEEN 5.5 - 7.0. AMENDMENTS (E.G., LIME, IRON SULFATE PLUS SULFUR) MAY BE MIXED IN TO THE SOIL TO INCREASE OR DECREASE PH.

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. A TEXTURAL ANALYSIS IS REQUIRED FROM THE SITE STOCKPILED TOPSOIL. IF TOPSOIL IS IMPORTED, THEN A TEXTURAL ANALYSIS SHALL BE PERFORMED FOR EACH LOCATION WHERE THE TOPSOIL WAS EXCAVATED.

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. IF PRACTICES ARE EXCAVATED USING LOADERS, THE CONTRACTOR SHOULD USE WIDE TRACK OR MARSH TRACK EQUIPMENT OR LIGHT EQUIPMENT WITH TURF TYPE TIRES. USE OF EQUIPMENT WITH NARROW TRACKS OR NARROW TIRES, RUBBER TIRES WITH LARGE LUGS, OR HIGH-PRESSURE TIRES WILL CAUSE EXCESSIVE COMPACTION RESULTING IN REDUCED INFILTRATION RATES AND IS NOT ACCEPTABLE. COMPACTION WILL SIGNIFICANTLY CONTRIBUTE TO DESIGN FAILURE.

COMPACTION CAN BE ALLEVATED AT THE BASE OF THE BIORETENTION FACILITY BY USING A PRIMARY TILLING OPERATION SUCH AS CHISEL PLOW, RIPPER, OR SUBSOILER. THESE TILLING OPERATIONS ARE TO REFRACTURE THE SOIL PROFILE THROUGH THE 12 INCH COMPACTION ZONE. SUBSTITUTE METHODS MUST BE APPROVED BY THE ENGINEER. ROTOTILLERS TYPICALLY DO NOT RILL DEEP ENOUGH TO REDUCE THE EFFECTS OF COMPACTION FROM HEAVY EQUIPMENT.

ROTOFILL 2 TO 3 INCHES OF SAND INTO THE BASE OF THE BIORETENTION FACILITY BEFORE BACKFILLING THE OPTIONAL SAND LAYER. PUMP ANY PONDED WATER BEFORE PREPARING (ROTOFILLING) BASE. 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. BACKFILL THE REMAINDER OF THE TOPSOIL TO FINAL GRADE. WHEN BACKFILLING THE BIORETENTION FACILITY, PLACE SOIL IN LIFTS 12" TO 16". DO NOT USE HEAVY EQUIPMENT WITHIN THE BIORETENTION BASIN. HEAVY EQUIPMENT CAN BE USED AROUND THE PERIMETER OF THE BASIN TO SUPPLY SOILS AND SAND. GRADE BIORETENTION MATERIALS WITH LIGHT EQUIPMENT SUCH AS A COMPACT LOADER OR A DOZER/LOADER WITH MARSH TRACKS.

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". SHREDDED OR CHIPPED 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. SHREDDED MULCH MUST BE WELL AGED (6 TO 12 MONTHS) FOR ACCEPTANCE. ROOTSTOCK OF THE PLANT MATERIAL SHALL BE KEPT MOIST DURING TRANSPORT AND ON-SITE STORAGE. THE PLANT ROOT BALL SHOULD BE SLIGHTLY SHORT 1/8TH OF THE BALL IS ABOVE FINAL GRADE SURFACE. THE DIAMETER OF THE PLANTING PIT SHALL BE AT LEAST SIX INCHES LARGER THAN THE DIAMETER OF THE PLANTING BALL. SET AND MAINTAIN THE PLANT STRAIGHT DURING THE ENTIRE PLANTING PROCESS. THOROUGHLY WATER GROUND BED COVER AFTER INSTALLATION. 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 PLOTS 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. ADDING FERTILIZERS, DEFOLIANTS, OR AT A MINIMUM, IMPROVES THIS GOAL. ONLY ADD FERTILIZER IF WOOD CHIPS OR MULCH ARE USED TO AMEND THE SOIL. ROTOTILL UREA FERTILIZER AT A RATE OF 2 POUNDS PER 1000 SQUARE FEET.

6. UNDERDRAINS

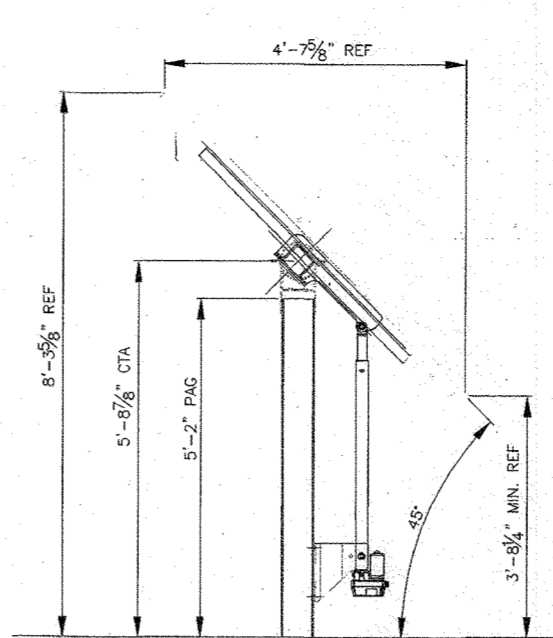
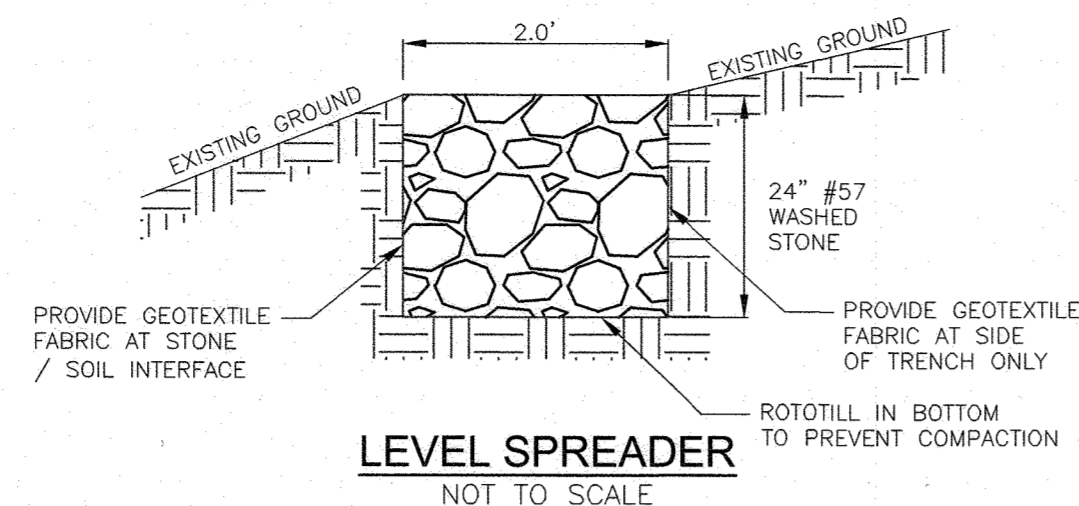
UNDERDRAINS SHOULD MEET THE FOLLOWING CRITERIA:

- PIPE - SHOULD BE 4" TO 6" DIAMETER, SLOTTED OR PERFORATED RIGID PLASTIC PIPE (ASTM 756, TYPE PS 28, OR AASHTO-M-278) IN A GRAVEL LAYER. THE PREFERRED MATERIAL IS SLOTTED, 4" RIGID PIPE (E.G., PVC OF HDPE).
- PERFORATIONS - IF PERFORATED PIPE IS USED, PERFORATIONS SHOULD BE 3/8" DIAMETER LOCATED 6" ON CENTER WITH A MINIMUM OF FOUR HOLES PER ROW. PIPE SHALL BE WRAPPED WITH A 1/4" (NO. 4 OR #4) GALVANIZED HARDWARE CLOTH.
- GRAVEL - THE GRAVEL LAYER (NO. 57 STONE PREFERRED) SHALL BE AT LEAST 3" THICK ABOVE AND BELOW THE UNDERDRAIN.
- THE MAIN COLLECTOR PIPE SHALL BE AT A MINIMUM 0.5% SLOPE.
- A RIGID, NON-PERFORATED OBSERVATION WELL MUST BE PROVIDED (ONE PER EVERY 1,000 SQUARE FEET) TO PROVIDE A CLEAN-OUT POINT AND MONITOR PERFORMANCE OF THE FILTER.
- A 4" LAYER OF PEA GRAVEL (1/8" TO 3/8" STONE) SHALL BE LOCATED BETWEEN THE FILTER MEDIA AND UNDERDRAIN TO PREVENT MIGRATION OF FINES IN TO THE UNDERDRAIN. THIS LAYER MAY BE CONSIDERED PART OF THE FILTER BED WHEN BED THICKNESS EXCEEDS 24".

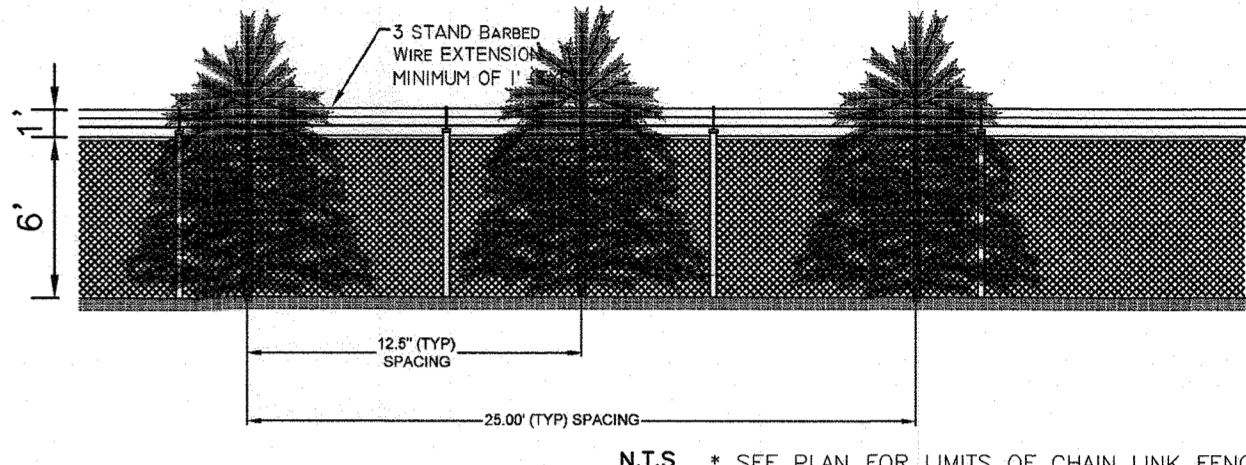
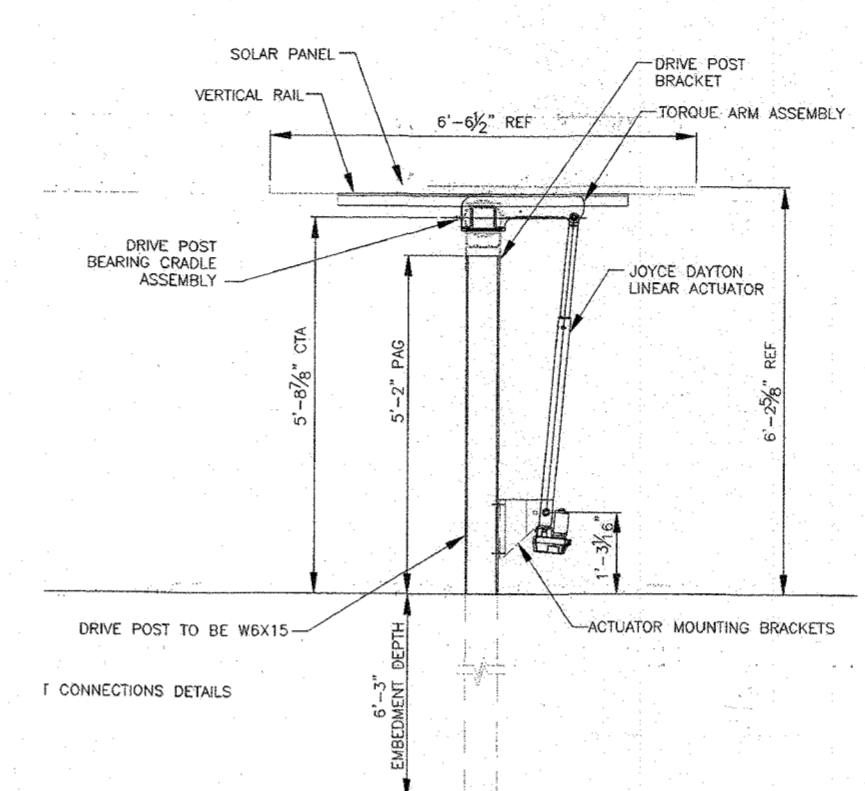
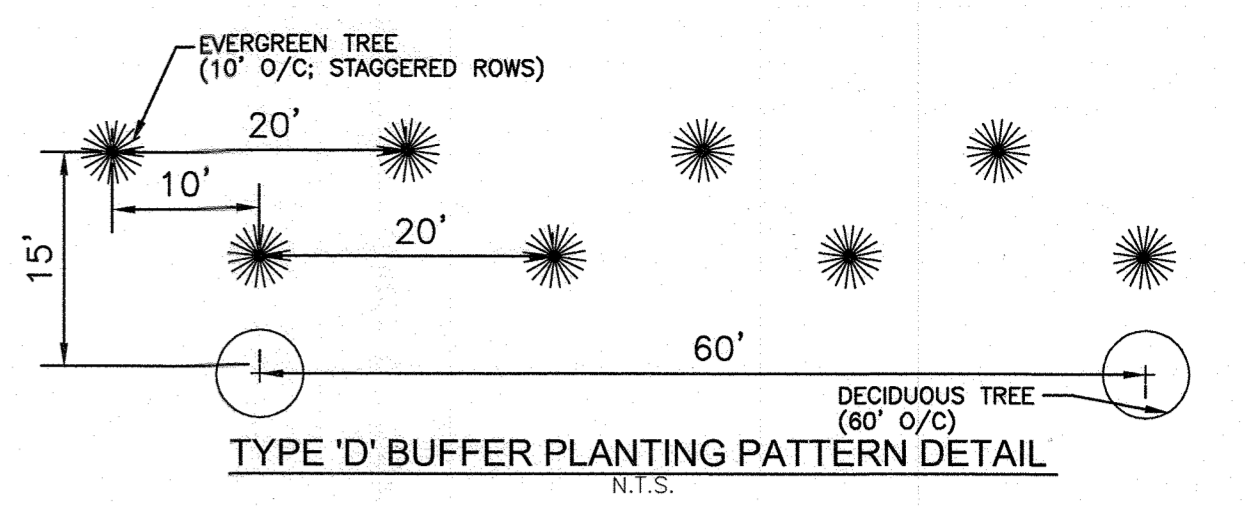
THIS MAIN COLLECTOR PIPE FOR UNDERDRAIN SYSTEMS SHALL BE CONSTRUCTED AT A MINIMUM SLOPE OF 0.5%. OBSERVATION WELLS AND/OR CLEAN-OUT PIPES MUST BE PROVIDED (ONE MINIMUM PER EVERY 1000 SQUARE FEET OF SURFACE AREA).

7. MISCELLANEOUS

THESE PRACTICES MAY NOT BE CONSTRUCTED UNTIL ALL CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.



SCHEDULE A PERIMETER LANDSCAPE EDGE	
CATEGORY	
PERIMETER/FRONTAGE DESIGNATION	D
LANDSCAPE TYPE	5,707
CREDIT FOR EXISTING VEGETATION (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	No
CREDIT FOR WALL FENCE OR BERM (YES, NO, LINEAR FEET DESCRIBE BELOW IF NEEDED)	No
NUMBER OF PLANTS REQUIRED	1:60 95
SHADE TREES	1:10 571
EVERGREEN TREES	-
NUMBER OF PLANTS PROVIDED	95
SHADE TREES	571
EVERGREEN TREES	-
EX SHADE TREES	-
OTHER TREES (2:1 SUBSTITUTION)	-
SHRUBS (10:1 SUBSTITUTION)	-
DESCRIBE PLANT SUBSTITUTION CREDITS BELOW IF NEEDED)	-



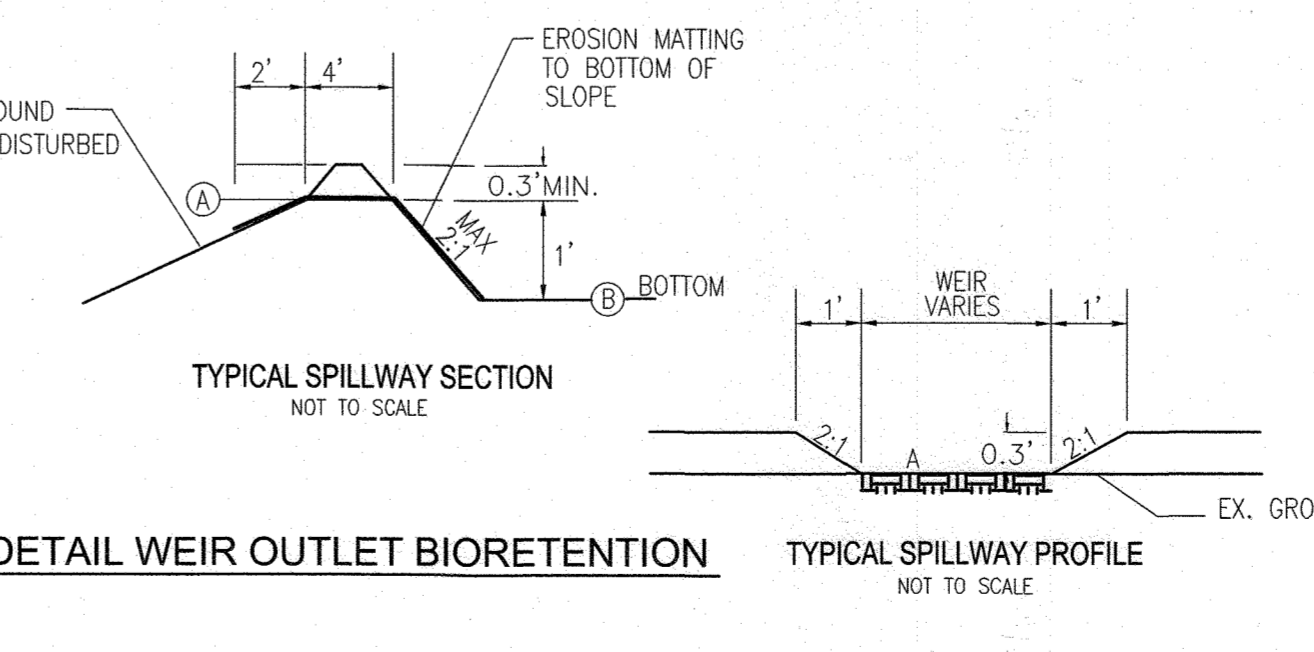
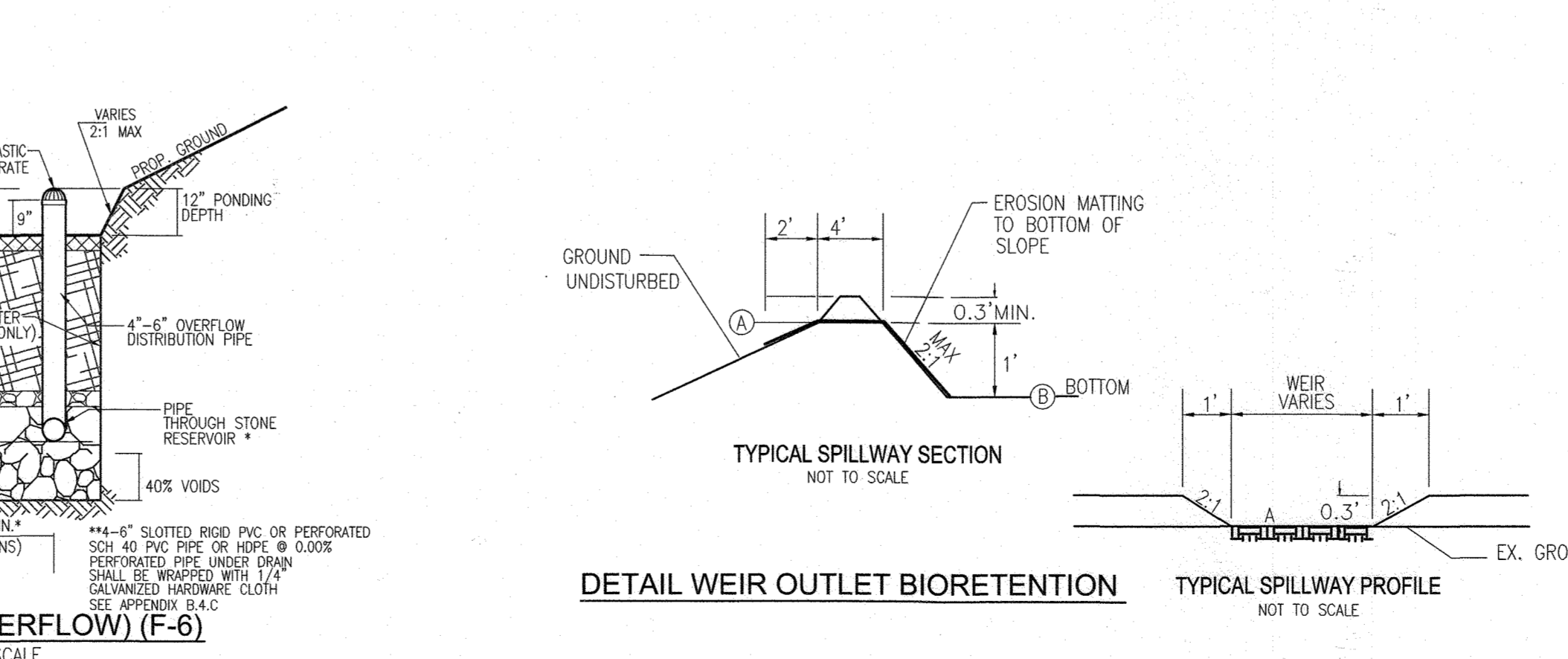
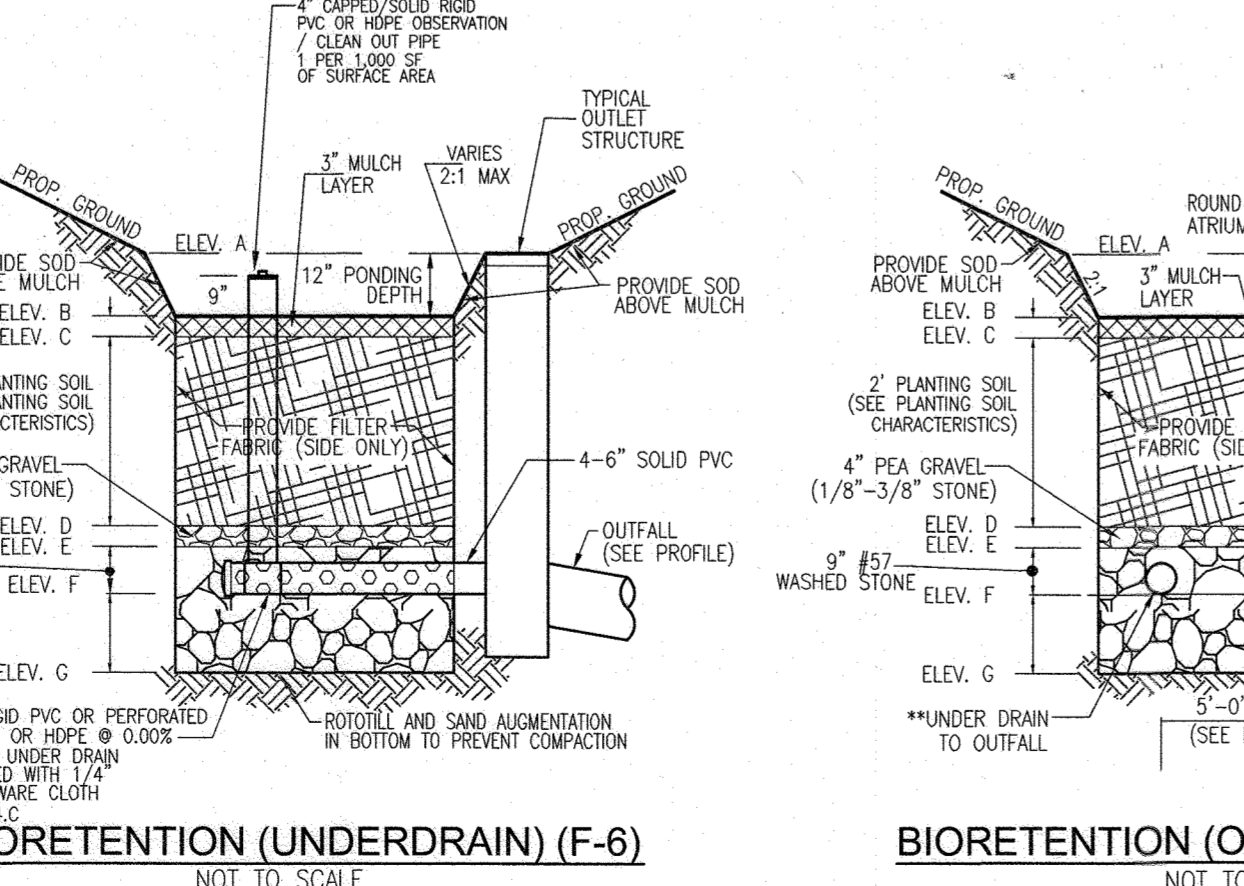
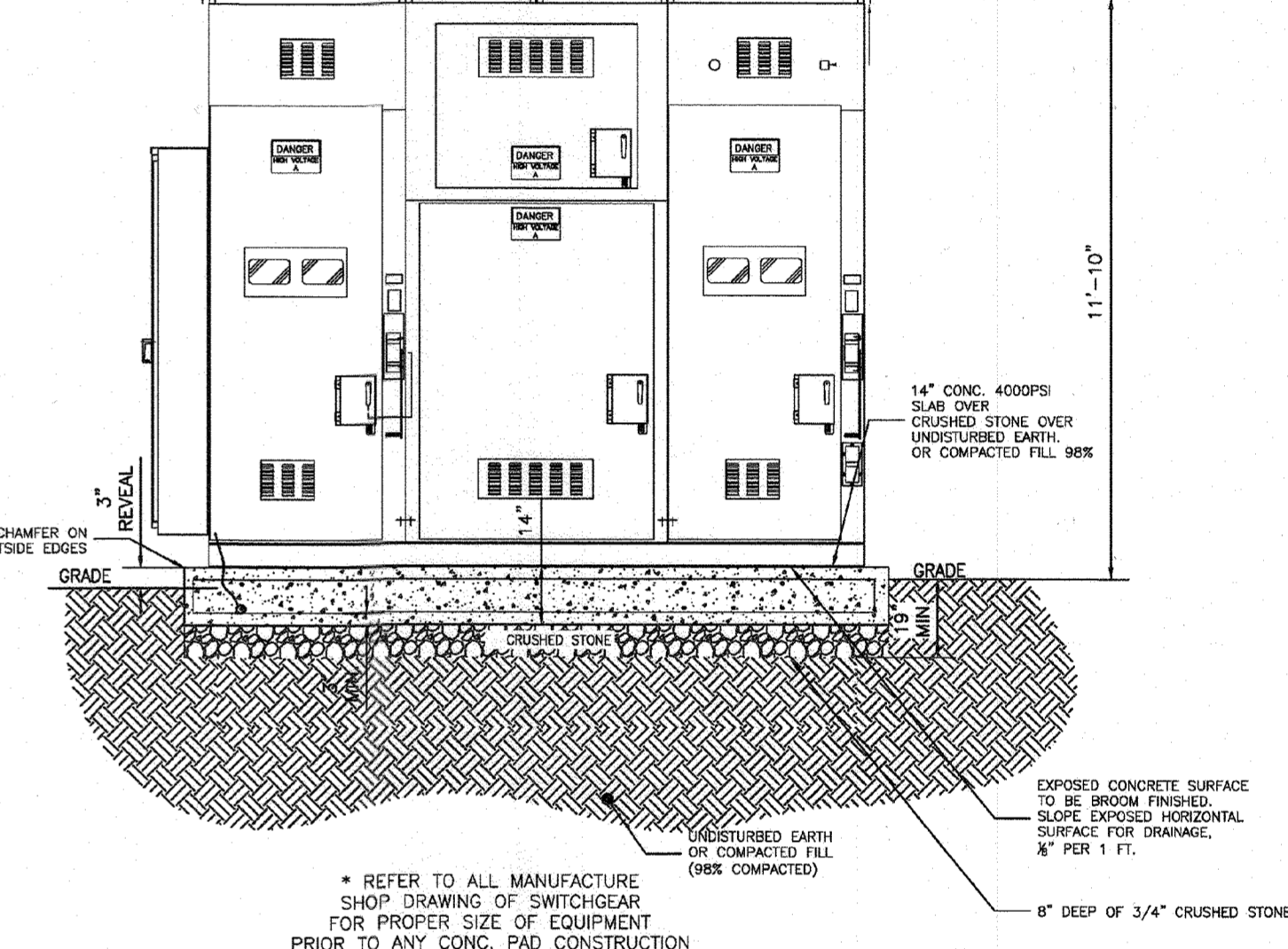
OPERATION AND MAINTENANCE SCHEDULE FOR BIORETENTION (F-6)

- THE OWNER SHALL MAINTAIN THE PLANT MATERIAL, MULCH LAYER AND SOIL LAYER ANNUALLY. MAINTENANCE OF MULCH AND SOIL IS LIMITED TO CORRECTING AREAS OF EROSION OR WASH OUT. ANY MULCH REPLACEMENT SHALL BE DONE IN THE SPRING. PLANT MATERIAL SHALL BE CHECKED FOR DISEASE AND INSECT INFESTATION AND MAINTENANCE WILL ADDRESS DEAD MATERIAL. PRUNING ACCEPTABLE REPLACEMENT PLANT MATERIAL IS LIMITED TO THE FOLLOWING: 2000 MARYLAND STORMWATER DESIGN MANUAL, VOLUME II, TABLE A.4.1 AND 2.
- THE OWNER SHALL PERFORM A PLANT IN THE SPRING AND IN THE FALL OF EACH YEAR. DURING THE INSPECTION, THE OWNER SHALL REMOVE DEAD AND DISEASED VEGETATION CONSIDERED BEYOND TREATMENT, REPLACE DEAD PLANT MATERIAL WITH ACCEPTABLE REPLACEMENT PLANT MATERIAL, TREAT DISEASED TREES AND SHRUBS, AND REPLACE ALL DEFICIENT STAKES AND WIRES.
- THE OWNER SHALL INSPECT THE MULCH EACH SPRING. THE MULCH SHALL BE REPLACED EVERY TWO TO THREE YEARS. THE SPRING MULCH LAYER SHALL BE REMOVED BEFORE THE NEW LAYER IS APPLIED.
- THE OWNER SHALL CORRECT SOIL EROSION ON AN AS NEEDED BASIS, WITH A MINIMUM OF ONCE PER MONTH AND AFTER EACH HEAVY STORM.

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

Material	Specification	Size	Notes
Plantings	See Appendix A, Table A.4	n/a	Plantings are site-specific
Planting soil (2\"/>			

DA #	% IMPERV	Rv	DA (SF)	DA (AC)	1.0\"/>									
1	0.98	0.0568	388375	8.92	1904	4952	3047	1904	3816	0.09	8.83	NON STRUCTURAL PRACTICE - NON-ROOFTOP DISCONNECT	1904 CF EACH 12\"/>	
5	1.61	0.0645	212614	4.88	1142	2969	1827	1217	9416.0	0.08	4.80	MICRO-BIORETENTION 1	1217 CF	913 SF
6	0.05	0.0505	232030	5.33	976	2537	1561	1127	1210.0	0.00	5.32	MICRO-BIORETENTION 2	1127 CF	845 SF
7	6.25	0.1063	153782	3.53	1362	3541	2179	1415	9614	0.22	3.31	MICRO-BIORETENTION 3	1415 CF	1061 SF
8	0.00	0.0500	274212	6.30	1143	2972	1829	1284	8.0	0.00	6.29	MICRO-BIORETENTION 4	1284 CF	963 SF
<b>TOTAL</b>	<b>1.35</b>	<b>0.0621</b>	<b>1261013</b>	<b>28.95</b>	<b>6527</b>	<b>16971</b>	<b>10444</b>	<b>6947</b>	<b>16975</b>	<b>0.39</b>	<b>28.56</b>			



APPROVED: HOWARD COUNTY DEPARTMENT OF PLANNING AND ZONING  
 [Signature] 12/14/20  
 CHIEF, DEVELOPMENT ENGINEERING DIVISION  
 [Signature] 4/1/20  
 CHIEF, DIVISION OF LAND DEVELOPMENT

ENVIRONMENTAL CONCEPT PLAN  
 STORMWATER MANAGEMENT NOTES & DETAILS  
 TRIPLE CREEK SOLAR  
 12855 FREDERICK ROAD (MD 144), WEST FRIENDSHIP, MD 21794  
 LIBER 17387 FOLIO 272  
 TAX MAP 15 BLOCK 10  
 3RD ELECTION DISTRICT  
 ZONED RC-DEO  
 PAGES 24 & 25  
 HOWARD COUNTY, MARYLAND

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 ELLICOTT CITY, MD 21043 FAX: 410.461.8961

DESIGN BY: RHV  
 DRAWN BY: KG/IMH  
 CHECKED BY: RHV  
 DATE: JULY 2020  
 SCALE: AS SHOWN  
 W.O. NO.: 41657

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.

15 SHEET OF 15