

**INITIAL SYSTEM AND 1ST REPLACEMENT TRENCH DETAIL**  
NOT TO SCALE

**SYSTEM CALCULATIONS:**

**INITIAL SYSTEM AND FIRST REPLACEMENT SYSTEM:**  
4 BEDROOMS AT 600gpd / 1.2 ABSORPTION RATE = 500 SQ. FT.  
500 SQ. FT. / 2 (TRENCH WIDTH) x .36 (SIDEWALL REDUCTION) = 90 LINEAR FEET  
90 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE INITIAL SYSTEM.  
90 TOTAL LINEAR FEET OF TRENCH ARE PROVIDED WITH THE FIRST REPLACEMENT SYSTEM.

TRENCH INFO.			
TRENCH	LENGTH	TRENCH	EXISTING GROUND
1	45'	563.04	559.04
2	45'	563.04	567.04

**GENERAL NOTES:**

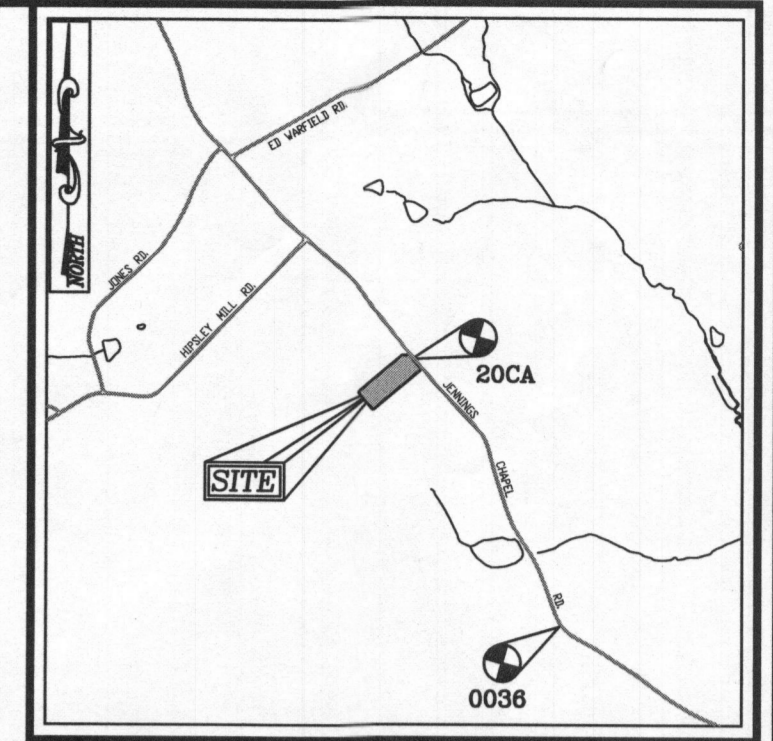
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL (HO-15-0007) HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
6. TOPOGRAPHY SHOWN IS AT TWO-FOOT CONTOUR INTERVALS AND IS BASED ON A FIELD RUN TOPOGRAPHICAL SURVEY PREPARED BY ROBERT H. VOGEL ENGINEERING, INC., DATED DECEMBER 12TH, 2016.
7. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
8. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWNGRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN USING ALL REASONABLE EFFORTS.
9. THE LOT SHOWN HEREON COMPLES WITH THE MINIMUM OWNERSHIP, WIDTH, AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.

SOILS LEGEND				
SYMBOL	NAME / DESCRIPTION	GROUP	K-FACTOR	ERODIBLE
GgB	GLENELG LOAM, 3 TO 8 PERCENT SLOPES	B	.24	NO
GmB	GLENELG SILT LOAM, 3 TO 8 PERCENT SLOPES	C/D	.37	YES

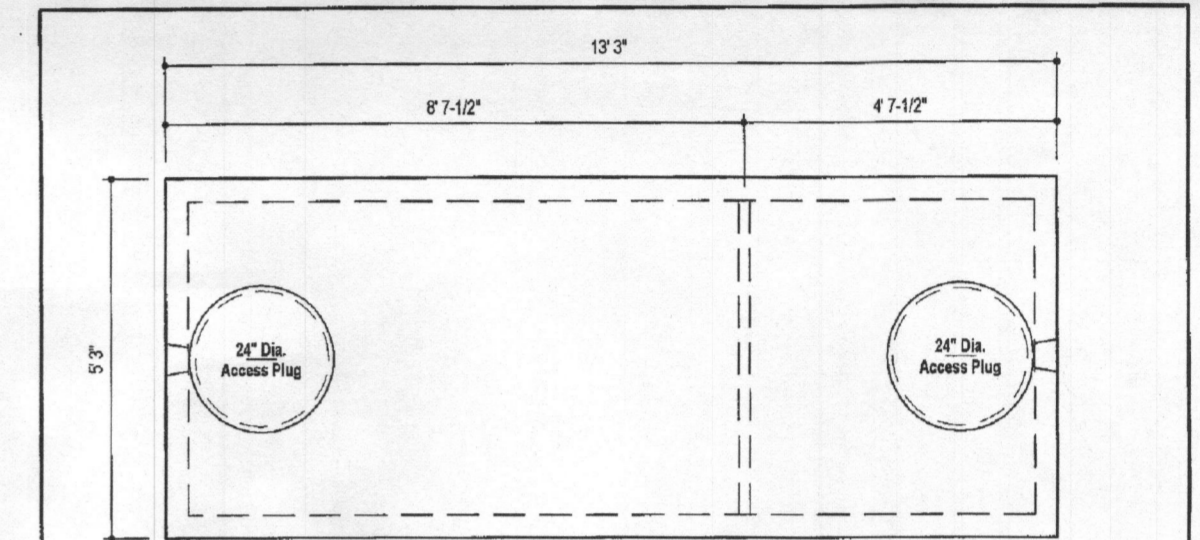
**NOTE:**  
HIGHLY ERODIBLE SOILS ARE THOSE SOILS WITH A SLOPE GREATER THAN 15 PERCENT OR THOSE SOILS WITH A SOIL ERODIBILITY FACTOR K GREATER THAN 0.35 AND WITH A SLOPE GREATER THAN 5 PERCENT

**LEGEND:**

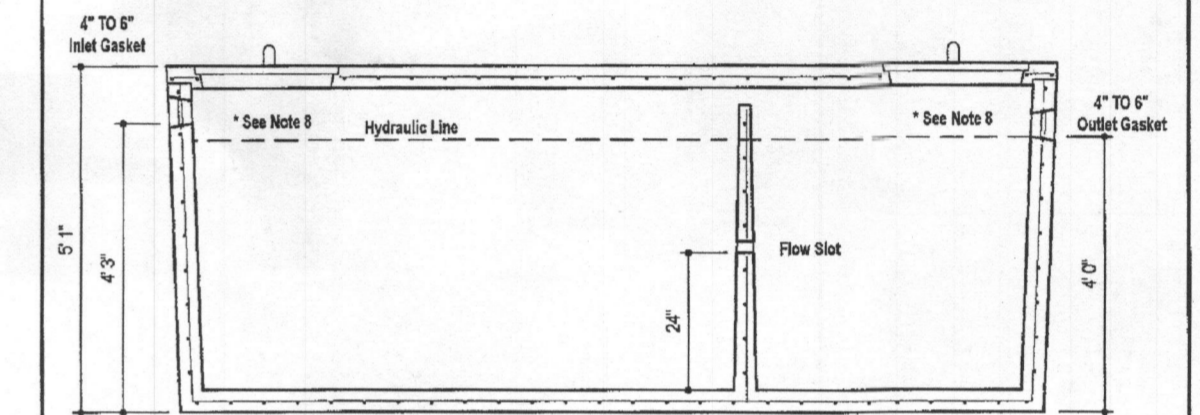
- PROPERTY LINE
- RIGHT-OF-WAY LINE
- ADJACENT PROPERTY LINE
- EXISTING 10' CONTOUR
- EXISTING 2' CONTOUR
- EXISTING MODERATE SLOPES (15% TO 24.99% SLOPES)
- SOILS
- EXISTING WELL
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- PASSED PERC. TEST
- APPROVED SEWAGE DISPOSAL AREA (SDA)



**VICINITY MAP**  
SCALE: 1"=2000'  
ADC MAP: PAGE: 15 BLOCK: F6



**PLAN VIEW**



**SECTION A-A**

- DESIGN DATA & GENERAL NOTES:**
- 1) Concrete strength Fc=4000 p.s.i. @ 28 days. Density = 150 pcf.
  - 2) Cement: Portland Type III per ASTM C 150.
  - 3) Admixtures & plasticizers per ASTM C 494.
  - 4) Reinforcing per ASTM A 618, 60,000 psi, 1/2" dia.
  - 5) Top slab sealed with butyl rope mastic.
  - 6) 4" wall, base, & top thickness.
  - 7) Max 3-1/2" of cover.
  - 8) Depending on use of tank, inlet & outlet baffles may be required by code.

WEIGHT = 16,750 lbs.

**MBI**  
Mayer Bros, Inc.  
8384 Rowe Road  
Ellicott City, Maryland 21110  
Tel. 410.756.1424  
Fax. 410.756.1420  
www.mayerbrosprecast.com

**1,500 GALLON TANK (Non-Traffic)**  
**2-Compartment**  
Stock Item  
Dwg. No. 1500-3C No Skatin Aug. 11, 2008

*Signed Perc Cert*

**OWNER/BUILDER**  
DANIEL R. ELLIS  
KAREN L. ELLIS  
14108 BARBARA CIRCLE  
COOKSVILLE, MD 21723  
(240) 672-1634

**PERCOLATION CERTIFICATION PLAN REVISION & ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN**  
**ELLIS PROPERTY**  
3388 JENNINGS CHAPEL ROAD  
WOODBINE, MD 21797  
MARJORIE'S GREEN SUBDIVISION, LOT 3  
BUILDING PERMIT # \_\_\_\_\_ PARCEL: 125  
HOWARD COUNTY, MARYLAND

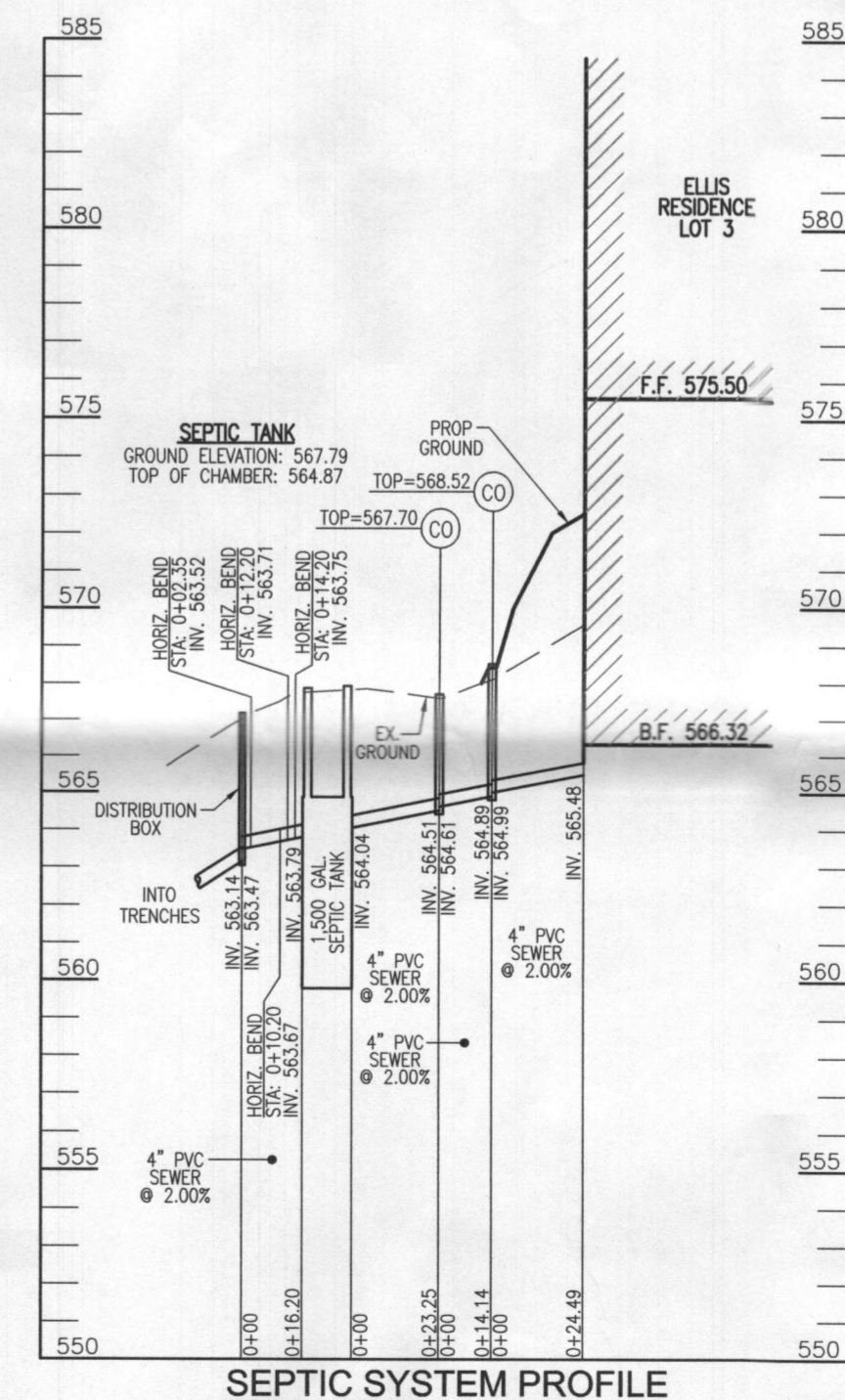
**ROBERT H. VOGEL ENGINEERING, INC.**  
ENGINEERS • SURVEYORS • PLANNERS  
8407 MAIN STREET  
ELLICOTT CITY, MD 21104  
TEL: 410.461.7666  
FAX: 410.461.8961

**PROFESSIONAL CERTIFICATE**

DESIGN BY: RHV  
DRAWN BY: JMR  
CHECKED BY: RHV  
DATE: FEBRUARY 2017  
SCALE: AS SHOWN  
W.O. NO.: 16-52

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. 16193 EXPIRATION DATE: 09-27-2018

**1 SHEET OF 1**

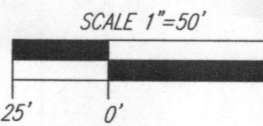


**SEPTIC SYSTEM PROFILE**

SCALE: HORIZONTAL - 1"=50'  
VERTICAL - 1"=5'

**PLAN VIEW**

SCALE: 1"=50'



THIS AREA DESIGNATES A PRIVATE SEWAGE AREA 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 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, REVISION OF A MODIFIED SEWAGE AREA SHALL NOT BE NECESSARY.

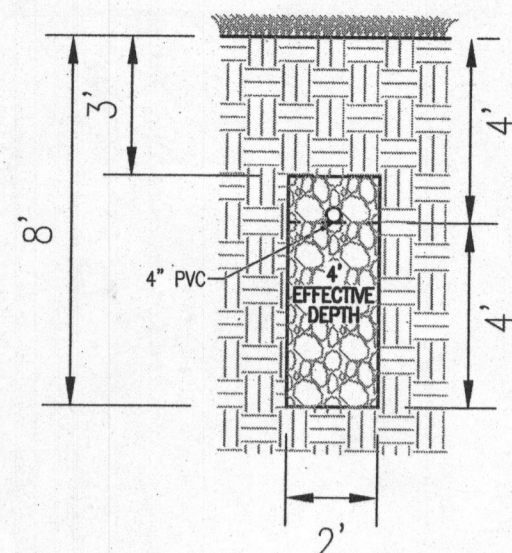
APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS.

*Robert M. Hoffman, Jr.*  
COUNTY HEALTH OFFICER  
DATE: 3/2/2017

PERCOLATION CERTIFICATION:  
I CERTIFY THAT THE LOCATIONS SHOWN HEREON ARE BASED ON FIELD LOCATIONS DONE UNDER MY DIRECT SUPERVISION, AND ARE CORRECT, TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

*Thomas M. Hoffman, Jr.*  
THOMAS M. HOFFMAN, JR.  
PROFESSIONAL LAND SURVEYOR No. 267  
DATE: 2-20-17

**NOTE:**  
THE PURPOSE OF THE PERCOLATION CERTIFICATION REVISION ARE TO CONFIRM AN AUTHORIZED LOCATION FOR THE SEWAGE DISPOSAL AREA AND TO IDENTIFY REPLACEMENT WELL LOCATION.



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NOT TO SCALE

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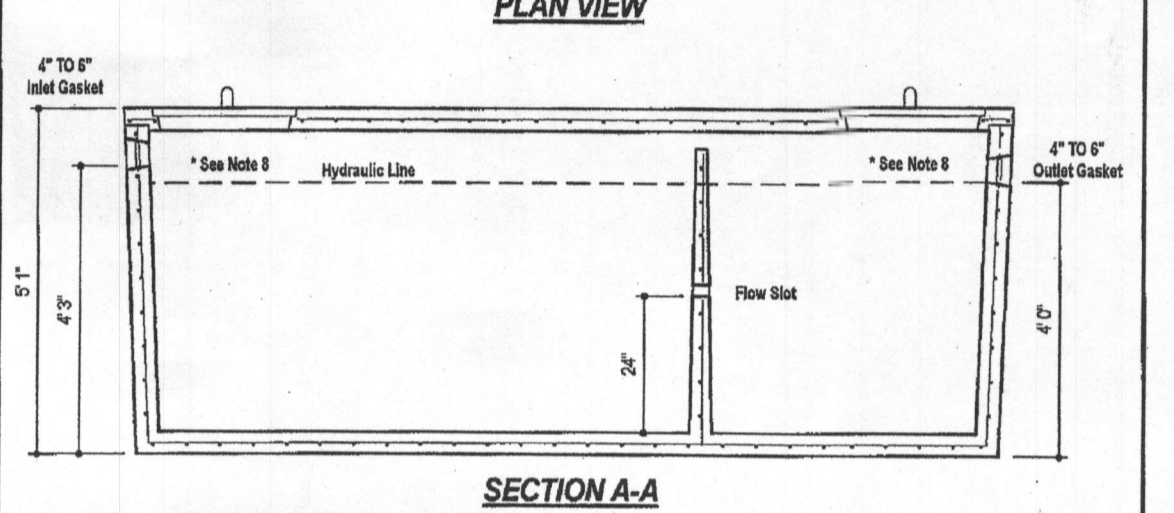
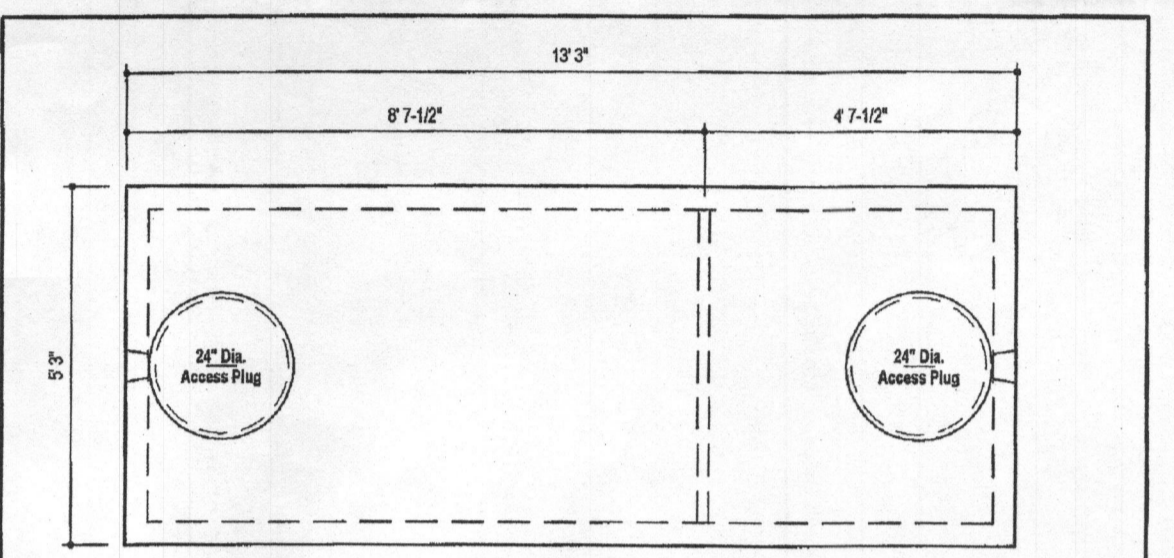
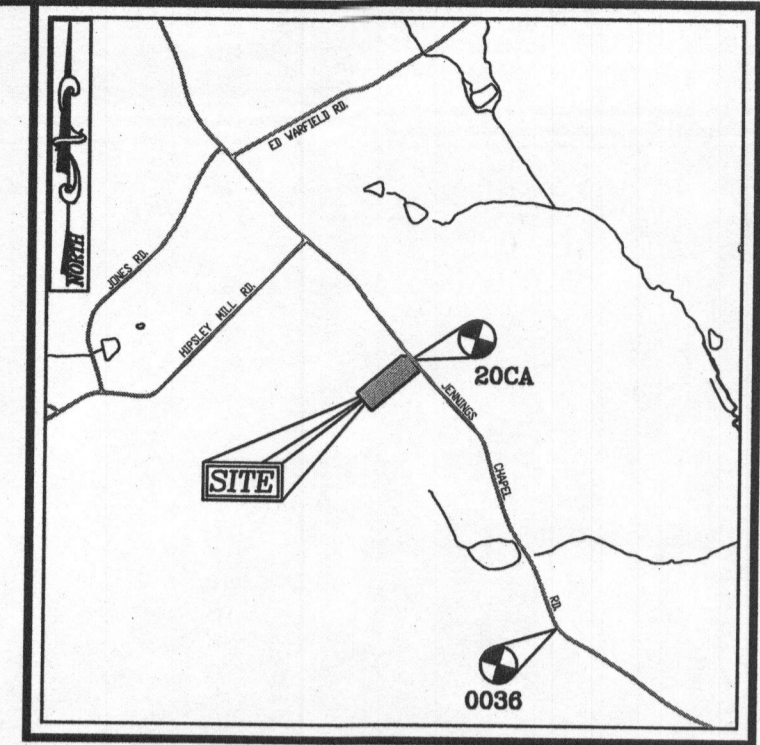
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---	EXISTING 2' CONTOUR
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○	EXISTING WELL
○	PROPOSED 10' CONTOUR
○	PROPOSED 2' CONTOUR
○	PASSED PERC. TEST
○	APPROVED SEWAGE DISPOSAL AREA (SDA)



DESIGN DATA & GENERAL NOTES:  
 (1) Concrete strength: 4000 p.s.i. @ 28 days. Density = 150 p.c.  
 (2) Cement: Portland Type III per ASTM C 150-4.  
 (3) Admixtures & plasticizers per ASTM C 260-08 & C 494-04.  
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 (5) Top slab installed with heavy rope mats.  
 (6) 2" wall, base & top thickness.  
 (7) Max 3/4" of cover.  
 (8) Depending on size of tank, inlet & outlet baffles may be required by code.

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 www.mayerbrosgroup.com

**1,500 GALLON TANK (Non-Traffic) 2-Compartment**  
 Stock Item  
 Chap. No. 1920-3C No South Aug. 11, 2008

*Signed Perc Cert*

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 WOODBINE, MD 21797  
 MARJORIE'S GREEN SUBDIVISION, LOT 3

LOT: 3  
 TAX MAP: 20 GRID: 04  
 4TH ELECTION DISTRICT

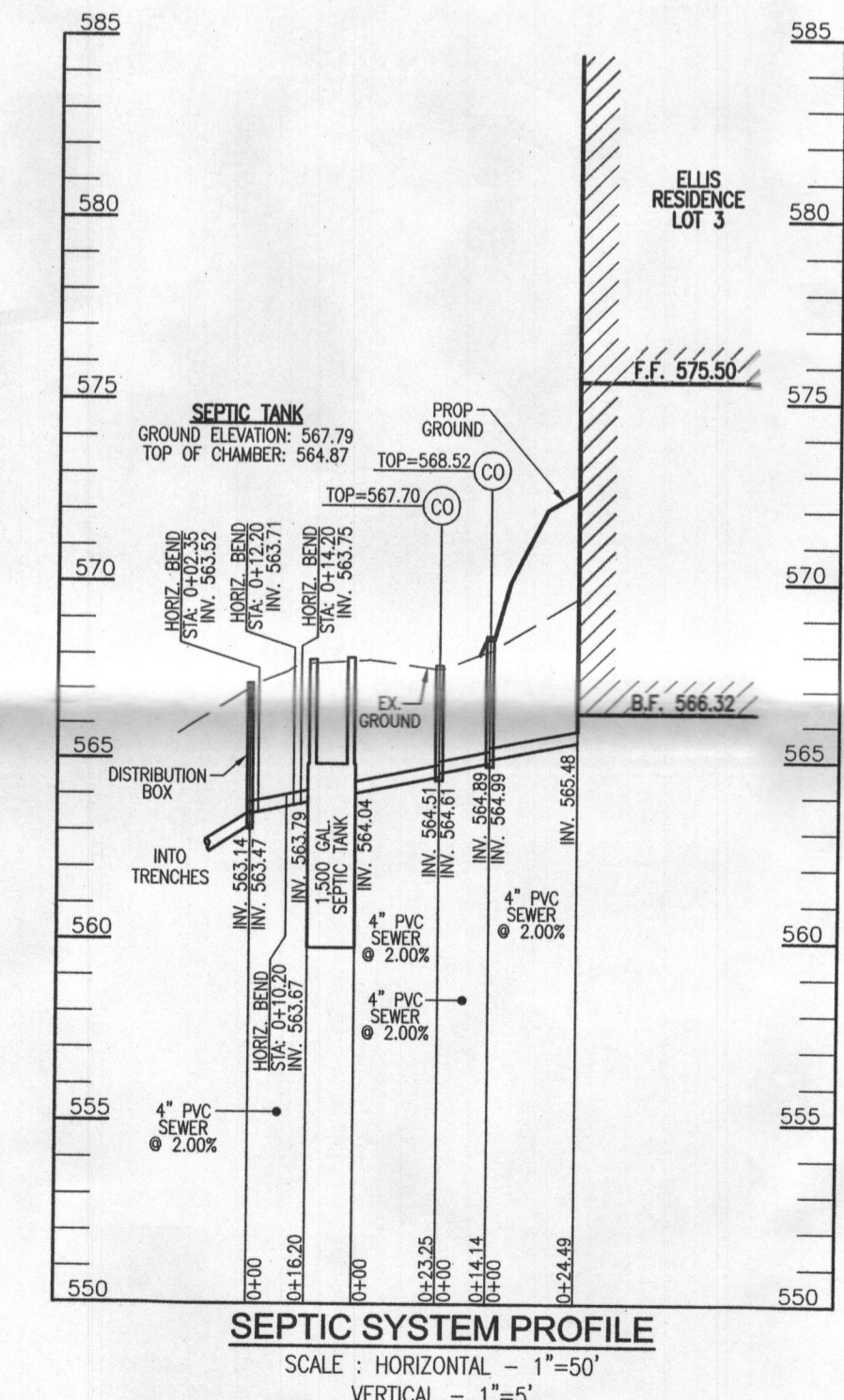
PARCEL: 125  
 ZONED: RC-DEO  
 HOWARD COUNTY, MARYLAND

**ROBERT H. VOGEL ENGINEERING, INC.**  
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 8407 MAIN STREET  
 ELICOTT CITY, MD 21043  
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PLAN VIEW  
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 25' 0' 50'

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APPROVED: FOR PRIVATE WATER AND PRIVATE SEWAGE SYSTEMS.

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