

**Bureau of Environmental Health**  
 8930 Stanford Boulevard, Columbia, MD 21045  
 Main: 410-313-2640 | Fax: 410-313-2648  
 TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 8-5-20 **ONSITE SEWAGE DISPOSAL SYSTEM** P 567929-A  
 APPROVAL DATE: 9/8/20 (ST) **PERMIT: CONSTRUCTION** A \_\_\_\_\_  
 PROPERTY ADDRESS: 1813 DAVIS BRANCH ROAD, WOODSTOCK, MD 21163  
 SUBDIVISION: MYRTUE PROPERTY LOT: 6 TAX ID: 03-352382  
 CONTRACTOR: Bill Ingram/ Farm and Home Excavating EMAIL: \_\_\_\_\_  
 CONTRACTOR ADDRESS: 901 Driver Road, Marriottsville, MD 21104 PHONE: 410-984-0189  
 PROPERTY OWNER: SONSHINE MD LP EMAIL: \_\_\_\_\_  
 OWNER ADDRESS: 227 GRANITE RUN ROAD, LANCASTER, PA 17601 PHONE: \_\_\_\_\_  
 SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: MAYER BROS., INC.  
 PUMP MODEL: n.a. PUMP SIZE n.a. PUMP TANK CAPACITY: n.a.

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

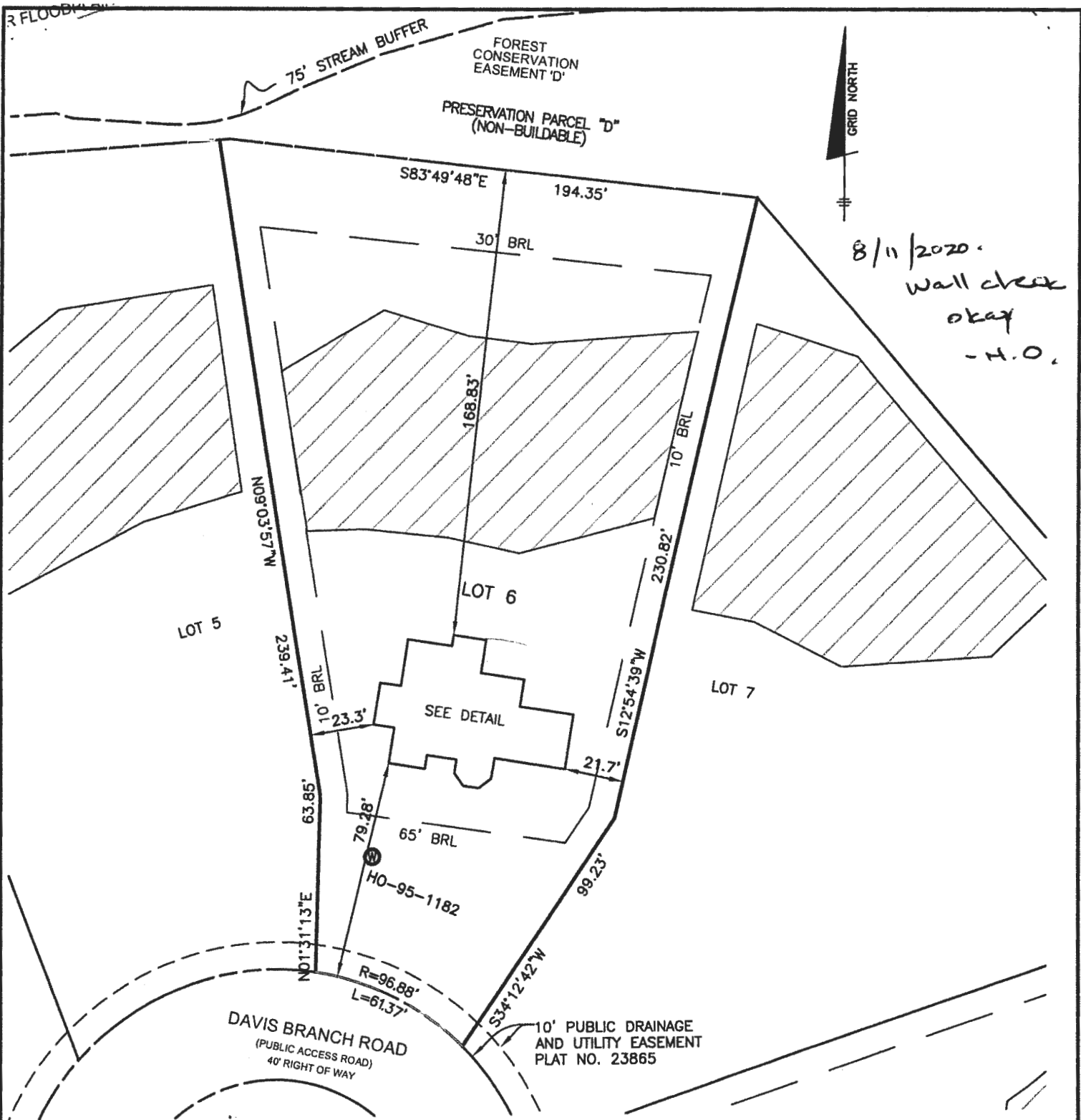
TRENCHES:	LINEAR FEET REQUIRED: <u>120</u>	INLET DEPTH: <u>2.0</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7.5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>12</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.0</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	INSTALL two (2) CLEANOUTS IN SHC.	

ISSUED BY: R BRICKER ISSUE DATE: 8-11-20 EXPIRATION DATE: 8-5-21

- 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 DOWNGRADIENT 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 n.a.
- 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.**





8/11/2020  
Wall check  
okay  
-H.O.

TOP OF FOUNDATION WALL = 393.5'  
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

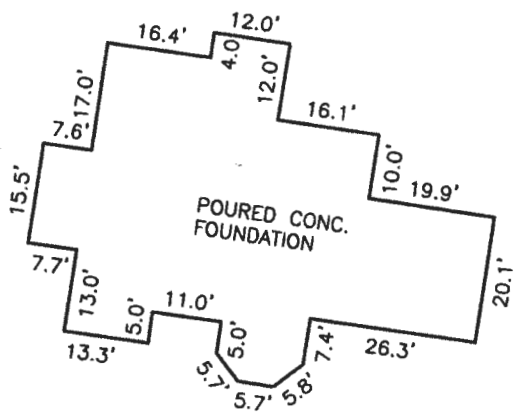
**SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2021 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, 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 07/08/2020.

*Donald A. Mason*  
DONALD A. MASON  
PROFESSIONAL LAND SURVEYOR  
MARYLAND REG. No. 21320

FEMA FIRM No. 24027C0080D  
ZONE: X  
DATED: 11/06/2013

**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



FOUNDATION DETAIL  
SCALE: 1" = 30'

**WALL CHECK**  
**MYRTUE PROPERTY**

**PLAT No. 23865**  
**LOT No. 6**  
1813 DAVIS BRANCH ROAD

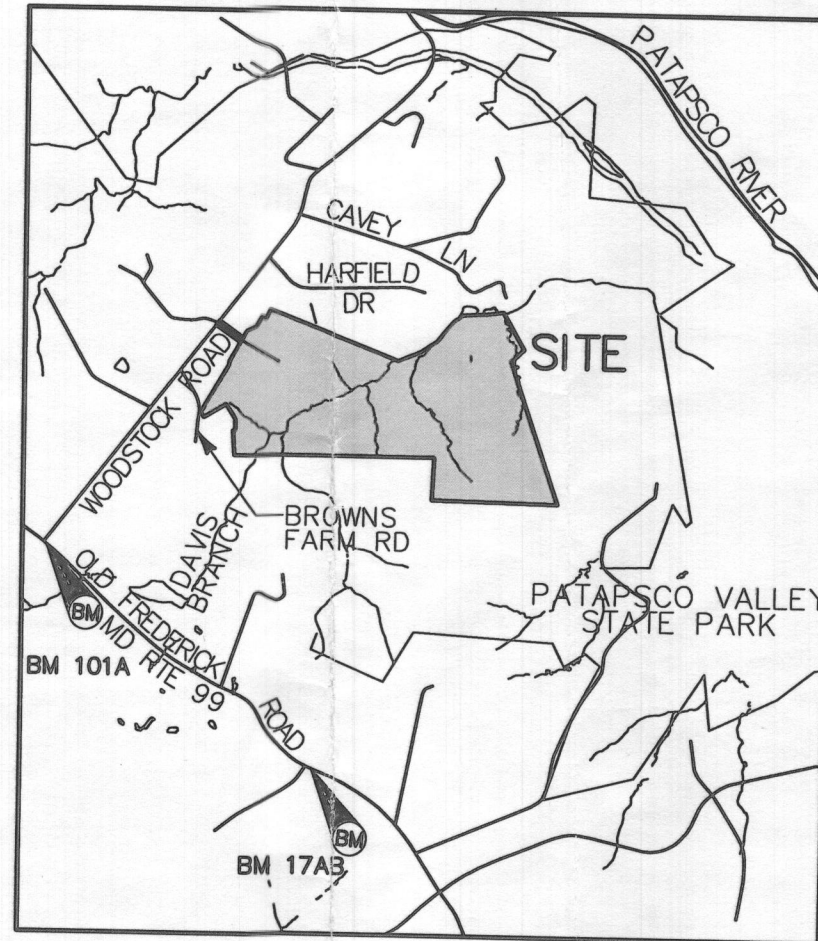
3rd ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND  
FIELD OBS. BY ML  
COMP. BY DAM  
DRAWN BY DAM SCALE: 1" = 50' DATE: REV 8-11-2020

mdINR.

Please Mail  
permits Back  
ASAP This  
Bill

# GENERAL NOTES

1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR MYRTUE PROPERTY, PLAT NUMBER 23865. REFER TO THE PLAT FOR LOT DIMENSIONS, LOT AREA, ALL EASEMENTS AND CONDITIONS.
2. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-1182) HAS BEEN FIELD LOCATED ON JUNE, 2019 BY BENCHMARK ENGINEERING, INC. AND IS ACCURATELY SHOWN.
3. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
4. TOPOGRAPHY SHOWN WAS FLOWN BY VIRGINIA RESOURCE MAPPING, INC. DATED FEBUAURY 2003 AND SUPPLEMENTED WITH FIELD SURVEY BY DMW, INC. DATED 2005 AND BENCHMARK ENGINEERING, INC. DATED JUNE, 2019 WHICH CONSISTS OF 2 FOOT CONTOUR INTERVALS.
5. SEDIMENT AND EROSION CONTROLS HAVE BEEN SUBMITTED TO HOWARD SOILS CONSERVATION DISTRICT AS A CUSTOM GRADING PLAN.
6. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED BUILDING PERMIT AND CUSTOM GRADING PLANS.
7. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
8. 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.
9. ANY ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
10. THE SEPTIC TANK WILL BE A 2000 GALLON TWO COMPARTMENT TANK.
11. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
12. 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.
13. ANY FUTURE WELLS SHALL BE 10 FEET AWAY FROM THE DRIVEWAY.



VICINITY MAP

SCALE: 1"=2000'



## BENCHMARK INFORMATION NAD83

Ho. Co. STATION 101A STAMPED DISC SET ON TOP OF CONCRETE COLUMN	Ho. Co. STATION 17AB STAMPED DISC SET ON TOP OF CONCRETE COLUMN
NORTHING: 565347.937'	NORTHING: 564468.943'
EASTING: 1319266.269'	EASTING: 1318257.375'
ELEVATION: 588.708'	ELEVATION: 561.105'

Approved Septic System Plan  
Howard County Health Department  
2000-gallon Septic Tank  
To Gravity Distribution  
for 5-bedroom SFD  
*R. Brink*  
Signature 2/4/2020  
Date

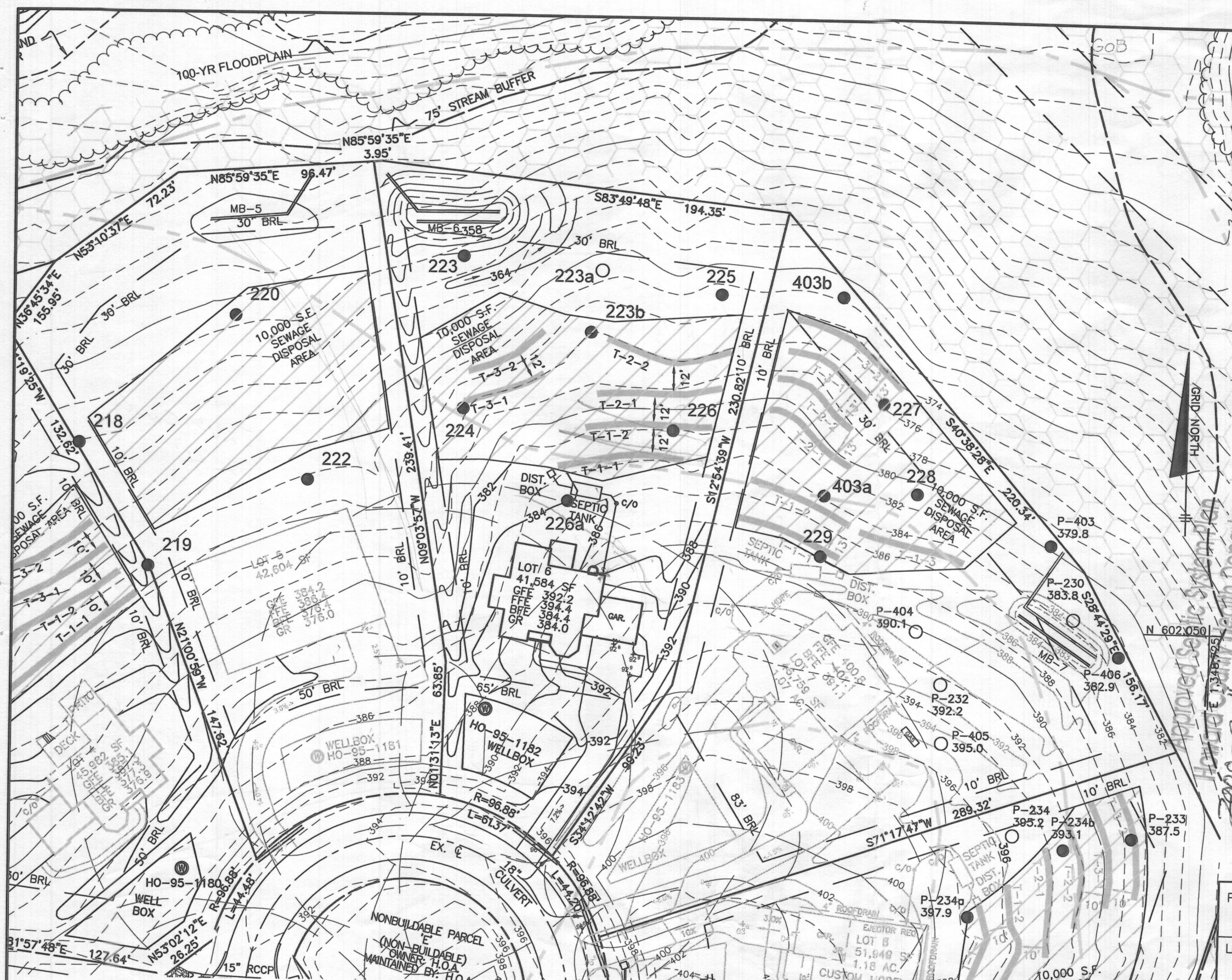
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 01-01-2021.



PROJECT: MYRTUE PROPERTY LOT 6	
LOCATION: TAX MAP: 10, GRID: 24, PARCEL: 225, ZONED: RC-DEO 1825 DAVIS BRANCH RD. WOODSTOCK, MD 21163 6TH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID 352404	
TITLE: ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE: CUSTOM - KEYSTONE HOMES	
DATE: JANUARY, 2020	PROJECT NO. 2099
SCALE: AS SHOWN	DRAWING 1 OF 3

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



- LEGEND**
- 400 PROPOSED CONTOURS
  - 398 EXISTING CONTOURS
  - EXISTING PRIVATE SEWAGE AREA
  - FOREST CONSERVATION EASEMENT
  - EXISTING WELL BOX
  - PROPOSED TREELINE
  - EXISTING TREELINE
  - STREAM
  - AREA OF NON-TIDAL WETLAND
  - SOILS MAP SYMBOL
  - SOILS DELINEATION LINE
  - PERC TEST PASSED
  - PERC TEST FAILED

Approved Septic System Plan  
 Howard County Health Department  
 2000-gallon Septic Tank  
 for 5-bedroom w/ SFD  
 Signature: [Handwritten Signature]  
 Date: 2/14/2020

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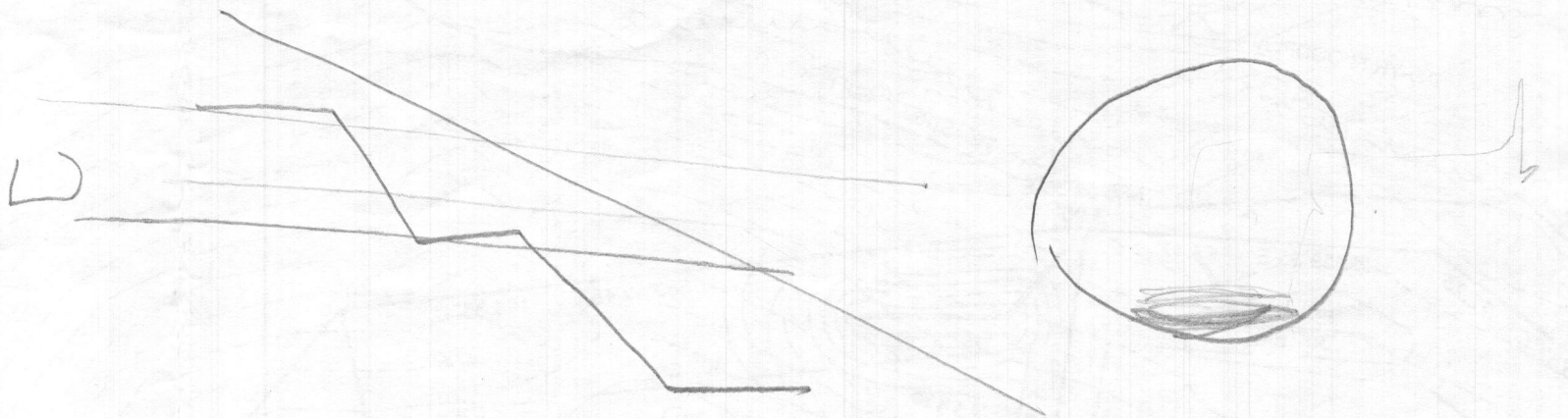
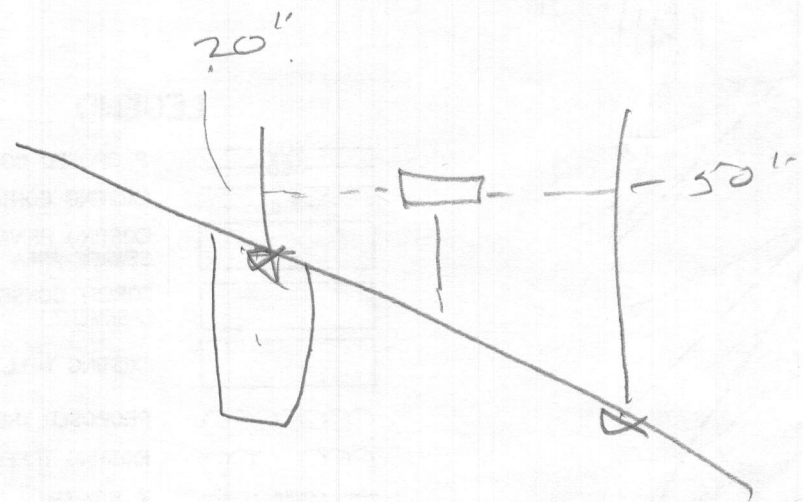
1-15-20

**PLAN VIEW**  
1" = 50'

**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.**  
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(P) 410-465-6105 ▲ (F) 410-465-6644  
WWW.BEI-CIVILENGINEERING.COM

PROJECT:		MYRTUE PROPERTY LOT 6	
LOCATION:		TAX MAP: 10, GRID: 24, PARCEL: 225, ZONED: RC-DEO 1825 DAVIS BRANCH RD. WOODSTOCK, MD 21163 6TH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID 352404	
TITLE:		ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE:		CUSTOM - KEYSTONE HOMES	
DATE:	JANUARY, 2020	PROJECT NO.	2099
SCALE:	AS SHOWN	DRAWING	2 OF 3



1%

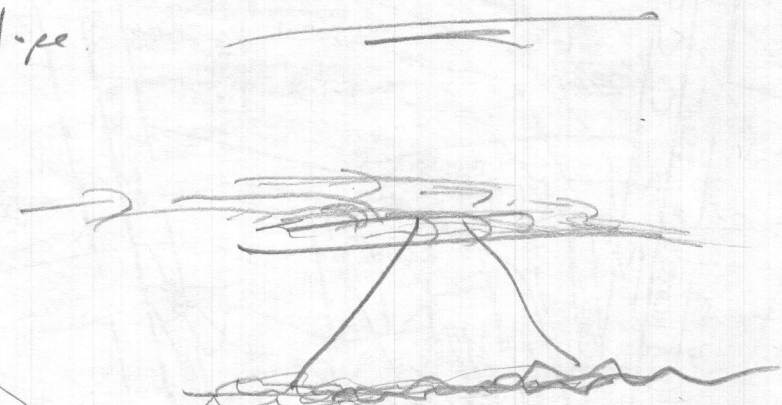
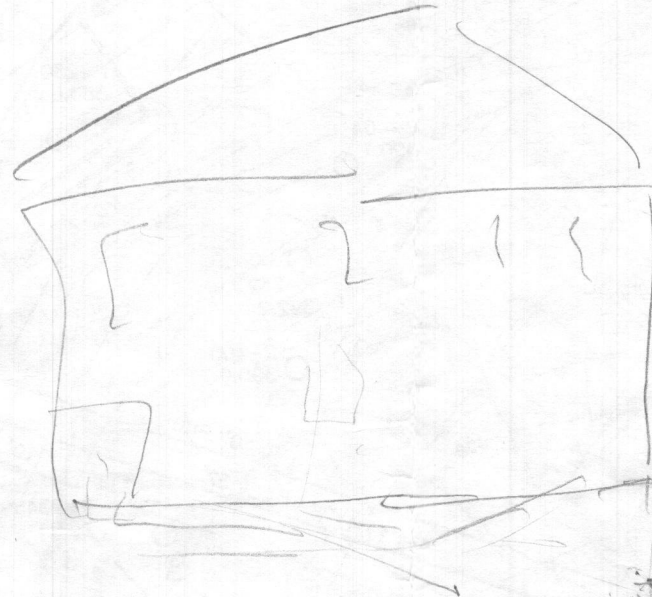
$$\frac{\text{Elevation}}{\text{Distance}} \times 100 = \text{\% Fall}$$

$$\frac{\text{Rise}}{\text{Run}} \times 100 = \text{slope}$$

Inlet Invert = 4'

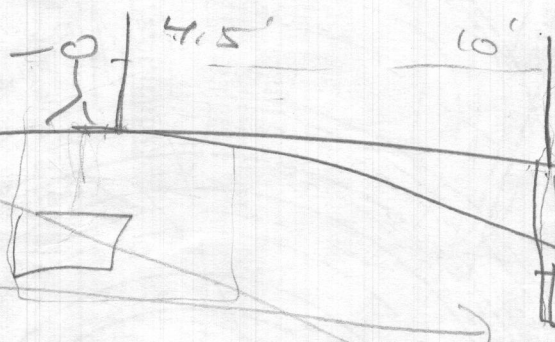
$$\frac{21.5''}{30'} \times 100$$

exchange



Grade ED @ Trunk = 6' + 4 = 10'

Sewer Out. elev = 882.7  
 S.O.

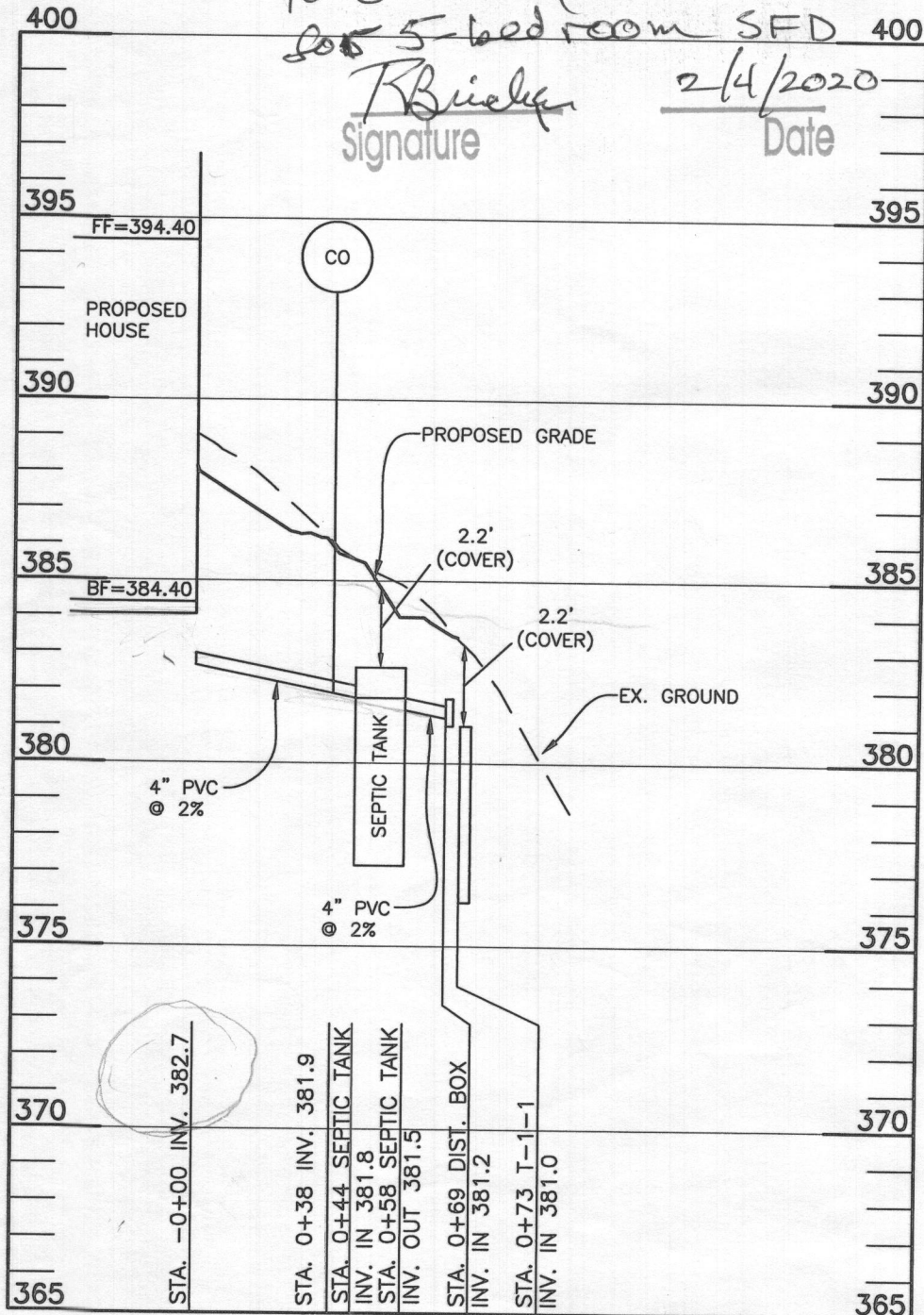


HEALTH DEPARTMENT SPEC SHEET INFORMATION - LOT 6			
System	Application Rate	Effective Depth	Bottom Depth
1st Replacement	0.8	3.0	7.5
2nd Replacement	0.8	3.0	7.5
3rd Replacement	1.2	3.0	7.5

Approved Septic System Plan  
 Howard County Health Department  
 2000-gallon Septic Tank  
 to Gravity Distribution  
 for 5-bedroom SFD

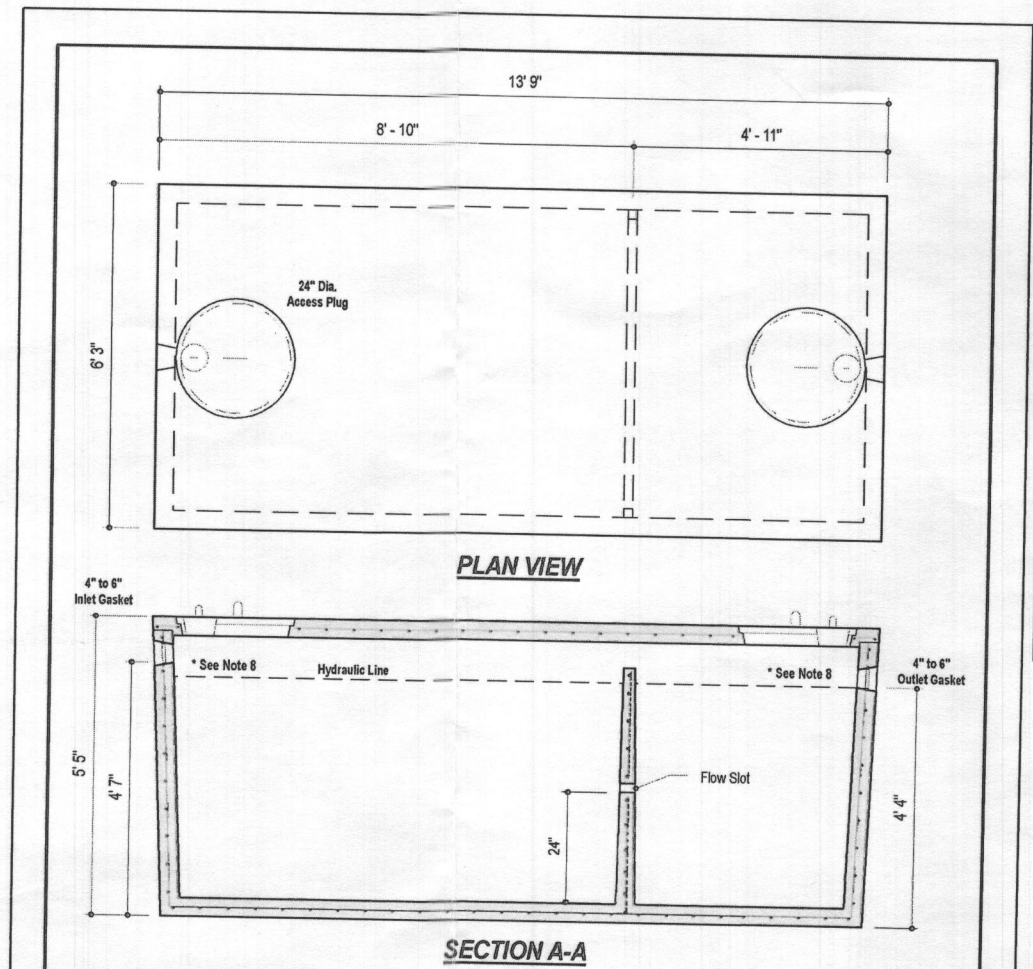
*R. Buehler*  
 Signature

2/4/2020  
 Date



LOT 6 OSDS  
 SCALE: 1"=50' HORIZ., 1"=5' VERT.

TRENCH DESIGN - LOT 6					
INITIAL SYSTEM		1ST REPLACEMENT SYSTEM		2ND REPLACEMENT SYSTEM	
T-1-1	LENGTH 60.1 ft	T-2-1	LENGTH 60.1 ft	T-3-1	LENGTH 40.1 ft
	GROUND ELEVATION 383.5		GROUND ELEVATION 379.0		GROUND ELEVATION 376.0
	INVERT ELEVATION 381.5		INVERT ELEVATION 377.0		INVERT ELEVATION 374.0
	MAX BOTTOM ELEVATION 376.0		MAX BOTTOM ELEVATION 371.5		MAX BOTTOM ELEVATION 368.5
T-1-2	LENGTH 60.1 ft	T-2-2	LENGTH 60.1 ft	T-3-2	LENGTH 40.1 ft
	GROUND ELEVATION 381.5		GROUND ELEVATION 376.1		GROUND ELEVATION 373.2
	INVERT ELEVATION 379.5		INVERT ELEVATION 374.1		INVERT ELEVATION 371.2
	MAX BOTTOM ELEVATION 374.0		MAX BOTTOM ELEVATION 368.6		MAX BOTTOM ELEVATION 365.7



- DESIGN DATA & GENERAL NOTES
- Concrete strength  $f_c=4,000$  p.s.i. @ 28 days. Density = 150 pcf.
  - Cement - Portland Type III per ASTM C 150-92.
  - Admixtures & plasticizers per ASTM C 250-96 & C 494-92.
  - Reinforcing per ASTM A108. Min. 1-1/2" cover.
  - Top slab sealed with butyl rope mastic.
  - 4" wall, 4" base, & 6" top thickness.
  - Max 3" of cover.
  - Depending on use of tank, Inlet & Outlet baffle may be required by code.

**MBI**  
 Mayer Bros., Inc.  
 6264 Race Road  
 Elkridge, Maryland 21075  
 Tel. 410.796.1434  
 Fax. 410.796.1438  
 www.mayerbrosprecast.com

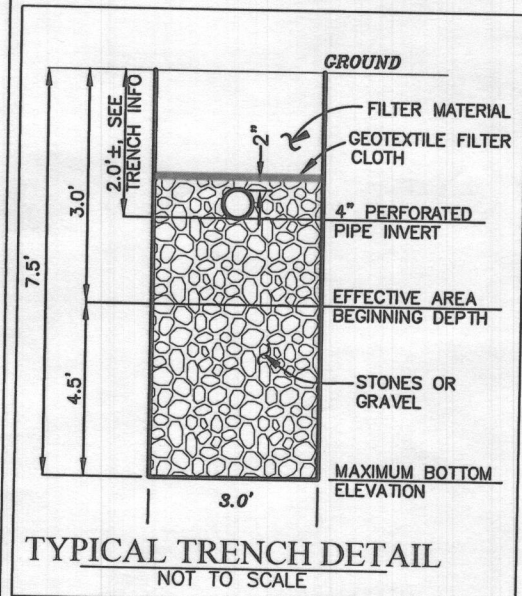
2,000 GALLON SEPTIC TANK  
 2-Compartment  
 Stock Item [Approx. 19,900 lbs]  
 Dwg. No. 2000-2C No Scale Aug 11, 2008

SEPTIC INVERT CHART - LOT 6	
INV @ HOUSE	382.7
GROUND @ HOUSE	388.4
INV IN SEPTIC TANK	381.8
INV OUT SEPTIC TANK	381.5
TOP OF SEPTIC TANK	382.5
GROUND OVER SEPTIC TANK	384.9

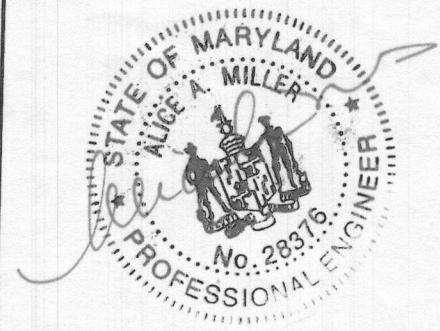
INITIAL SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	7.5	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.38	
Trench width	3	ft
Effective Area Depth	4.5	ft
Trench Spacing	12	ft
Linear Length of trench Required	120	lf

1ST REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	7.5	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.38	
Trench width	3	ft
Effective Area Depth	4.5	ft
Trench Spacing	12	ft
Linear Length of trench Required	120	lf

2ND REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	7.5	ft
Design Flow	750	gpd
Drainage Field square footage	625	sf
Sidewall Reduction Credit	0.38	
Trench width	3	ft
Effective Area Depth	4.5	ft
Trench Spacing	12	ft
Linear Length of trench Required	80	lf



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: 01-01-2021.



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LOCATION:	TAX MAP: 10, GRID: 24, PARCEL: 225, ZONED: RC-DEO 1825 DAVIS BRANCH RD. WOODSTOCK, MD 21163 6TH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID 352404	
TITLE:	ONSITE SEWAGE DISPOSAL PLAN	
HOUSE TYPE:	CUSTOM - KEYSTONE HOMES	
DATE:	JANUARY, 2020	PROJECT NO. 2099
SCALE:	AS SHOWN	DRAWING 3 OF 3

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  
 ELLICOTT CITY, MARYLAND 21043  
 (P) 410-465-6105 (F) 410-465-6644  
 WWW.BEI-CIVILENGINEERING.COM





**LEGEND**

- 400  
398
- 400  
398
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 
- 

Approved Electric System Plan  
 200 - galloway  
 To Gravity Distribution  
 for 5 - Bedroom SFD  
 Signature  
 Date 2/4/2020

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1-15-20

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DATE: JANUARY, 2020	PROJECT NO. 2099
SCALE: AS SHOWN	DRAWING 2 OF 3

**PLAN VIEW**  
1" = 50'

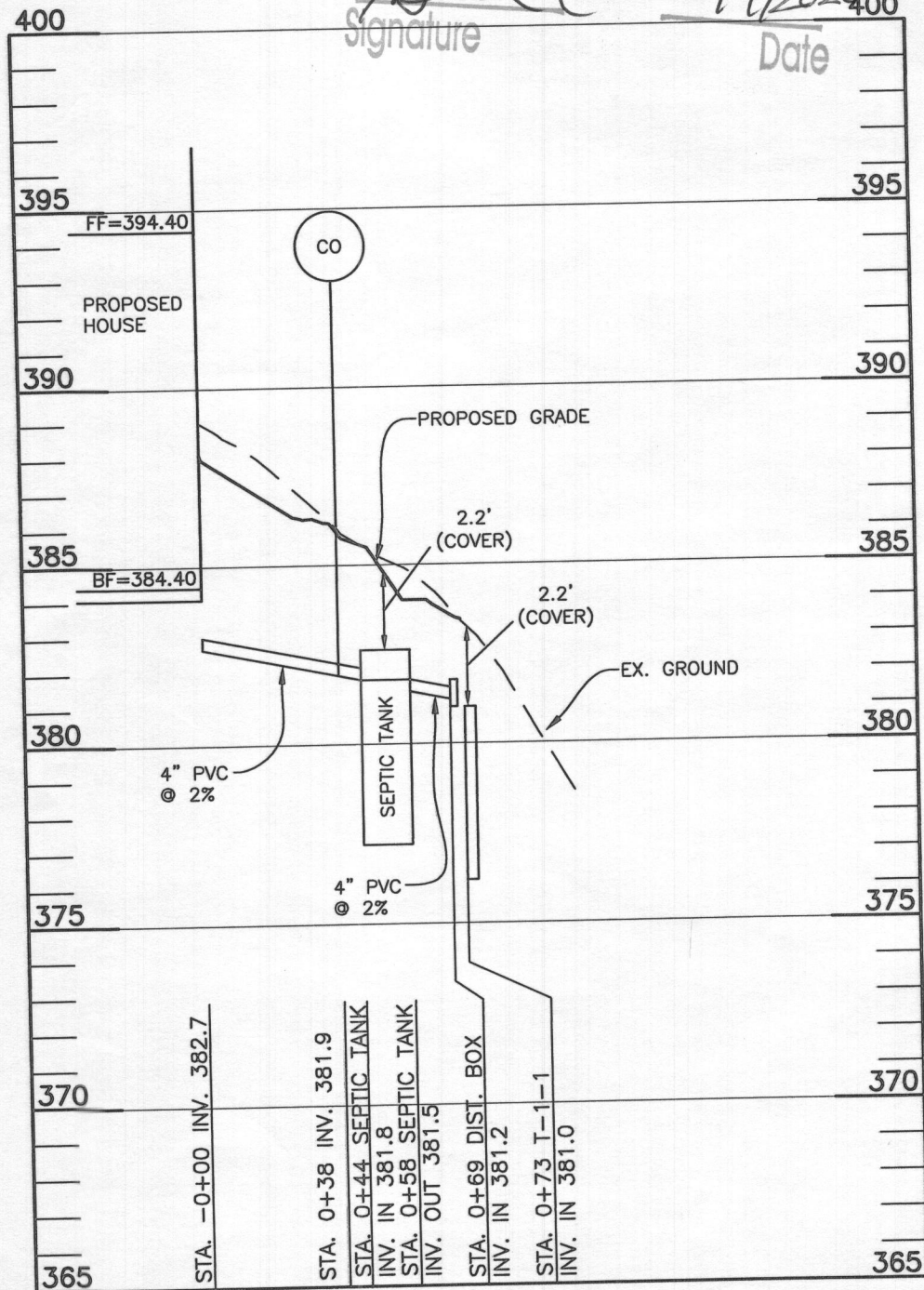
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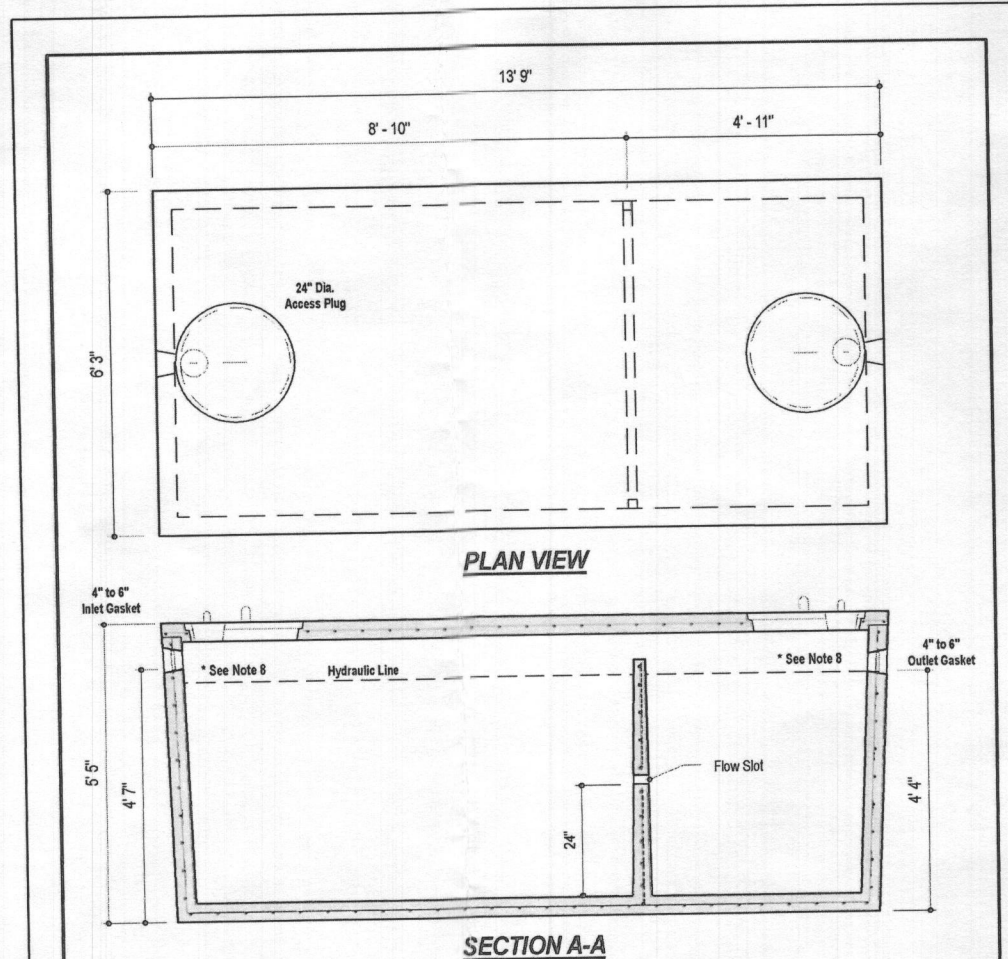
Approved Septic System Plan  
 Howard County Health Department  
 2000-gallon Septic Tank  
 to Gravity Distribution  
 for 5-bedroom SFD

*Buelker* 2/4/2020  
 Signature Date



LOT 6 OSDS  
 SCALE: 1"=50' HORIZ., 1"=5' VERT.

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	MAX BOTTOM ELEVATION 374.0		MAX BOTTOM ELEVATION 368.6		MAX BOTTOM ELEVATION 365.7



DESIGN DATA & GENERAL NOTES  
 [1] Concrete strength f<sub>c</sub>=4,000 p.s.i. @ 28 days. Density = 150 pcf.  
 [2] Cement - Portland Type III per ASTM C 150-92.  
 [3] Admixtures & plasticizers per ASTM C 260-96 & C 494-92.  
 [4] Reinforcing per ASTM A186. Min. 1-1/2" cover.  
 [5] Top slab sealed with butyl rope mastic.  
 [6] 4" wall, 4" base, & 6" top thickness.  
 [7] Max 3" of cover  
 [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.

**2,000 GALLON SEPTIC TANK**  
 2-Compartment  
 Stock Item [Approx. 19,900 lbs]

**MBI** Mayer Bros., Inc. 6264 Race Road, Elkridge, Maryland 21075, Tel. 410.796.1434, Fax. 410.796.1438, www.mayerbrosprecast.com

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

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

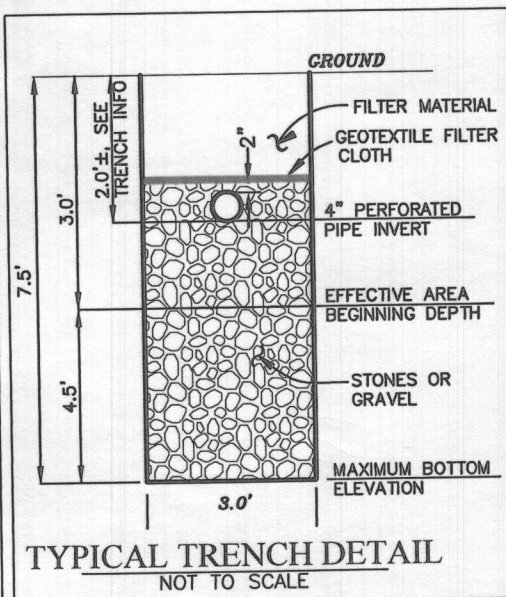
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Sidewall Reduction Credit	0.38	
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Trench Spacing	12	ft
Linear Length of trench Required	120	lf

1ST REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	7.5	ft
Design Flow	750	gpd
Drainage Field square footage	937.5	sf
Sidewall Reduction Credit	0.38	
Trench width	3	ft
Effective Area Depth	4.5	ft
Trench Spacing	12	ft
Linear Length of trench Required	120	lf

2ND REPLACEMENT SYSTEM		
Number of Bedrooms	5	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	7.5	ft
Design Flow	750	gpd
Drainage Field square footage	625	sf
Sidewall Reduction Credit	0.38	
Trench width	3	ft
Effective Area Depth	4.5	ft
Trench Spacing	12	ft
Linear Length of trench Required	80	lf



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: 01-01-2021.



PROJECT: MYRTUE PROPERTY LOT 6

LOCATION: TAX MAP: 10, GRID: 24, PARCEL: 225, ZONED: RC-DEO  
 1825 DAVIS BRANCH RD. WOODSTOCK, MD 21163  
 6TH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID 352404

TITLE: ONSITE SEWAGE DISPOSAL PLAN

HOUSE TYPE: CUSTOM - KEYSTONE HOMES

DATE: JANUARY, 2020 PROJECT NO. 2099

SCALE: AS SHOWN DRAWING 3 OF 3