



Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

Date Received: 8/2/18

Permit No.: B1800 2763

Building Address: 13623 Curtis Vista Way
 City: Clarksville State: MD Zip Code: 21029
 Suite/Apt. #: _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: Brighton Mill II
 Section: _____ Area: _____ Lot: 6
 Tax Map: _____ Parcel: _____ Grid: _____
 Zoning: _____ Map Coordinates: _____ Lot Size: _____

Existing Use: Vacant lot
 Proposed Use: Single family home
 Estimated Construction Cost: \$ 250,000
 Description of Work: New 2 story "Clifton Park II" with 3 car garage, Morning RM, sitting area, 5th Bedroom, 1st floor suite and finished lower level (Rec room, Bath, office, media, exercise + wet bar)
 Occupant or Tenant: _____

Was tenant space previously occupied? Yes No

Contact Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Property Owner's Name: NVR Inc
 Address: 9720 Patuxent Woods Drive
 City: Columbia State: MD Zip Code: 21046
 Phone: 410-379-5956 Fax: _____
 Email: _____

Applicant's Name & Mailing Address, (If other than stated herein)
 Applicant's Name: Decatur Building Services
 Address: PO Box 552
 City: Woodbine State: MD Zip Code: 21797
 Phone: 443-309-7792 Fax: _____
 Email: Jim@DecaturbuildingServices.com

Contractor Company: NV Homes
 Contact Person: Clint Cagle
 Address: 9720 Patuxent Woods Drive
 City: Columbia State: MD Zip Code: 21046
 License No.: 56
 Phone: 410-379-5956 Fax: _____
 Email: CCagle@NVRInc.com

Engineer/Architect Company: _____
 Responsible Design Prof.: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

RECEIVED
AUG 02 2018
LICENSES & PERMITS
DIVISION

Commercial Building Characteristics	Residential Building Characteristics	
Height:	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse	
No. of stories:	Depth Width	
Gross area, sq. ft./floor:	1 st floor: <u>76</u> x <u>76'</u>	
Area of construction (sq. ft.):	2 nd floor: <u>76</u> x <u>60'</u>	
Use group:	Basement: <u>76</u> x <u>76'</u>	
<u>Construction type:</u>	<input checked="" type="checkbox"/> Finished Basement	
<input type="checkbox"/> Reinforced Concrete	<input type="checkbox"/> Unfinished Basement	
<input type="checkbox"/> Structural Steel	<input type="checkbox"/> Craw Space	
<input type="checkbox"/> Masonry	<input type="checkbox"/> Slab on Grade	
<input type="checkbox"/> Wood Frame	No. of Bedrooms: <u>6</u>	
<input type="checkbox"/> State Certified Modular	<u>Multi-family Dwelling</u>	
<input checked="" type="checkbox"/> Roadside Tree Project Permit	No. of efficiency units:	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No. of 1 BR units:	
Roadside Tree Project Permit #	No. of 2 BR units:	
	No. of 3 BR units:	
	Other Structure:	
	Dimensions:	
	Footings:	
	Roof:	
	<input type="checkbox"/> State Certified Modular	
	<input type="checkbox"/> Manufactured Home	

Utilities	
<u>Water Supply</u>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
<u>Sewage Disposal</u>	
<input type="checkbox"/> Public	
<input checked="" type="checkbox"/> Private	
Electric: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Gas: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
<u>Heating System</u>	
<input checked="" type="checkbox"/> Electric <input type="checkbox"/> Oil	
<input type="checkbox"/> Natural Gas <input checked="" type="checkbox"/> Propane Gas	
<input type="checkbox"/> Other:	
<u>Sprinkler System:</u>	
<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Grading Permit Number: <u>G18000196</u>	
Building Shell Permit Number:	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Jim Kerwin
 Applicant's Signature
Jim@DecaturbuildingServices.com
 Email Address
AGENT NV Homes
 Title/Company

Jim Kerwin
 Print Name
8/2/2018
 Date

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
 PLEASE WRITE NEATLY & LEGIBLY
 -FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health	<u>8/8/18</u>	<u>DBenard</u>

Is Sediment Control approval required for issuance? Yes No
 CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front:
Rear:
Side:
Side St.:
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone:
SDP/Red-line approval date:

Filing Fee	\$ <u>100</u>
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$ <u>50</u>
Add'l per Fee	\$
Total Fees	\$
Sub-Total Paid	\$
Balance Due	\$
Check	# <u>210100</u>



Health

Building Permit Application

Howard County Maryland
Department of Inspections, Licenses and Permits
3430 Court House Drive
Permits: 410-313-2455
www.howardcountymd.gov

DIL P 2018 AUG 31 PM 1:33
Date Received:

Permit No.: B18003136

Building Address: 13623 CURTIS VISTA WAY
City: CLARKSVILLE State: MD Zip Code: 21029
Suite/Apt. # SDP/WP/BA #:
Census Tract: Subdivision: BRIGHTON MILL
Section: Area: Lot: 6
Tax Map: Parcel: Grid:
Zoning: Map Coordinates: Lot Size: 54573

Existing Use: SFD
Proposed Use: SFD W/PROPANE TANK
Estimated Construction Cost: \$ 4,000

Description of Work:
INSTALL 100 GAL UNDERGROUND PROPANE TANK

Occupant/Tenant Name: OWNER
Was tenant space previously occupied? Yes No
Contact Name:
Address:
City: State: Zip Code:
Phone: Fax:
Email:

Property Owner's Name: NVR INC
Address: 9720 PATUXENT WOODS DRIVE
City: COLUMBIA State: MD Zip Code: 21046
Phone: Fax:
Email:

Applicant's Name & Mailing Address, (If other than stated herein)
Applicant's Name: MICHELLE CLANCY
Address: PO BOX 310
City: PERRY HALL State: MD Zip Code: 21128
Phone: 443-610-7514 Fax:
Email: MICHELLE@APPLIEDANDAPPROVED.COM

Contractor Company: TECH AIR
Contact Person: DENNIS FEAGA
Address: 1560 A-D CATON CENTER DRIVE
City: BALTIMORE State: MD Zip Code: 21227
License No.: 81215
Phone: 410-984-5681 Fax:
Email:

Engineer/Architect Company: CONTRACTOR
Responsible Design Prof.:
Address:
City: State: Zip Code:
Phone: Fax:
Email:

Table with 2 columns: Commercial Building Characteristics and Residential Building Characteristics. Includes fields for Height, No. of stories, Gross area, Area of construction, Use group, Construction type, etc.

Table with 2 columns: Utilities and Water Supply. Includes fields for Electric, Gas, Water Supply, Sewage Disposal, Heating System, Sprinkler System, etc.

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: MICHELLE CLANCY
MICHELLE@APPLIEDANDAPPROVED.COM
Email Address
PERMITS
Title/Company

Print Name: MICHELLE CLANCY
Date: 8/31/18
RECEIVED
AUG 31 2018
LICENSES & PERMITS DIVISION

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY

PLEASE WRITE NEATLY & LEGIBLY

FOR OFFICE USE ONLY

Table with 3 columns: AGENCY, DATE, SIGNATURE OF APPROVAL. Includes rows for State Highways, Building Officials, PSZA (Zoning), PSZA (Engineering), Health.

Table with 1 column: DPZ SETBACK INFORMATION. Includes fields for Front, Rear, Side, Side St., All minimum setbacks met?, Is Entrance Permit Required?, Historic District?, Lot Coverage for New Town Zone, SDP/Red-line approval date.

Table with 2 columns: Fee/Category, Amount. Includes Filing Fee, Permit Fee, Tech Fee, Excise Tax, PSFS, Guaranty Fund, Add'l per Fee, Total Fees, Sub- Total Paid, Balance Due, Check.

Distribution of Copies: White: Building Officials Green: PSZA,Zoning Yellow: PSZA,Engineering Pink: Health Gold: SHA

AKI



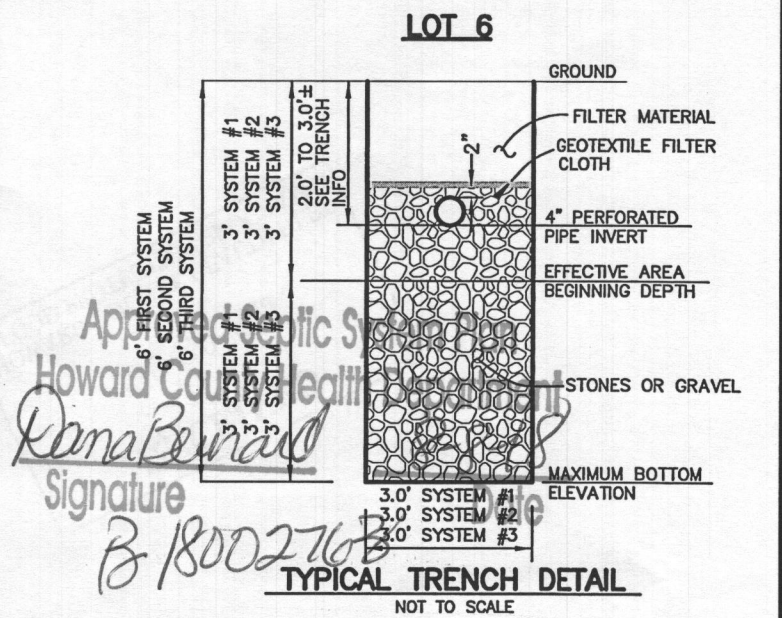
LEGEND

SOILS CLASSIFICATION	GgC
SOILS DELINEATION	---
PROPOSED CONTOURS	480 478
EXISTING CONTOURS	480 478
LIMIT OF WETLANDS	---
EXISTING WOODS LINE	---
PROPOSED WOODS LINE	---
EXISTING STRUCTURE	[]
EXISTING WELL	⊗
EXISTING WELL BOX	[]
EXISTING SEWAGE DISPOSAL AREA	---

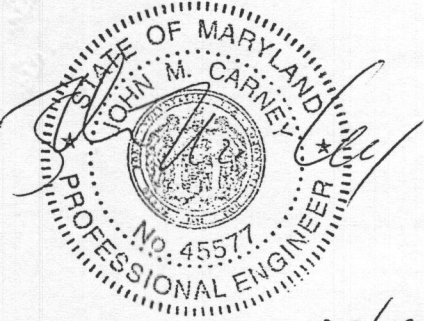
- ONSITE SEWAGE DISPOSAL PLAN NOTES:**
1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR BRIGHTON MILL II, PLAT Nos. 24469-24474. REFER TO THE PLATS FOR LOT DIMENSIONS, LOT AREAS, ALL EASEMENTS AND CONDITIONS.
 2. SEDIMENT AND EROSION CONTROLS WERE APPROVED BY HOWARD SOIL CONSERVATION
 3. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM THE APPROVED ROAD CONSTRUCTION PLANS AND TOPOGRAPHIC INFORMATION PROVIDED BY F-17-054, ON OR ABOUT MAY, 2017.
 4. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL.
 5. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS EXCEPT AS WAIVED.
 6. THE EXISTING WELL SHOWN ON THIS PLAN, HO-17-0152, HAS BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC., AND IS ACCURATELY SHOWN.
 7. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
 8. ANY CHANGES TO A PRIVATE SEWAGE DISPOSAL AREA OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 9. STORMWATER MANAGEMENT FOR THIS LOT WAS DESIGNED AND PROVIDED BY TWO NON-ROOFTOP DISCONNECTIONS, TWO DRY WELLS, AND ONE MICRO-BIORETENTION FACILITY.
 10. MICRO-BIORETENTION SHALL HAVE EITHER A 4" OR 6" ROOF LEADER DEPENDING ON ROOF-TOP AREA.
 11. THE SEPTIC TANK WILL HAVE A 2000 GALLON 2 COMPARTMENT TANK.
 12. FOR DEVELOPMENT LANDSCAPING SEE ROAD CONSTRUCTION PLAN F-17-054.

SEPTIC INVERT CHART - LOT 6

INV @ HOUSE	526.3
GROUND @ HOUSE	530.9
INV IN SEPTIC TANK	525.8
INV OUT SEPTIC TANK	525.5
TOP OF SEPTIC TANK	526.6
GROUND OVER SEPTIC TANK	528.7
INV IN PUMP TANK	525.0
INV OUT PUMP TANK	524.8
TOP OF PUMP TANK	525.9
GROUND OVER PUMP TANK	528.6
TOTAL DYNAMIC HEAD	20.3 ft
PUMP FLOW RATE	29 gal/min
INV IN DIST BOX	540.6
INV OUT DIST BOX	540.5
GROUND AT DIST BOX	543.6



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. 45577, Expiration Date: 06-08-2020.



7/19/18



PLAN VIEW
1" = 50'

Health Department Spec Sheet information

System	Application Rate	Effective Depth	Bottom Depth
Initial	1.2	3.0	6.0
1st Replacement	1.2	3.0	6.0
2nd Replacement	0.8	3.0	6.0

Note: BAT Unit. Pump to Dist. Req. Low pressure dist. Recommended.

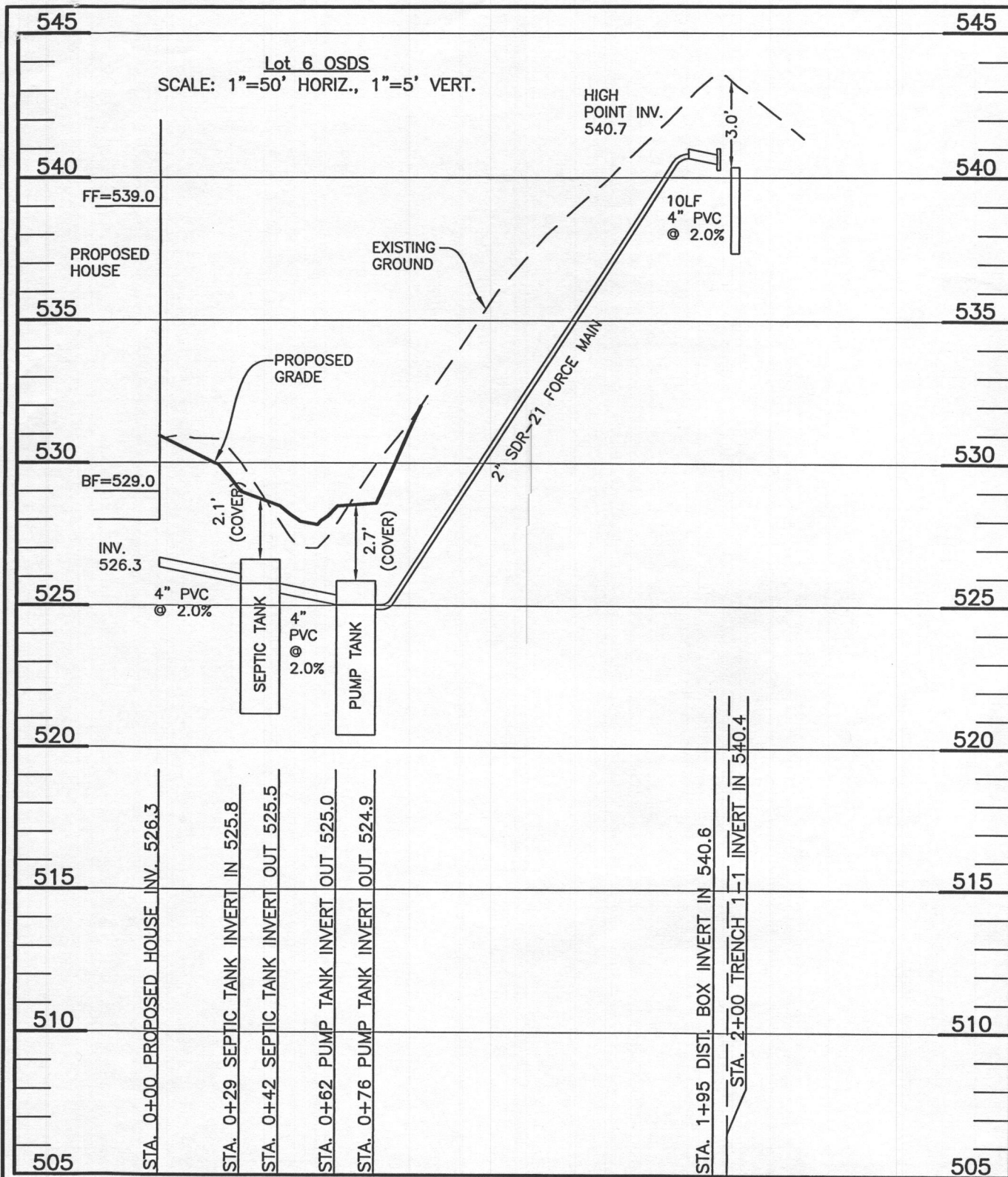
PROJECT:	BRIGHTON MILL II LOT 6		
LOCATION:	TAX MAP: 34, GRID: 2, PARCEL: 16 ZONED: RR-DEO 13623 CURTIS VISTA WAY CLARKSVILLE, MD 21029 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID #05-600587		
TITLE:	ONSITE SEPTIC DESIGN SYSTEM PLAN		
HOUSE TYPE:	CLIFTON PARK - ELEVATION D		
DATE:	JULY, 2018	PROJECT NO.	2627
SCALE:	AS SHOWN	DRAWING	1 OF 3

BUILDER:
NV HOMES, INC.
9720 PATUXENT WOODS DRIVE
SUITE 100
COLUMBIA, MD 21046
410-379-5956

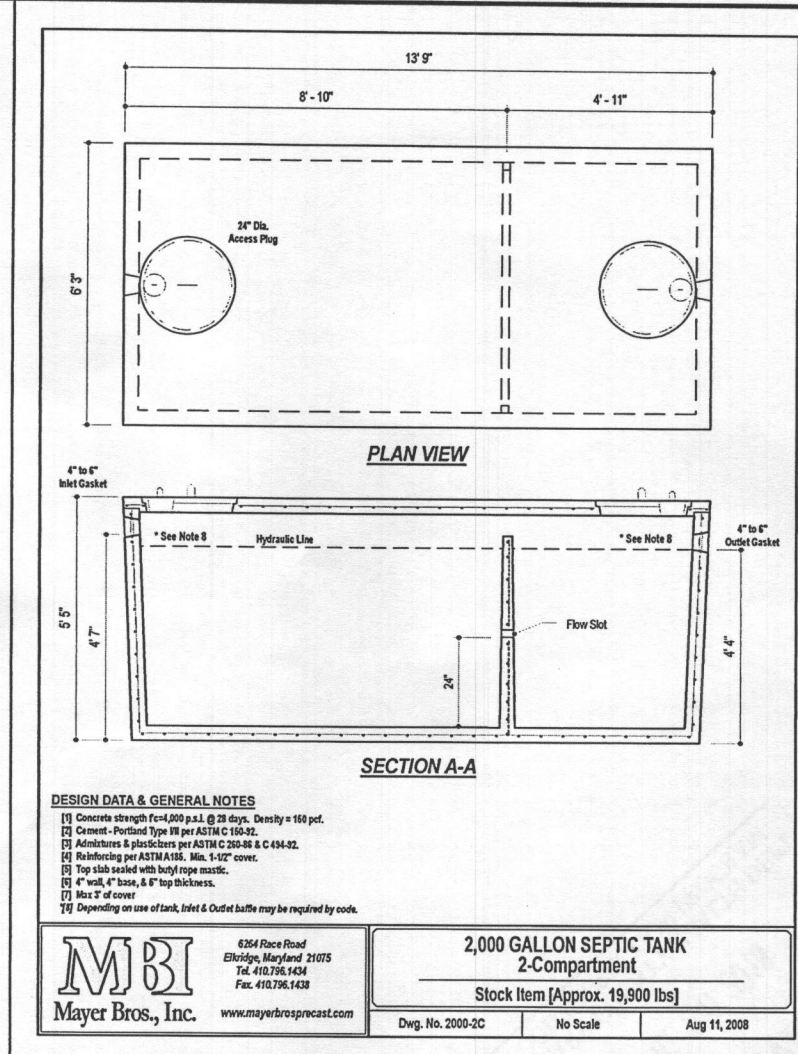
OWNER:
HIGHLAND DEVELOPMENT CORP
P.O. BOX 228
CLARKSVILLE, MARYLAND 21029
410-365-0414

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



TRENCH DATA - LOT 6					
INITIAL SYSTEM		FIRST REPLACEMENT		SECOND REPLACEMENT	
TRENCH 1-1	LENGTH 62.5 ft	TRENCH 2-1	LENGTH 62.5 ft	TRENCH 3-1	LENGTH 62.5 ft
GROUND ELEVATION	543.4	GROUND ELEVATION	541.1	GROUND ELEVATION	532.9
INVERT ELEVATION	540.4	INVERT ELEVATION	538.1	INVERT ELEVATION	529.9
MAX BOTTOM ELEVATION	537.4	MAX BOTTOM ELEVATION	535.1	MAX BOTTOM ELEVATION	526.9
TRENCH 1-2	LENGTH 62.5 ft	TRENCH 2-2	LENGTH 62.5 ft	TRENCH 3-2	LENGTH 62.5 ft
GROUND ELEVATION	542.3	GROUND ELEVATION	539.8	GROUND ELEVATION	535.9
INVERT ELEVATION	539.3	INVERT ELEVATION	536.8	INVERT ELEVATION	532.9
MAX BOTTOM ELEVATION	536.3	MAX BOTTOM ELEVATION	533.8	MAX BOTTOM ELEVATION	529.9



2nd REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	0.8	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	6.0	ft
Design Flow	900	gpd
Drainage Field square footage	1125	sf
Sidewall Reduction Credit	0.50	
Trench width	3	ft
Effective Area Depth	3	ft
Trench Spacing	10	ft
Linear Length of trench Required	188	lf

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS. WWW.MAYERPRECAST.COM EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

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

INITIAL SYSTEM - LOT 6		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	6.0	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall Reduction Credit	0.50	
Trench width	3	ft
Effective Area Depth	3	ft
Trench Spacing	10	ft
Linear Length of trench Required	125	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.0	ft
Bottom Max Depth	6.0	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall Reduction Credit	0.50	
Trench width	3	ft
Effective Area Depth	3	ft
Trench Spacing	10	ft
Linear Length of trench Required	125	lf

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. 45577, Expiration Date: 06-08-2020.



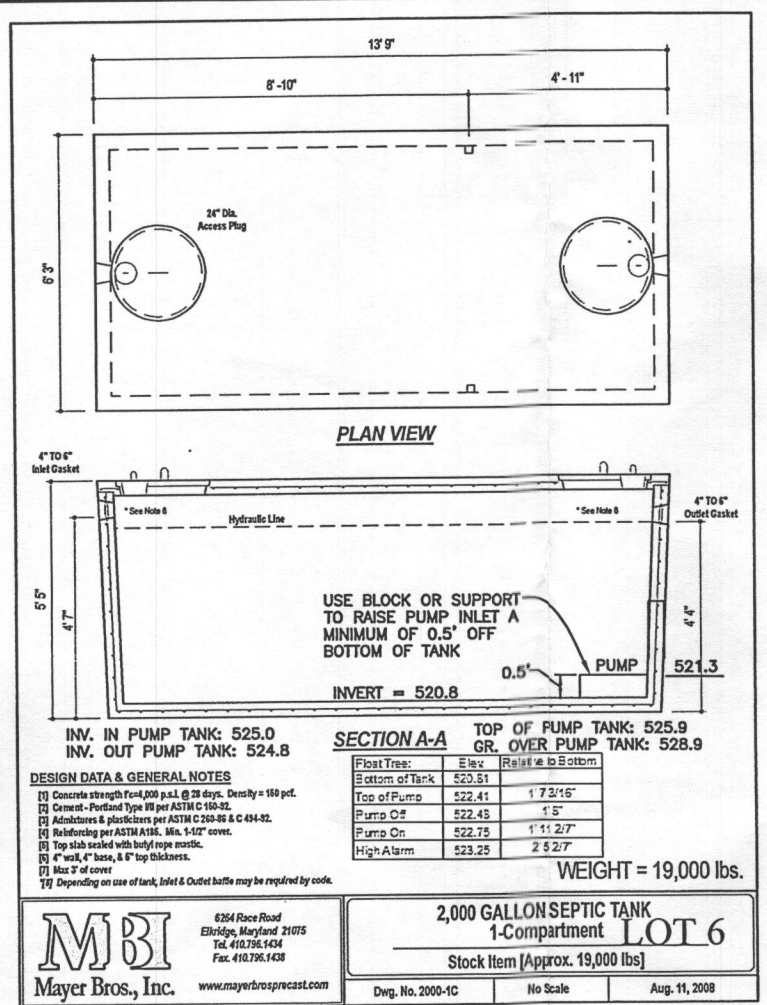
BENCHMARK ENGINEERING, INC.
ENGINEERS • LAND SURVEYORS • PLANNERS
8480 BALTIMORE NATIONAL PIKE & SUITE 315
ELLCOTT CITY, MARYLAND 21043
(P) 410-465-6105 • (F) 410-465-6644
WWW.BEI-CMLENGINEERING.COM

PROJECT:	BRIGHTON MILL II LOT 6	
LOCATION:	TAX MAP: 34, GRID: 2, PARCEL: 16 ZONED: RR-DEO 13623 CURTIS VISTA WAY CLARKSVILLE, MD 21029 FIFTH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID #05-600587	
TITLE:	ONSITE SEPTIC DESIGN SYSTEM PLAN	
HOUSE TYPE:	CLIFTON PARK - ELEVATION D	
DATE:	JULY, 2018	PROJECT NO. 2627
SCALE:	AS SHOWN	DRAWING 2 OF 3

BUILDER:
NV HOMES, INC.
9720 PATUXENT WOODS DR.
SUITE 100
COLUMBIA, MD 21046
410-379-5956

OWNER:
HIGHLAND DEVELOPMENT CORP
P.O. BOX 228
CLARKSVILLE, MARYLAND 21029
410-365-0414

Pumping Station			
Diameter of Force Main and Manifold =	2 of SDR 21 pipe		
Length of Force Main =	109 feet	SDR 21 gallons/100 feet =	18.8 Table 4.2
Volume of Main =	20.5 gallons	ID =	2.149
		length =	100 gallon/sq ft 7.480519
Total Volume =	20.5 gallons	volume =	18.84222 gal/100 ft
Minimum Dose must be greater than 1/6 of the design flow	150 gallons		
Minimum Dose must be greater than the volume of the main	21 gallons		
Use minimum dose of	150 gallons	okay	Doses per Day = 6.0
Size Pump Chamber			
Pump chamber must be able to hold one dose and one days design flow			
One day Capacity =	900 gallons		
Dose =	150 gallons		
Totals =	1050 gallons		
Use 2,000 gallon pump tank			
Tank Dimensions:	Exterior	Interior	
Length:	13.75 feet	Length:	13.08 feet
Width:	6.25 feet	Width:	5.58 feet
Height:	5.42 feet	Height:	4.67 feet
		Area:	73.05 sf
		Volume:	341.14 cf
		Walls:	0.33 feet
		Bottom:	0.33 feet
		Top:	0.42 feet
		Bottom to Inlet:	4.58 feet
Sizing the Pump			
Flow:	runtime = 6 minutes		
	rate = 25.00 gallons/minute		
Design Head:			
Design Head =	Static Head + Friction Head		
Static Head =	highest elevation of main - pump off elevation		
Highest component of system =	540.70 Main HP		
Pump off elevation =	522.48		
Static Head =	18.22 feet		
Friction Head =	Head loss due to pipe friction		
2.0" pipe =	109 feet		
45° bends	0 loss for bend	0 feet	per table 4.3
Gate Valve	0 loss for tee	0 feet	per table 4.3
Friction loss per table 4.4 =	1.1 (R/100 R)		
Equivalent Length =	109	Friction loss	1.20 feet
Total Friction Head =	1.20		
Design Head =	19.42 feet		
Pump Requirements:			
Performance =	25.00 gpm		
Head of Water =	19.42 feet of head		
Pump Selection:			
Zoeller Pump Company Dose-mate Series, Model 151			
1/3 horse power			
Design Pump Chamber			
Ground over Tank =	528.60	Cover	2.7 ft
Top of Tank =	525.90		
Invert of Tank =	520.81		
6" Riser =	0.50 feet		
Pump Height =	1.10 feet		
Min. Pump off =	522.41		
Selected Pump off =	522.48		
Dose =	20.1 cf		
Area of Pit =	73.05 sf		
Pump on dist. =	0.27		
Pump on Elev. =	522.75		
Distance between Pump on and Highwater Alarm =	0.5 feet		
Highwater Alarm Elevation =	523.25		
Dist. for a dose above alarm =	1.65		
Minimum Inlet Elev. =	524.90		
Tank Inlet =	525.06 Okay		
Dist. Alarm to Inlet =	1.81 Okay		



Trusted. Tested. Tough.™

ZOELLER PUMP COMPANY

SECTION: 2.15.080
FM2784
1017
Supersedes
0315

USE BN151. CONTRACTOR MAY USE EQUIVALENT PUMP.

TECHNICAL DATA SHEET
DOSE-MATE SERIES
Models 151, 152, 153 Effluent Pumps

PRODUCT SPECIFICATIONS

MOTOR	PUMP	MATERIALS
Horse Power	1/3 (151), 4/10 (152), 1/2 (153)	Cap
Voltage	115 or 230	Motor Housing
Phase	1 Ph	Pump Housing
Hertz	60 Hz	Base
RPM	3450	Upper Bearing
Type	Permanent split capacitor	Lower Bearing
Insulation	Class B	Mechanical Seals
Amps	3.0 - 10.5	Impeller Type
Operation	Automatic or nonautomatic	Impeller
Discharge Size	1-1/2" NPT	Hardware
Solids Handling	1/2" (12 mm), 3/4" (19 mm) spherical solids	Motor Shaft
Cord Length	20' (6 m)	Gasket
Cord Type	UL listed power cord	
Max. Head	44' (13.4 m)	
Max. Flow Rate	77 GPM (291 LPM)	
Max. Operating Temp.	130°F (54°C)	
Cooling	Oil Filled	
Motor Protection	Auto reset thermal overload	

NOTE: The sizing of effluent systems normally requires variable level float(s) controls and properly sized basins to achieve required pumping cycles or dosing times with nonautomatic pumps.
NOTE: See model comparison chart for specific details.

TOTAL DYNAMIC HEAD FLOW PER MINUTE

MODEL	151	152	153				
Feet	Meters	Gal.	Liters	Gal.	Liters	Gal.	Liters
5	1.5	150	56	261	77	291	
10	3.0	45	170	61	231	70	265
15	4.5	36	144	53	201	61	231
20	6.1	29	110	44	167	52	197
25	7.5	16	61	34	129	42	159
30	9.1	-	-	23	87	33	125
35	10.7	-	-	-	-	22	85
40	12.2	-	-	-	-	11	42
Shut-off Head:		30 ft. (9.1m)		30 ft. (9.1m)		44 ft. (13.4m)	

USE BN151. CONTRACTOR MAY USE EQUIVALENT PUMP

PUMP PERFORMANCE CURVE MODEL 151/152/153

MODEL COMPARISON

Model	Seal	Mode	Volts	Ph	Amps	HP	Hz	Lbs	Kg	Simplex	Duplex
BN151	Non	115	1	6.0	1/3	60	32	15	1	2 or 3	
E151	Single	Non	230	1	3.0	1/3	60	32	15	1	2 or 3
BN152	Single	Auto	115	1	6.0	1/3	60	33	15	*	2 or 3
BE151	Single	Auto	230	1	3.0	1/3	60	33	15	*	2 or 3
BN152	Single	Non	115	1	8.5	4/10	60	37	17	1	2 or 3
E152	Single	Non	230	1	4.3	4/10	60	37	17	1	2 or 3
BN152	Single	Auto	115	1	8.5	4/10	60	39	18	*	2 or 3
BE152	Single	Non	230	1	4.3	4/10	60	39	18	*	2 or 3
BN153	Single	Non	115	1	10.5	1/2	60	37	17	*	2 or 3
BN153	Single	Auto	115	1	10.5	1/2	60	39	18	*	2 or 3
E153	Single	Non	230	1	5.3	1/2	60	37	17	1	2 or 3
BE153	Single	Non	230	1	5.3	1/2	60	39	18	*	2 or 3

*BN and BE models include a 20' (6 m) piggyback variable level pump switch. Additional cord lengths are available in 25' (8 m) and 35' (11 m). 50' (15 m) cords are available for 230V units only.
NOTE: Model 151 has a plastic base. Models 152 & 153 have a cast iron base.

SELECTION GUIDE

- For automatic, use single piggyback variable level float switch or double piggyback variable level float switch. Refer to FM0477.
- See FM1228 for correct model of simplex control panel.
- See FM0712 for correct model of duplex control panel.

OPTIONAL PUMP STAND P/N 10-2421

- Reduces potential clogging by debris
- Replaces rods or brids under the pump
- Made of durable, noncorrosive ABS
- Raises pump 2" (5 cm) off bottom of basin
- Provides the ability to raise intake by adding sections of 1/2" or 2" (DN40 or DN50) PVC piping
- Attaches securely to pump
- Accommodates sump, dewatering and effluent applications

NOTE: Make sure float is free from obstruction.

CAUTION All installation of controls, protection devices and wiring should be done by a qualified licensed electrician. All electrical and safety codes should be followed including the most recent National Electrical Code (NEC) and the Occupational Safety and Health Act (OSHA).

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800-778-2731 | 800-928-7867 | 3549 Cane Run Road | Louisville, KY 40211-1961 | zoellerpumps.com

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. 45577, Expiration Date: 06-08-2020.

STATE OF MARYLAND
JOHN M. CARROLL
PROFESSIONAL ENGINEER
No. 45577
7/9/18

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-CVLENGINEERING.COM

THIS PLAN IS FOR SEPTIC DESIGN ONLY

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS. WWW.MAYERPRECAST.COM EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

BUILDER:
NV HOMES, INC.
9720 PATUXENT WOODS DR.
SUITE 100
COLUMBIA, MD 21046
410-379-5956

OWNER:
HIGHLAND DEVELOPMENT CORP
P.O. BOX 228
CLARKSVILLE, MARYLAND 21029
410-365-0414

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

PROJECT: BRIGHTON MILL II LOT 6

LOCATION: TAX MAP: 34, GRID: 2, PARCEL: 16 ZONED: RR-DEO
13623 CURTIS VISTA WAY
CLARKSVILLE, MD 21029
FIFTH ELECTION DISTRICT, HOWARD COUNTY, MD, TAX ID #05-600587

TITLE: ONSITE SEPTIC DESIGN SYSTEM PLAN

HOUSE TYPE: CLIFTON PARK - ELEVATION D

DATE: JULY, 2018 **PROJECT NO.** 2627

SCALE: AS SHOWN **DRAWING** 3 OF 3

Bernard, Dana

From: Bernard, Dana
Sent: Thursday, August 02, 2018 3:35 PM
To: John Carney
Subject: Floor plans

John,

We need floor plans for lots 6 and 9.

Thank you & Have a*""

,,,'*""),,,'*")

(,,' (,,' * Wonderful Day !

Dana Bernard, R.E.H.S/L.E.H.S.
Environmental Specialist II
Bureau of Environmental Health
Well and Septic Program
Phone (410) 313-2775
E-mail: DBernard@howardcountymd.gov