

OCT 26 2020

PERMIT NUMBER: B 20003799

DATE ACCEPTED:

LICENSES & PERMITS DIVISION



RESIDENTIAL BUILDING PERMIT APPLICATION

HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS

3430 COURT HOUSE DRIVE, ELLICOTT CITY, MD 21043 - PHONE: (410) 313-2455 OPTION #4

www.howardcountymd.gov

BUILDING SITE ADDRESS REQUIRED

Street Address: 14842 Old Frederick Road
City: Woodbine
State: MD
Subdivision/Village/Complex Name: Minglewood RS LTS 1 & 2
Lot: 3
Tax Map: 0008
Parcel: 0026

DESCRIPTION OF WORK REQUIRED

Existing Use: vacant lot
Proposed Use: single family home
Estimated Cost: \$640,000.00
Trade Work to Be Completed: Mechanical (HVACR), Electrical, Plumbing
2-STORY CUSTOM SFD

PROPERTY OWNER INFORMATION REQUIRED

Owner(s) Name(s): Michael P. Mueller & Mary Elizabeth Dodson
Owner's Street Address: 8700 Castlerock Ct
City: Laurel
State: MD
Phone: (410) 984-4822

APPLICANT NAME REQUIRED - INDIVIDUAL WHO SIGNS THIS APPLICATION

Business Name:
Contact Name: Michael P. Mueller
Street Address: 8700 Castlerock Ct.
City: Laurel
State: MD
Phone: (410) 984-4822
Email: michaelpmueller.12@gmail.com

CONTRACTOR INFORMATION REQUIRED

Business Name: Hamel Builders, Inc.
Licensee's Name: Hamel Builders Inc
License #: 8560
Street Address: 5710 Furnace Ave., Suite H
City: Elkridge
State: MD
Phone: (410) 379-6700
Email: mmueller@hamelbuilders.com

ARCHITECT/ENGINEER INFORMATION INDIVIDUAL WHO SIGNED PLANS, IF APPLICABLE

Business Name: Plymouth Road Architects
Name: Lisa Wenrich
Street Address: 640 Plymouth Road
City: Catonsville
State: MD
Phone: (410) 788-0281
Email: Lisa@PlymouthRoadArchitects.com

BUILDING CHARACTERISTICS REQUIRED

Primary Structure: SF Dwelling
Utilities: Electric, Gas
Water Supply: Private (Well)
Sewage Disposal: Private (Septic)
Heating System: Electric, Natural Gas, Propane
Sprinkler System: NFPA 13D
Fire Alarm System: No

ADDITIONAL RESIDENTIAL INFORMATION (PLEASE SELECT/COMPLETE ALL THAT APPLY)

Model Name & Options: Custom
# of Bedrooms (SF): 3
# of efficiency units (MF\*):
# of 1 BR (MF\*):
# of 2 BR (MF\*):
# of 3 BR (MF\*):
# Rooms: 17
# Full Baths: 4
# Half Baths: 1
# Fireplaces: 1
Garage/Carport Info: Attached Garage
Basement/Foundation Info: Slab on Grade
1st Fl Width: 112
1st Fl Depth: 36
2nd Fl Width: 32
2nd Fl Depth: 38
Bsmt Width: 76
Bsmt Depth: 36
Energy Method: UA Alternative
Gross Area: 6,375 sq ft
Occupiable Area: 5,065 sq ft

AGREEMENT/ DISCALIMER REQUIRED

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 ORIGINAL SIGNATURE: [Signature]
DATE SIGNED: October 23, 2020

FOR OFFICE USE ONLY CHECKS PAYABLE TO: DIRECTOR OF FINANCE OF HOWARD COUNTY

AGENCIES REQUIRED/APPROVALS: PR, DPZ, DED, Health, SHA, CID
SUBMITTAL FEES: \$150.00
PAYMENT: CK# 186 10/22
ACCEPTED BY: DROPOX
MICHAEL P MUELLER

PRINTED PLANS

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Thursday, April 1, 2021 10:58 AM  
**To:** Jeremiah Reynolds  
**Cc:** Michael Mueller  
**Subject:** OSDS Plan\_14842 Old Frederick Road\_In-ground Pool

Hi Jeremiah:

I received an email from Michael Mueller of Hamel builders regarding the status on building permit (B21000976) for an inground pool located at 14842 Old Frederick Road. I checked with my supervisor this morning, and he had the building permit. When I reviewed the BP site plan with him, we noticed one of the stormwater management devices (DW) wasn't shown in the same location as it was shown on your OSDS Plan revision. My supervisor said that was fine as long as the devices still met well and septic setbacks. We also noticed that the pool house shown (ghosted) on the OSDS Plan did not meet the setback to the proposed septic tank etc. I just wanted to point this out. There is no need to revise the OSDS plan, but I wanted to make everyone aware. I am going to cross out the pool house on the OSDS Plan. If they decide to apply for a BP pool house later on, it will have to be addressed at that time.

Should you have any questions, please don't hesitate to ask.

Thanks,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
(410) 313 - 1786  
hoswald@howardcountymd.gov

## Oswald, Hank

---

**From:** Michael Mueller <mmueller@hamelbuilders.com>  
**Sent:** Thursday, April 1, 2021 11:05 AM  
**To:** Oswald, Hank  
**Subject:** RE: OSDS Plan\_14842 Old Frederick Road\_In-ground Pool

[Note: This email originated from outside of the organization. Please only click on links or attachments if you know the sender.]

Mr. Oswald,

Thank you for the clarification. I will address the pool house issue in the future to ensure we are in compliance with the minimum setback.

Thanks,

**Michael P. Mueller**  
EXECUTIVE VICE PRESIDENT

Hamel Builders, Inc.  
5710 Furnace Ave., Suite H  
Elkridge, MD 21075  
Mobile: [\(410\) 984-4822](tel:(410)984-4822)  
Direct: [\(410\) 782-3150](tel:(410)782-3150)  
Office: [\(410\) 379-6700 ext. 107](tel:(410)379-6700 ext.107)  
[mmueller@hamelbuilders.com](mailto:mmueller@hamelbuilders.com)

**From:** Oswald, Hank <hoswald@howardcountymd.gov>  
**Sent:** Thursday, April 1, 2021 10:58 AM  
**To:** Jeremiah Reynolds <Jeremiah.Reynolds@timmons.com>  
**Cc:** Michael Mueller <mmueller@hamelbuilders.com>  
**Subject:** OSDS Plan\_14842 Old Frederick Road\_In-ground Pool

Hi Jeremiah:

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Thanks,

Hank

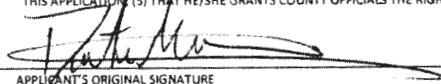
Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
(410) 313 - 1786  
[hoswald@howardcountymd.gov](mailto:hoswald@howardcountymd.gov)

MAR 17 2021

LICENSES & PERMITS  
DIVISION

PERMIT NUMBER: B 21000976

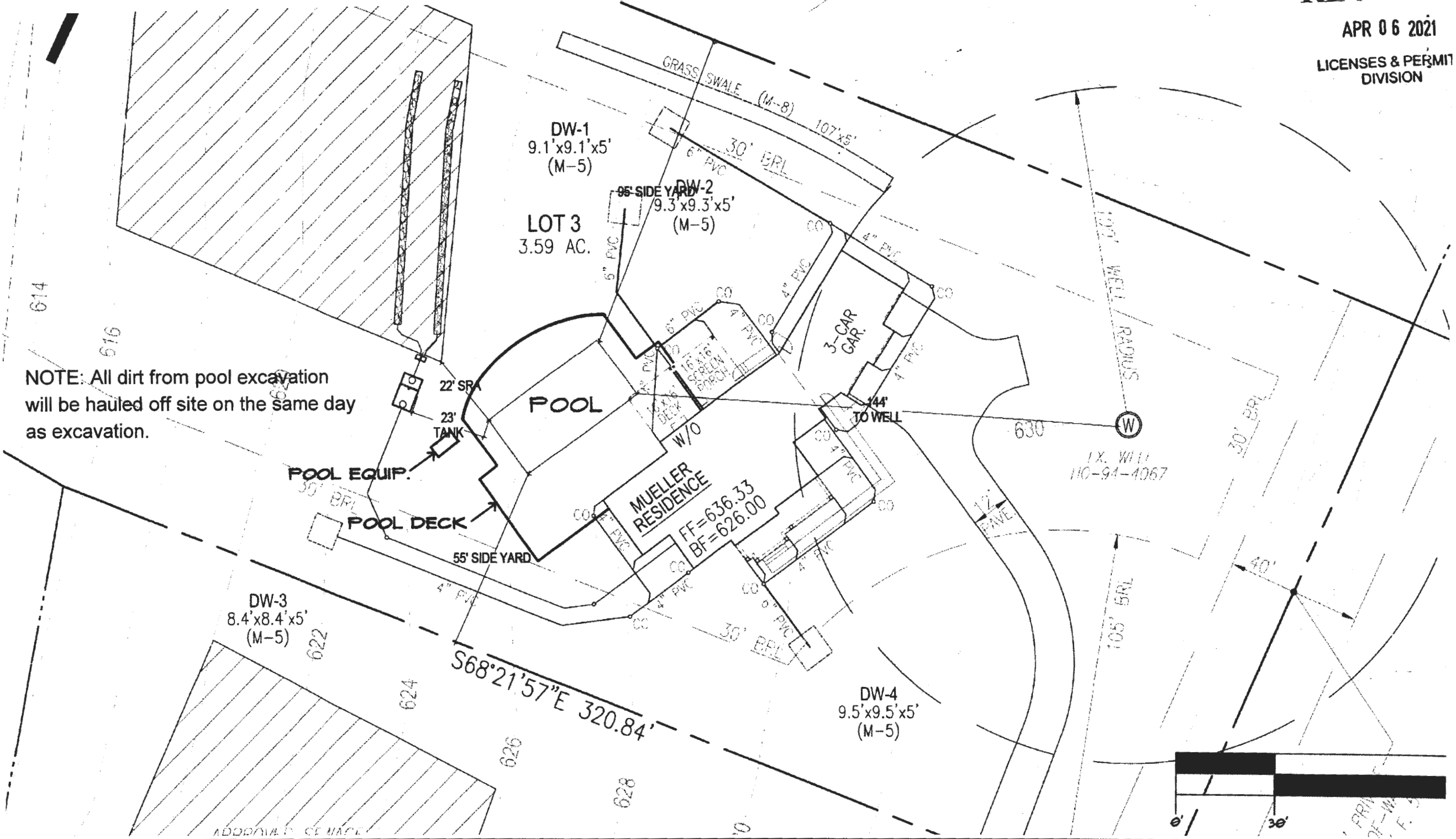
DATE ACCEPTED:

RESIDENTIAL BUILDING PERMIT APPLICATION					
HOWARD COUNTY DEPARTMENT OF INSPECTIONS, LICENSES, AND PERMITS 3430 COURT HOUSE DRIVE, ELLICOTT CITY, MD 21043 - PHONE: (410) 313-2455 OPTION #4 <a href="http://www.howardcountymd.gov">www.howardcountymd.gov</a>					
BUILDING SITE ADDRESS REQUIRED					
Street Address: 14842 Old frederick rd					Unit:
City: Woodbine			State: MD		Zip Code: 21797
Subdivision/Village/Complex Name:				SDP/WP/BA #:	
Lot:	Tax Map:	Parcel:	Grading Permit #:		
DESCRIPTION OF WORK REQUIRED					
Existing Use: SFD		Proposed Use: Install a 20x40 in-ground concrete Pool		Estimated Cost: \$40,000.00	
Trade Work to Be Completed (Separate Permits Required): <input type="checkbox"/> Mechanical (HVACR) <input checked="" type="checkbox"/> Electrical <input type="checkbox"/> Plumbing <input type="checkbox"/> None					
20' x 40' IN-GROUND POOL					
PROPERTY OWNER INFORMATION REQUIRED					
Owner(s) Name(s) (As it appears on tax records): Mike Mueller					Primary Residence: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Owner's Street Address: 14842 Old Frederick rd					
City: Woodbine			State: md		Zip Code: 21797
Phone:			Email:		
APPLICANT INFORMATION REQUIRED - INDIVIDUAL WHO SIGNS THIS APPLICATION					
Business Name: Elite Pools			Contact Name: Dustin Gacon		
Street Address: 8335 Pulaski Hwy					
City: Rosedale			State: Md		Zip Code: 21237
Phone: (443) 220-3781			Email: Dustin@elitepools.com		
CONTRACTOR INFORMATION REQUIRED					
Business Name: Heritage Elite					
Licensee's Name: Mike Shaffery			License #: 71753		
Street Address: 8335 Pulaski Hwy					
City: Rosedale			State: Md		Zip Code: 21237
Phone: (443) 220-3781			Email: Dustin@elitepools.com		
ARCHITECT/ENGINEER INFORMATION INDIVIDUAL WHO SIGNED PLANS, IF APPLICABLE					
Business Name:			Name:		
Street Address:					
City:			State:		Zip Code:
Phone:			Email:		
BUILDING CHARACTERISTICS REQUIRED					
Primary Structure: <input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse <input type="checkbox"/> SF Duplex <input type="checkbox"/> Mobile Home <input type="checkbox"/> Multi-Family Dwelling (MF*)					Condo: <input type="checkbox"/> Yes <input type="checkbox"/> No
Utilities: <input checked="" type="checkbox"/> Electric <input type="checkbox"/> Gas		Water Supply: <input type="checkbox"/> Public <input checked="" type="checkbox"/> Private (Well)		Sewage Disposal: <input type="checkbox"/> Public <input type="checkbox"/> Private (Septic)	
Heating System: <input type="checkbox"/> Electric <input type="checkbox"/> Natural Gas <input type="checkbox"/> Propane <input type="checkbox"/> Other:			Roadside Tree Project: <input type="checkbox"/> No <input type="checkbox"/> Yes: #		
Sprinkler System: <input type="checkbox"/> NFPA 13 <input type="checkbox"/> NFPA 13R <input type="checkbox"/> NFPA 13D <input type="checkbox"/> None			Fire Alarm System: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Voice Evac		
ADDITIONAL RESIDENTIAL INFORMATION (PLEASE SELECT/COMPLETE ALL THAT APPLY)					
Model Name & Options:					
# of Bedrooms (SF):	# of efficiency units (MF*):	# of 1 BR (MF*):	# of 2 BR (MF*):	# of 3 BR (MF*):	
# Rooms:	# Full Baths:	# Half Baths:	# Fireplaces:		
Garage/Carport Info: <input type="checkbox"/> Attached Garage <input type="checkbox"/> Detached Garage <input type="checkbox"/> Integral Garage <input type="checkbox"/> Carport <input type="checkbox"/> None					
Basement/Foundation Info: <input type="checkbox"/> Slab on Grade <input type="checkbox"/> Post & Pier <input type="checkbox"/> Unfinished Basement <input type="checkbox"/> Finished Basement: <input type="checkbox"/> Full or <input type="checkbox"/> Partial					
1 <sup>st</sup> Fl Width:		1 <sup>st</sup> Fl Depth:		2 <sup>nd</sup> Fl Width:	
2 <sup>nd</sup> Fl Depth:		Bsmt Width:		Bsmt Depth:	
Energy Method: <input type="checkbox"/> Prescriptive <input type="checkbox"/> Performance <input type="checkbox"/> UA Alternative <input type="checkbox"/> ERI			Gross Area: sq ft		Occupiable Area: sq ft
AGREEMENT/ DISCALIMER REQUIRED					
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 ORIGINAL SIGNATURE			3/11/2021 DATE SIGNED		
FOR OFFICE USE ONLY					
CHECKS PAYABLE TO: DIRECTOR OF FINANCE OF HOWARD COUNTY					
AGENCIES REQUIRED/APPROVALS:					
<input checked="" type="checkbox"/> PR	<input checked="" type="checkbox"/> DPZ	<input checked="" type="checkbox"/> DED	<input checked="" type="checkbox"/> Health 4/7/21	<input type="checkbox"/> SHA	<input type="checkbox"/> CID
SUBMITTAL FEES: \$275		PAYMENT:		ACCEPTED BY: [Signature]	

614

616

NOTE: All dirt from pool excavation will be hauled off site on the same day as excavation.



ADDRESS: SE MACE

GEORGIA E. DOVE TRUSTEES  
 GEORGIA W. 2194 TRUSTEES  
 TR 8 PARCEL 24  
 L. 8702 / F. 814  
 LOT 4  
 81.07 AC.  
 USE: AGRICULTURAL  
 ZONED: RC-DEO  
 HOWARD COUNTY AGRICULTURAL  
 LAND PRESERVATION PROGRAM  
 EASEMENT HC-9-11E

PATRICK FAMILY LTD PARTNERSHIP  
 C/O DAVID B. PATRICK II  
 TR 8 PARCEL 13  
 L. 3080 / F. 53  
 144.35 AC.  
 USE: AGRICULTURAL  
 ZONED: RC-DEO  
 HOWARD COUNTY AGRICULTURAL  
 LAND PRESERVATION PROGRAM  
 EASEMENT HC-9-25E

PETIT COMMERCIAL  
 PROPERTIES, LLC  
 TR 8 PARCEL 26  
 MINGLEWOOD RS LOTS 1 & 2  
 PLAT: 17607  
 LOT 4  
 3.78 AC.  
 USE: RESIDENTIAL  
 ZONED: RC-DEO

JENNIFER T. STOUT  
 MICHAEL W. STOUT  
 TR 8 PARCEL 25  
 MINGLEWOOD RS LOTS 1 & 2  
 L. 19208 / F. 268  
 PLAT: 17607  
 LOT 5  
 3.28 AC.  
 USE: RESIDENTIAL  
 ZONED: RC-DEO

NICHOLAS J. LALLY  
 TR 8 PARCEL 27  
 L. 18386 / F. 356  
 LOT 27A  
 10.05 AC.  
 USE: AGRICULTURAL  
 ZONED: RC-DEO

PAUL J. HELDENBRAND  
 MARIA G. HELDENBRAND  
 TR 8 PARCEL 28  
 MINGLEWOOD RS LOTS 1 & 2  
 L. 10459 / F. 219  
 PLAT: 17607  
 LOTS 6  
 1.87 AC.  
 USE: RESIDENTIAL  
 ZONED: RC-DEO

KELIE BEHRD  
 WILLIAM G. GUNDELIF  
 TR 8 PARCEL 216  
 L. 17702 / F. 191  
 4.84 AC.  
 USE: RESIDENTIAL  
 ZONED: RC-DEO

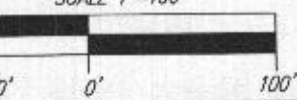
ARTHUR LAMMI  
 RUTH LAMMI  
 TR 8 PARCEL 141  
 ANDERMAN HARRISON PROP.  
 L. 37180 / F. 187  
 PLAT: 11751  
 LOT 3  
 3.91 AC.  
 USE: RESIDENTIAL  
 ZONED: RC-DEO

**OWNER/DEVELOPER**  
 HAMEL BUILDERS, INC.  
 C/O MICHAEL MUELLER  
 5710 FURNACE AVE., SUITE H  
 ELKCRIDGE, MD 21075  
 (410) 782-3150

**VOGEL ENGINEERING**  
  
**TIMMONS GROUP**  
 3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
 P: 410.461.7666 F: 410.461.8961 www.timmons.com

Approved Septic System Plan  
 Howard County Health Department  
*Dane Beaulieu* 11-30-20  
 Signature Date

B20003799  
 Approved 4 Bedrooms

**OVERALL PLAN**  
 SCALE: 1" = 100'  
 SCALE 1" = 100'  


**PLOT PLAN**  
**MINGLEWOOD - LOT 3**  
 14842 OLD FREDERICK ROAD  
 WOODBINE, MD 21797

SCALE	AS SHOWN
DRAWN BY	JMR
CHECKED BY	RHV
DATE	OCTOBER 22, 2020
W. O. #	2017145
SHEET#	1 OF 4

L. 9567 / F. 307  
 4TH ELECTION DISTRICT  
 TAX MAP: 8 GRID: 10

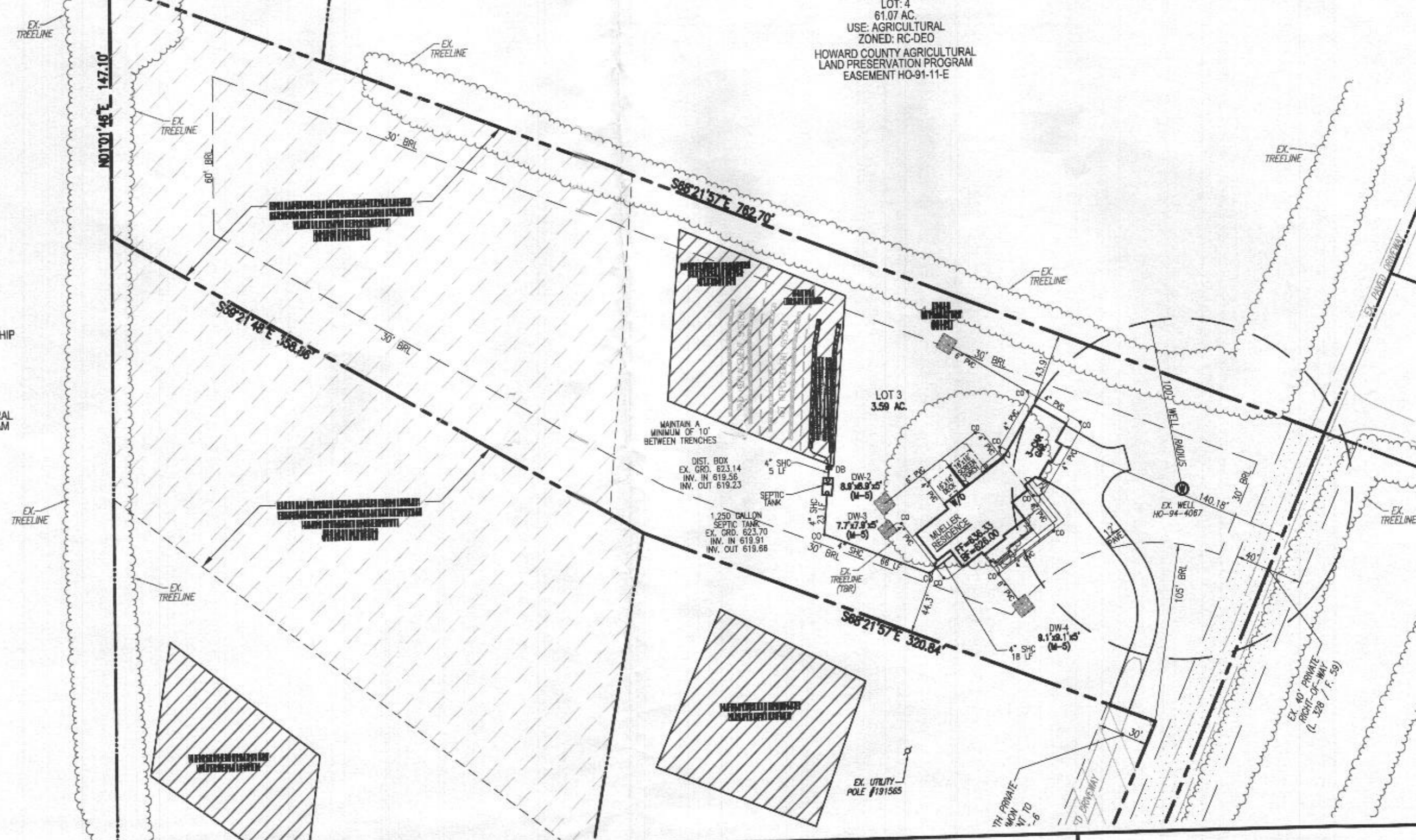
PARCEL: 26  
 ZONED: RC-DEO  
 HOWARD COUNTY, MARYLAND

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Maryland State Grid Meridian

PATRICK FAMILY LTD PARTNERSHIP  
C/O DAVID B. PATRICK III  
TM: 8 PARCEL: 18  
L. 3980 / F. 53  
144.80 AC.  
USE: AGRICULTURAL  
ZONED: RC-DEO  
HOWARD COUNTY AGRICULTURAL  
LAND PRESERVATION PROGRAM  
EASEMENT HO-96-06-E

GEORGIA E. DOVE TRUSTEES  
GEORGIA W. ZIEHM TRUSTEES  
TM: 8 PARCEL: 24  
L. 6752 / F. 674  
LOT: 4  
61.07 AC.  
USE: AGRICULTURAL  
ZONED: RC-DEO  
HOWARD COUNTY AGRICULTURAL  
LAND PRESERVATION PROGRAM  
EASEMENT HO-91-11-E



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SCALE AS SHOWN  
DRAWN BY JMR  
CHECKED BY RHV  
DATE OCTOBER 22, 2020  
W. O. # 2017145  
SHEET# 2 OF 4

### PLOT PLAN

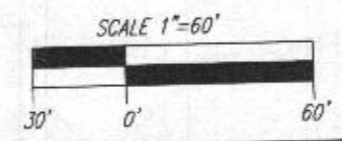
## MINGLEWOOD - LOT 3

14842 OLD FREDERICK ROAD  
WOODBINE, MD 21797

L. 9567 / F. 307  
4TH ELECTION DISTRICT  
TAX MAP: 8 GRID: 10

PARCEL: 28  
ZONED: RC-DEO  
HOWARD COUNTY, MARYLAND

LAYOUT PLAN  
SCALE: 1"=60'



OWNER/DEVELOPER  
HAMEL BUILDERS, INC.  
C/O MICHAEL MUELLER  
5710 FURNACE AVE., SUITE H  
ELKRIDGE, MD 21075  
(410) 782-3150

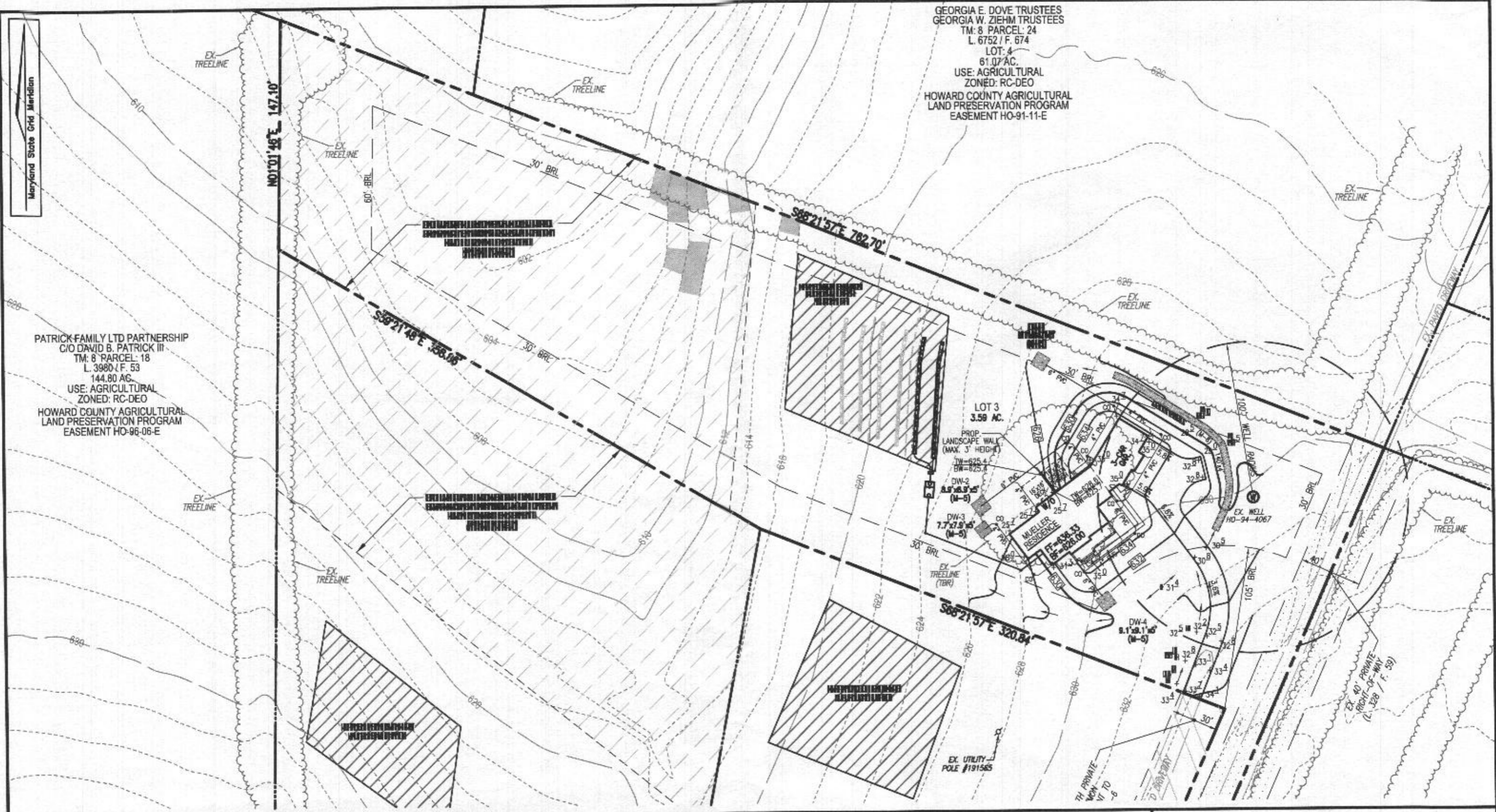
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Maryland State Grid Meridian

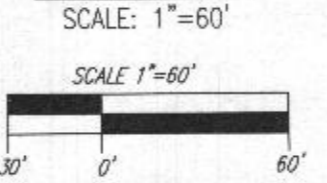
GEORGIA E. DOVE TRUSTEES  
GEORGIA W. ZIEHM TRUSTEES  
TM: 8 PARCEL: 24  
L. 6752 / F. 674  
LOT: 4  
61.07 AC.  
USE: AGRICULTURAL  
ZONED: RC-DEO  
HOWARD COUNTY AGRICULTURAL  
LAND PRESERVATION PROGRAM  
EASEMENT HO-91-11-E

PATRICK FAMILY LTD PARTNERSHIP  
C/O DAVID B. PATRICK III  
TM: 8 PARCEL: 18  
L. 3980 / F. 53  
144.80 AC.  
USE: AGRICULTURAL  
ZONED: RC-DEO  
HOWARD COUNTY AGRICULTURAL  
LAND PRESERVATION PROGRAM  
EASEMENT HO-96-06-E



**PLOT PLAN**  
**MINGLEWOOD - LOT 3**  
14842 OLD FREDERICK ROAD  
WOODBINE, MD 21797

**GRADING PLAN**



**OWNER/DEVELOPER**  
HAMEL BUILDERS, INC.  
C/O MICHAEL MUELLER  
5710 FURNACE AVE., SUITE H  
ELKRIDGE, MD 21075  
(410) 782-3150

**VOGEL ENGINEERING**

**TIMMONS GROUP**

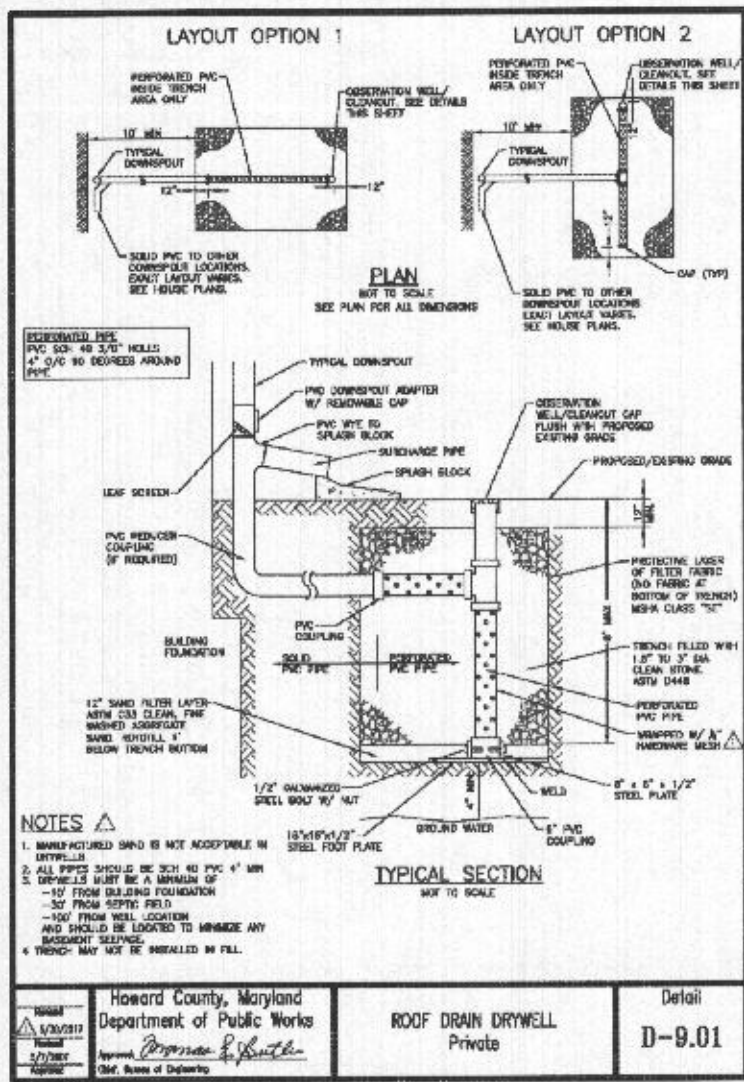
3300 NORTH RIDGE ROAD, SUITE 110, ELLICOTT CITY, MD 21043  
P: 410.461.7666 F: 410.461.8961 www.timmons.com

SCALE AS SHOWN  
DRAWN BY JMR  
CHECKED BY RHV  
DATE OCTOBER 22, 2020  
W. O. # 2017145  
SHEET# 3 OF 4

L. 9567 / F. 307  
4TH ELECTION DISTRICT  
TAX MAP: 8 GRID: 10

PARCEL: 26  
ZONED: RC-DEO  
HOWARD COUNTY, MARYLAND

K:\projects\2017145 (04-150)\ENGR\dwg\MUELLER RESIDENCE\SECPLOT PLAN.dwg, 10/22/2020 10:49:03 AM



Minglewood Lot 3 R/V/Beel 10/15/20

Lot Area: 3,590 sq ft  
 LOD: 47,123 sq ft (B soils)  
 Impervious: 8,627 sq ft  
 $I = 0.027/47,123 = 14\%$   $P_e = 1.0'$   
 $R = (0.05) + (14 \times 0.009) = 0.18$   
 $ESD_v = (1.0 \times 0.18 \times 47,123) / 12 = 707 \text{ cf}$   
 Drywells (100% impervious,  $R_v = 0.95$ )  
 $ESD_v = (1.0 \times 0.95 \times 2,000 \text{ Area}) / 12$   
 $ESD_v (0.4 \text{ voids} = \text{Soil Storage})$   
 Max  $ESD_v (2.4 \times 0.95 \times \text{Area}) / 12$   
 DW-1  
 $A = 947 \text{ sq ft}$   $ESD_v = 75 \text{ cf}$   $\text{Max } ESD_v = 195 \text{ cf}$   
 Use 150 cf  $150/0.4 = 375$   $8.7 \times 8.7 \times 5.0$   
 DW-2  
 $A = 1006 \text{ sq ft}$   $ESD_v = 80 \text{ cf}$   $\text{Max } ESD_v = 207 \text{ cf}$   
 Use 160 cf  $160/0.4 = 400$   $8.9 \times 8.9 \times 5.0$   
 DW-3  
 $A = 653 \text{ sq ft}$   $ESD_v = 52 \text{ cf}$   $\text{Max } ESD_v = 125 \text{ cf}$   
 Use 125 cf  $125/0.4 = 312 \text{ cf}$   $7.7 \times 7.9 \times 5.0$   
 DW-4  
 $A = 964 \text{ sq ft}$   $ESD_v = 76 \text{ cf}$   $\text{Max } ESD_v = 195 \text{ cf}$   
 Use 165 cf  $165/0.4 = 413$   $9.1 \times 9.1 \times 5.0$

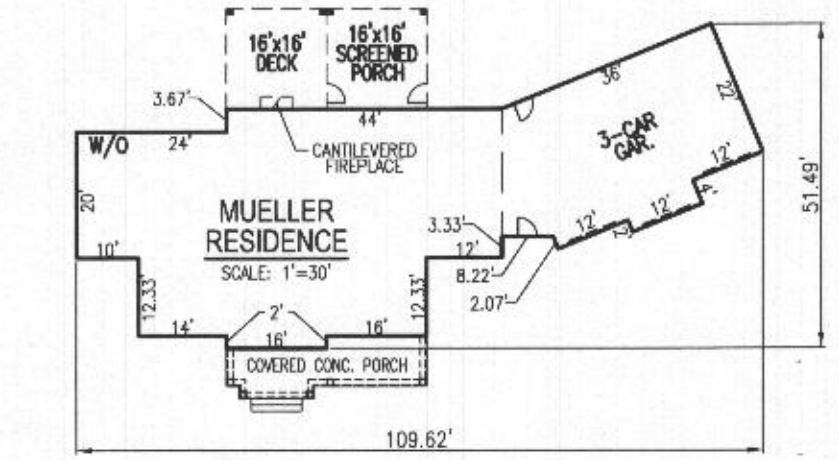
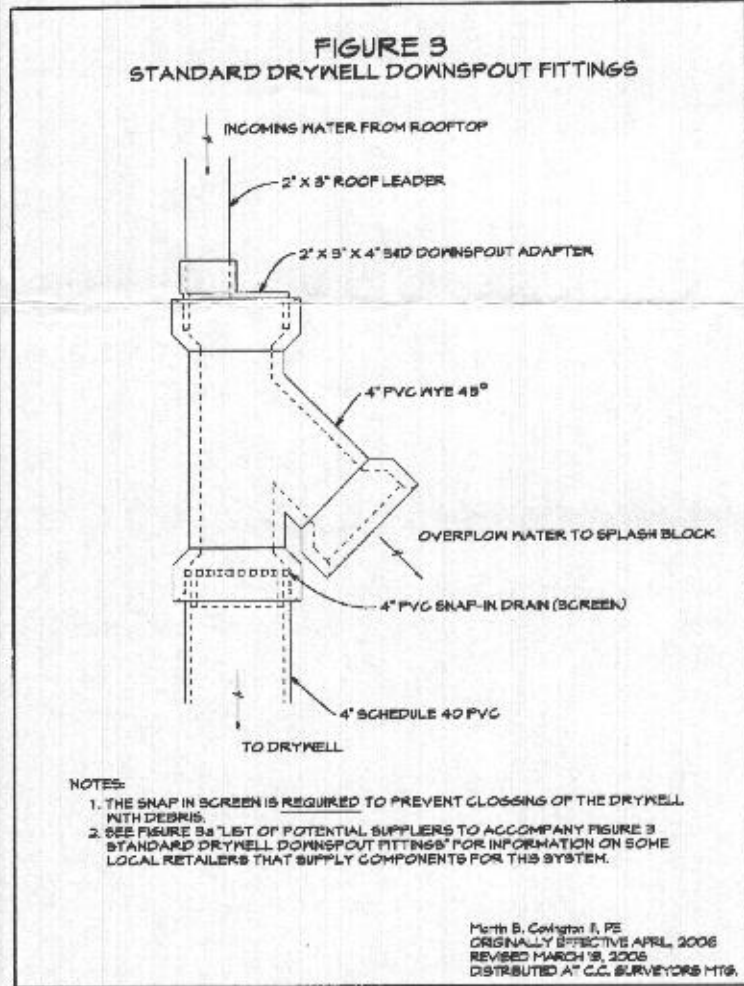
Grass Swale  
 $D = 0.35 \text{ sec}$   $\text{Grass } 0.29 \text{ sec}$   
 $I = 0.07 \text{ sec}$   $C = 0.20$   
 $Q = 0.18$   $L = 10 \text{ min}$   $L_{10} = 6.6$   
 $Q_{10} = (0.30)(C)(L_{10}) = 0.77 \text{ cfs}$   
 $Q_e = P_e \times R_v$   $R_v = 0.22$   
 $Q_e = 1.0 \times 0.22 = 0.22$   
 $Q_e = 0.02 \text{ cfs}$

Minglewood Lot 3 R/V/Beel 10/15/20

3:1 slope  
 Grass Swale  
 $\text{Grass Swale Area } 140 \times 4 = 560$   
 $\text{Slope } 2.5\%$   $\pm 4.0\%$   
 $B = 4.0'$   
 $Q_{10} = 0.77 \text{ cfs}$   
 $Y_{10} = 2.58 \text{ FPS}$   
 $Q_{10} = 0.87 \text{ cfs}$   
 $Q_{\text{req}} = 0.02 \text{ cfs} \leq 1.0 \text{ cfs}$   
 $V_{\text{req}} = 0.62 \text{ FPS}$   
 $S = 3:1$   
 $P_e = 1.0' \times 560 / 0.36 = 0.38$   
 $ESD_v = (0.38)(0.22)(0.36)(49,500) / 12 = 109 \text{ cf}$

**OPERATION AND MAINTENANCE SCHEDULE FOR GRASS SWALE (M-8)**

1. THE OPEN CHANNEL SYSTEM SHALL BE INSPECTED ANNUALLY AND AFTER MAJOR RAIN STORMS. INSPECTIONS SHALL BE PERFORMED DURING WET WEATHER TO DETERMINE IF THE FACILITY IS FUNCTIONING PROPERLY.
2. THE OPEN CHANNEL SHALL BE MOWED A MINIMUM OF AS NEEDED DURING THE GROWING SEASON TO MAINTAIN A MAXIMUM GRASS HEIGHT OF LESS THAN 6 INCHES.
3. DEBRIS AND LITTER SHALL BE REMOVED DURING REGULAR MOWING OPERATIONS AND AS NEEDED.
4. VISIBLE SIGNS OF EROSION IN THE OPEN CHANNEL SYSTEM SHALL BE REPAIRED AS SOON AS IT IS NOTICED.
5. REMOVE SILT IN THE OPEN CHANNEL SYSTEM WHEN IT EXCEEDS 25% OF THE ORIGINAL WQV.



**PLOT PLAN**  
**MINGLEWOOD - LOT 3**  
 14842 OLD FREDERICK ROAD  
 WOODBINE, MD 21797  
 SCALE 1"=30'

**OPERATION AND MAINTENANCE SCHEDULE FOR PRIVATELY OWNED AND MAINTAINED STORMWATER INFILTRATION TRENCHES (I-1) AND DRY WELLS (M-5)**

1. THE OWNER SHALL INSPECT THE MONITORING WELLS AND STRUCTURES ON A QUARTERLY BASIS, AND AFTER EVERY LARGE STORM EVENT.
2. THE OWNER SHALL RECORD THE WATER LEVELS AND SEDIMENT BUILD UP IN THE MONITORING WELLS OVER A PERIOD OF SEVERAL DAYS TO INSURE TRENCH DRAINAGE.
3. THE OWNER SHALL MAINTAIN A LOG BOOK TO DETERMINE THE RATE AT WHICH THE FACILITY DRAINS.
4. WHEN THE FACILITY BECOMES CLOGGED, SO THAT IT DOES NOT DRAIN DOWN WITHIN A SEVENTY-TWO (72) HOUR TIME PERIOD, CORRECTIVE ACTION SHALL BE TAKEN.
5. THE MAINTENANCE LOGBOOK SHALL BE AVAILABLE TO HOWARD COUNTY FOR INSPECTION TO INSURE COMPLIANCE WITH OPERATION AND MAINTENANCE CRITERIA.
6. ONCE THE PERFORMANCE CHARACTERISTICS OF THE INFILTRATION FACILITY HAVE BEEN VERIFIED, THE MONITORING SCHEDULE CAN BE REDUCED TO AN ANNUAL BASIS, UNLESS THE PERFORMANCE DATA INDICATES THAT A MORE FREQUENT SCHEDULE IS REQUIRED.

SCALE AS SHOWN  
 DRAWN BY JMR  
 CHECKED BY RHV  
 DATE OCTOBER 22, 2020  
 W. O. # 2017145  
 SHEET# 4 OF 4

L. 9567 / F. 307  
 4TH ELECTION DISTRICT  
 TAX MAP: B GRID: 10

PARCEL: 26  
 ZONED: RC-DEO  
 HOWARD COUNTY, MARYLAND