

Required BAT Site Plan Notes:

1. Any change to the locations or depths to any components must be approved by the engineer and the Howard County Health Department prior to installation. A revised site plan may be required.
2. The maximum depth of the BAT per the manufacturer's specification is 6 feet.
3. The blower may not be located 50 feet more than manufacturer's specifications.
4. The BAT system shall be maintained and operated for the life of the system.
5. The BAT shall be operated by and maintained by a certified service provider.
6. Within one month of installation, a person installing the BAT system shall report to the Maryland Department of the Environment (MDE) in a manner acceptable to MDE, the address and date of completion of the BAT installation and the type of BAT installed.
7. Electrical work for the BAT installation must be performed by a licensed electrician.
8. An Agreement and Easement must be completed and signed by all applicable parties, and recorded in Land Records of Howard County.
9. The third-party report requires a final approval for the installation certification from the manufacturer prior to final approval of the installation.

GENERAL NOTES

1. ZONING: RR-DEO
1. PROPOSED SEWER - PRIVATE; PROPOSED WATER - PRIVATE.
2. THE PLAN IS BASED ON A FIELD RUN BOUNDARY AND TOPOGRAPHIC SURVEY PERFORMED BY NAR & ASSOCIATES IN SEPTEMBER OF 2020.
3. THERE IS NO 100 YEAR FLOODPLAIN ON SITE.
4. THERE ARE NO WETLANDS AND STREAMS ON SITE.
5. THERE ARE NO CRITICAL HABITATS OF RARE, THREATENED OR ENDANGERED SPECIES ON SITE.
6. TOTAL AREA WITHIN LOD = 23,736 SQFT.
7. WATERSHED = PATUXENT RIVER
8. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 ATLEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
9. CONTRACTOR TO MAINTAIN POSITIVE SLOPE AWAY FROM THE FOUNDATION OF THE HOUSE.

MISS UTILITY

ALL "MISS UTILITY" AT 1-800-257-7777. 48 HOURS PRIOR TO THE START OF WORK THE EXCAVATOR MUST NOTIFY ALL PUBLIC UTILITY COMPANIES WITH UNDERGROUND FACILITIES IN THE AREA OF PROPOSED EXCAVATION. HAVE THOSE FACILITIES LOCATED BY THE UTILITY COMPANIES PRIOR TO COMMENCING EXCAVATION. THE EXCAVATOR IS RESPONSIBLE FOR COMPLYING WITH REQUIREMENTS OF FREDERICK COUNTY REGULATIONS.

LOT 1
JACK'S LANDING
PHASE I

LOT 6
JACK'S LANDING
PHASE II

LOT 7
JACK'S LANDING
PHASE II
43,845 SQ. FT.

LOT 8
JACK'S LANDING
PHASE II
45,456 SQ. FT.

**NON-BUILDABLE
PRESERVATION
PARCEL C
JACK'S LANDING
PHASE II**

Approved Septic System Plan
Howard County Health Department
Signature: [Signature]
Date: 1/12/2023

NOTES:

- 1- ANY CHANGES TO THE LOCAL AND THE HOWARD COUNTY HEALTH DEPARTMENT SHALL BE THE RESPONSIBILITY OF THE OWNER.
- 2- THE MAXIMUM EARTH COVER SHALL BE 4 FEET.
- 3- THE EXISTING WELL (TAG # 1000) SHALL BE ABANDONED AND A NEW WELL SHALL BE DRILLED TO THE REQUIRED DEPTH AND GRADIENT OF ANY WELL SHALL BE DETERMINED BY THE SURVEYOR.
- 4- THE TOPOGRAPHY SHOWN ON THIS SURVEY IS TIED TO THE MARYLAND STATE PLAT MAP.
- 5- THE LOT SHOWN HEREON COULD BE REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES.
- 6- TRENCHES OF VARIABLE LENGTHS SHALL BE REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENTAL AND NATURAL RESOURCES.

PLAN PREPARED BY:
NJR & ASSOCIATES
Land Surveying and Planning
2770 TERRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (240) 508-3200

PROFESSIONAL CERTIFICATE
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 11049 WITH EXPIRATION DATE OF FEBRUARY 10, 2023.

DEVELOPER
CHURUS HOMES
2120 BALDWIN AVENUE, SUITE-200
CROFTON, MD 21114
(301) 261-0277

OWNER
MAJID MIRSHAH & MAHOUBEH MECANIC
10211 BRIGHTSTONE PLACE
FALL CITY, MD 21042

DECEMBER 20, 2022

WATER TREATMENT SYSTEM SPECIFICATIONS

MANUFACTURED BY LIBERTY PURE SOLUTIONS, INC.
(THE SYSTEM HAS THE SECONDARY TONE RECYCLE PROCESS FOR THE WASTE WATER MINIMIZE DISCHARGE).

TURKEY REVERSE OSMOSIS PLANT WITH BOOSTER PUMP, ADJUSTMENT VALVES & GAUGES FOR PRE, POST, BOOSTED AND PRODUCT WATER AS WELL AS RECYCLED WATER. THIS UNIT WILL COMPLY WITH THE 0.175 PRODUCT/WASTE RATIO, AND CAN PRODUCE UP TO 1800 GALLONS PER DAY.

PRETREATMENT WILL CONSIST OF SEDIMENT FILTRATION, PH ADJUSTMENT, SOFTEN AND/OR ANTI-SCALE/AN FEED SYSTEM.

POST TREATMENT WILL INCLUDE PH ADJUSTMENT AND UV LIGHT FOLLOWING A 300-400GAL STORAGE TANK WITH CONSTANT PRESSURE SYSTEM FOR DELIVERY TO THE HOME.

SODIUM REDUCTION GOAL = 150ppm.
CHLORIDE REDUCTION GOAL = 250ppm.

SOFTENER AND NEUTRALIZER THAT WILL BACKWASH APPROXIMATELY 1-2 TIMES PER WEEK AT A MAXIMUM OF 60 GALLONS PER EVENT.

WATER TREATMENT SYSTEM TRENCH LENGTH CALCULATIONS:
 ABS. RATE = 1.6, EFFECTIVE DEPTH = (4.0'), ALLOWED SIDEWALL REDUCTION (1.0').
 DRAINFIELD AREA: 5 BEDROOMS AT 750 gpd / 1.6 ABSORPTION RATE
 AREA OF TRENCH NEEDED: $\frac{750 \text{ SQ. FT.}}{1.6 \text{ gpd/sq.ft.}} = 469 \text{ SQ. FT.}$
 SIDEWALL REDUCTION CREDIT: $\frac{\text{WIDTH} + 2}{\text{WIDTH} + 1 + 2(\text{DEPTH})} = \frac{3 + 2}{3 + 1 + 2(1.0)} = \frac{5}{6} = 0.833$
 LENGTH OF TRENCHES: $\frac{469 \text{ SQ. FT.} \times 0.833}{4} = 97.7 \text{ LINEAR FEET}$
 TWO TRENCHES OF 49 FEET IN LENGTH, 4 FEET WIDE,
 10 FEET MINIMUM SPACED ARE PROVIDED.

NOTES:

- 1- ANY CHANGES TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- 2- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET OR LESS. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
- 3- THE EXISTING WELL (TAG # HO-17-0238) HAS BEEN FIELD LOCATED AND ACCURATELY SHOWN ON THIS PLAN. ALL EXISTING WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' FROM ANYMENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN ON THIS PLAN.
- 4- THE TOPOGRAPHY SHOWN ON THIS PLAN IS BASED ON AN ACTUAL FIELD RUN SURVEY BY NJR & ASSOCIATES PERFORMED ON SEPTEMBER OF 2020.
- 5- THIS SURVEY IS TIED TO MARYLAND STATE PLANE NAD 83/91 COORDINATE SYSTEM.
- 6- THE LOT SHOWN HEREON COMPLY WITH THE MINIMUM OVERLAP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF ENVIRONMENT.
- 7- TRENCHES OF VARIABLE LENGTH MAY BE REQUIRED FOR THE REPLACEMENT SYSTEM FOR THIS SITE. A VARIABLE FLOW DISTRIBUTION BOX WILL BE REQUIRED FOR THE REPLACEMENT SYSTEM IN THE FUTURE. IF THE INITIAL SYSTEM FAILS.

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.

HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT. DATE

PLAN PREPARED BY:

 **NJR & ASSOCIATES**
Land Surveying and Planning
2770 TERRAPIN RUN
WEST FRIENDSHIP, MD 21794
TEL: (240) 508-3200



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UNDER THE LAWS OF THE STATE OF MARYLAND,
LICENSE NUMBER 11049 WITH EXPIRATION DATE OF
FEBRUARY 10, 2023.

DECEMBER 20, 2022
DATE

DEVELOPER
CARUSO HOMES
2120 BALDWIN AVENUE, SUITE-200
CROFTON, MD 21144
(301) 261-0277

OWNER
MAJID MIRSHAH & MAHBOOBEH MECA
10211 BRIGHTSTONE PLACE
ELLCOTT CITY, MD 21042
(410) 336-7121

SITE PLAN FOR BAT INSTALLATION

JACK'S LANDING, PHASE II
LOT 7

PLAT No. 25063
5513 JACKS LANDING WAY, CLARKSVILLE
TAX MAP 34, GRID 3, PARCEL 414
SECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1" = 20'	JOB NO.: 3438	DATE : DEC. 5, 2020	SHEET : 1 OF 2
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LEGEND	
	EX. WATER WELL
	EX. STREET SIGN
	EX. WOOD POST
	EX. TELEPHONE PEDESTAL
	EX. SANITARY CLEAN OUT
	EX. UTILITY POLE
	EX. GUY WIRE ANCHOR
	EX. STORM DRAIN MANHOLE
	EX. STUMP
	EX. EVERGREEN TREE
	EX. DECIDUOUS TREE
	PROP. SPOT ELEVATION
	EX. CONTOUR
	PROP. CONTOUR
	PROP. SUPER SILT FENCE
	PROP. SILT FENCE
	PROP. LIMIT OF DISTURBANCE
	B.R.L. (BUILDING RESTRICTION LINE)
	PROP. STABILIZED CONSTRUCTION ENTRANCE
	EX. SEPTIC RESERVE AREA
	EX. WELL RESERVE BOX
	EX. PASSING PERCOLATION TEST
	PROP. DRAINAGE AREA LIMIT
	PROP. SURFACE FLOW DIRECTION

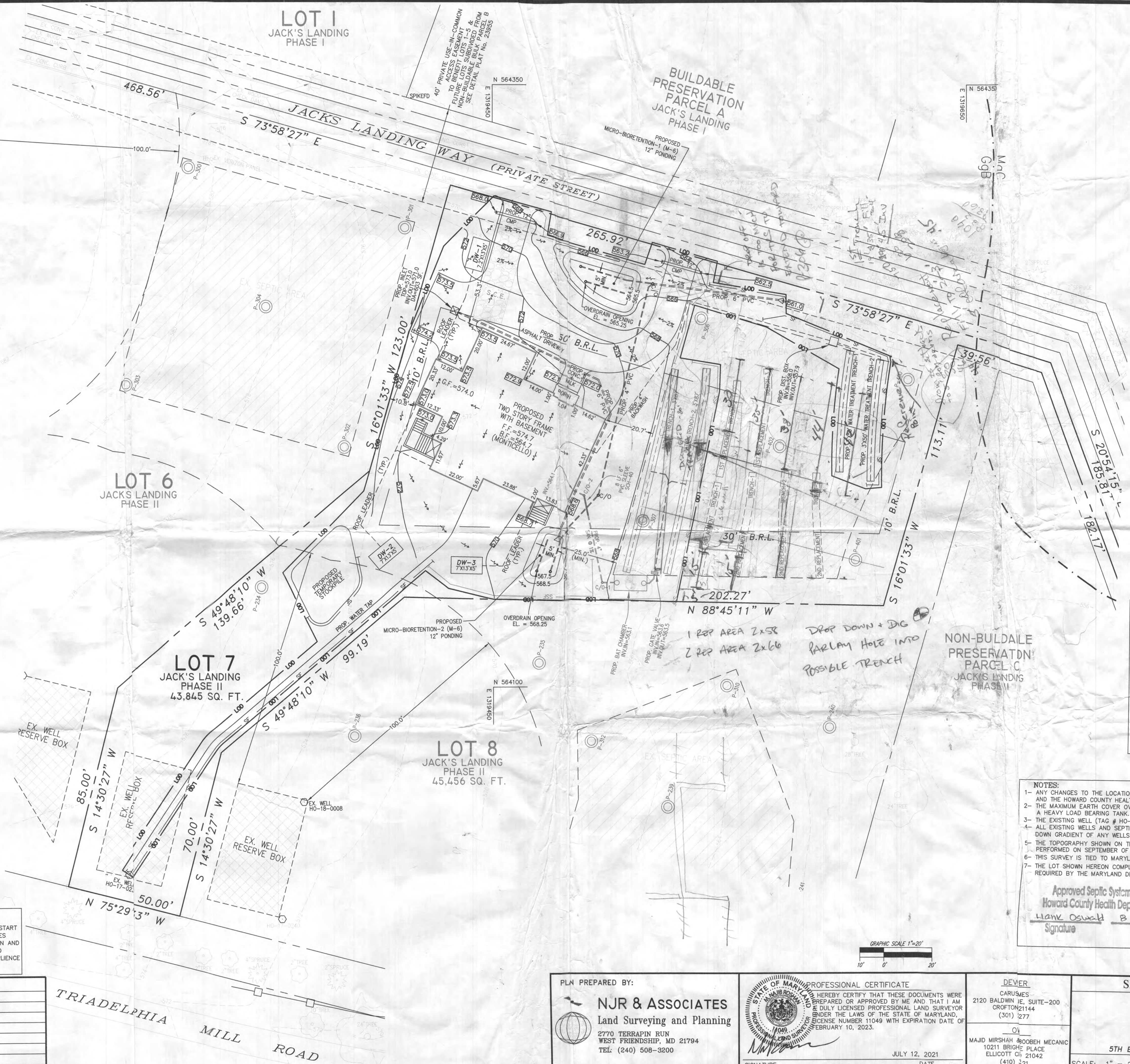
SOIL TABLE			
SYMBOL	NAME/DESCRIPTION	TYPE	HYDRIC
GgB	Glenelg Loam, 3% to 8% Slopes	B	No

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REVISIONS		DETAILS
No.	DATE	



WATER TREATMENT TRENCH INFORMATION					
TRENCH	TRENCH LENGTH OF GROUND	EX. TOP OF GRAVEL	TOP OF GRAVEL	INV. INTO TRENCH	BOTTOM OF TRENCH
1	50.0'	560.8±	557.3	556.8	552.8
2	50.0'	559.5±	556.0	555.5	551.5

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 7. Electrical work for the BAT installation must be performed by a licensed electrician.
 8. An Agreement and Easement must be completed and signed by all applicable parties, and recorded in Land Records of Howard County.
 9. The Health Department requires documentation for the start-up certification from the manufacturer prior to final approval of the installation.

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Approved Septic System Plan
Howard County Health Department
UANE OSWALD 8/23/21 APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS.
Signature Date
HEALTH OFFICER, HOWARD COUNTY HEALTH DEPARTMENT. DATE

PLN PREPARED BY: NJR & ASSOCIATES Land Surveying and Planning 2770 TERRAPIN RUN WEST FRIENDSHIP, MD 21794 TEL: (240) 508-3200	PROFESSIONAL CERTIFICATE I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NUMBER 11049 WITH EXPIRATION DATE OF FEBRUARY 10, 2023. JULY 12, 2021 DATE	DEVER CARUMES 2120 BALDWIN JE, SUITE-200 CROFTON 21144 (301) 277 MAJID MIRSHAH & OBOEH MECANIC 10211 BRIDGE PLACE ELLICOTT OI 21042 (410) 321	SITE PLAN FOR BAT INSTALLATION JACK'S LANDING, PHASE II LOT 7 PLAT No. 25063 5513 JACKS LANDING WAY, CLARKSVILLE TAX MAP 34, GRID 3, PARCEL 414 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND SCALE: 1" = 20' JOB NO.: 3438 DATE : DEC. 5, 2020 SHEET : 1 OF 2
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