



Howard County  
Health Department

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

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)

RECEIPT DATE:

5/11/21

**ONSITE SEWAGE DISPOSAL SYSTEM**

P

569504

APPROVAL DATE:

5/20/21 (ST)

**PERMIT: CONSTRUCTION**

A

PROPERTY ADDRESS: 5620 DOSA COURT, CLARKSVILLE, MD 21029

SUBDIVISION: THE WOODLANDS

LOT: 1

TAX ID:

05-601706

CONTRACTOR:

EMAIL:

CONTRACTOR ADDRESS:

PHONE:

PROPERTY OWNER: WILLIAMSBURG GROUP

EMAIL: [marinamorris@williamsburgllc.com](mailto:marinamorris@williamsburgllc.com)

OWNER ADDRESS: 5485 HARRIS FARM LANE, COLUMBIA, MD 21044

PHONE: (410)997-8800

SEPTIC TANK SIZE (GALLONS): 1500

TANK MANUFACTURER: TBD

PUMP MODEL: n.a.

PUMP SIZE

n.a.

PUMP TANK CAPACITY: n.a.

DISTRIBUTION SYSTEM:



GRAVITY



PRESSURE DOSED

BEDROOMS:

5

APPLICATION RATE:

0.8

TRENCHES:

LINEAR FEET REQUIRED: 195

INLET DEPTH: 2.0

TRENCH WIDTH: 3

MAXIMUM BOTTOM DEPTH: 8.0

MINIMUM SPACE

BETWEEN TRENCHES: 10

EFFECTIVE AREA BEGINNING DEPTH: 6.0

LOCATION:

PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.

NOTES:

INSTALL CLEANOUTS IN SHC AS ILLUSTRATED.

ISSUED BY:

R BRICKER

ISSUE DATE:

5/11/21

EXPIRATION DATE:

5/11/22

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 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

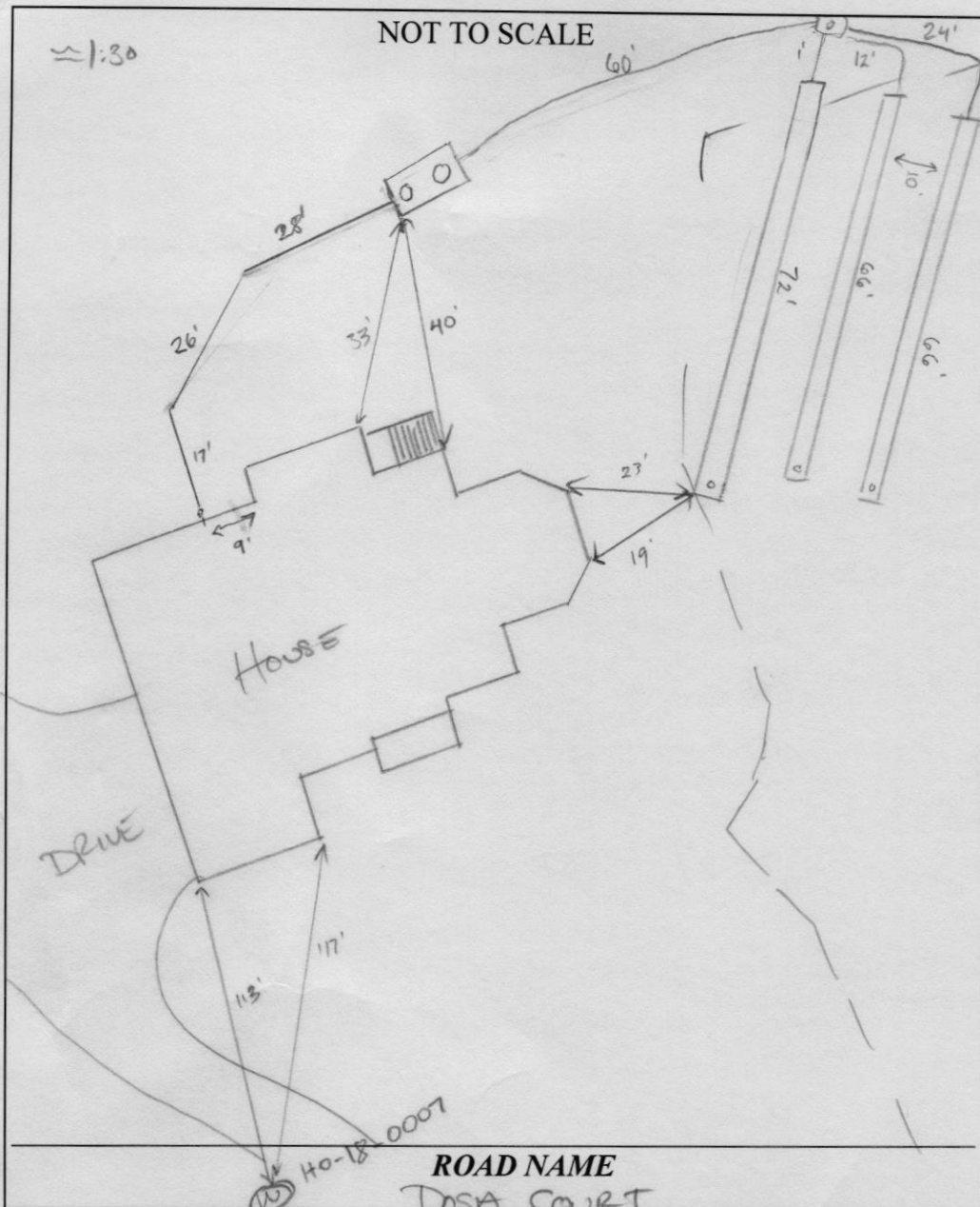
n.a.

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.



# **TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	2'	8'
NUMBER OF TRENCHES 3		
TOTAL LENGTH 204'		
ABSORPTION AREA 612 sq ft + sidewalk		
DISTRIBUTION BOX LEVEL yes		
DISTRIBUTION BOX BAFFLE yes		
DISTRIBUTION BOX PORT yes		

## **SEPTIC TANK DATA**

SEPTIC TANK I LEVEL yes

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC top

TANK LID DEPTH 3'

BAFFLES inlet or outlet

BAFFLE FILTER -

MANHOLE LOC inlet + outlet

6" PORT LOC -

WATERTIGHT TEST -

SLOTTED yes

DATE ON LID 3-1-21

## **PUMP/SEPTIC TANK LEVEL**

MANUFACTURER

CAPACITY GAL

SEAM LOC

TANK LID DEPTH

BAFFLES

BAFFLE FILTER

MANHOLE LOC

6" PORT LOC

WATERTIGHT TEST

SLOTTED

DATE ON LID

### **PRE-CONSTRUCTION:**

05/17/2021 TANK, SDA, TRENCHES STAKED. CONFIRMED CONTOUR. OK TO START. (P)

INSTALLATION: 5/19/21 Tank set and two 66' trenches constructed.  
5/20/21 D-box set and leveled, last 72' trench constructed, baffles added to tank. OK to backfill. (SP)

FINAL INSPECTOR

*Juan Thomas*

DATE OF APPROVAL

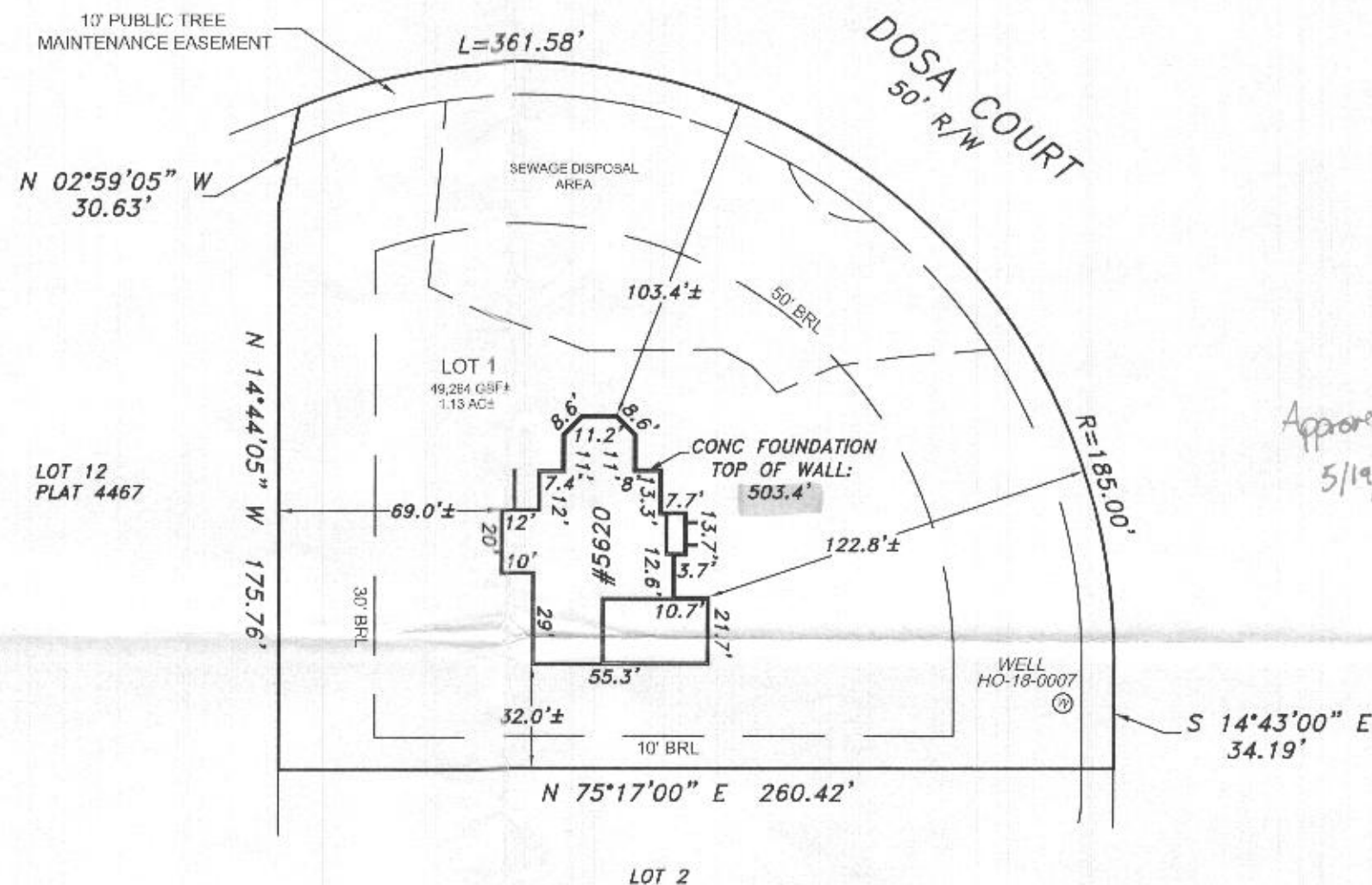
5/20/21



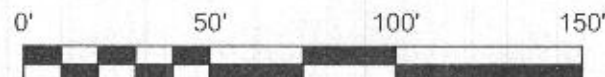
# GENERAL NOTES:

- 1) The accuracy of the distances shown from any structure to any apparent property line is 1'±.
- 2) This drawing does not represent a Boundary Survey. Any property markers labeled hereon are not guaranteed by NTT Associates, Inc.
- 3) This plat is of benefit to a consumer only insofar as it is required by a lender, a title insurance company or its agent in connection with contemplated transfer, financing, or refinancing.
- 4) This plat does not provide for the accurate identification of property boundary lines, but such identification may not be required, for the transfer of title or securing financing or refinancing.
- 5) This plat is not to be relied upon for the establishment or location of fences, garages, buildings, or other existing or future improvements.
- 6) Unless noted on the drawing, no title report was provided. This drawing was prepared by examining the current title deed or record plat. Any easements, restrictions, rights of way, or any other property alterations not referred to in the current title deed may not be shown.
- 7) Unless otherwise noted, the bearings and north arrow shown hereon are in the meridian of the current title deed or record plat.
- 8) Building Restriction Line Information, if shown, was obtained from existing records only and is not guaranteed by NTT Associates, Inc.
- 9) Flood Zone Information shown on FIRM maps is subject to interpretation.
- 10) Improvements which in the surveyor's opinion appear to be in a state of disrepair or considered "temporary" may not be shown.
- 11) If it appears encroachments may exist, a Boundary Survey is recommended to determine the exact location of the property boundary lines and improvements.
- 12) The locations of fence lines, if shown, are approximate.

Subject property is shown in Zone X on the FIRM Map of Howard County, Maryland on Community Panel Number 24027C0130 D, effective 11/06/2013



Approved  
5/19/21 (SD)



The purpose of this drawing is to locate, describe, and represent the positions of buildings and substantial improvements affecting the property shown hereon, being known as:  
LOT 1 as shown on the plat entitled "THE WOODLANDS" recorded among the land records of Howard County, Maryland in Plat Number 25052

This is to certify that I either personally prepared or was in responsible charge over the preparation of this drawing and the surveying work reflected in it, all set forth in Regulation .12 of Chapter 09.13.06 of the Code of Maryland Annotated Regulations.



James Carl Hudgins  
Property Line Surveyor #96  
Expiration Date: 3/11/2022

WALL CHECK  
5620 DOSA COURT  
5th ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

NTT Associates, Inc.  
16205 Old Frederick Rd.  
Mt. Airy, Maryland 21771  
Phone: (410) 442-2031  
Fax: (410) 442-1315  
www.nttsurveyors.com

Scale: 1"= 50'  
Date: 4/9/2021  
Field By: TOM  
Drawn By: SCK  
File No.: SEG20-003 Z  
Page No.: 1 of 1



SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K <sup>2</sup> FACTOR
GgC	GAILA LOAM, 8 TO 15 PERCENT SLOPES	B	0.24
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
GmB	GLENVILLE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.37
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	0.24
MaD	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24
WmB	WILTSHIRE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.24

NOTES:  
1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY, SOILS GRID 12, SUB-GRID 205.  
2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR "K" GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

### GENERAL NOTES

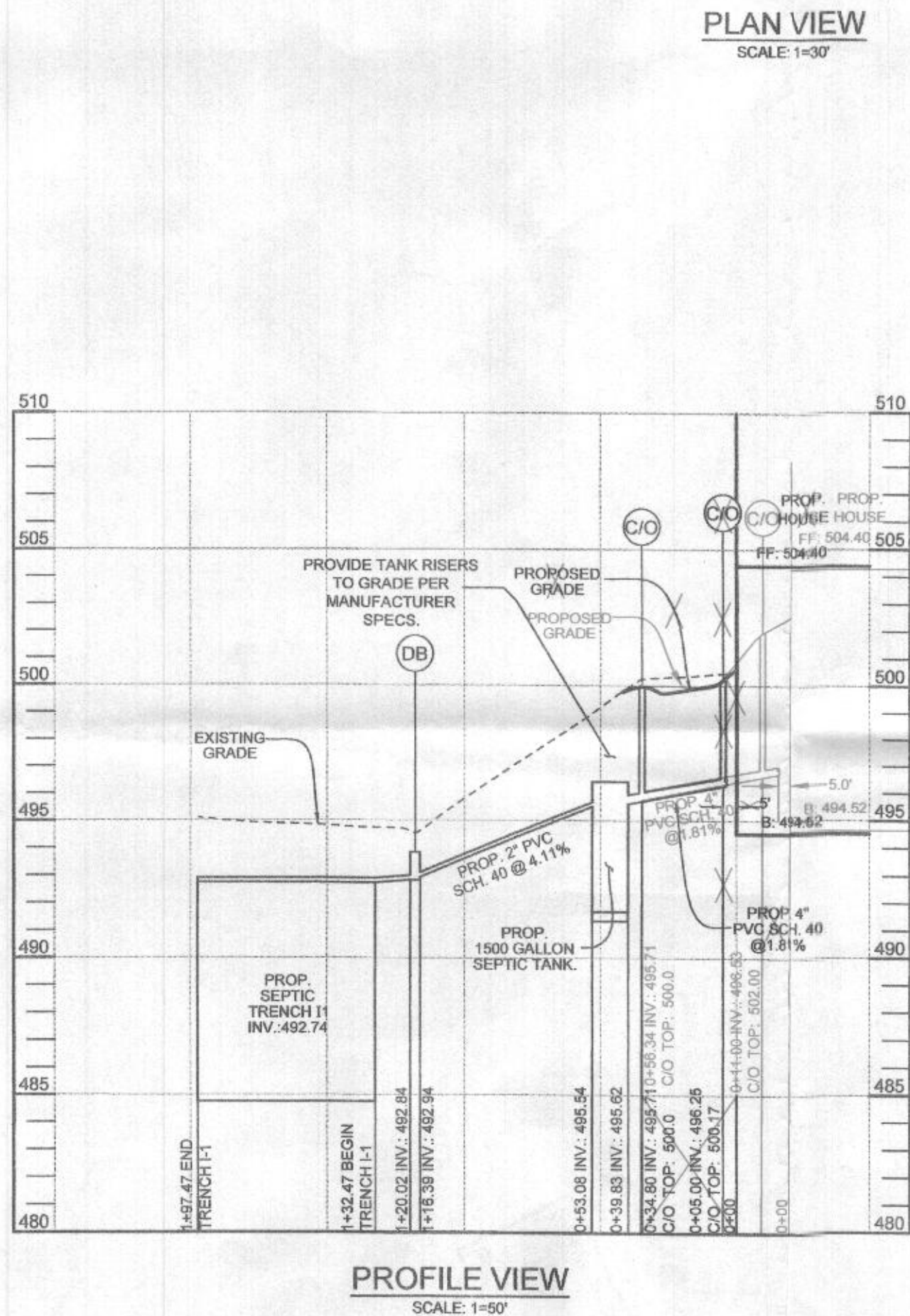
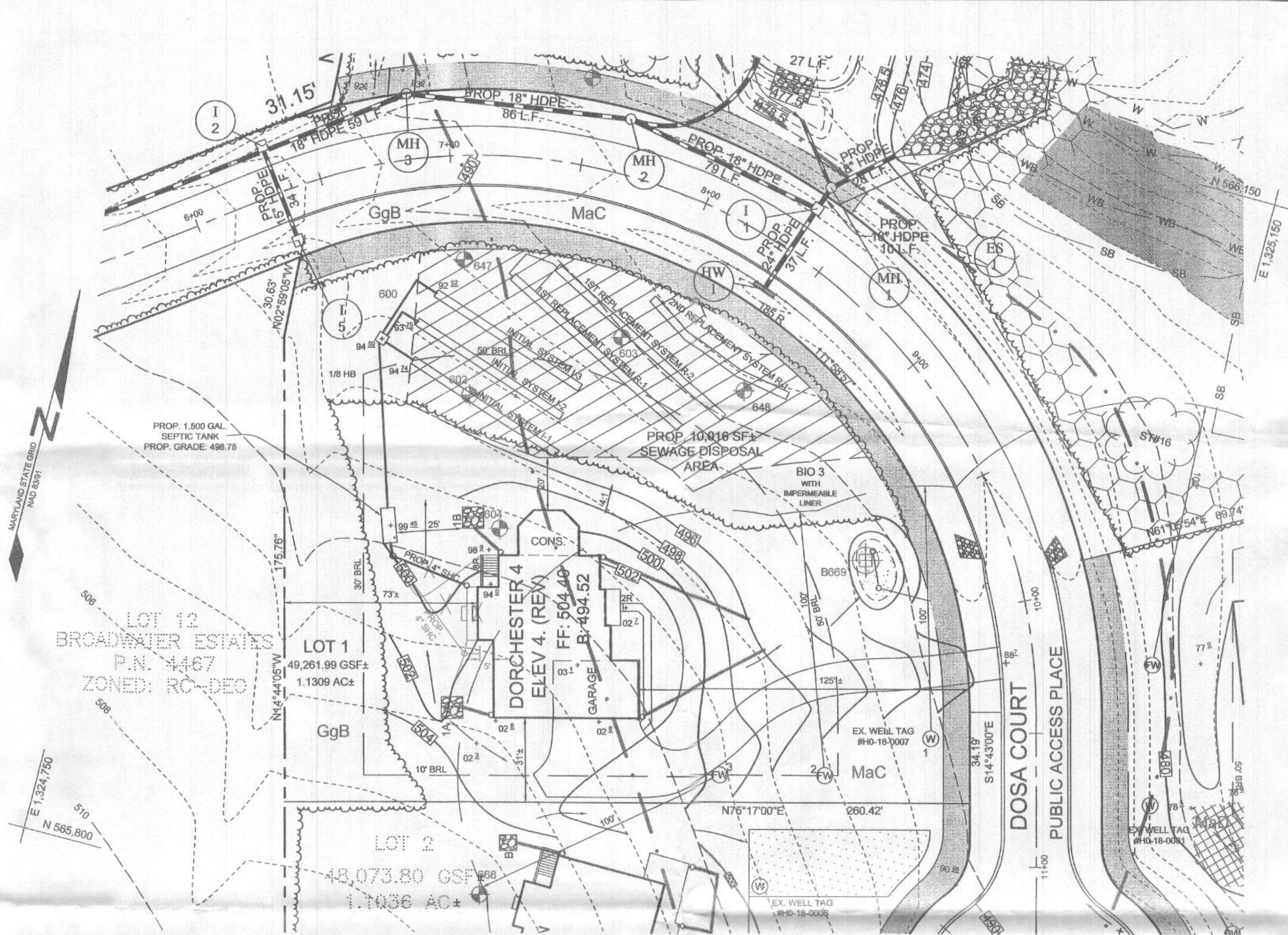
- SUBJECT PROPERTY ZONED RC-DEO PER 1006/13 COMPREHENSIVE ZONING PLAN.
- PROPERTY ADDRESS: 5620 DOSA COURT, CLARKSVILLE 21029
- TOTAL AREA OF PROPERTY = 1.1309 AC.±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE.
- THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE AREAS 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 SEWAGE AREA. REORDINATION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY. THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ADODCK & ASSOCIATES, LLC ON SEPTEMBER 16, 2014.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY ADODCK & ASSOCIATES, LLC, ON SEPTEMBER 16, 2014. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- REFERENCE: RECORD PLAT NO. 25051.
- PREVIOUS HOWARD COUNTY FILE NUMBERS: RECORD PLAT NO. 5471, F-83-114, ECP-15-032, WP-16-017, WP-16-060, SP-16-008, PB 431, WP-16-127, RECORD PLAT NO. 25051, F-18-094.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE. HOWARD COUNTY SOILS GRID 12, SUB-GRID 205.
- A WETLAND AND STREAM STUDY HAS BEEN PREPARED BY ECO SCIENCE PROFESSIONALS INC. IN NOVEMBER 2014.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS HAVE BEEN FIELD LOCATED.
- THE WELL (#H0-18-0007) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTORS INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE AND FIELD INVESTIGATIONS.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET ONE BIORETENTION FACILITY (M-5) AND TWO DRYWELLS (M-5).
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NUMBERS 28HC AND 34BA WERE USED FOR THIS PROJECT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS ALTERNATIVE COMPLIANCE HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- FOREST CONSERVATION OBLIGATIONS HAVE BEEN FULFILLED UNDER F-18-019.
- ANY VEGETATION WITHIN AND NEAR TO WELL ZONES OR SEWAGE DISPOSAL AREAS POTENTIALLY COULD BE DAMAGED OR DESTROYED DURING INSTALLATION OF WELLS OR SEPTIC SYSTEMS. ALL SPECIMEN TREES WITHIN OR NEAR SDA OR WELL ZONES HAVE BEEN DESIGNATED FOR REMOVAL AND APPROVED FOR REMOVAL UNDER SP-16-008 AND WP-17-060.
- BIORETENTION FACILITY 1 IS TO BE WRAPPED IN AN IMPERMEABLE LINER.
- DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF AN USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
  - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ONE RESIDENCE)
  - SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM)
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING)
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
  - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
  - DRIVEWAY ENTRANCES TO BE PER HOWARD COUNTY STANDARD DETAIL R-6.05 FOR DRIVEWAY LOTS 1, 2, AND THE USE IN COMMON DRIVEWAY FOR LOTS 3, 4, 5, 6, 7 AND 8, AND BUILDABLE PRESERVATION PARCEL A.

### SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
  - APPLICATION RATE: 0.8
  - EFFECTIVE AREA BEGINNING DEPTH: 6.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'
- 1ST REPLACEMENT SYSTEM:**
  - APPLICATION RATE: 0.8
  - EFFECTIVE AREA BEGINNING DEPTH: 4.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'
- 2ND REPLACEMENT SYSTEM:**
  - APPLICATION RATE: 1.2
  - EFFECTIVE AREA BEGINNING DEPTH: 2.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'

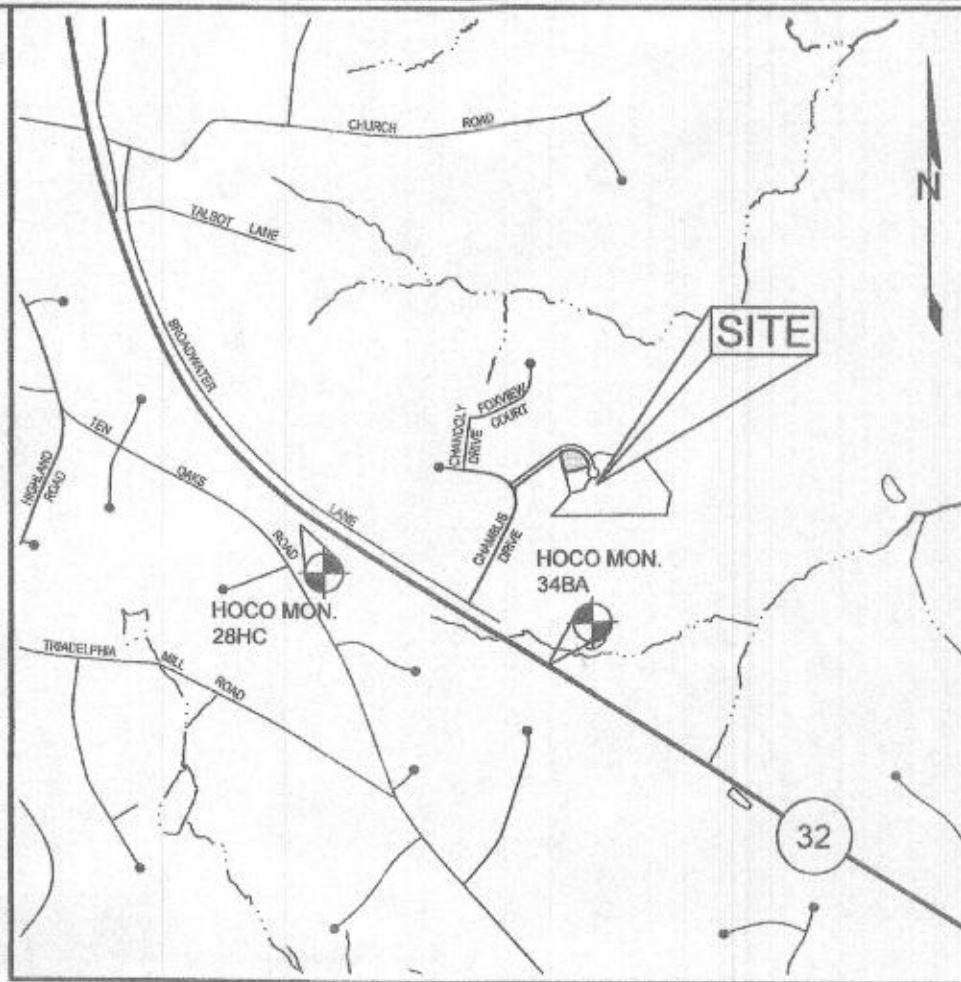
- DESIGN FLOW:
  - 5 BEDROOMS AT 150 GPD
  - 5x150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:
  - DESIGN FLOW (750 GPD) / APPLICATION RATE (0.8) = 937.5 SF
- SIDEWALL REDUCTION CREDIT:
  - TRENCH WIDTH (W) = 3.0'
  - TRENCH EFFECTIVE DEPTH (D) = 2.0'
  - (W+2) / (W+1+2D) X 100 = 62%
- LINEAR LENGTH OF TRENCH REQUIRED:
  - DRAIN FIELD SQUARE FOOTAGE (937.5) X SIDEWALL REDUCTION CREDIT (62%) / TRENCH WIDTH (3.0') = 193.75'
- LINEAR LENGTH OF TRENCH PROVIDED = 195.0'
- THREE TRENCHES 65.0 LF EACH
- EXISTING GRADE: TRENCH 11: 494.74
- INVERT: TRENCH 11: 492.74
- EXISTING GRADE: TRENCH 12: 493.75
- INVERT: TRENCH 12: 491.75
- EXISTING GRADE: TRENCH 13: 492.82
- INVERT: TRENCH 13: 490.92

NO.	DESCRIPTION	DATE
1	REVISED PROFILE FROM 0+00 TO 0+56.34	04/12/2021
REVISIONS		



### LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- SOIL BOUNDARY
- EXISTING SPECIMEN TREE APPROVED FOR REMOVAL IF NECESSARY
- EXISTING WELL
- FUTURE WELL LOCATION



BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
28HC	565,351.762	1,332,102.463	552.207	S SIDE OF ROUTE 32, 0.2 MILES W OF EXIT 20 SIGN, 4+ 320.7 E OF GUARD RAIL
34BA	563,852.491	1,324,672.167	450.048	2.9' N OF EDGE OF PAVEMENT OF ROUTE 32, 13.3' SE OF EXIT 20 SIGN

Approved Septic System Plan  
Howard County Health Department  
1500-gal Septic Tank  
to Gravity Distribution  
for 5-bedroom SFD  
Signature: *[Signature]* Date: 2/29/2020

redline correction for  
SHE location. OK' MB  
4/28/21

### OWNER/DEVELOPER

WILLIAMSBURG GROUP  
5485 HARPERS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.597.8800

### ONSITE SEWAGE DISPOSAL SYSTEM PLAN

### THE WOODLANDS

5620 DOSA COURT, LOT 1

TAX MAP 34 GRID 05  
5TH ELECTION DISTRICT

PARCEL 15  
HOWARD COUNTY, MARYLAND



16005 Frederick Road, 2nd Floor  
Woodbine, Maryland 21797  
Phone: 443.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: JJ  
DRAWN BY: JJ  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: DECEMBER 21, 2020  
PROJECT #: 20-003  
SHEET #: 1 of 1

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 32025, EXPIRATION DATE: JUNE 20, 2021.



SOILS LEGEND			
SYMBOL	NAME / DESCRIPTION	GROUP	K' FACTOR
GaC	GAILA LOAM, 8 TO 15 PERCENT SLOPES	B	0.24
GgB	GLENELO LOAM, 3 TO 8 PERCENT SLOPES	B	0.24
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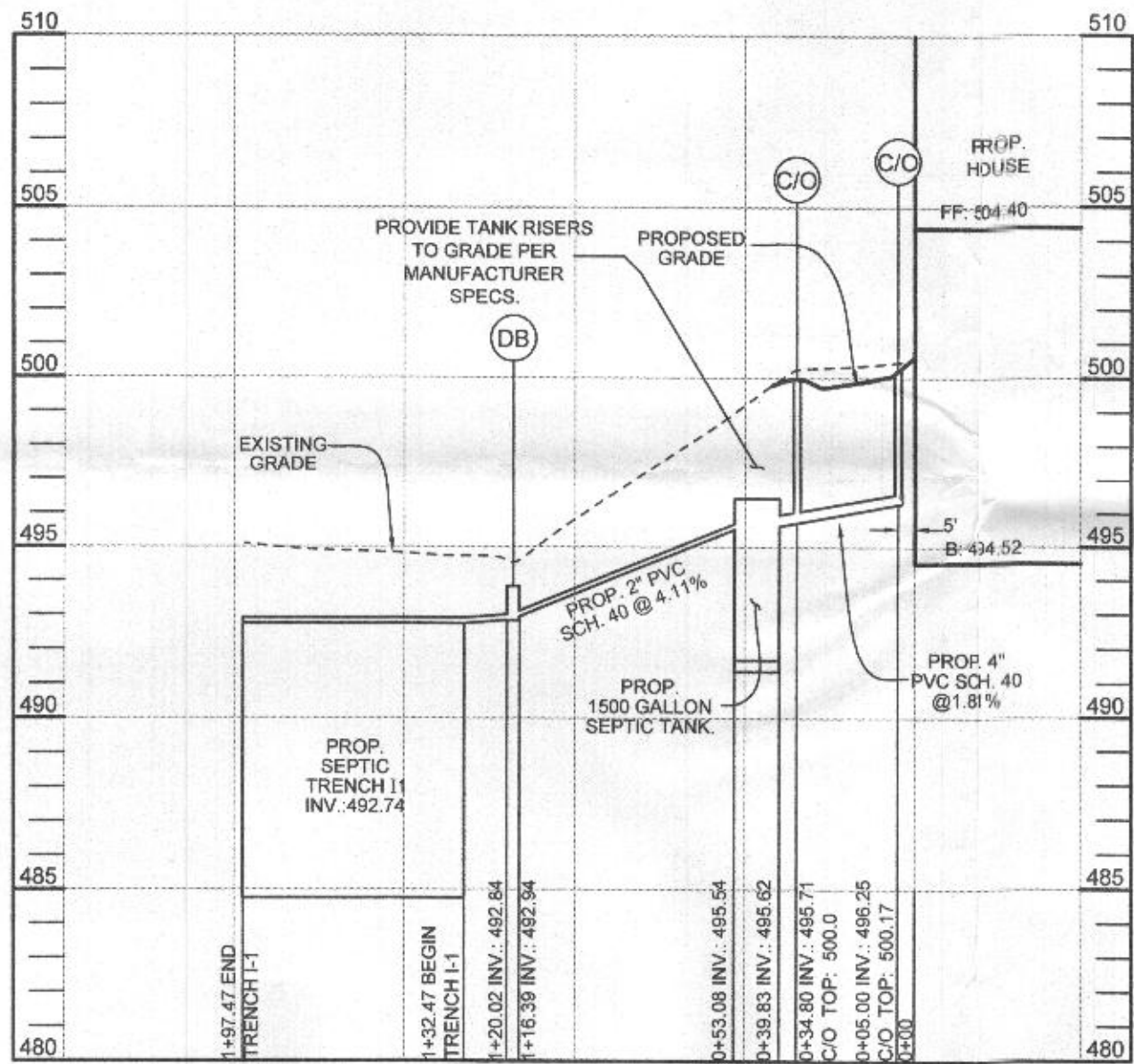
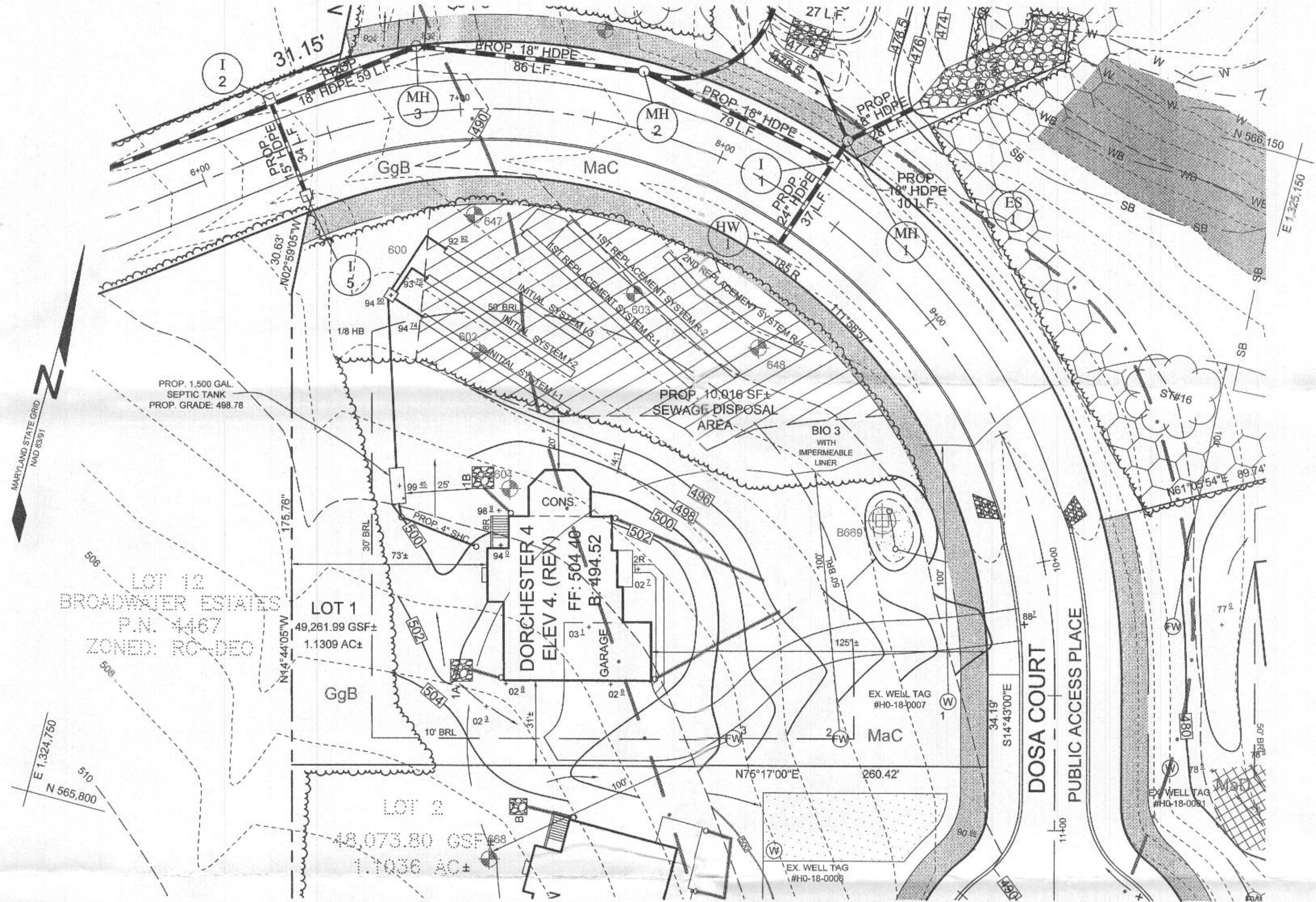
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### GENERAL NOTES

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3. TOTAL AREA OF PROPERTY = 1.1309 AC ±
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19. NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS ALTERNATIVE COMPLIANCE HAS BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
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23. BIORETENTION FACILITY 1 IS TO BE WRAPPED IN AN IMPERMEABLE LINER.
24. DRIVEWAYS SHALL BE PROVIDED PRIOR TO ISSUANCE OF AN USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
  - WIDTH - 12 FEET (16 FEET SERVING MORE THAN ON RESIDENCE)
  - SURFACE - SIX (6) INCHES OF COMPACTED CRUSHER RUN BASE WITH TAR AND CHIP COATING (1-1/2" MINIMUM)
  - GEOMETRY - MAXIMUM 15% GRADE, MAXIMUM 10% GRADE CHANGE AND 45-FOOT TURNING RADIUS
  - STRUCTURES (CULVERTS/BRIDGES) - CAPABLE OF SUPPORTING 25 GROSS TONS (H25-LOADING)
  - DRAINAGE ELEMENTS - CAPABLE OF SAFELY PASSING 100 YEAR FLOOD WITH NO MORE THAN 1 FOOT DEPTH OVER DRIVEWAY SURFACE
  - MAINTENANCE - SUFFICIENT TO ENSURE ALL WEATHER USE
  - DRIVEWAY ENTRANCES TO BE PER HOWARD COUNTY STANDARD DETAIL R-6.05 FOR DRIVEWAY LOTS, 1, 2, AND THE USE IN COMMON DRIVEWAY FOR LOTS 3, 4, 5, 6, 7 AND 8, AND BUILDABLE PRESERVATION PARCEL A.

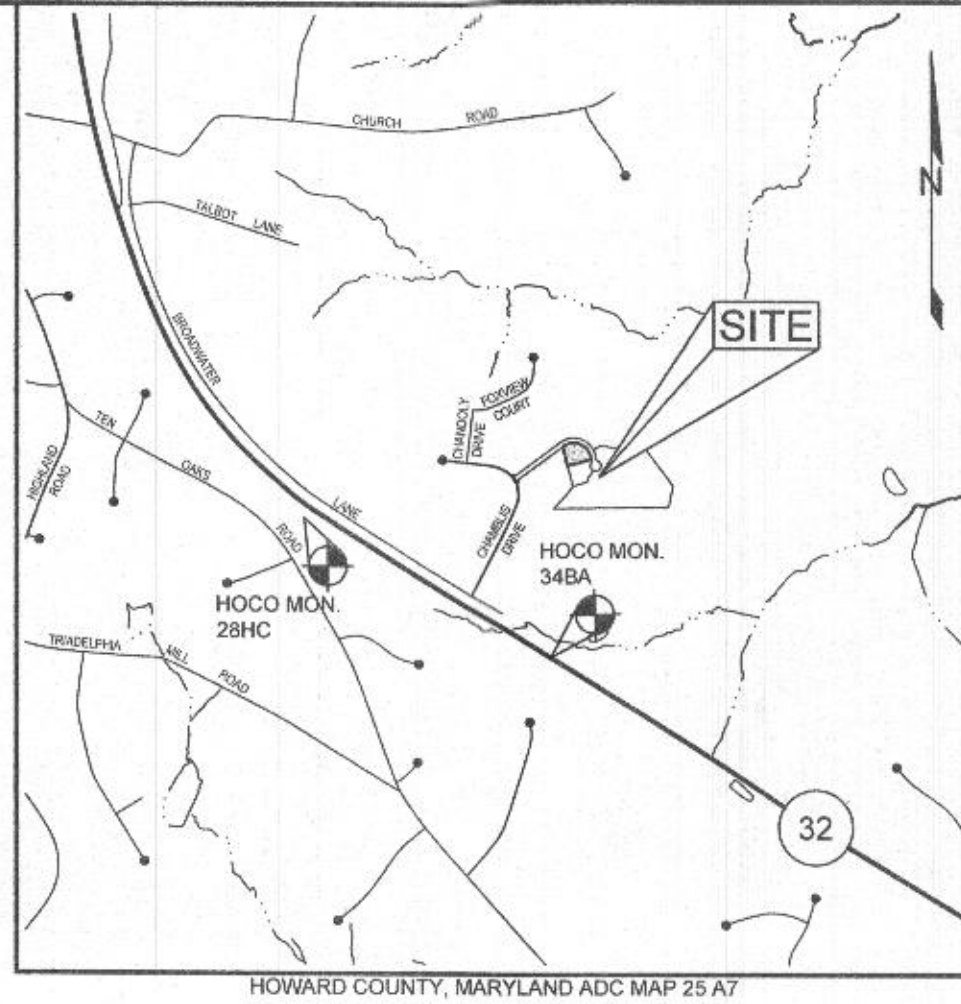
### SEPTIC SYSTEM TRENCH DESIGN SPECIFICATIONS

- INITIAL SYSTEM SYSTEM:**
  - APPLICATION RATE: 0.8
  - EFFECTIVE AREA BEGINNING DEPTH: 6.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
  - 5 BEDROOMS AT 150 GPD
  - 5x150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (750 GPD) / APPLICATION RATE (0.8) = 937.5 SF
- SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3.0'
  - TRENCH EFFECTIVE DEPTH (D) = 2.0'
  - (W+2) / (W+1+2D) X 100 = 62%
- LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (937.5) X SIDEWALL REDUCTION CREDIT (62%) / TRENCH WIDTH (3.0') = 193.75'
- LINEAR LENGTH OF TRENCH PROVIDED = 195.0'**
  - THREE TRENCHES 65.0 LF EACH
- EXISTING GRADE:**
  - TRENCH 11: 494.74
  - INVERT: TRENCH 11: 492.74
  - EXISTING GRADE: TRENCH 12: 493.75
  - INVERT: TRENCH 12: 491.75
  - EXISTING GRADE: TRENCH 13: 492.92
  - INVERT: TRENCH 13: 490.92
- 1ST REPLACEMENT SYSTEM:**
  - APPLICATION RATE: 0.8
  - EFFECTIVE AREA BEGINNING DEPTH: 4.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
  - 5 BEDROOMS AT 150 GPD
  - 5x150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (750 GPD) / APPLICATION RATE (0.8) = 1250 SF
- SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3.0'
  - TRENCH EFFECTIVE DEPTH (D) = 4.0'
  - (W+2) / (W+1+2D) X 100 = 41%
- LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (1250) X SIDEWALL REDUCTION CREDIT (41%) / TRENCH WIDTH (3.0') = 170.83'
- LINEAR LENGTH OF TRENCH PROVIDED = 172.0'**
  - TWO TRENCHES 86.0 LF EACH
- EXISTING GRADE:**
  - TRENCH R1: 491.25
  - INVERT: TRENCH R1: 489.25
  - EXISTING GRADE: TRENCH R2: 490.24
  - INVERT: TRENCH R2: 488.24
- 2ND REPLACEMENT SYSTEM:**
  - APPLICATION RATE: 1.2
  - EFFECTIVE AREA BEGINNING DEPTH: 2.0'
  - BOTTOM MAXIMUM DEPTH: 8.0'
- DESIGN FLOW:**
  - 5 BEDROOMS AT 150 GPD
  - 5x150 GPD = 750 GPD
- SQUARE FOOTAGE OF DRAIN FIELD REQUIRED:**
  - DESIGN FLOW (750 GPD) / APPLICATION RATE (1.2) = 625 SF
- SIDEWALL REDUCTION CREDIT:**
  - TRENCH WIDTH (W) = 3.0'
  - TRENCH EFFECTIVE DEPTH (D) = 6.0'
  - (W+2) / (W+1+2D) X 100 = 31%
- LINEAR LENGTH OF TRENCH REQUIRED:**
  - DRAIN FIELD SQUARE FOOTAGE (625) X SIDEWALL REDUCTION CREDIT (31%) / TRENCH WIDTH (3.0') = 64.58'
- LINEAR LENGTH OF TRENCH PROVIDED = 65.0'**
  - ONE TRENCH 65.0 LF EACH
- EXISTING GRADE:**
  - TRENCH R1: 488.46
  - INVERT: TRENCH R1: 486.46



### LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
- EXISTING TREELINE
- SOIL BOUNDARY
- EXISTING SPECIMEN TREE
- APPROVED FOR REMOVAL
- IF NECESSARY
- EXISTING WELL
- FUTURE WELL LOCATION



BENCHMARKS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
28HC	565,351.762	1,332,102.463	552.207	S. SIDE OF ROUTE 32, 0.2 MILES W OF EXIT 20 SIGN, ± 320' E OF GUARD RAIL
34BA	563,852.491	1,324,672.167	450.048	2.5' N OF EDGE OF PAVEMENT OF ROUTE 32, 13.3' SE OF EXIT 20 SIGN

Approved Septic System Plan  
Howard County Health Department  
1500 gal Septic Tank  
To Gravity Distribution  
For 5-Bedroom SFD  
Signature: *R. Buckle* Date: *2/29/2020*

### OWNER/DEVELOPER

WILLIAMSBURG GROUP  
5485 HARRIS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

### ONSITE SEWAGE DISPOSAL SYSTEM PLAN

#### THE WOODLANDS

5620 DOSA COURT, LOT 1

TAX MAP 34 GRID 05  
5TH ELECTION DISTRICT

PARCEL 15  
HOWARD COUNTY, MARYLAND

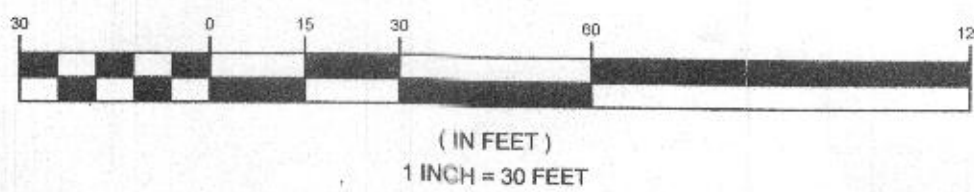


**SILL ENGINEERING GROUP, LLC**  
16005 Frederick Road, 2nd Floor  
Woodbine, Maryland 21797  
Phone: 413.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: JJ  
DRAWN BY: JJ  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: DECEMBER 21, 2020  
PROJECT #: 20-003  
SHEET #: 1 of 1

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. 32025, EXPIRATION DATE: JUNE 20, 2021

### GRAPHIC SCALE





SYMBOL	NAME / DESCRIPTION	GROUP	'K' FACTOR
GgC	GAILA LOAM, 8 TO 15 PERCENT SLOPES	B	0.24
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	0.20
ChB	CHERRY SILT LOAM, 3 TO 8 PERCENT SLOPES	B	0.37
MaC	MANOR LOAM, 8 TO 15 PERCENT SLOPES	B	0.24
MaB	MANOR LOAM, 15 TO 25 PERCENT SLOPES	B	0.24
WbB	WILTSHIRE SILT LOAM, 3 TO 8 PERCENT SLOPES	C	0.24

NOTES:  
1) SOIL INFORMATION HAS BEEN TAKEN FROM THE UNITED STATES DEPARTMENT OF AGRICULTURE, NATURAL RESOURCES CONSERVATION SERVICE, WEB SOIL SURVEY, SOILS GRID 12, SUB-GRID 205.  
2) HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR 'K' GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT.

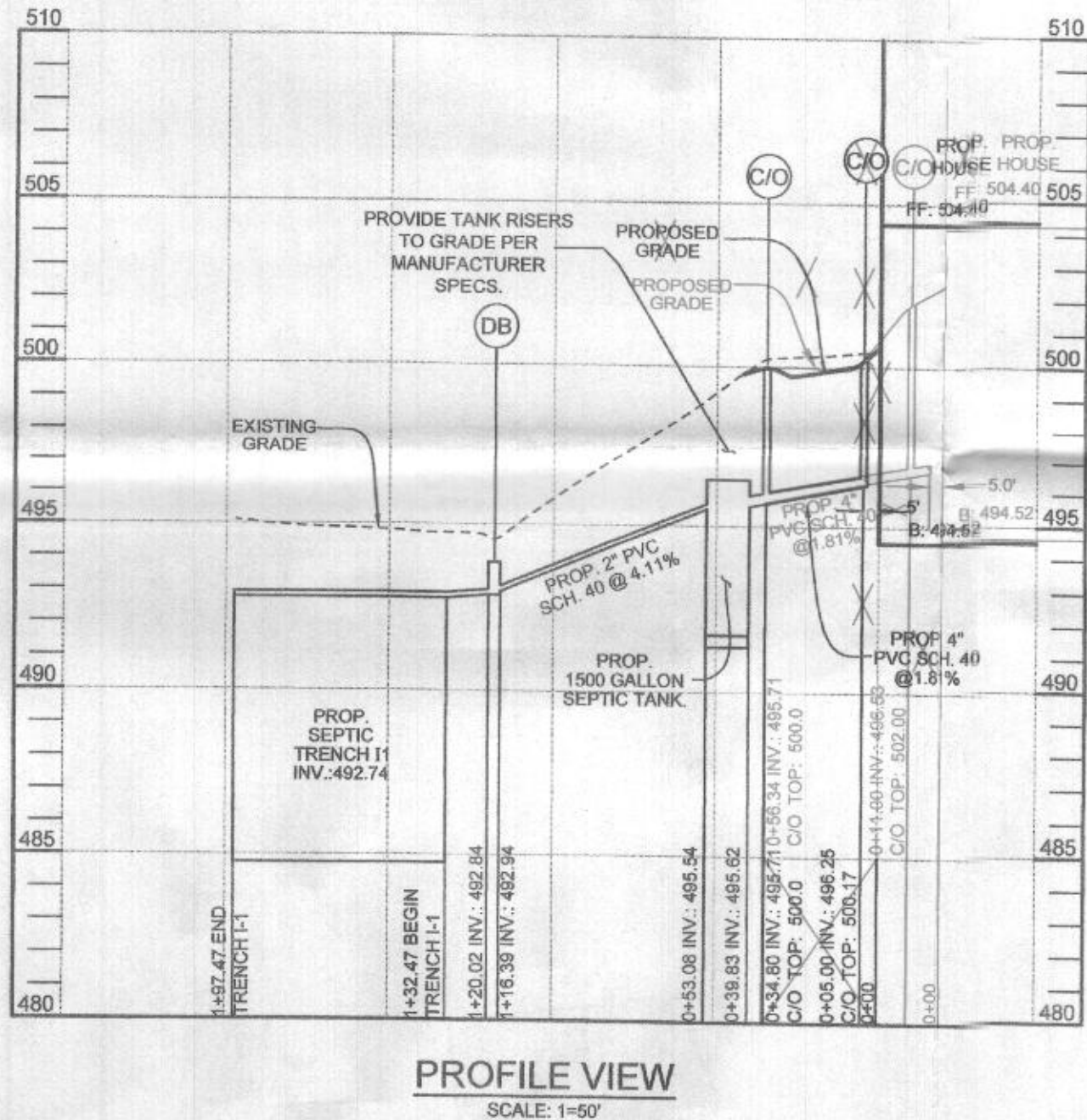
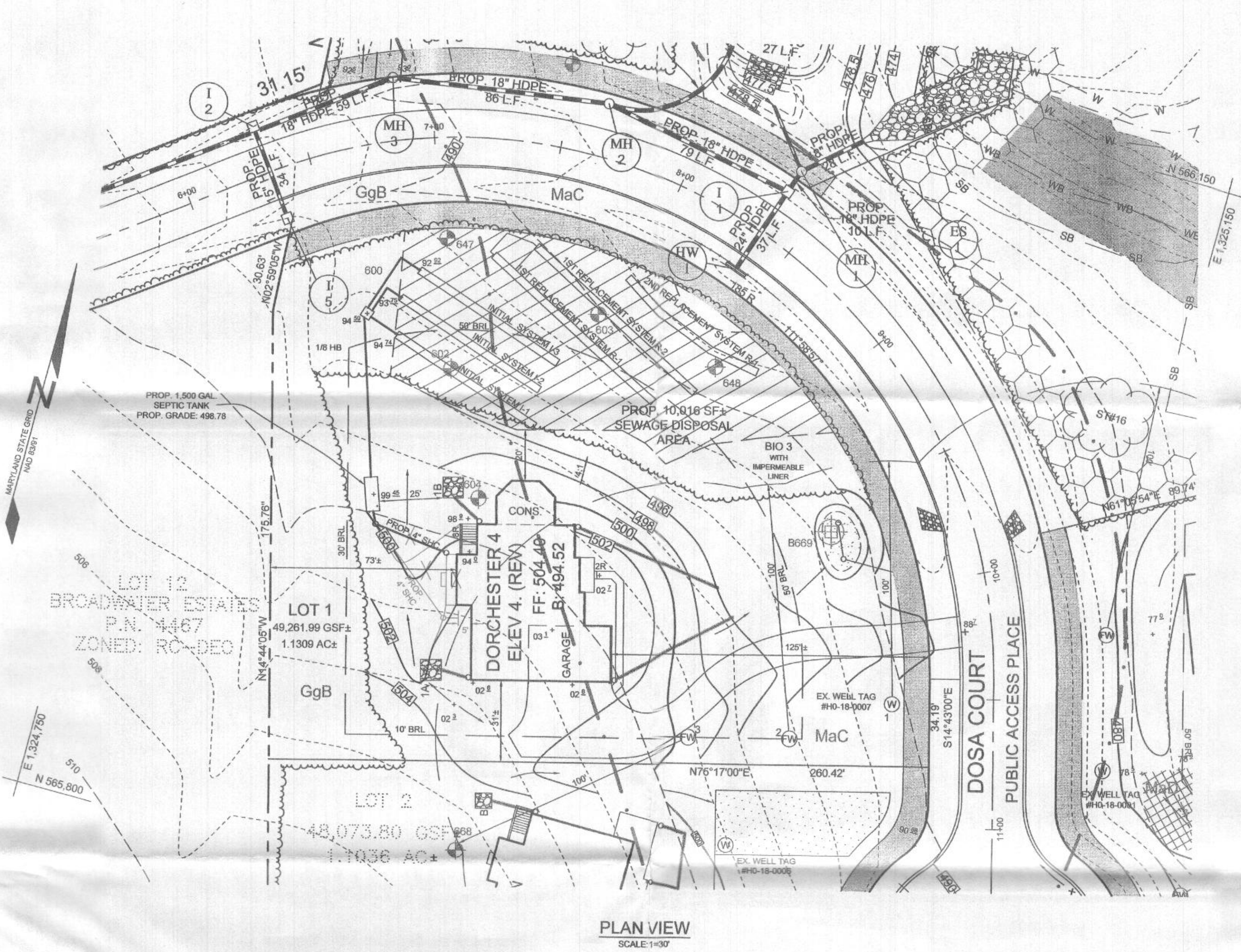
### GENERAL NOTES

- SUBJECT PROPERTY ZONED RC-DEO PER 1006/13 COMPREHENSIVE ZONING PLAN.
- PROPERTY ADDRESS: 5620 DOSA COURT, CLARKSVILLE 21029
- TOTAL AREA OF PROPERTY = 1.1309 AC±
- PRIVATE WATER AND PRIVATE SEWER WILL BE USED WITHIN THIS SITE
- THIS AREA DESIGNATES A PRIVATE SEWAGE AREA OF AT LEAST 10,000 SF AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL (COMAR 26.04.03). IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THESE AREAS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE AREA. RECONSTRUCTION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY. THE BOUNDARY SHOWN HEREON IS BASED ON A FIELD RUN BOUNDARY SURVEY PREPARED BY ADCOCK & ASSOCIATES, LLC ON SEPTEMBER 16, 2014.
- THE TOPOGRAPHY SHOWN HEREON HAS BEEN FIELD RUN BY ADCOCK & ASSOCIATES, LLC, ON SEPTEMBER 16, 2014. THE EXISTING TOPOGRAPHY SHOWN OUTSIDE THE SITE IS BASED ON HOWARD COUNTY AERIAL TOPOGRAPHY FLOWN IN 2004.
- REFERENCE: RECORD PLAT NO. 25051.
- PREVIOUS HOWARD COUNTY FILE NUMBERS: RECORD PLAT NO. 5471, F-83-114, ECP-15-032, WP-16-017, WP-17-090, SP-16-008, PB 431, WP-16-127, RECORD PLAT NO. 25051, F-18-094.
- THE SOILS SHOWN HAVE BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE, HOWARD COUNTY SOILS GRID 12, SUB-GRID 205.
- A WETLAND AND STREAM STUDY HAS BEEN PREPARED BY ECO SCIENCE PROFESSIONALS INC. IN NOVEMBER 2014.
- THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM OWNERSHIP, WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
- ALL EXISTING WELLS, SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND ALL EXISTING AND PROPOSED WELLS THAT ARE LOCATED WITHIN 200 FEET DOWN-GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS AND SEWAGE DISPOSAL AREAS HAVE BEEN FIELD LOCATED.
- THE WELL (W-18-007) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
- EXISTING UTILITIES ARE LOCATED BY THE USE OF ANY OR ALL OF THE FOLLOWING: ROAD CONSTRUCTION PLANS, FIELD SURVEYS, PUBLIC WATER AND SEWER PLANS AND OTHER AVAILABLE RECORD DRAWINGS. APPROXIMATE LOCATION OF THE EXISTING UTILITIES ARE SHOWN FOR THE CONTRACTOR'S INFORMATION. CONTRACTOR SHALL LOCATE EXISTING UTILITIES WELL IN ADVANCE OF CONSTRUCTION ACTIVITIES AND TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE EXISTING UTILITIES AND TO MAINTAIN UNINTERRUPTED SERVICE. ANY DAMAGE INCURRED DUE TO THE CONTRACTOR'S OPERATION SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTOR'S EXPENSE.
- GEOTECHNICAL INFORMATION HAS BEEN TAKEN FROM THE US DEPARTMENT OF AGRICULTURE, NATURAL RESOURCE CONSERVATION SERVICE, WEB SOIL SURVEY WEBSITE AND FIELD INVESTIGATIONS.
- STORMWATER MANAGEMENT OBLIGATIONS FOR THIS SITE WILL BE MET ONE BIOTENTION FACILITY (M-6) AND TWO DRYWELLS (M-5).
- THE COORDINATES SHOWN HEREON ARE BASED UPON THE HOWARD COUNTY GEODETIC CONTROL, WHICH IS BASED ON THE MARYLAND STATE PLANE COORDINATE SYSTEM. HOWARD COUNTY MONUMENTS NUMBERS 28HC AND 34BA WERE USED FOR THIS PROJECT.
- NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE LIMITS OF WETLANDS, STREAMS, OR THEIR REQUIRED BUFFERS, FLOODPLAIN AND FOREST CONSERVATION EASEMENT AREAS, UNLESS ALTERNATIVE COMPLIANCE HAVE BEEN APPROVED OR ACTIVITIES HAVE BEEN DETERMINED ESSENTIAL BY THE DEPARTMENT OF PLANNING AND ZONING.
- THERE ARE NO HISTORIC STRUCTURES OR CEMETERIES WITHIN THE PROJECT BOUNDARY.
- FOREST CONSERVATION OBLIGATIONS HAVE BEEN FULFILLED UNDER F-18-019.
- ANY VEGETATION WITHIN AND NEAR TO WELL ZONES OR SEWAGE DISPOSAL AREAS POTENTIALLY COULD BE DAMAGED OR DESTROYED DURING INSTALLATION OF WELLS OR SEPTIC SYSTEMS. ALL SPECIMEN TREES WITHIN OR NEAR SDA OR WELL ZONES HAVE BEEN DESIGNATED FOR REMOVAL AND APPROVED FOR REMOVAL UNDER SP-16-008 AND WP-17-050.
- BIOTENTION FACILITY 1 IS TO BE WRAPPED IN AN IMPERMEABLE LINER.
- DRIVEWAY(S) SHALL BE PROVIDED PRIOR TO ISSUANCE OF AN USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO ENSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING REQUIREMENTS:
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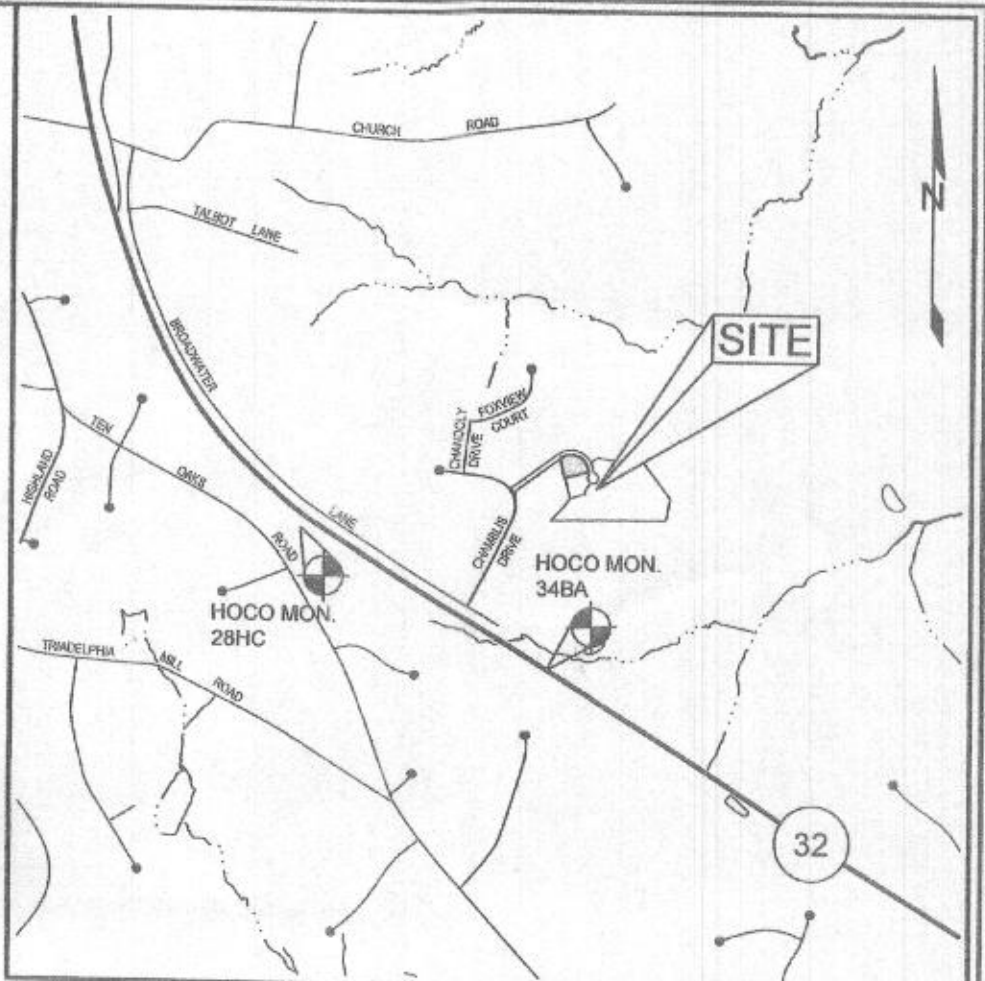
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NO.	DESCRIPTION	DATE
1	REVISED PROFILE FROM 0+01 TO 0+56.34	04/12/2021
	REVISIONS	



### LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- DIRECTION OF FLOW
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Approved Septic System Plan  
Howard County Health Department  
1500-gal. Septic Tank  
to Gravity Distribution  
for 5-bedroom SFD  
Signature: *[Signature]* Date: 2/29/2020

redline correction for  
SAC location. OK reB 4/28/21

### OWNER/DEVELOPER

WILLIAMSBURG GROUP  
5485 HARRIS FARM ROAD, SUITE 200  
COLUMBIA, MARYLAND 21044  
410.997.8800

### ONSITE SEWAGE DISPOSAL SYSTEM PLAN THE WOODLANDS 5620 DOSA COURT, LOT 1

TAX MAP 34 GRID 05  
5TH ELECTION DISTRICT

PARCEL 15  
HOWARD COUNTY, MARYLAND



**SILL ENGINEERING GROUP, LLC**  
16005 Frederick Road, 2nd Floor  
Woodbine, Maryland 21797  
Phone: 410.325.5076  
Fax: 410.696.2022  
Email: info@sillengineering.com  
Civil Engineering for Land Development

DESIGN BY: JJ  
DRAWN BY: JJ  
CHECKED BY: PS  
SCALE: AS SHOWN  
DATE: DECEMBER 21, 2020  
PROJECT #: 20-003  
SHEET #: 1 of 1

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. 32045, EXPIRATION DATE: JUNE 20, 2021