

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
 Facebook: www.facebook.com/hocohealth

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

RECEIPT DATE: 10/08/2021 **ONSITE SEWAGE DISPOSAL SYSTEM** P 570189
 APPROVAL DATE: 10/24/2021 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 18402 Hidden Creek Way
 SUBDIVISION: Windsor Forest Knolls LOT: 2 TAX ID: _____
 CONTRACTOR: FARM AND HOME EX EMAIL: _____
 CONTRACTOR ADDRESS: _____ PHONE: _____
 PROPERTY OWNER: Keystone Custom Homes EMAIL: _____
 OWNER ADDRESS: 227 Granite Run Drive, Suite 100 PHONE: 717-464-9060
 SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: MBI
 PUMP MODEL: Zoeller 371-0002 PUMP SIZE 1/3 PUMP TANK CAPACITY: 2000

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE: 0.6

TRENCHES:	LINEAR FEET REQUIRED: <u>208</u>	INLET DEPTH: <u>2</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Spencer Freeman ISSUE DATE: 10/8/21 EXPIRATION DATE: 10/8/22

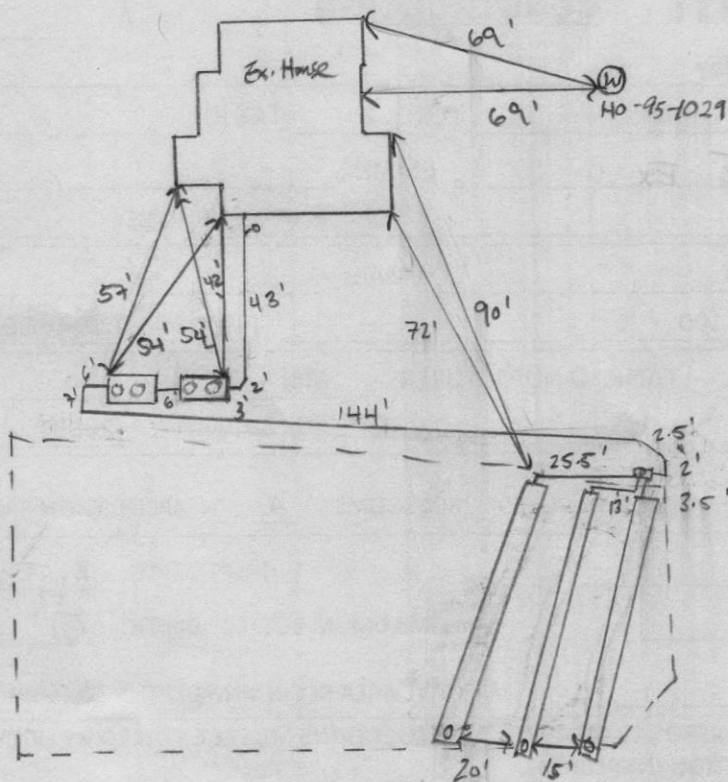
- NOTE: CONTRACTOR MUST SCHEDULE A PRE-CONSTRUCTION INSPECTION PRIOR TO BEGINNING ANY INSTALLATION
- NOTE: CONTRACTOR MUST SCHEDULE AN INSPECTION AND GAIN APPROVAL OF ALL COMPONENTS PRIOR TO COVERING
- NOTE: STONE MUST BE APPROVED BY HEALTH DEPARTMENT AND GRAVEL TICKET MUST BE AVAILABLE FOR REVIEW.
- 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 E21004333
- 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.

18402 Hidden Creek Way

NOT TO SCALE 1"=50'

P810F2



TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	2'	7'
NUMBER OF TRENCHES		3
TOTAL LENGTH		210 F
ABSORPTION AREA		630 SF + 2'
DISTRIBUTION BOX LEVEL		PUMP
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		NO

SIDE WALL

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	3'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	11/16/2021
PUMP/SEPTIC TANK LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	3'
BAFFLES	-
BAFFLE FILTER	-
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	-
DATE ON LID	11/24/2021

ROAD NAME

Hidden Creek Way

PRE-CONSTRUCTION:

12/28/21 Laid out 3x70' trenches on contour according to plan.
 Contractor plans to put pump tank in line with septic tank b/c you
 can't make horseshoe bends with 4" PVC. (S)

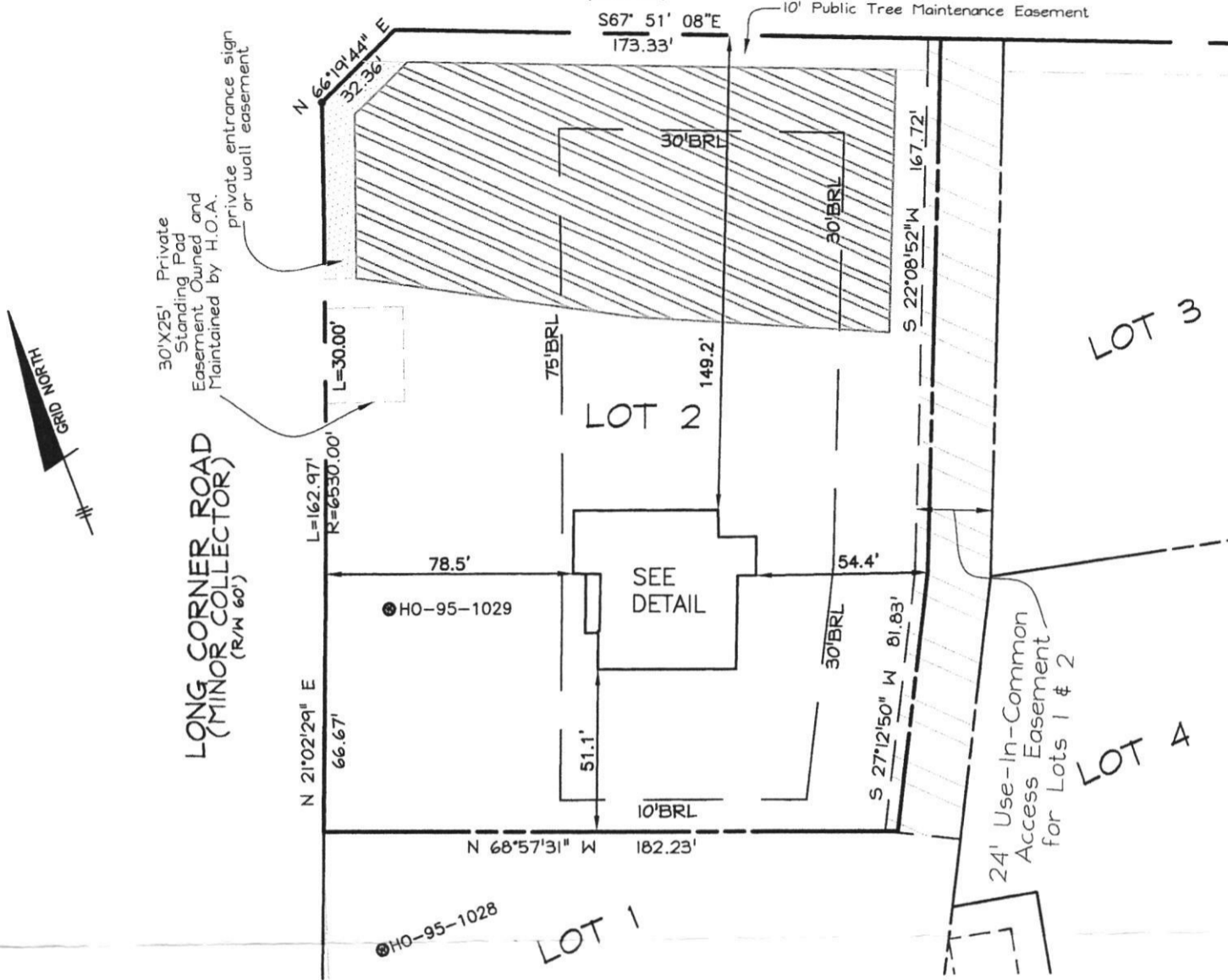
INSTALLATION: 12/30/2021 SL INSTALLED. TANKS SET. P 01/04/2022 FM
 INSTALLED; TRS INSTALLED. P 01/24/2022 PIA OK R PANEL BREAKER
 3/16. PUMP WORKS ALARM WORKS. (P)

FINAL INSPECTOR

DATE OF APPROVAL

01/24/2022

HIDDEN CREEK WAY
(Public Access Place)
(R/W 40')



TOP OF FOUNDATION WALL = 808.0'
OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

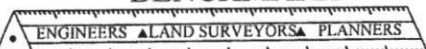
SURVEYOR'S CERTIFICATE

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 09/21/2021.

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

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

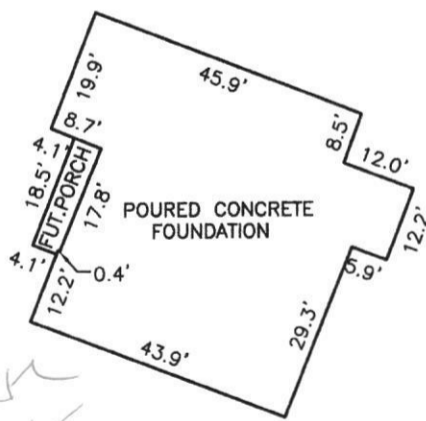
BENCHMARK



ENGINEERING, INC.

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

WWW.BEI-CIVILENGINEERING.COM



*Wall Check
OK R/E
10/8/2021*

FOUNDATION DETAIL
SCALE: 1" = 30'

WALL CHECK

WINDSOR FOREST KNOLLS
LOTS 1 THRU 18
PLAT No. 19396
LOT No. 2

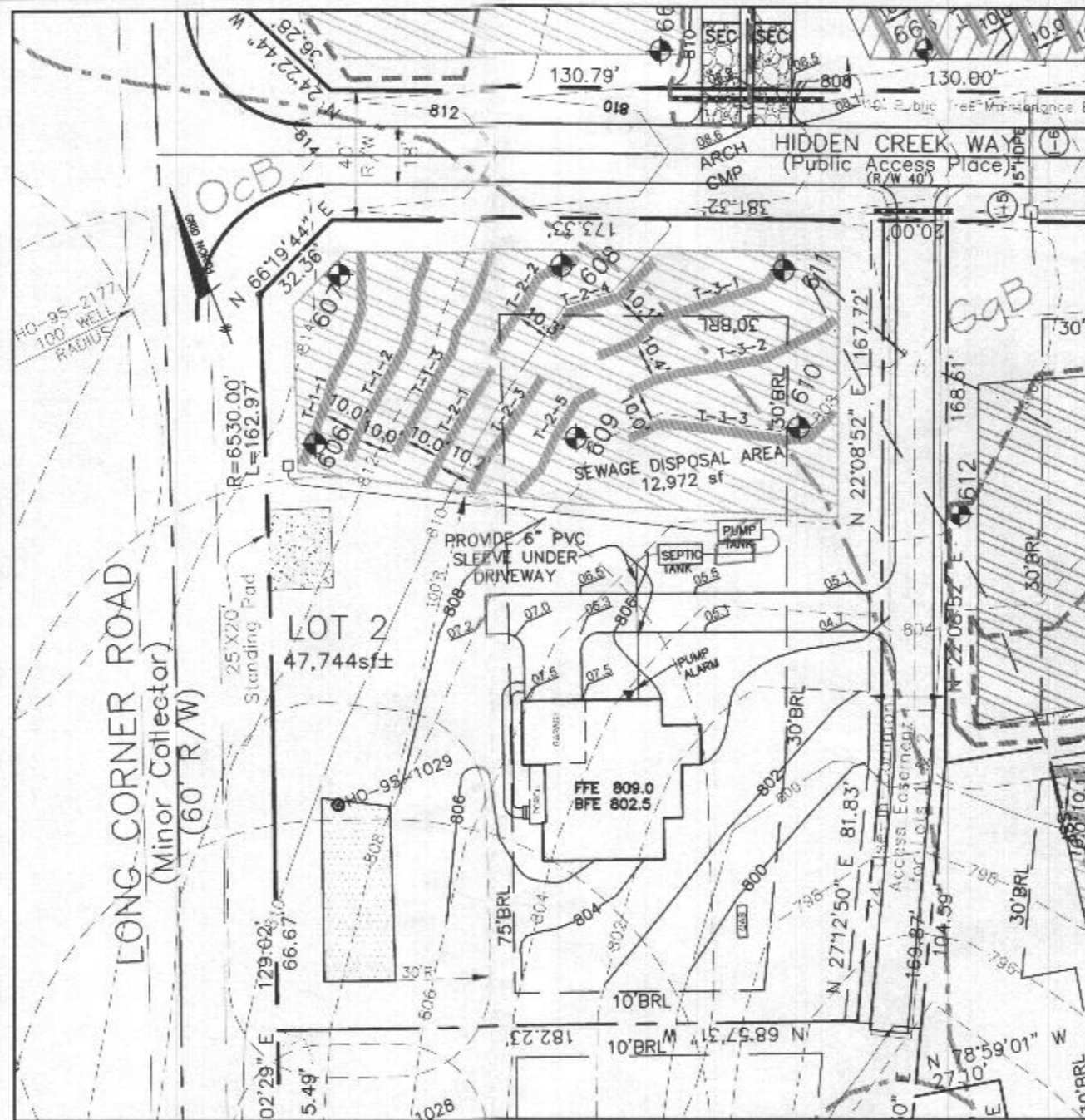
18402 HIDDEN CREEK WAY

4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

FIELD OBS. BY PJ
COMP. BY EWF
DRAWN BY EWF SCALE: 1" = 50' DATE: 09/21/2021

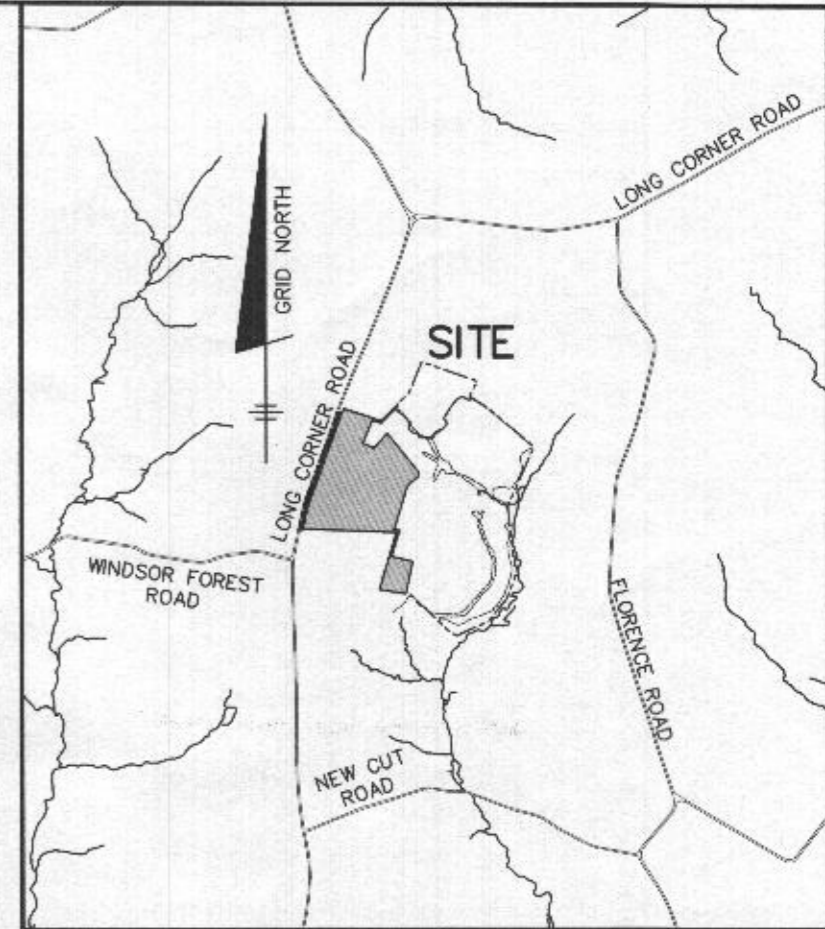
GENERAL NOTES

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-95-1029) HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING INC. JULY 2020 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 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.
5. SEDIMENT AND EROSION CONTROLS WILL BE SUBMITTED BY 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. THE PUMP TANK WILL BE A 2000 GALLON ONE 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.



PLAN VIEW

1" = 50'



VICINITY MAP

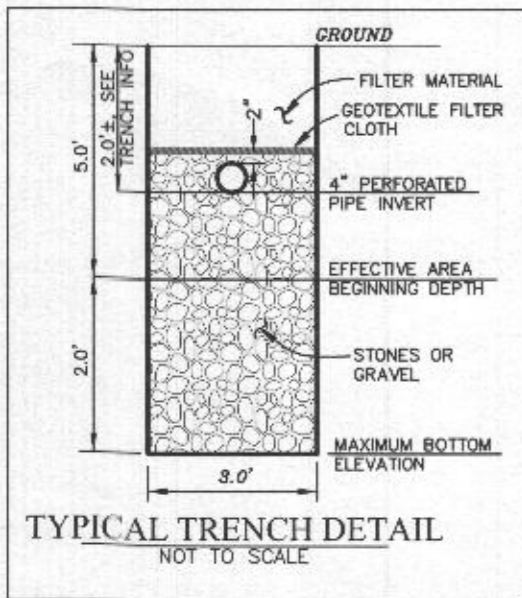
SCALE: 1" = 2000'

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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TYPICAL TRENCH DETAIL
NOT TO SCALE

LEGEND

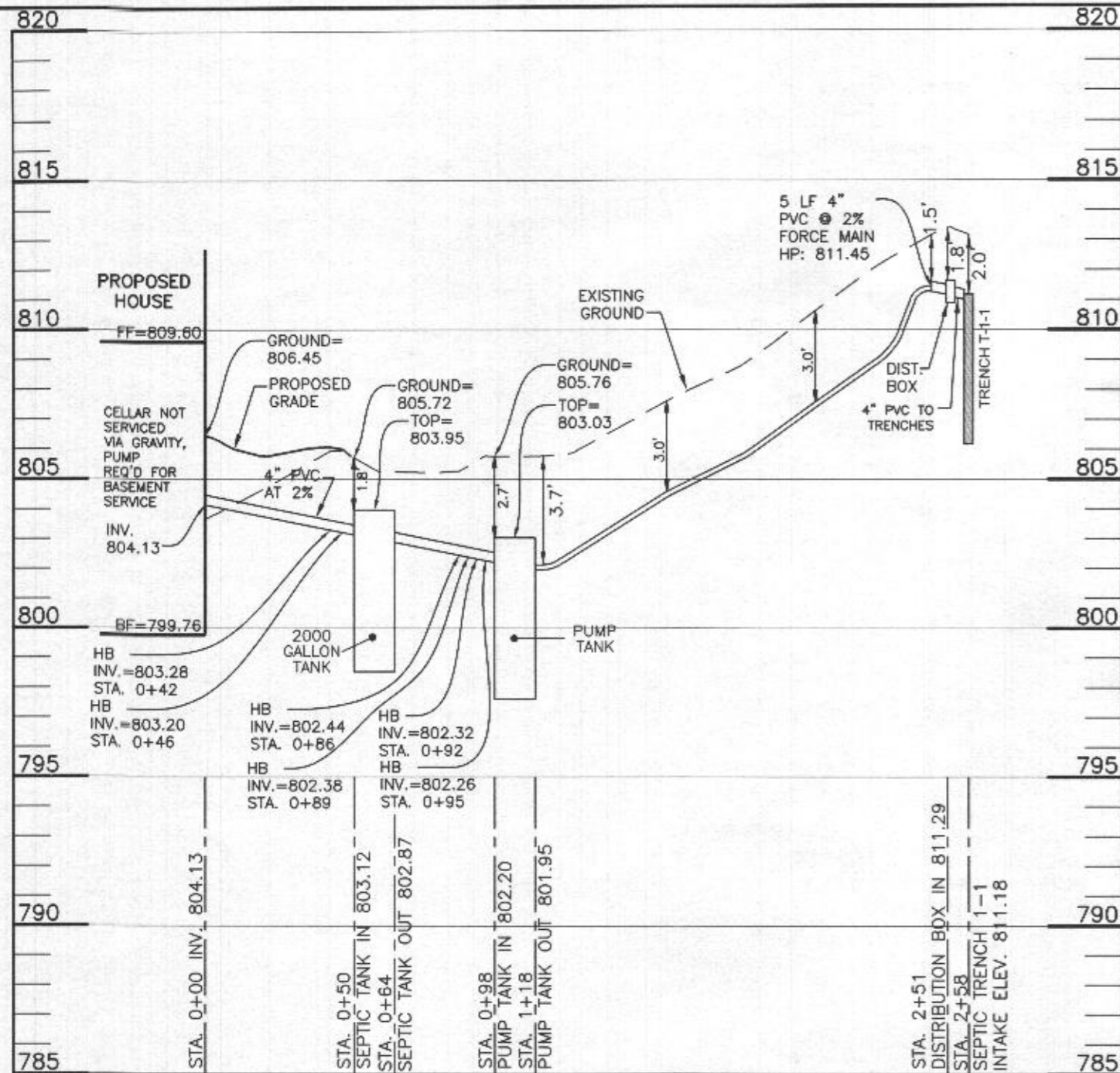
- 400 PROPOSED CONTOURS
- 398 EXISTING CONTOURS
- 400 EXISTING CONTOURS
- EXISTING PRIVATE SEWAGE DISPOSAL AREA
- ADDITIONAL SEWAGE DISPOSAL AREA
- EXISTING WELL BOX
- SOILS MAP SYMBOL
- SOILS DELINEATION LINE
- PERC TEST PASSED

Approved Septic System Plan
Howard County Health Department
Mark Oswald 5/14/21
Signature Date

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-CMLENGINEERING.COM

PROJECT:	WINDSOR FOREST KNOLLS LOT 2		
LOCATION:	TAX MAP: 6 - GRID: 16 - PARCEL: 57 18402 HIDDEN CREEK WAY - TAX ID 04-373170 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 4



LOT 2 SEPTIC PROFILE
SCALE: 1"=50' HORIZ., 1"=5' VERT.

INITIAL SYSTEM	
Number of Bedrooms	4
Application Rate	0.6 gpd/sf
Effective Area Beginning Depth	5.0 ft
Bottom Max Depth	7.0 ft
Design Flow	600 gpd
Drainage Field square footage	1000 sf
Sidewall Reduction Credit	0.63
Trench width	3 ft
Effective Area Depth	2 ft
Trench Spacing	10 ft
Trench Length Required	208 lf

1ST REPLACEMENT SYSTEM	
Number of Bedrooms	4
Application Rate	0.6 gpd/sf
Effective Area Beginning Depth	5.0 ft
Bottom Max Depth	7.0 ft
Design Flow	600 gpd
Drainage Field square footage	1000 sf
Sidewall Reduction Credit	0.63
Trench width	3 ft
Effective Area Depth	2 ft
Trench Spacing	10 ft
Trench Length Required	208 lf

2ND REPLACEMENT SYSTEM	
Number of Bedrooms	4
Application Rate	0.6 gpd/sf
Effective Area Beginning Depth	5.0 ft
Bottom Max Depth	7.0 ft
Design Flow	600 gpd
Drainage Field square footage	1000 sf
Sidewall Reduction Credit	0.63
Trench width	3 ft
Effective Area Depth	2 ft
Trench Spacing	10 ft
Trench Length Required	208 lf

TRENCH DESIGN - Lot 2					
INITIAL SYSTEM					
T-1-1	LENGTH	69.5 ft	T-1-2	LENGTH	69.5 ft
	GROUND ELEVATION	813.3		GROUND ELEVATION	812.5
	INVERT ELEVATION	811.0		INVERT ELEVATION	810.5
	MAX BOTTOM ELEVATION	806.3		MAX BOTTOM ELEVATION	805.5
			T-1-3	LENGTH	69.5 ft
				GROUND ELEVATION	811.6
				INVERT ELEVATION	809.6
				MAX BOTTOM ELEVATION	804.6
1ST REPLACEMENT SYSTEM					
T-2-1	LENGTH	41.7 ft	T-2-3	LENGTH	41.7 ft
	GROUND ELEVATION	810.7		GROUND ELEVATION	810.7
	INVERT ELEVATION	808.7		INVERT ELEVATION	808.7
	MAX BOTTOM ELEVATION	803.7		MAX BOTTOM ELEVATION	802.6
T-2-4	LENGTH	41.7 ft	T-2-5	LENGTH	41.7 ft
	GROUND ELEVATION	809.9		GROUND ELEVATION	808.7
	INVERT ELEVATION	807.9		INVERT ELEVATION	806.7
	MAX BOTTOM ELEVATION	802.9		MAX BOTTOM ELEVATION	801.7
2ND REPLACEMENT SYSTEM					
T-3-1	LENGTH	69.5 ft	T-3-2	LENGTH	69.5 ft
	GROUND ELEVATION	809.1		GROUND ELEVATION	808.5
	INVERT ELEVATION	807.1		INVERT ELEVATION	806.5
	MAX BOTTOM ELEVATION	802.1		MAX BOTTOM ELEVATION	801.5
			T-3-3	LENGTH	69.5 ft
				GROUND ELEVATION	807.8
				INVERT ELEVATION	805.8
				MAX BOTTOM ELEVATION	800.8

SEPTIC INVERT CHART - Lot 2	
INV @ HOUSE	804.1
GROUND @ HOUSE	806.6
INV IN SEPTIC TANK	803.1
INV OUT SEPTIC TANK	802.9
TOP OF SEPTIC TANK	804.0
GROUND OVER SEPTIC TANK	805.7
INV IN PUMP TANK	802.2
INV OUT PUMP TANK	802.0
TOP OF PUMP TANK	803.0
GROUND OVER PUMP TANK	805.8
INV IN DIST BOX	811.3
INV OUT DIST BOX	811.2
GROUND AT DIST BOX	813.4

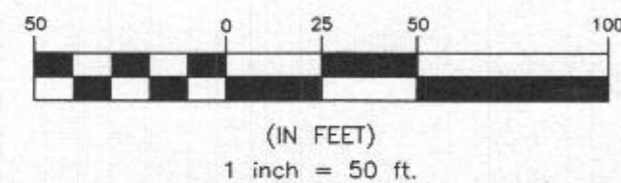
Professional Certification. I hereby certify that these documents were prepared or approved by me, and that I am a duly licensed professional engineer under the laws of the State of Maryland, License No. 28376, Expiration Date: 01-01-2023.



AAM-BEI

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HEALTH DEPARTMENT SPEC SHEET INFORMATION - Lot 2			
System	Application Rate	Effective Depth	Bottom Depth
1st System	0.6	5.0	7.0
2nd system	0.6	5.0	7.0
3rd System	0.6	5.0	7.0



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

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

PROJECT:	WINDSOR FOREST KNOLLS LOT 2		
LOCATION:	TAX MAP: 6 - GRID: 16 - PARCEL: 57 18402 HIDDEN CREEK WAY - TAX ID 04-373170 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	2 OF 4

Pumping Station

Diameter of Force Main and Manifold = 2" PVC SCH. 40
 Length of Force Main = 139 feet SCH.40 gallons/100 feet = 17.4 Table 4.2
 Volume of Main = 24.2 gallons
 Total Volume = 24.2 gallons
 Minimum Dose must be greater than 1/6 of the design flow 100 gallons
 Minimum Dose must be greater than the volume of the main 24 gallons
 Use minimum dose of 140 gallons okay Doses per Day = 4.285714

Size Pump Chamber

Pump chamber must be able to hold one dose and one days design flow

One day Capacity = 900 gallons
 Dose = 140 gallons
 Totals = 740 gallons

Use 2,000 gallon pump tank

Tank Dimensions:		Exterior	Interior	Walls:	
Length:	13.75 feet	Length:	13.08 feet	Bottom:	0.33 feet
Width:	6.25 feet	Width:	5.58 feet	Top:	0.42 feet
Height:	5.42 feet	Height:	4.67 feet	Area:	73.05 sf
		Area:	340.89 cf	Inlet:	4.58 feet

Sizing the Pump

Flow runtime = 7 minutes
 rate = 20.00 gallons/minute

Design Head:
 Design Head = Static Head + Friction Head
 Static Head = highest elevation of main - pump off elevation
 Highest component of system = 811.45 Main HP
 Pump off elevation = 799.50
 Static Head = 11.95 feet
 Friction Head = Head loss due to pipe friction
 2.0" pipe = 139 feet
 45° bends 2 loss for bend 8 feet per table 4.3
 90° bends 7 loss for bend 35 feet per table 4.3
 Gate Valve 0 loss for tee 0 feet per table 4.3
 Friction loss per table 4.4 = 0.74 (ft/100 ft)
 Equivalent Length = 182 Friction loss 1.35 feet
 Total Friction Head = 1.35
 Design Head = 13.30 feet

Pump Requirements:

Performance = 20.00 gpm
 Head of Water = 13.30 feet of head

Pump Selection: Zoeller Pump Company Flow-mate Series, Model 151
 1/3 horse power

Pump Flow Rate = 24.10 gallons/minute per rating curve. Run time: 5.81 Minutes
 TDH analysis 13.83 ft
 Between design and curve? Yes

Design Pump Chamber

Ground over Tank = 806.76 Cover = 2.73 ft
 Top of Tank = 803.03
 Invert of Tank = 797.94
 6" Riser = 0.50 feet
 Pump Height = 1.01 feet

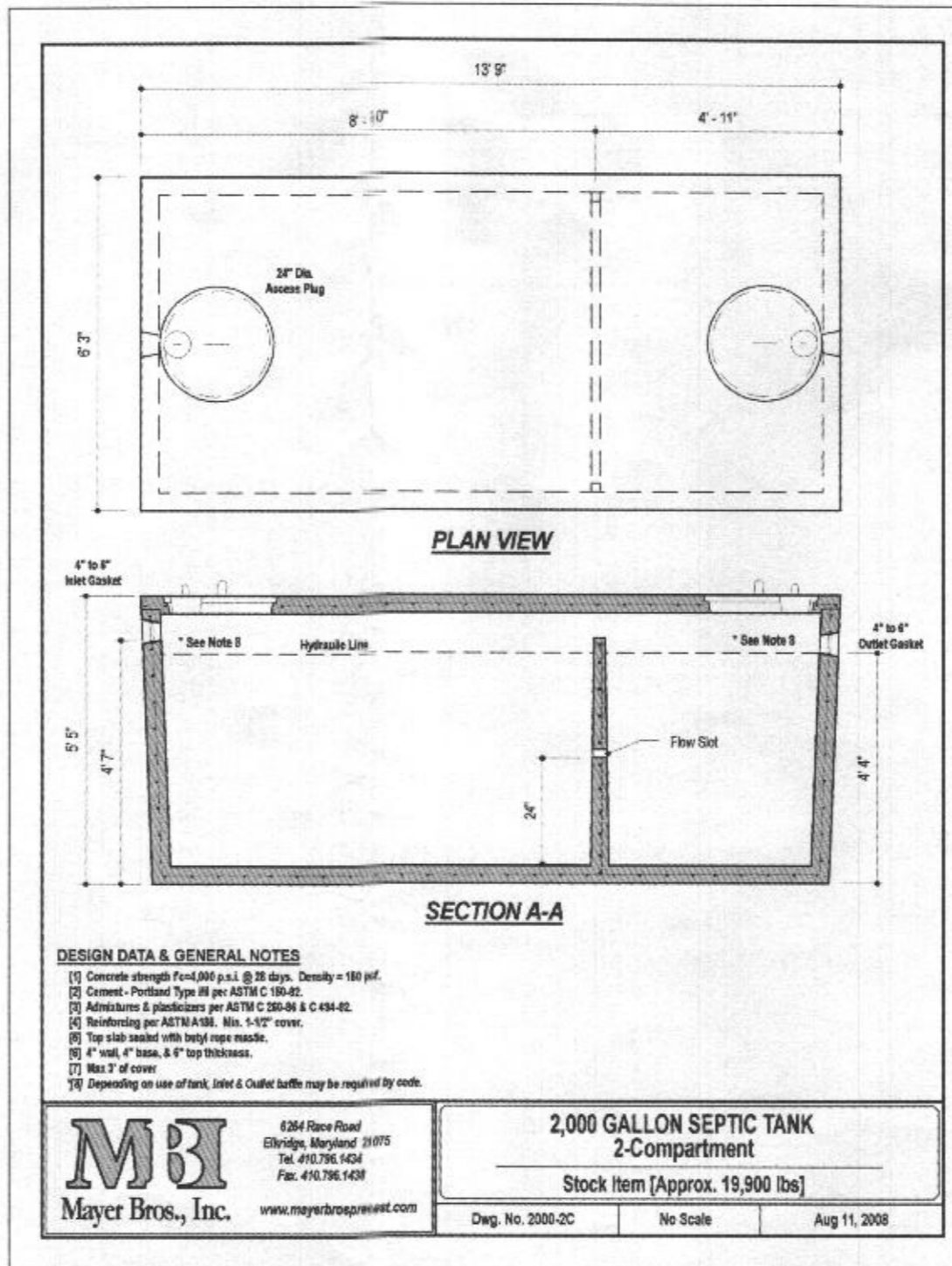
Min. Pump off = 799.45
 Selected Pump off = 799.50

Dose = 18.7 of
 Area of Pit = 73.05 sf

Pump on dist. = 0.26
 Pump on Elev. = 799.76

Distance between Pump on and Highwater Alarm = 0.5 feet
 Highwater Alarm Elevation = 800.25

Dist. for day stored above alarm 1.10
 Minimum Inlet Elev. = 801.35
 Tank Inlet = 802.19 Okay
 Dist. Alarm to Inlet = 1.93 Okay



MB
 Mayer Bros., Inc.
 6264 Race Road
 Ellicott, Maryland 21075
 Tel. 410.786.1434
 Fax. 410.786.1438
 www.mayerbrospresrest.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 2	
INV @ HOUSE	804.1
GROUND @ HOUSE	806.6
INV IN SEPTIC TANK	803.1
INV OUT SEPTIC TANK	802.9
TOP OF SEPTIC TANK	804.0
GROUND OVER SEPTIC TANK	805.7
INV IN PUMP TANK	802.2
INV OUT PUMP TANK	802.0
TOP OF PUMP TANK	803.0
GROUND OVER PUMP TANK	805.8
INV IN DIST BOX	811.3
INV OUT DIST BOX	811.2
GROUND AT DIST BOX	813.4

SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK, PUMP AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

THIS PLAN IS FOR SEPTIC DESIGN ONLY

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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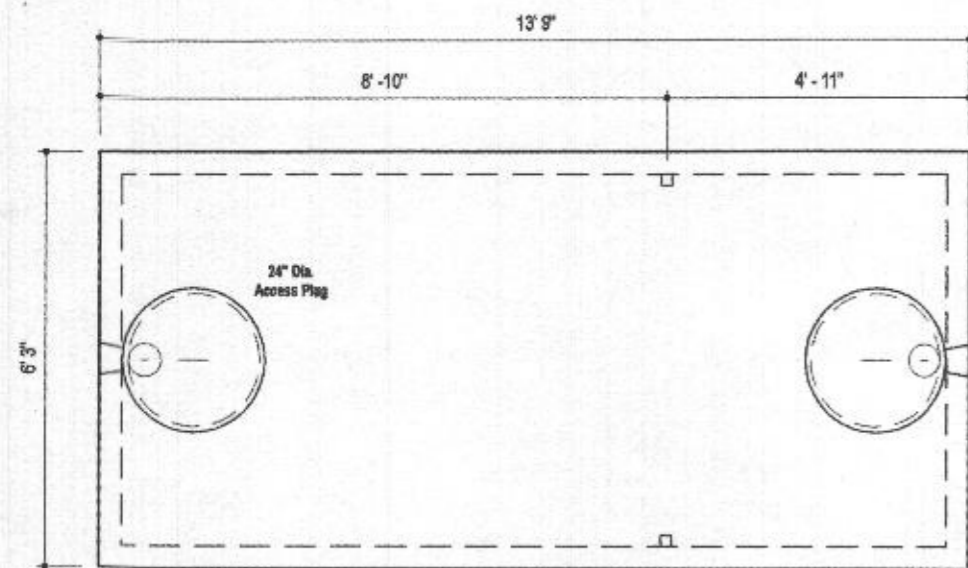
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SEE MANUFACTURER'S SPECIFICATIONS FOR DETAILS. EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

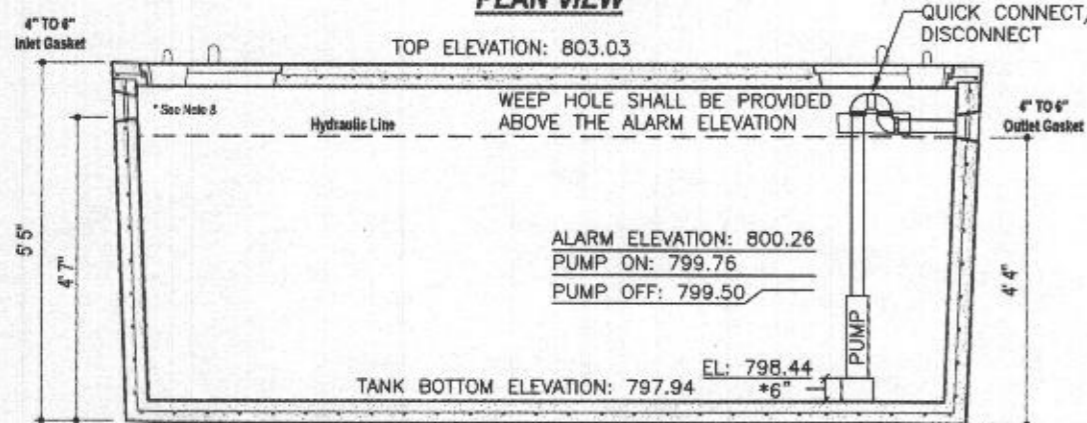
OWNER/BUILDER:
 KEYSTONE CUSTOM HOMES, INC.
 227 GRANITE RUN DR.
 SUITE 100
 LANCASTER, PA 17601
 717-464-9060

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DATE:	MARCH, 2021	PROJECT NO.	2986
SCALE:	AS SHOWN	DRAWING	3 OF 4



PLAN VIEW



SECTION A-A

*USE BLOCK OR SUPPORT TO RAISE PUMP INLET A MINIMUM OF 0.5' OFF BOTTOM OF TANK

WEIGHT = 19,000 lbs.

DESIGN DATA & GENERAL NOTES

- [1] Concrete strength $f'c=4,800$ p.s.i. @ 28 days. Density = 150 pcf.
- [2] Cement - Portland Type III per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 260-86 & C 494-92.
- [4] Reinforcing per ASTM A105. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 6" top thickness.
- [7] Max. 2" of cover
- [8] Depending on use of tank, Inlet & Outlet baffles may be required by code.

MBI
Mayer Bros., Inc.
6254 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbrosprecest.com

2,000 GALLON SEPTIC TANK
1-Compartment
Stock Item [Approx. 19,000 lbs]
Dwg. No. 2000-1C No Scale Aug. 11, 2008

Your Peace of Mind is Our Top Priority

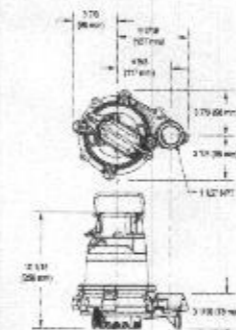


TECHNICAL DATA SHEET
EVAPORATIVE COOLING PUMPS
Models 371, 372, 373 Submersible Effluent/Dewatering Pump

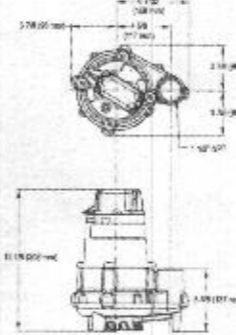
PRODUCT SPECIFICATIONS

INDUCTION	Motor Power: 0.250A
	Voltage: 115 or 230
	Phase: 1 Ph.
	Watts: 80 W
	HP: 1/4 HP
	Type: Permanent split capacitor or shaded pole
	Insulation: Class B
	ATMA: 0.5 - 0.7
PUMP	Operation: Nonautomatic
	Discharge Size: 1-1/2" NPT
	Seals (standard): 1/2" (12 mm) spherical seals
	Cord Length: 20' (6 m) standard
	Cord Type: UL listed
	Max. Head: 30' (9 m)
	Max. Flow Rate: 80 GPM (300 LPM)
	Max. Operating Temp: 130°F (54°C)
	Coating: DIF-100
	Motor Protection: Auto reset thermal overload
MATERIALS	Case: Cast Iron
	Motor Housing: Cast Iron
	Pump Housing: Cast Iron
	Base: Cast Iron or plastic
	Upper Bearing: Oil-lub cast iron
	Lower Bearing: Oil-lub cast iron or ball bearing
	Medial Seal: Carbon and silicon carbide
	Impeller Type: Non-dragging vortex
	Impeller: Engineered plastic
	Hardware: Stainless steel
	Motor Shield: ABS 1215 cold rolled steel
	Gaskets: Neoprene

MODEL 371



MODELS 372 & 373



NOTE: See model comparison chart for specific details.

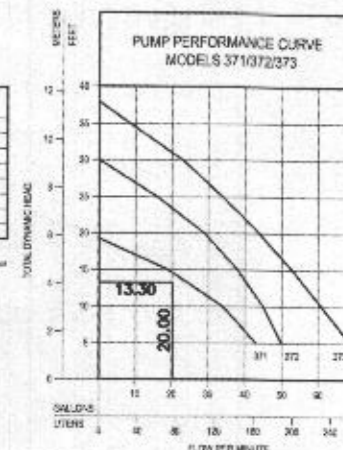


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SECTION 23500
PUMPS
3014
3-2000-1C
Rev

TOTAL DYNAMIC HEAD
FLOW PER MINUTE

MODEL	371	372	373
Flow (GPM)	43	43	43
Flow (LPM)	160	160	160
Head (ft)	23	23	23
Head (m)	7.0	7.0	7.0
Flow (GPM)	43	43	43
Flow (LPM)	160	160	160
Head (ft)	23	23	23
Head (m)	7.0	7.0	7.0
Flow (GPM)	43	43	43
Flow (LPM)	160	160	160
Head (ft)	23	23	23
Head (m)	7.0	7.0	7.0



RECOMMENDED PUMP: 371-0002

Model	MODEL COMPARISON								
	Size	Motor	Volts	Ph	Amps	HP	Hr	Lbs	Kg
371-0002	Single	Motor	115	1	4.3	0.5	86	21.0	9.5
371-0004	Single	Motor	230	1	4.8	0.5	80	21.0	9.5
372-0000	Single	Motor	115	1	6.0	0.8	91	20.0	9.1
372-0004	Single	Motor	230	1	3.6	0.5	81	20.0	9.1
373-0002	Single	Motor	115	1	8.8	1.2	85	20.0	9.1
373-0004	Single	Motor	230	1	4.3	0.6	86	20.0	9.1

CAUTION All installation of electrical connections should be done by a qualified electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health (OSHA) standards.

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Item	Elev.	Relative to Bottom
Float Tree:		
Bottom of Tank	797.94	
Top of Pump	799.45	1' 6 1/8"
Pump Off	799.50	1' 6 11/16"
Pump On	799.76	1' 9 3/4"
High Alarm	800.26	2' 3 3/4"

SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK, PUMP AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

THIS PLAN IS FOR SEPTIC DESIGN ONLY

SEE MANUFACTURER'S SPECIFICATIONS FOR DETAILS. EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

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

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WWW.BEI-CIVILENGINEERING.COM

PROJECT: WINDSOR FOREST KNOLLS LOT 2

LOCATION: TAX MAP: 6 - GRID: 16 - PARCEL: 57
18402 HIDDEN CREEK WAY - TAX ID 04-373170
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:** 4 OF 4

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.



AAM-BEI

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