



Howard County  
Health Department

# 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](https://www.facebook.com/hocohealth)

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

RECEIPT DATE: 7-17-17 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 501463

APPROVAL DATE: 10/16/2017 **PERMIT: CONSTRUCTION**

A

PROPERTY ADDRESS: 12510 Westland Court

SUBDIVISION: Westland Farm Estates

LOT: 3

TAX ID: \_\_\_\_\_

CONTRACTOR: Hatfield's Equipment

EMAIL: \_\_\_\_\_

CONTRACTOR ADDRESS: P.O. Box 519 Annapolis MD 20701

PHONE: 301-490-4289

PROPERTY OWNER: Williamsburg Group LLC

EMAIL: \_\_\_\_\_

OWNER ADDRESS: 5485 Harpers Farm Road, Columbia, MD 21044

PHONE: \_\_\_\_\_

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon

PUMP MODEL: \_\_\_\_\_

PUMP SIZE

0.5 HP

PUMP TANK CAPACITY: 1500 GAL

DISTRIBUTION SYSTEM: ☒ GRAVITY ☐ PRESSURE DOSED BEDROOMS: \_\_\_\_\_ APPLICATION RATE: \_\_\_\_\_

TRENCHES:	LINEAR FEET REQUIRED: <u>105</u>	INLET DEPTH: <u>4' 3"</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>6</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</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 2 x 53' trenches on contour.	

ISSUED BY: Hank Oswald

ISSUE DATE: 7-17-17

EXPIRATION DATE: 7-17-18

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 DOWNGRADE 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 17003852

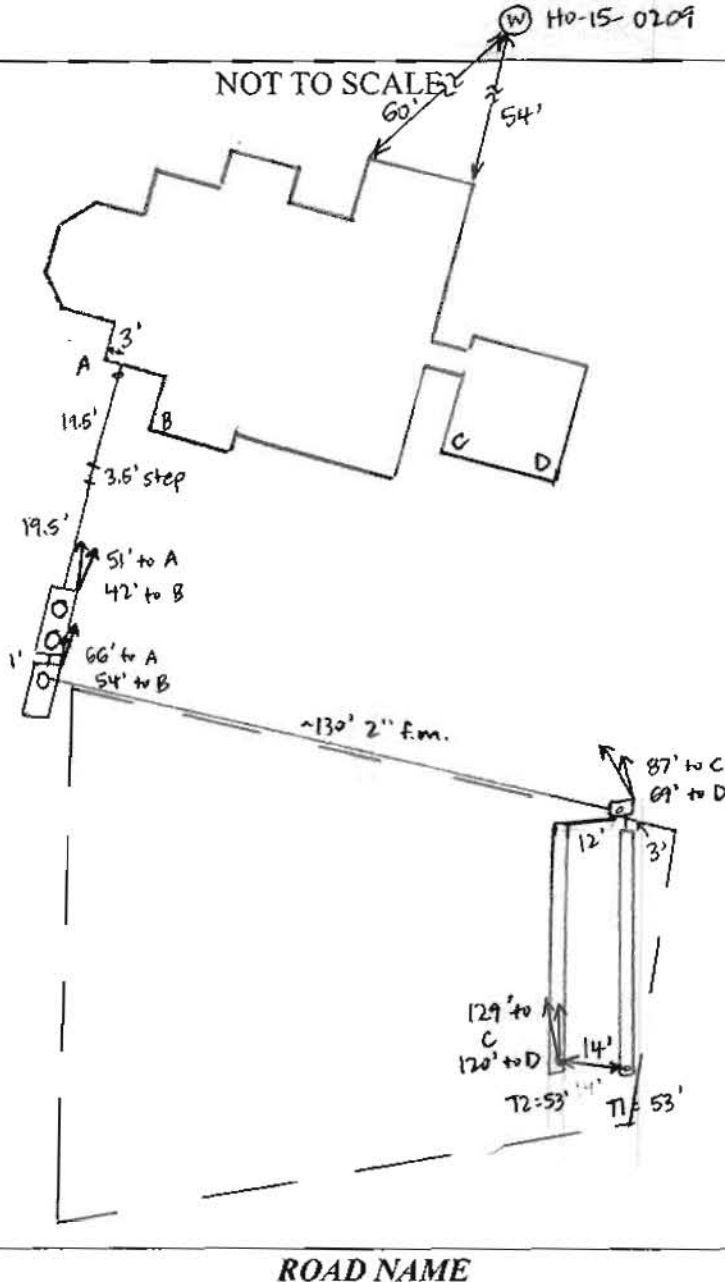
NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

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



**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	3'	6'
NUMBER OF TRENCHES		2
TOTAL LENGTH		106'
ABSORPTION AREA		318' + SIDEWALK
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		ELBOW
DISTRIBUTION BOX PORT		YES

**SEPTIC TANK DATA**

SEPTIC TANK 1 LEVEL	YES
MANUFACTURER	BABYLON
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-2.5'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	6-26-17

**PUMP/SEPTIC TANK LEVEL**

MANUFACTURER	BABYLON
CAPACITY	1500 GAL
SEAM LOC	TOP
TANK LID DEPTH	2-2.5'
BAFFLES	NO
BAFFLE FILTER	NO
MANHOLE LOC	FRONT
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	NO
DATE ON LID	6-31-17

Pump: 1/2 hp (ME50)

**PRE-CONSTRUCTION:**

7/27/17 Met Hatfield's on site for layout. SDA corners + tanks staked. Adjusted tanks to keep out of swale. Rm fm. outside of SDA corner to D-box. Shot contour + laid out 2 x 53' trenches. (SC)

INSTALLATION: 8/3/17 House connection made, tanks set. Force main installed to D-box. Trenches complete - T1 left open at ends for inspection and T2 left open.

3' to stone, 3' wide. Need pump + alarm test. (SC) 10/13/17 On site for pump + alarm test. Alarm sounds, pump won't run reliably. Hatfield's will replace pump. (SC) 10/16/2017 Pump ok. Adequate flow @ D Box.

FINAL INSPECTOR

DATE OF APPROVAL 10/16/2017

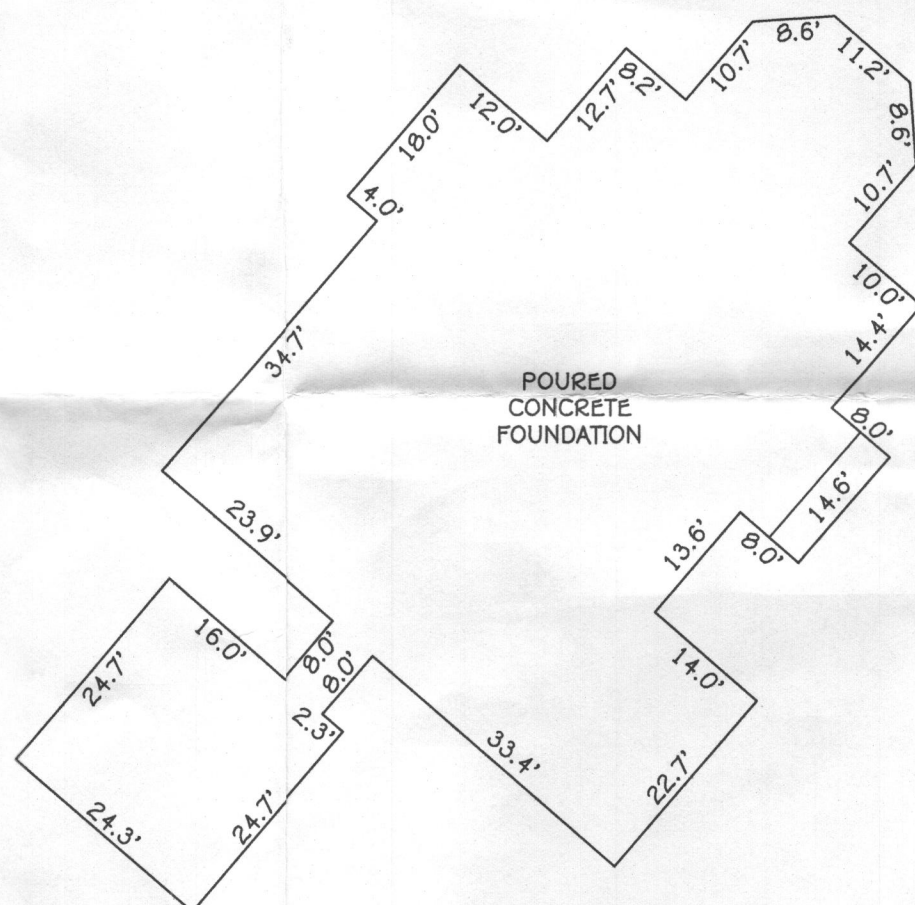


# **GENERAL NOTES:**

- 1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INsofar AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT, THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
- 2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C01400 EFFECTIVE 11/06/2013.
- 3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 0.5' (+).
- 4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- 5) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-15-0209 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/04/2018.
- 7) BUILDING PERMIT # B-17000819

## **Public Forest Conservation Easement Line Chart**

Line	Bearing	Length
FC2	S 34°09'51" W	77.40'
FC3	N 56°17'42" W	280.90'
FC6	S 56°23'16" E	293.72'
FC7	S 41°44'40" E	122.19'
FC8	S 55°46'30" E	156.97'
FC9	S 34°13'30" W	40.00'
FC10	N 55°46'30" W	248.72'
FC11	N 56°13'17" W	334.00'



DETAIL:  
1"=20'



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(410) 461 - 2895

*Mark L. Robel*  
PROFESSIONAL LAND SURVEYOR  
REG. #339  
DATE 5/15/17

## **HOUSE LOCATION DRAWING**

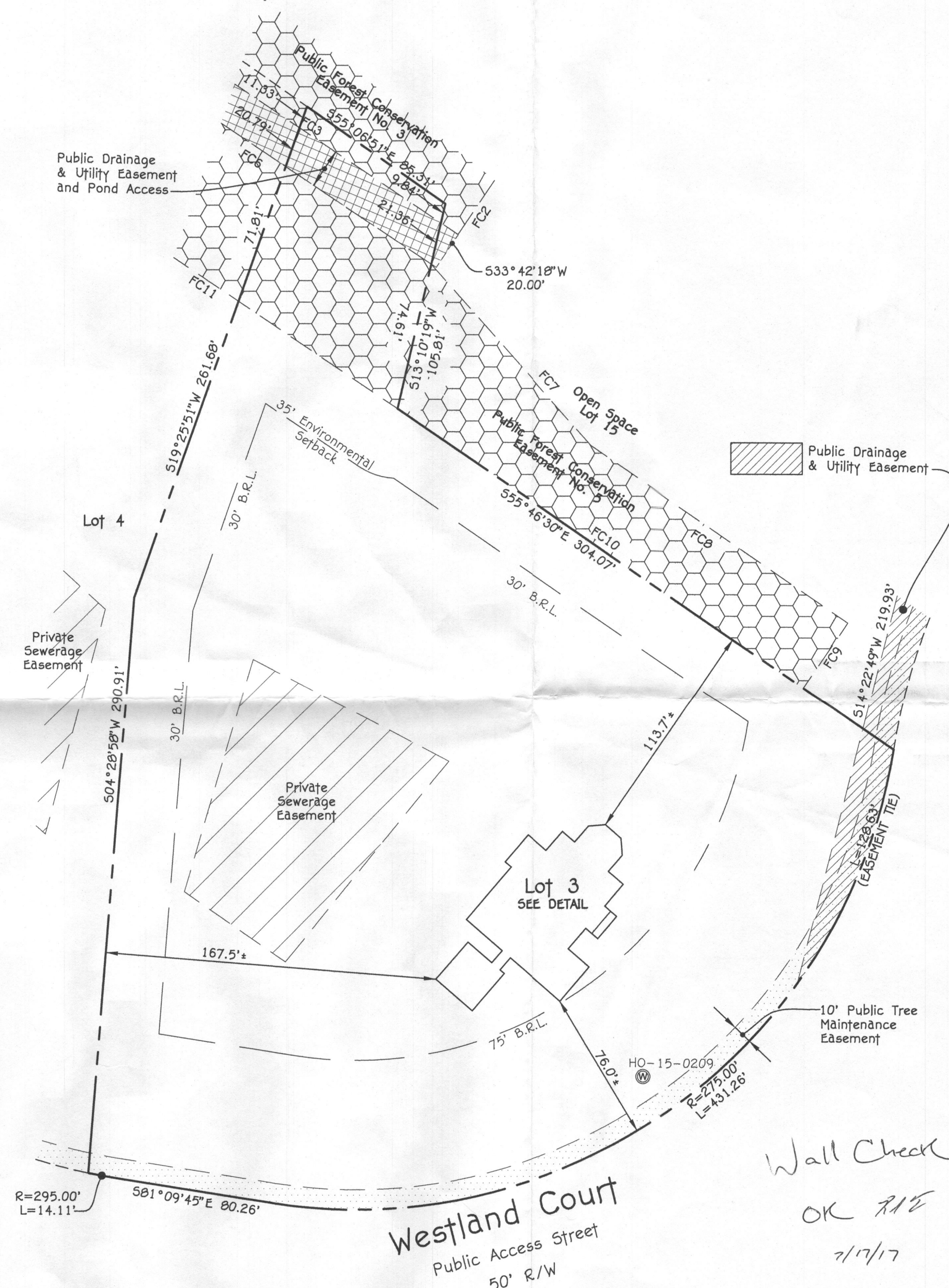
FOUNDATION LOCATION: 5/12/17  
FINAL LOCATION:  
BOUNDARY SURVEY:

SCALE: 1"=50'  
DATE: 5/15/17  
DRAWN BY: JMP  
CHECKED BY: MLR  
PROJECT No. 025062-3003

**Westland Court**  
Public Access Street  
50' R/W

#12510 WESTLAND COURT  
B.R.L. = BUILDING RESTRICTION LINE  
TOP OF FOUNDATION ELEVATION = 418.7'

LOT 3  
WESTLAND FARM ESTATES  
PHASE II  
LOTS 3 THRU 14 AND  
OPEN SPACE LOT 15  
PLAT NOS. 23985 THRU 23987  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND



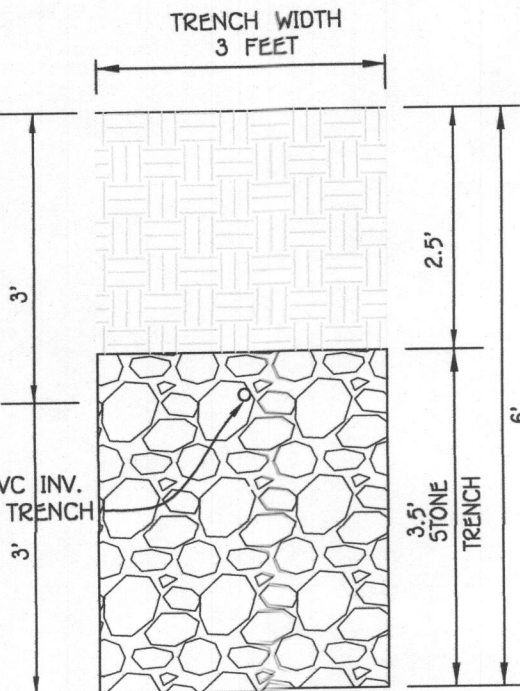
Wall Check  
Williamsburg

Wall Check  
OK RAE  
7/17/17



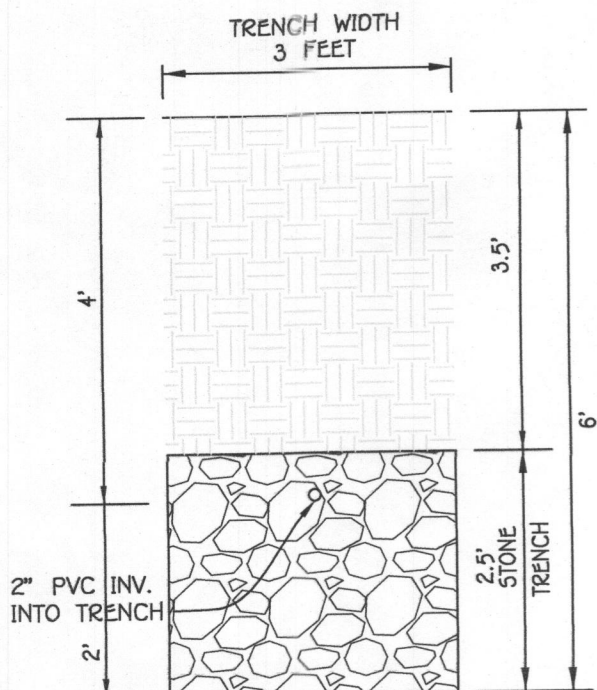
SOILS LEGEND			
SOIL	NAME	CLASS	K FACTOR
GgC	Glenn loam, 0 to 15 percent slopes	B	0.20
MaC	Manor loam, 0 to 15 percent slopes	B	0.20
WhB	Wiltshire alt loam, 3 to 8 percent slopes	C	0.20

SEWAGE DISPOSAL SYSTEM DATA  
 5 BEDROOMS (INITIAL SYSTEM)  
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
 APPLICATION RATE = 1.2  
 INITIAL EFFECTIVE SIDEWALL BEGINS AT 3 FEET  
 TRENCH DEPTH = 6 FEET  
 TRENCH WIDTH (W) = 3 FEET  
 EFFECTIVE DEPTH (D) = 3 FEET  
 SF OF DRAINFIELD = 750 GPD / 1.2 = 625 SF  
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH =  
 (W+2)/(W+1+2D)=(3+2)/(3+1+(2x3))=0.500  
 TRENCH LENGTH = 625 SF x 0.500 / 3 = 104.17 FEET  
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 9 USE 10'



INITIAL TRENCH DETAIL  
 SCALE: 1"=2'

SEWAGE DISPOSAL SYSTEM DATA  
 5 BEDROOMS (REPLACEMENT SYSTEM)  
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
 APPLICATION RATE = 0.8  
 INITIAL EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET  
 TRENCH DEPTH = 6 FEET  
 TRENCH WIDTH (W) = 3 FEET  
 EFFECTIVE DEPTH (D) = 1.5 FEET  
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH =  
 (W+2)/(W+1+2D)=(3+2)/(3+1+(2x1.5))=0.714  
 TRENCH LENGTH = 937.5 SF x 0.714 / 3 = 223.1 FEET  
 TRENCH SPACING = 2D+W = ((2x1.5) + 3) = 6 USE 10'



REPLACEMENT TRENCH DETAIL  
 SCALE: 1"=2'

### 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. 36306, EXPIRATION DATE: 01/12/2018.

*Signature of Professional Engineer* 3/16/17  
 DATE

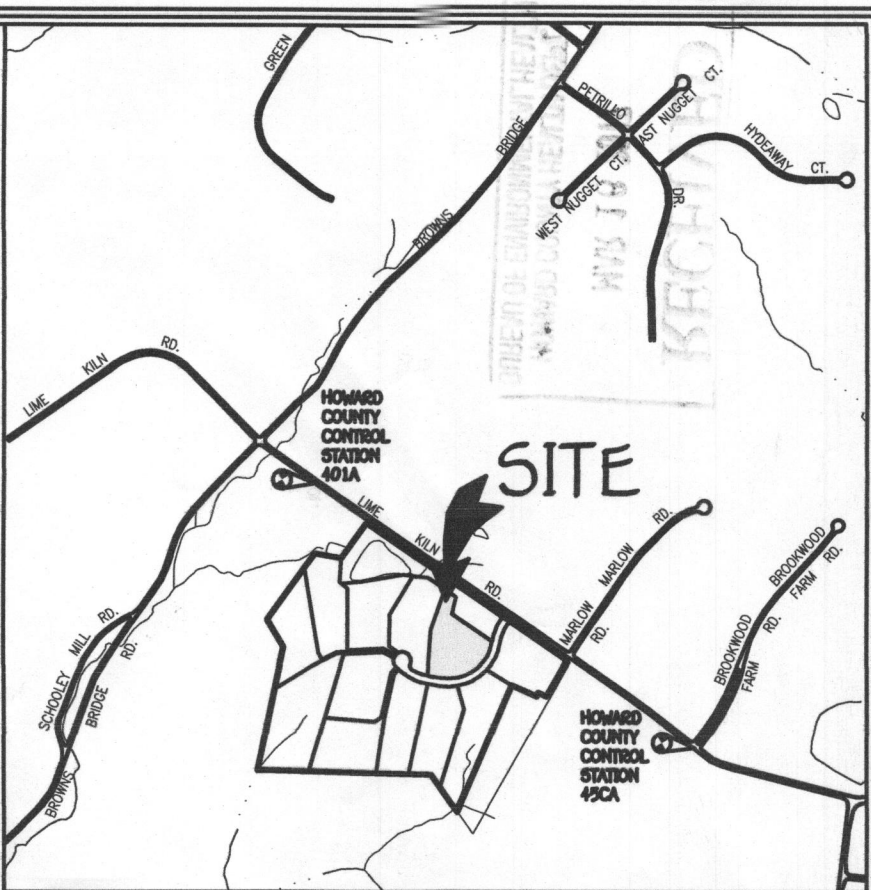


### OWNER

WILLIAMSBURG GROUP, LLC  
 C/O BOB CORBETT  
 5405 HARRIS FARM ROAD, SUITE 200  
 COLUMBIA, MARYLAND 21044  
 410-997-0000

**FISHER, COLLINS & CARTER, INC.**  
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTENNIAL SQUARE OFFICE PARK - 10700 BALTIMORE NATIONAL FREE  
 BLVD. CITY, MARYLAND 21092  
 (410) 481-2095

LEGEND			
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
---	EXISTING 2' CONTOURS	---	PROPOSED CONTOUR
---	EXISTING 10' CONTOURS	+362.5	SPOT ELEVATION
GgC	SOILS LINES AND TYPE	5T1	SPECIMEN TREE
GgB	EXISTING TREELINE	---	PROPOSED TREELINE
---	15% TO 24.9% STEEP SLOPES	---	PROPOSED PAVING
---	25% AND GREATER STEEP SLOPES	---	PROPOSED FOREST CONSERVATION EASEMENT
---	100 YEAR PUBLIC FLOODPLAIN, DRAINAGE AND UTILITY EASEMENT		
---	STREAM BANK BUFFER		
---	EXISTING CENTERLINE OF STREAM		



VICINITY MAP  
 SCALE: 1" = 1200'

### GENERAL NOTES:

- THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
- ADJUSTMENTS TO SEPTIC EASEMENT AREA IS NOT PERMITTED WITHOUT ADDITIONAL TESTING.
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- EXISTING WELLS AND/OR SEWERAGE EASEMENTS WITHIN 100 FEET OF THE PROPERTY HAVE BEEN SHOWN FROM THE BEST AVAILABLE INFORMATION.
- TOPOGRAPHIC CONTOURS BASED ON HOWARD AERIAL SURVEYS, INC. DATED JANUARY 2006 AND ABOUT APRIL, 2006 AND JANUARY, 2015.
- BOUNDARY OF LOT BASED ON PLAT #23986 AND FIELD SURVEY BY FISHER, COLLINS & CARTER, INC.
- ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
- PLAT REFERENCE: 23995 THRU 23987.
- SUBJECT PROPERTY ZONED: RR-DEO
- TOTAL AREA OF PROPERTY: 3.0 AC
- WETLANDS, STREAMS, THEIR BUFFERS, FLOODPLAIN, AND STEEP SLOPES DO NOT EXIST ON THIS LOT.
- SOILS SHOWN HEREON ARE BASED ON NCS VES SOIL SURVEY AND HOWARD COUNTY SOILS MAP 3.
- ANY ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- ANY CHANGE 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.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK (IF NOT A LOAD BEARING SEPTIC TANK).
- THE WELL HO- HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC.

Approved Septic System Plan  
 Howard County Health Department

*Signature* 3/21/17  
 DATE

SEPTIC SYSTEM ELEVATIONS  
 FTE = 419.57  
 BSE = 409.70  
 INV. OUT OF HOUSE = 405.6  
 PROP. GROUND AT TANK = 406.0  
 TOP OF TANK = 404.5  
 COVER OVER TANK = 1.5  
 INV. INTO TANK = 403.5  
 INV. OUT OF TANK = 403.33  
 PROP. GROUND AT PUMP TANK = 406.0  
 TOP OF TANK = 404.0  
 COVER OVER TANK = 2 FT  
 PROP. INV. INTO TANK = 403.25  
 INV. OUT OF TANK = 404.17  
 EX. GROUND AT DISTRIBUTION BOX = 421.6  
 INV. INTO DISTRIBUTION BOX = 418.05  
 INV. OUT OF DISTRIBUTION BOX = 418.6

### SEPTIC PLAN WESTLAND FARM ESTATES LOT 3

TAX MAP #45 PARCEL: 20  
 ZONED: RR-DEO  
 THIRD ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: 1" = 30' DATE: MARCH, 2017  
 SHEET 1 OF 2

2" SCH. 40 PVC = 115 LF  
 1 1/8" HD @ 4" EQUIVALENT FEET = 4 LF  
 TOTAL LINEAR FEET OF 2" SCH. 40 PVC = 119 LF

DYNAMIC HEAD  
 119 LF X 3.11 FT PER 100 LF OF 2" PIPE = 3.71 FT OF FRICTION HEAD  
 VERTICAL FROM PUMP OFF TO HIGH POINT IN PUMP CHAMBER = 3.42 FT OF FRICTION HEAD  
 HIGH POINT IN PUMP CHAMBER TO HIGHEST ELEV OF SYSTEM = 17.43 FT  
 TOTAL DYNAMIC HEAD = 24.56 FT

1/6" DESIGN FLOW (750 GPD/120)  
 USE 175 GALLON DOSE (125 GALLON MINIMUM)  
 (RUN TIME = 4 MIN (43.75 GPM X 4 = 175 GALLON DOSE)  
 PUMP NEEDS TO HANDLE 43.75 GPM AT 24.6 FT OF HEAD  
 USE 0.5 HP (MEAS PUMP)

### TRENCH DESIGN

TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE (FT)	DEPTH OF TRENCH (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STARTS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)	TRENCH SPACING
1	421.6	419.1	418.6	2.5'	3.5'	418.6	3.0'	3.0'	3.0'	10'
2	419.6	417.1	416.6	2.5'	3.5'	416.6	3.0'	3.0'	3.0'	10'



