

Maura J. Rossman, M.D., Health Officer

RECEIPT DATE: 12/22/2021 **ONSITE SEWAGE DISPOSAL SYSTEM** P 570887
 APPROVAL DATE: 01/28/2022 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 18449 Hidden Creek Way
 SUBDIVISION: Windsor Forest Knolls LOT: 7 TAX ID: _____
 CONTRACTOR: FARM + HOME EXC. EMAIL: _____
 CONTRACTOR ADDRESS: _____ PHONE: _____
 PROPERTY OWNER: Keystone Custom Homes EMAIL: _____
 OWNER ADDRESS: 227 Granite Run Drive PHONE: _____
 SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Mayor Bros
 PUMP MODEL: _____ PUMP SIZE _____ PUMP TANK CAPACITY: _____

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 0.8

TRENCHES:	LINEAR FEET REQUIRED: <u>195</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install 3 trenches at 65.2 LF	

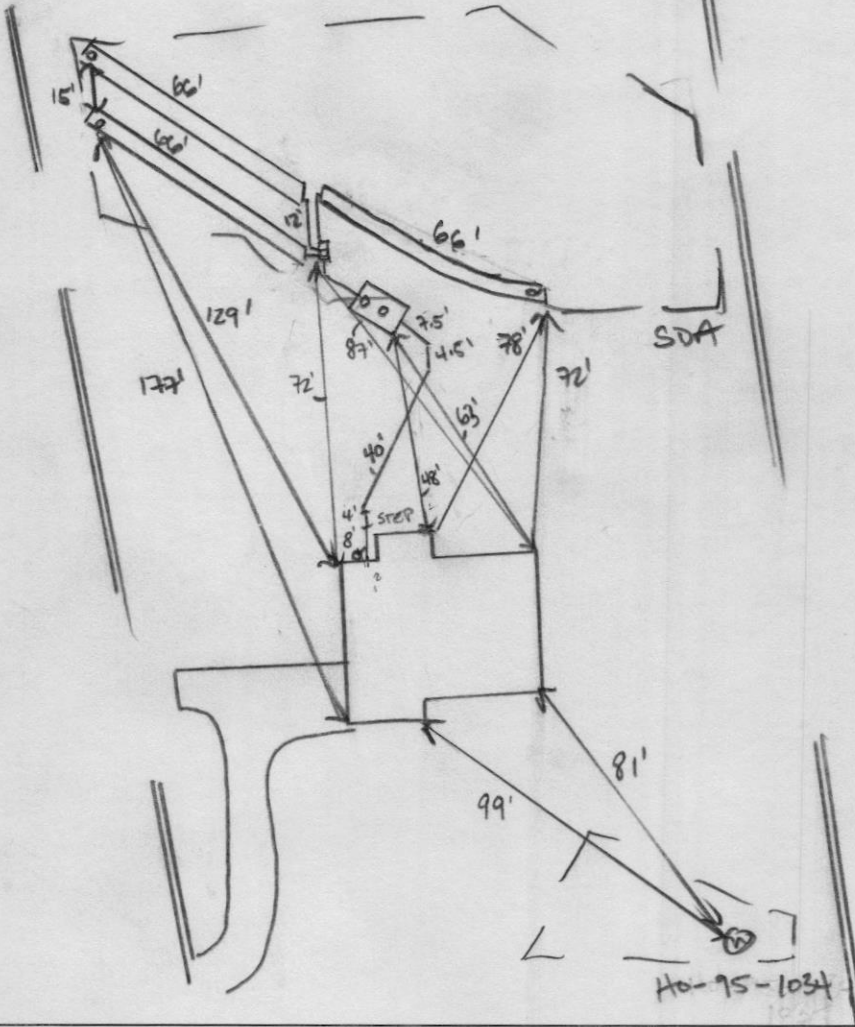
ISSUED BY: HANK OSWALD ISSUE DATE: 12/22/2021 EXPIRATION DATE: 12/22/2022

- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- NOTE: WATERTIGHT TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE AT LEAST 100 FEET DOWNGRAIENT FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS
- NOTE: AN ELECTRICAL PERMIT IS REQUIRED FOR INSTALLATION OF ANY ELECTRICAL COMPONENTS OF THE SYSTEM
 ELECTRICAL PERMIT ISSUED E _____
- NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.
 PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.
 CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE

~1:50



ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	6'
NUMBER OF TRENCHES		3
TOTAL LENGTH		198 F
ABSORPTION AREA		594 SF + 2' SIDE WALL
DISTRIBUTION BOX LEVEL		SPEED
DISTRIBUTION BOX BAFFLE		CONC
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL YES

MANUFACTURER BACKRIVER

CAPACITY 2000 GAL

SEAM LOC TOP

TANK LID DEPTH 1.5'

BAFFLES YES

BAFFLE FILTER -

MANHOLE LOC FRONT/BACK

6" PORT LOC -

WATERTIGHT TEST -

SLOTTED YES

DATE ON LID 12/11/2021

PUMP/SEPTIC TANK LEVEL

MANUFACTURER _____

CAPACITY _____ GAL

SEAM LOC _____

TANK LID DEPTH _____

BAFFLES _____

BAFFLE FILTER _____

MANHOLE LOC _____

6" PORT LOC _____

WATERTIGHT TEST _____

SLOTTED _____

DATE ON LID _____

PRE-CONSTRUCTION:

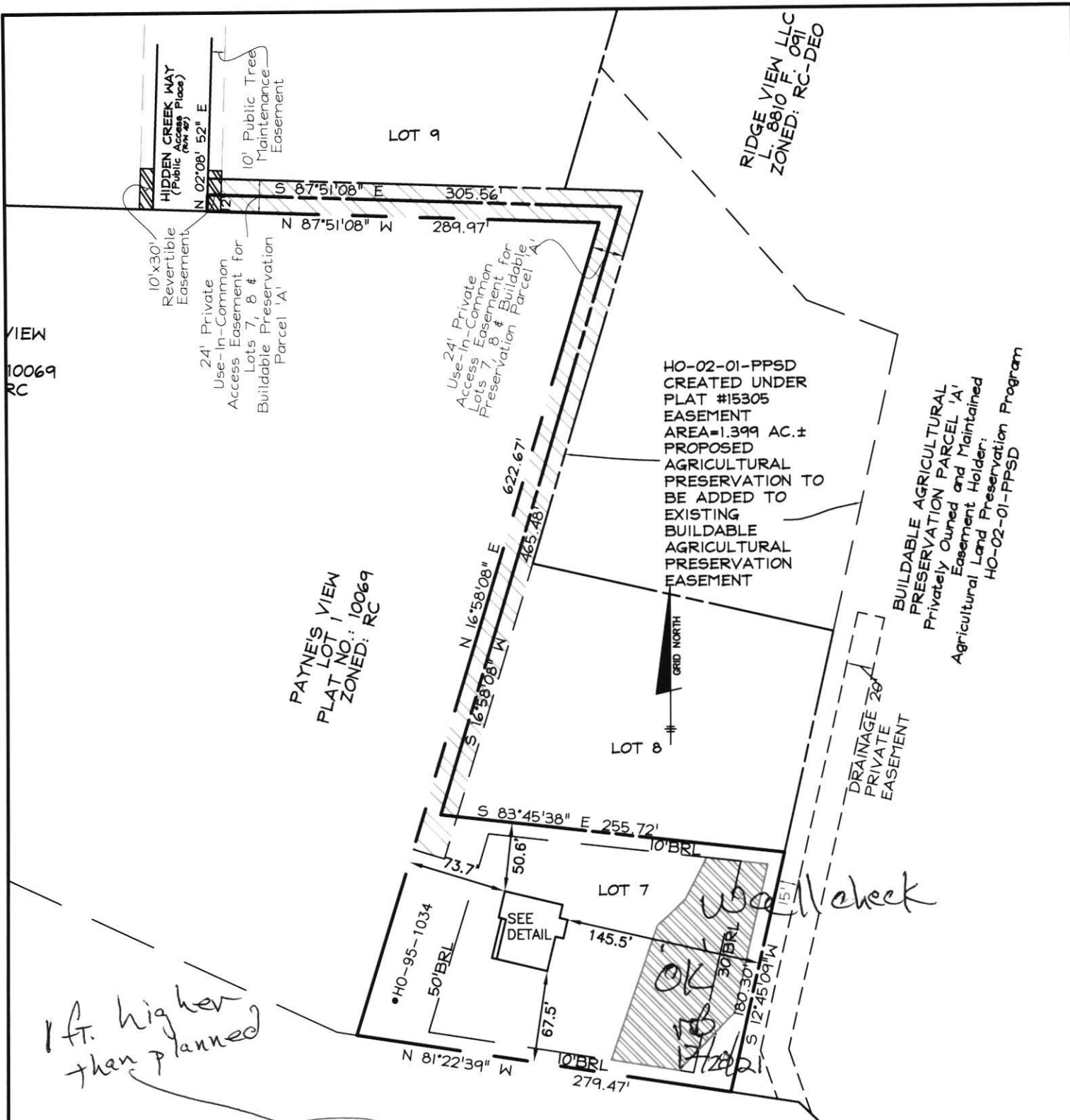
01/26/2022 LAID OUT 3x66' TRES ON CONTOUR. NOT CERTAIN 2nd REP CAN BE CONFIGURED AS SHOWN IN [ORDS 04/01/2021] CP

INSTALLATION: 01/27/2022 SHC, SL, TANK, AND D BOX SET. LOW SIDE OF TANK IS CURRENTLY ABOVE GRADE. CP 01/28/2022

FINAL INSPECTOR

DATE OF APPROVAL

01/28/2022.



HO-02-01-PPSD
 CREATED UNDER
 PLAT #15305
 EASEMENT
 AREA=1.399 AC.±
 PROPOSED
 AGRICULTURAL
 PRESERVATION TO
 BE ADDED TO
 EXISTING
 BUILDABLE
 AGRICULTURAL
 PRESERVATION
 EASEMENT

BUILDABLE AGRICULTURAL
 PRESERVATION PARCEL 'A'
 Privately Owned and Maintained
 Easement Holder:
 Agricultural Land Preservation Program
 HO-02-01-PPSD

PAYNE'S VIEW
 LOT 1
 PLAT NO.: 10069
 ZONED: RC

VIEW
 10069
 RC

1 ft. higher
 than planned

TOP OF FOUNDATION WALL = 766.6'
 OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

SURVEYOR'S CERTIFICATE

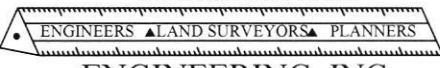
I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2023 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 10/13/2021.

Donald A. Mason
 10/13/21

DONALD A. MASON
 PROFESSIONAL LAND SURVEYOR
 MARYLAND REG. No. 21320

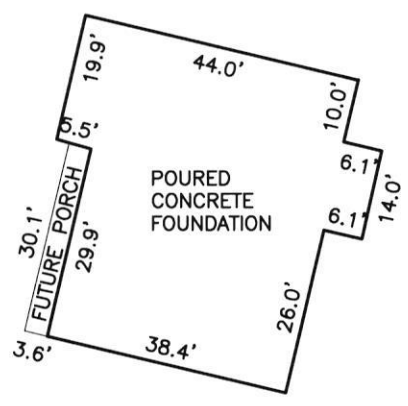
FEMA FIRM No. 24027C0010D
 ZONE: X
 DATED: 11/6/2013

BENCHMARK



ENGINEERING, INC.

8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 (P) 410-465-6105 ▲ (F) 410-465-6644



FOUNDATION DETAIL
 SCALE: 1" = 30'

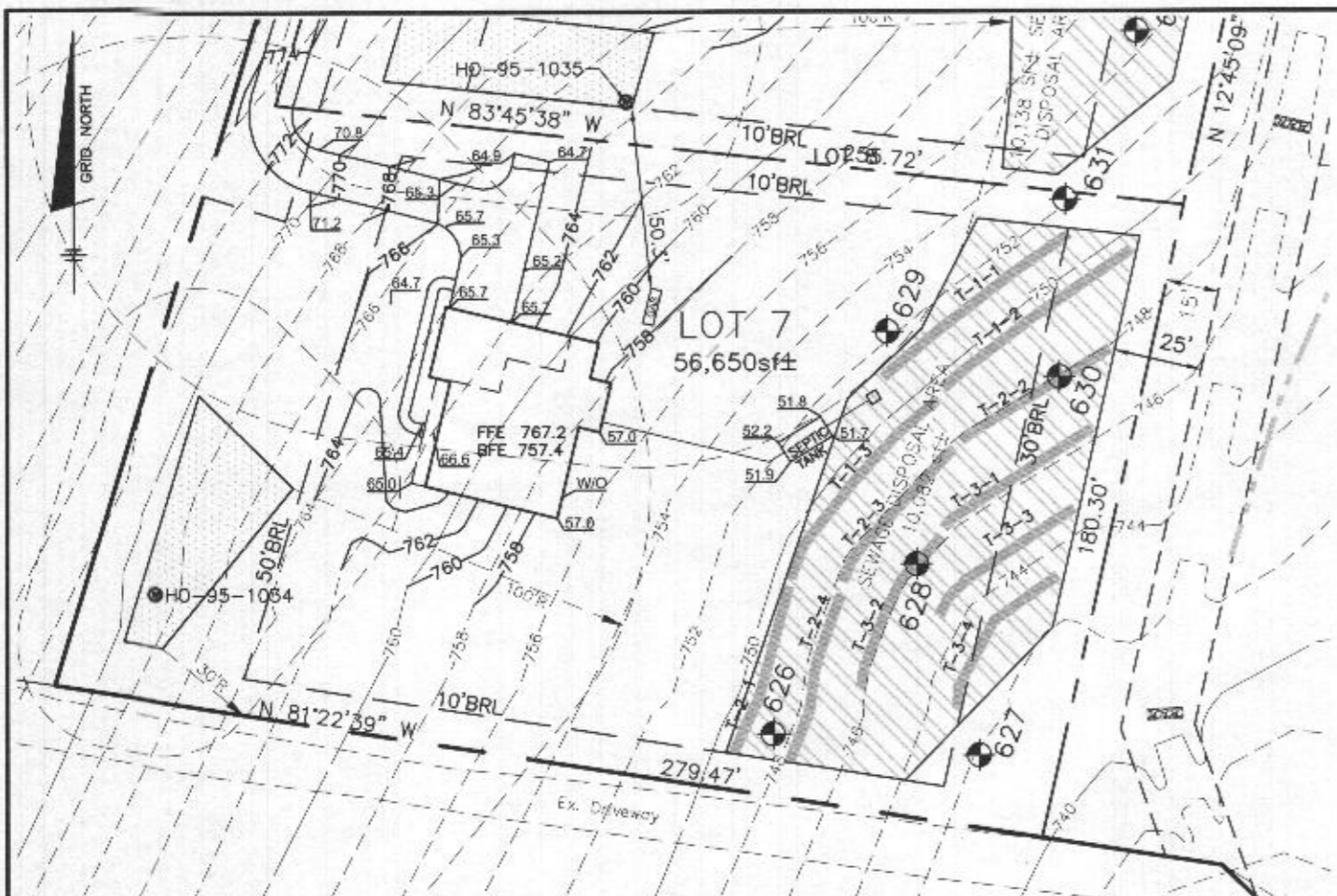
WALL CHECK

WINDSOR FOREST KNOLLS
LOTS 1 THRU 18
PLAT No. 19396
LOT No. 7

18449 HIDDEN CREEK WAY

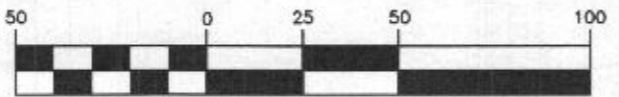
4TH ELECTION DISTRICT

FIELD OBS. BY AS/ML
 COMP. BY EWF
 DRAWN BY EWF SCALE: 1" = 100' DATE: 10/131/2021



PLAN VIEW

1" = 50'



GENERAL NOTES

(IN FEET)
1 inch = 50 ft.

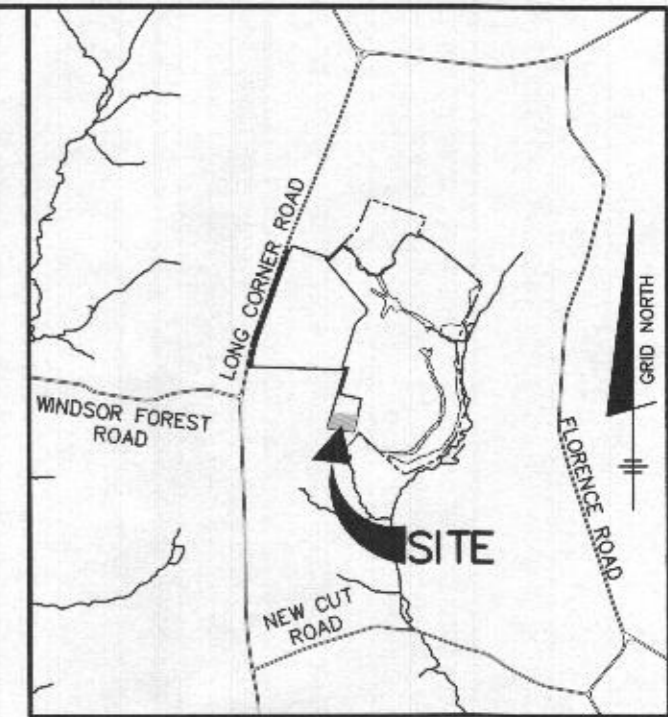
1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR WINDSOR FOREST KNOLLS, PLAT NUMBER 19395. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREA, ALL EASEMENTS AND CONDITIONS.
2. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-1034) HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING INC. JULY 2020 AND IS ACCURATELY SHOWN.
3. TOPOGRAPHY SHOWN WAS BASED ON FIELD RUN TOPOGRAPHY BY C.B. MILLER & ASSOCIATES IN APRIL, 2002, AND WAS SUPPLEMENTED BY FIELD RUN TOPOGRAPHY BY BENCHMARK ENGINEERING, INC. JULY 2020.
4. SEDIMENT AND EROSION CONTROLS WILL BE SUBMITTED BY HOWARD SOILS CONSERVATION DISTRICT AS A CUSTOM GRADING PLAN.
5. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED BUILDING PERMIT AND CUSTOM GRADING PLANS.
6. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
7. 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.
8. THE SEPTIC TANK WILL BE A 2000 GALLON TWO COMPARTMENT TANK.
9. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
10. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS/OR SEPTIC SYSTEM HAVE BEEN SHOWN.

LEGEND

- 400 — PROPOSED CONTOURS
- 400 — EXISTING CONTOURS
- 398 — EXISTING PRIVATE SEWAGE DISPOSAL AREA
- ◻ EXISTING WELL BOX
- MaC SOILS MAP SYMBOL
- - - SOILS DELINEATION LINE
- ⊕ PERC TEST PASSED

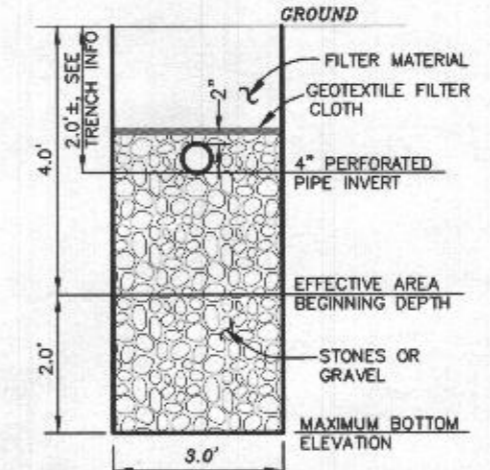
Approved Septic System Plan
Howard County Health Department

Hank Oswald 11/1/21
Signature Date



VICINITY MAP

SCALE: 1" = 2000'



TYPICAL TRENCH DETAIL
ALL SYSTEMS
NOT TO SCALE

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 01-01-2023.

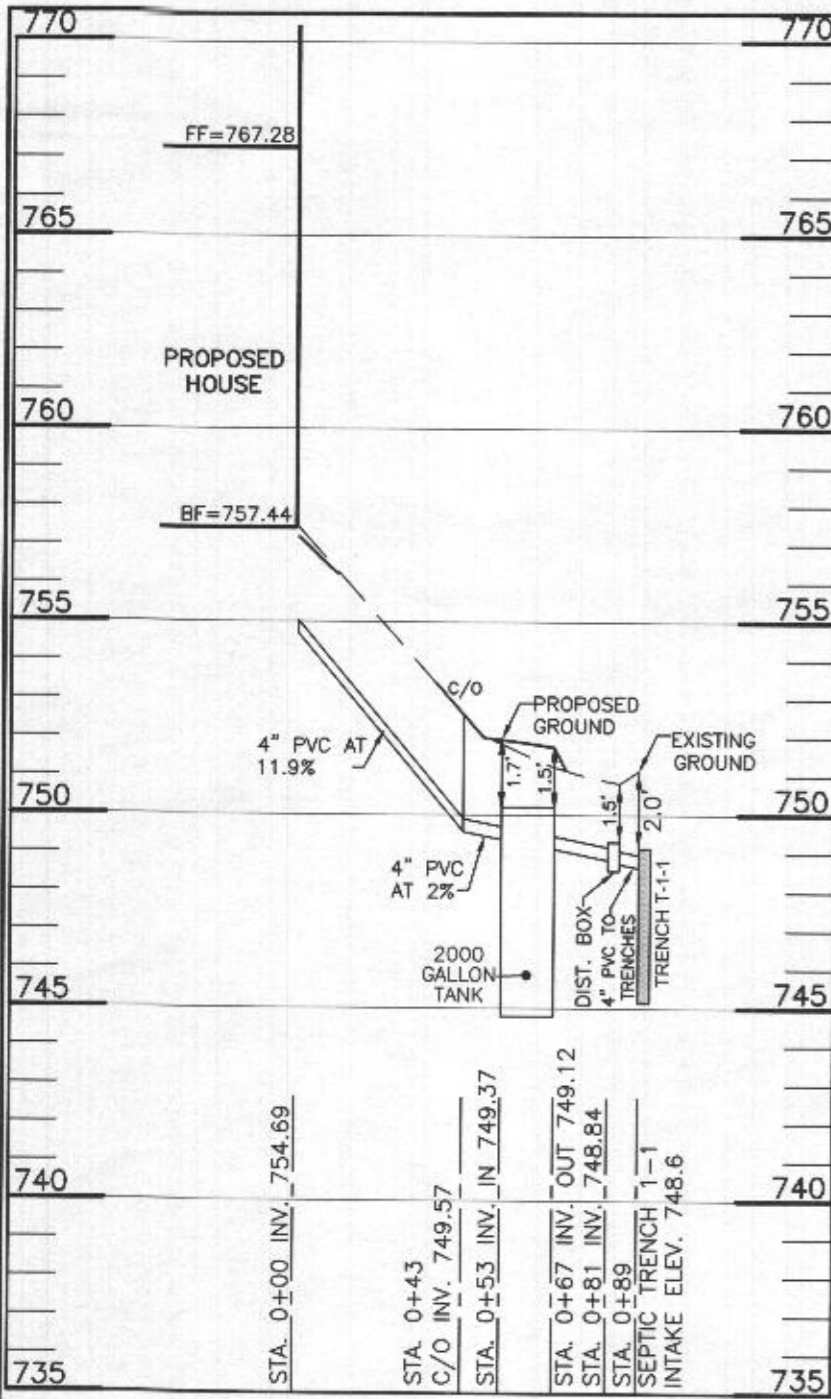


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PROJECT:		WINDSOR FOREST KNOLLS LOT 7	
LOCATION:		TAX MAP: 6 - GRID: 16 - PARCEL: 57 18449 HIDDEN CREEK WAY - TAX ID# 04-373227 ELECTION DISTRICT NO. 4 - HOWARD COUNTY, MARYLAND	
TITLE:		ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE:		CUSTOM - KEYSTONE HOMES	
DATE:	MARCH, 2021	PROJECT NO.	2986
SCALE:	AS SHOWN	DRAWING	1 OF 2

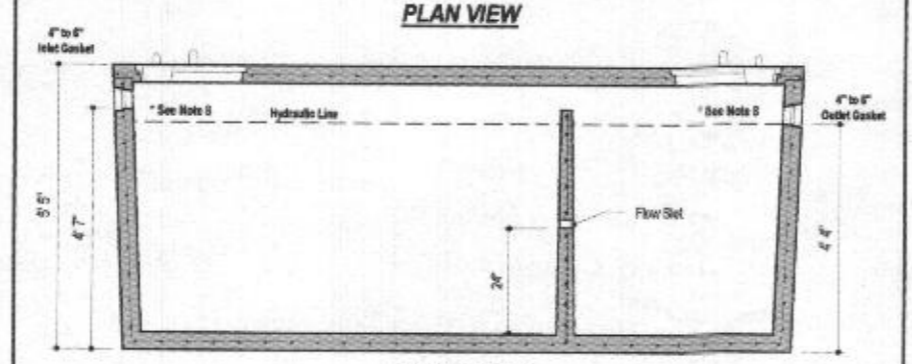
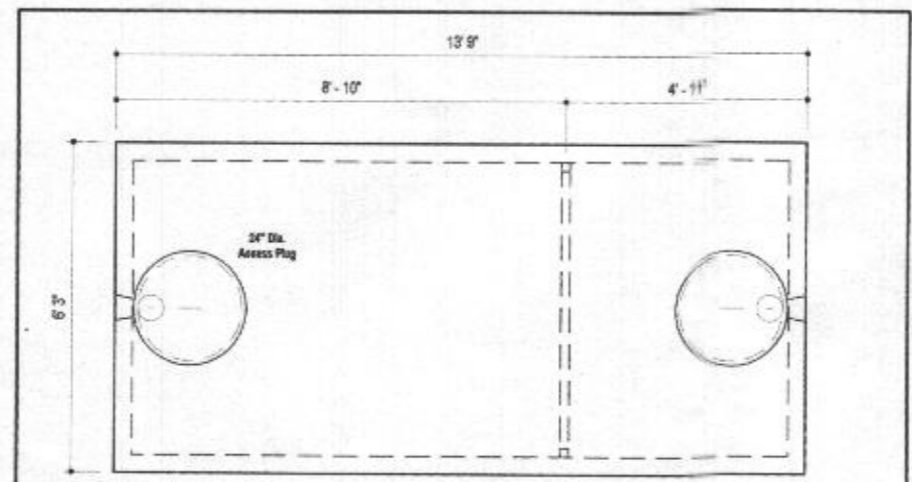
OWNER/BUILDER:
KEYSTONE CUSTOM HOMES, INC.
227 GRANITE RUN DR.
SUITE 100
LANCASTER, PA 17601
717-464-9060

BENCHMARK
ENGINEERS • LAND SURVEYORS • PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE • SUITE 315
ELLCOTT CITY, MARYLAND 21043
(P) 410-465-6105 • (F) 410-465-6644
WWW.BEI-CIVILENGINEERING.COM



LOT 7 SEPTIC PROFILE
SCALE: 1"=50' HORIZ., 1"=5' VERT.

SEPTIC INVERT CHART - Lot 7	
INV @ HOUSE	754.7
GROUND @ HOUSE	757.0
INV IN SEPTIC TANK	749.4
INV OUT SEPTIC TANK	749.1
TOP OF SEPTIC TANK	750.2
GROUND OVER SEPTIC TANK	751.8
INV IN DIST BOX	748.9
INV OUT DIST BOX	748.8
GROUND AT DIST BOX	750.9



DESIGN DATA & GENERAL NOTES

- Concrete strength Fc=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- Concrete - Portland Type III per ASTM C 150-02.
- Admixtures & plasticizers per ASTM C 390-06 & C 494-02.
- Reinforcing per ASTM A195. Min. 1-1/2" cover.
- Top slab sealed with butyl rope mastic.
- 4" wall, 4" base, 8" top thickness.
- Min 3" of cover.
- Depending on use of tank, Inlet & Outlet baffles may be required by code.

2,000 GALLON SEPTIC TANK
2-Compartment
Stock Item (Approx. 19,900 lbs)

Dwg. No. 2000-2C No Scale Aug 11, 2008



HEALTH DEPARTMENT SPEC SHEET INFORMATION - Lot 7			
System	Application Rate	Effective Depth	Bottom Depth
1st System	0.8	4.0	6.0
2nd system	0.8	4.0	6.0
3rd System	0.8	4.0	6.0

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TRENCH DESIGN - Lot 7					
INITIAL SYSTEM					
T-1-1	LENGTH	65.2 ft	T-1-2	LENGTH	65.2 ft
	GROUND ELEVATION	751.1		GROUND ELEVATION	749.6
	INVERT ELEVATION	748.6		INVERT ELEVATION	747.6
	MAX BOTTOM ELEVATION	745.1		MAX BOTTOM ELEVATION	743.6
			T-1-3	LENGTH	65.2 ft
				GROUND ELEVATION	749.4
				INVERT ELEVATION	747.4
				MAX BOTTOM ELEVATION	743.4

INITIAL SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
Trench Length Required	195	lf

1ST REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
Trench Length Required	195	lf

2ND REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	4.0	ft
Bottom Max Depth	6.0	ft
Design Flow	750	gpd
Drainage Field square footage	938	sf
Sidewall Reduction Credit	0.63	
Trench width	3	ft
Effective Area Depth	2	ft
Trench Spacing	10	ft
Trench Length Required	195	lf

1ST REPLACEMENT SYSTEM					
T-2-1	LENGTH	48.9 ft	T-2-2	LENGTH	48.9 ft
	GROUND ELEVATION	749.4		GROUND ELEVATION	747.9
	INVERT ELEVATION	747.4		INVERT ELEVATION	745.9
	MAX BOTTOM ELEVATION	743.4		MAX BOTTOM ELEVATION	741.9
T-2-3	LENGTH	48.9 ft	T-2-4	LENGTH	48.9 ft
	GROUND ELEVATION	747.8		GROUND ELEVATION	747.7
	INVERT ELEVATION	745.8		INVERT ELEVATION	745.7
	MAX BOTTOM ELEVATION	741.8		MAX BOTTOM ELEVATION	741.7

2ND REPLACEMENT SYSTEM					
T-3-1	LENGTH	48.9 ft	T-3-2	LENGTH	48.9 ft
	GROUND ELEVATION	746.3		GROUND ELEVATION	746.1
	INVERT ELEVATION	744.3		INVERT ELEVATION	744.1
	MAX BOTTOM ELEVATION	740.3		MAX BOTTOM ELEVATION	740.1
T-3-3	LENGTH	48.9 ft	T-3-4	LENGTH	48.9 ft
	GROUND ELEVATION	744.6		GROUND ELEVATION	743.3
	INVERT ELEVATION	742.6		INVERT ELEVATION	741.3
	MAX BOTTOM ELEVATION	738.6		MAX BOTTOM ELEVATION	737.3

Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 01-01-2023.



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