

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
 Facebook: www.facebook.com/hocohealth

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

RECEIPT DATE: 10/2/19 **ONSITE SEWAGE DISPOSAL SYSTEM** P 566393

APPROVAL DATE: 11/21/19 ST **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 5047 GAITHER'S CHANCE DRIVE, CLARKSVILLE, MD 21029

SUBDIVISION: GAITHER'S CHANCE LOT: 14 TAX ID: 05-598960

CONTRACTOR: SOUTH CARROLL BACKHOE EMAIL: scbackhoe@comcast.net

CONTRACTOR ADDRESS: 4410 SALEM BOTTOM ROAD, WESTMINSTER, MD 21157 PHONE: 410-596-3618

PROPERTY OWNER: NVR, INC. EMAIL: ccagle@nvrinc.com

OWNER ADDRESS: 9720 PATUXENT WOODS DRIVE, COLUMBIA, MD 21046 PHONE: (410)379-5956

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: BABYLON (or equivalent)

PUMP MODEL: n.a. PUMP SIZE: n.a. PUMP TANK CAPACITY: n.a.

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>120</u>	INLET DEPTH: <u>3.5</u>
	TRENCH WIDTH: <u>3.0</u>	MAXIMUM BOTTOM DEPTH: <u>6.0</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	MINIMUM TRENCH LENGTH IS 40 FEET; DISTRIBUTION SYSTEM IS THREE (3) X 40-FT TRENCHES	

ISSUED BY: R BRICKER ISSUE DATE: 10/2/19 EXPIRATION DATE: 10/2/20

- 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.**



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

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

SEWAGE DISPOSAL SYSTEM SPECIFICATIONS WORKSHEET

Address: _____

Subdivision: Gaither's Chance Lot: 14

Initial system: Application rate: 1.2 Effective area beginning depth: 2.5 Bottom maximum depth: 6
 1st Replacement: Application rate: 1.2 Effective area beginning depth: 2.5 Bottom maximum depth: 6
 2nd Replacement: Application rate: 1.2 Effective area beginning depth: 4 Bottom maximum depth: 7

Design Flow = 150 gallons per day per bedroom

Design flow + application rate = square footage of drainfield required

Linear length of trench required = drainfield square footage x sidewall reduction percentage + trench width

Sidewall reduction credit formula:

$$\frac{W + 2}{W + 1 + 2D} \times 100 = \text{Percent of length of standard trench where } W = \text{trench width and } D = \text{depth between effective area beginning depth and trench bottom.}$$

Standard design requirements:

- All trenches must be equal length unless low pressure dosed
- All trenches must be on contour
- Minimum trench spacing: 10' for all trenches utilizing sidewall reduction credit. Additional spacing may be necessary for any trench using over 3.5' of effective sidewall. In those cases, the spacing formula is 2D + W up to a maximum spacing of 18'.
- Minimum trench spacing for trenches with no sidewall credit (bottom area only) is 6' for a 2' wide trench and 9' for a 3' wide trench (spacing is measured edge to edge)
- Maximum trench length is 100'
- Maximum pipe depth is 4'

Additional requirements: BAT & LPD (requires Pump Tank (Chamber))

Design septic system Distribution Trenches to be as shallow as possible and still have 3 drainfields.

Approved: R Bueker Date: 2/1/16

FILE INQUIRY NOTES

Marshall Property Subdivision

DATE

RESULTS OF REVIEW FOR FILE

(5027 Ten Oaks Road)

ANY LOT

Design Septic System

Distribution Trenches

as shallow as possible

AND still have at least

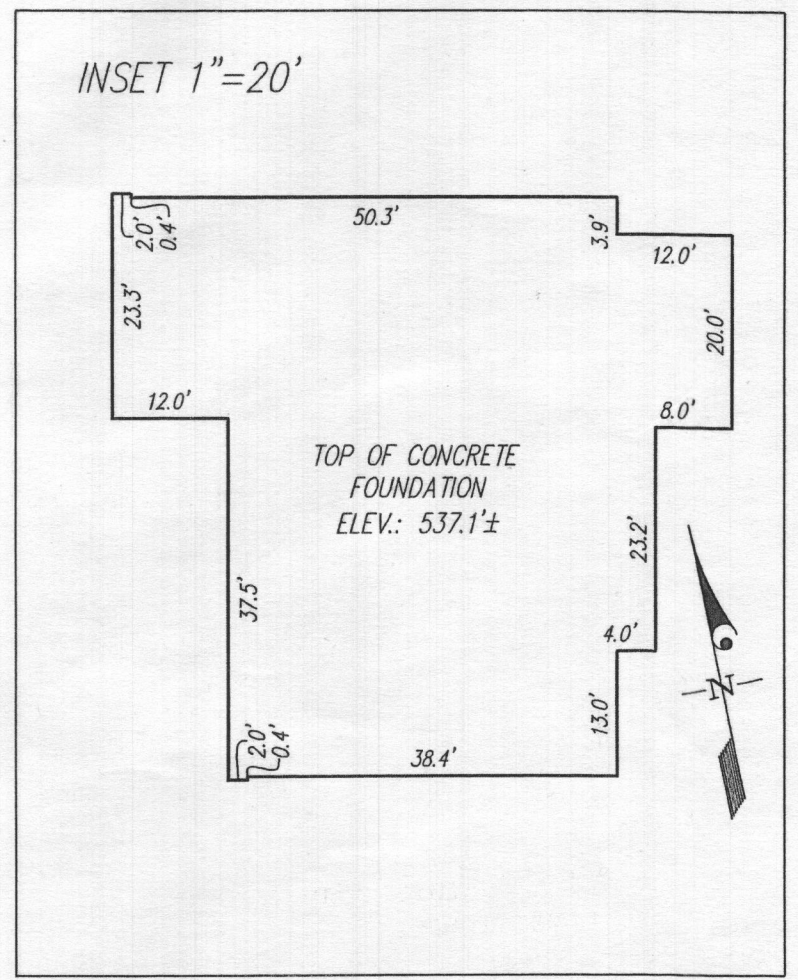
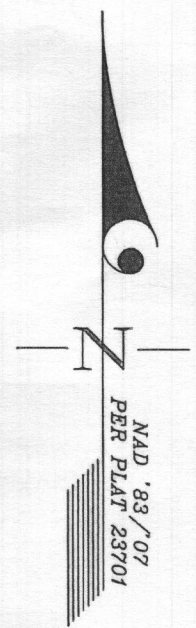
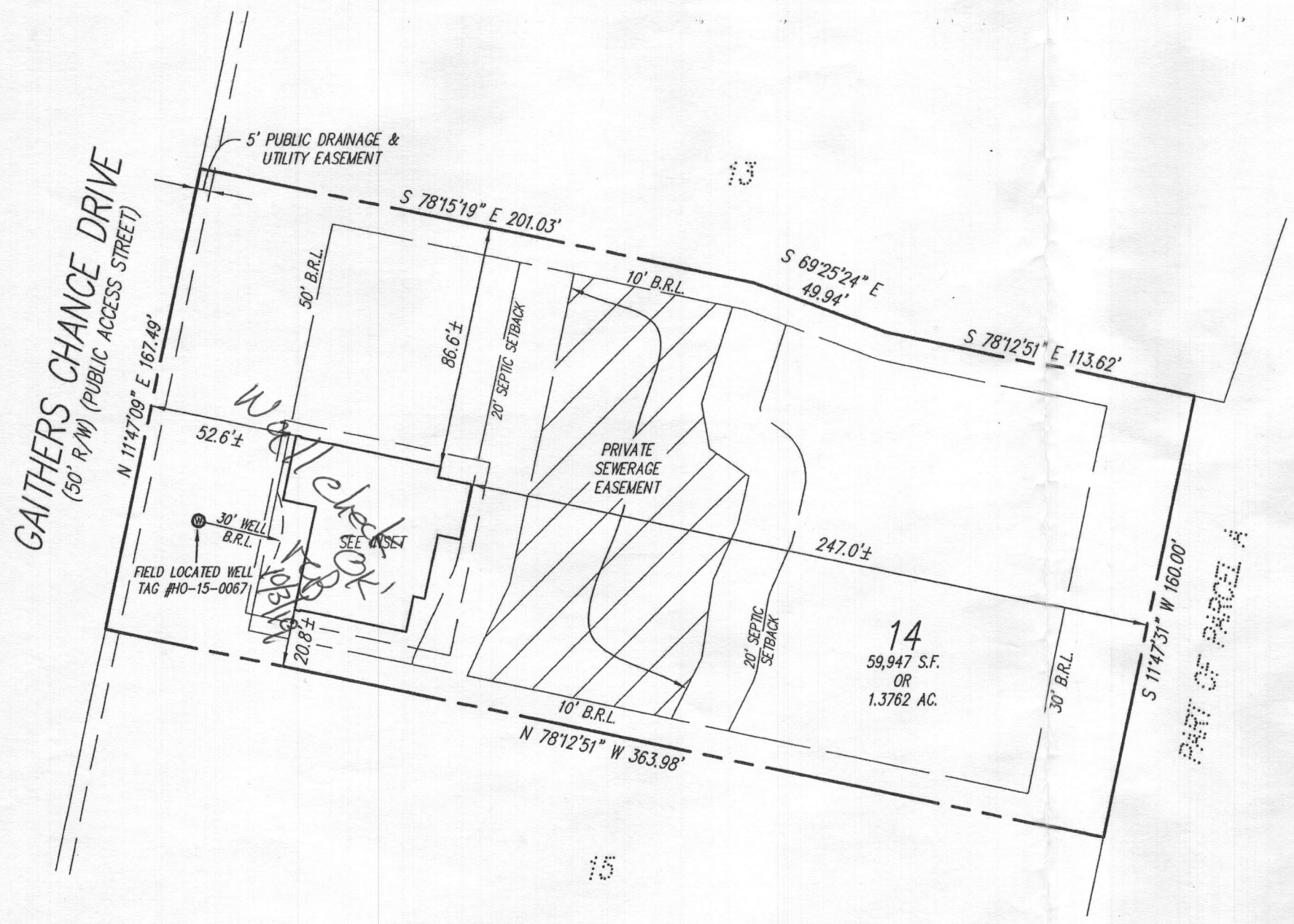
3 drain fields in SDA.

req per Bert

NOTES:
 THIS WALLCHECK WAS PREPARED WITHOUT THE BENEFIT OF A CURRENT TITLE REPORT. THIS PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS, RIGHTS-OF-WAY, COVENANTS, AND RESTRICTIONS, ETC. OF RECORD, SOME OR ALL OF WHICH MAY OR MAY NOT BE SHOWN AND/OR REFERENCED HEREON. BEARINGS AND DISTANCES OF THE PROPERTY BOUNDARY LINES SHOWN HEREON ARE PER AVAILABLE RECORDS AND HAVE NOT BEEN FIELD VERIFIED. THIS IS NOT A "LOCATION DRAWING" AND IS NOT TO BE USED FOR SETTLEMENT PURPOSES.

THE PROPERTY SHOWN HEREON LIES WITHIN ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN) AS SHOWN ON THE F.E.M.A. FLOOD INSURANCE RATE MAP, MAP NUMBER 24027C01300, EFFECTIVE DATE NOVEMBER 6, 2013.

BUILDING SETBACKS (B.R.L.'S) SHOWN HEREON PER PLOT/SEDIMENT CONTROL PLAN. SETBACK DISTANCES SHOWN HEREON AS "±" HAVE AN ACCURACY OF ± 0.1 FOOT.



SURVEYOR'S CERTIFICATE

THIS IS TO CERTIFY TO:
 'NVR, INC.'

THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF,
 THE POSITION OF THE ABOVE REFERENCED BUILDING FOUNDATION
 HAS BEEN ESTABLISHED BY ACCEPTED FIELD PRACTICES.

[Signature] 9/16/2019

For Gutschick, Little and Weber, P.A. :
 Thomas C. O'Connor, Jr.,
 Professional Land Surveyor, No. 10954 (EXP. DATE: 07/03/2020)

THIS WALLCHECK IS VALID ONLY WITH AN ORIGINAL SIGNATURE AND EMBOSSSED SEAL OF THE ABOVE SURVEYOR.

**WALLCHECK
 (SPECIAL PURPOSE SURVEY)**

GAITHER'S CHANCE

LOT 14

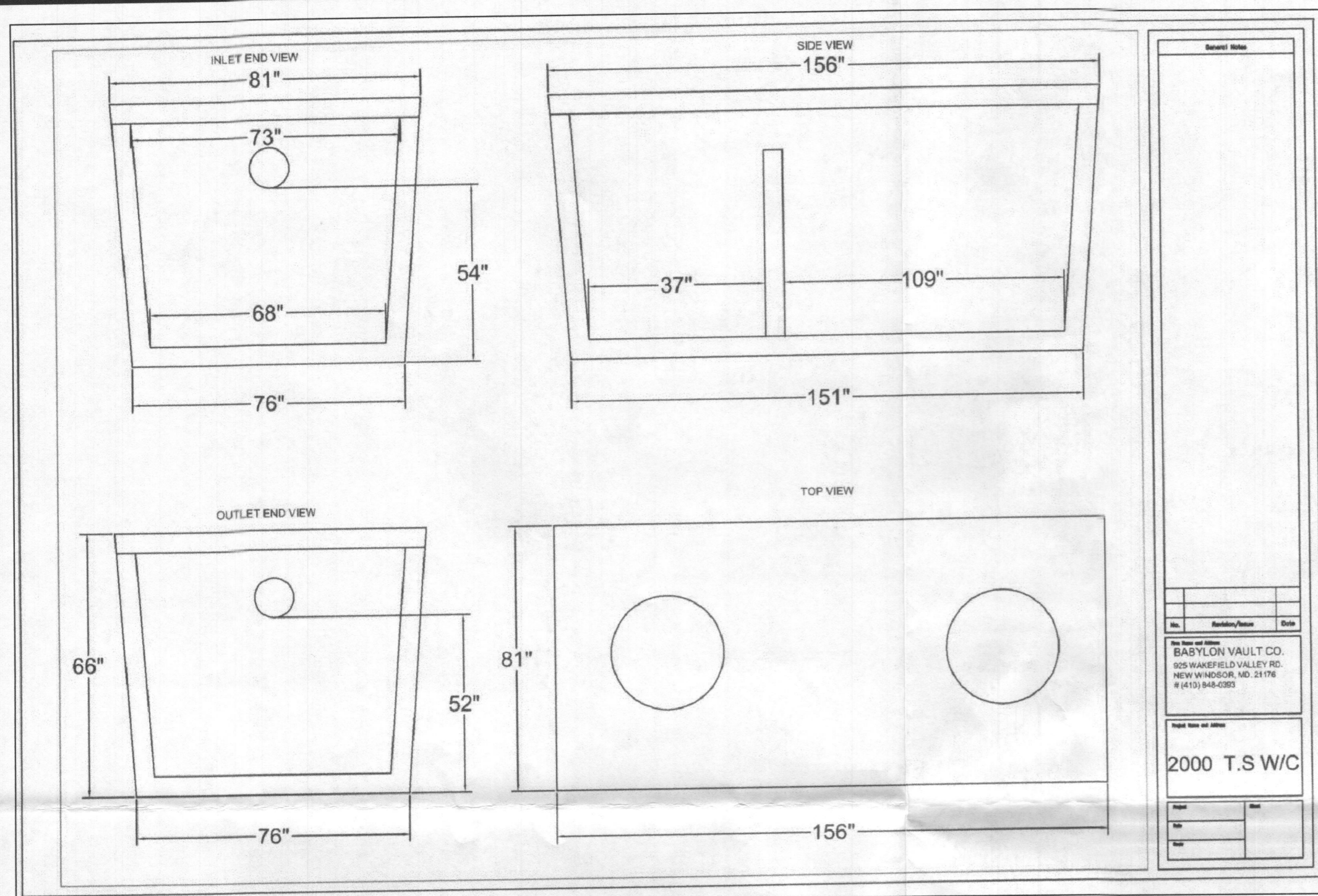
5047 GAITHERS CHANCE DRIVE

HOWARD COUNTY, MARYLAND
 DATE OF LATEST FIELD WORK: 9/13/2019 | G.L.W. FILE No. 18-065
 REFERENCE: PLAT BOOK: N/A | PLAT No. 23701 | SCALE: 1"=50'

I:\Survey Drawings\WALLCHECK\GAITHER'S CHANCE-NV-18065\WCK18065\WCK-14.dwg, 9/16/2019 11:40:41 AM, morgamb, 5501_SURVEY (COLOR).pc3, 1:1



DES.	PREPARED FOR: NVR, INC. 9720 PATUXENT WOODS DRIVE COLUMBIA, MD 21046
DRN. MAB	
CHK.	



SDA TRENCH SIZE CALCULATIONS

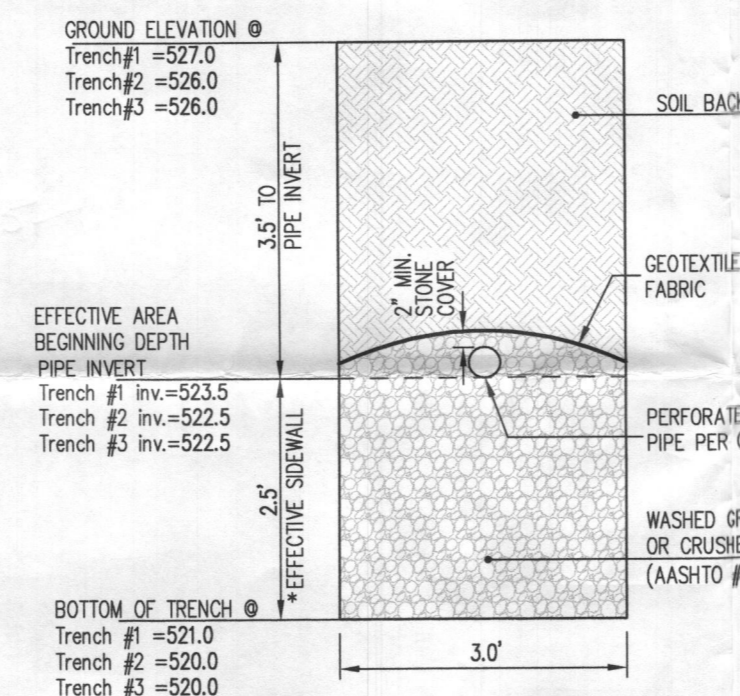
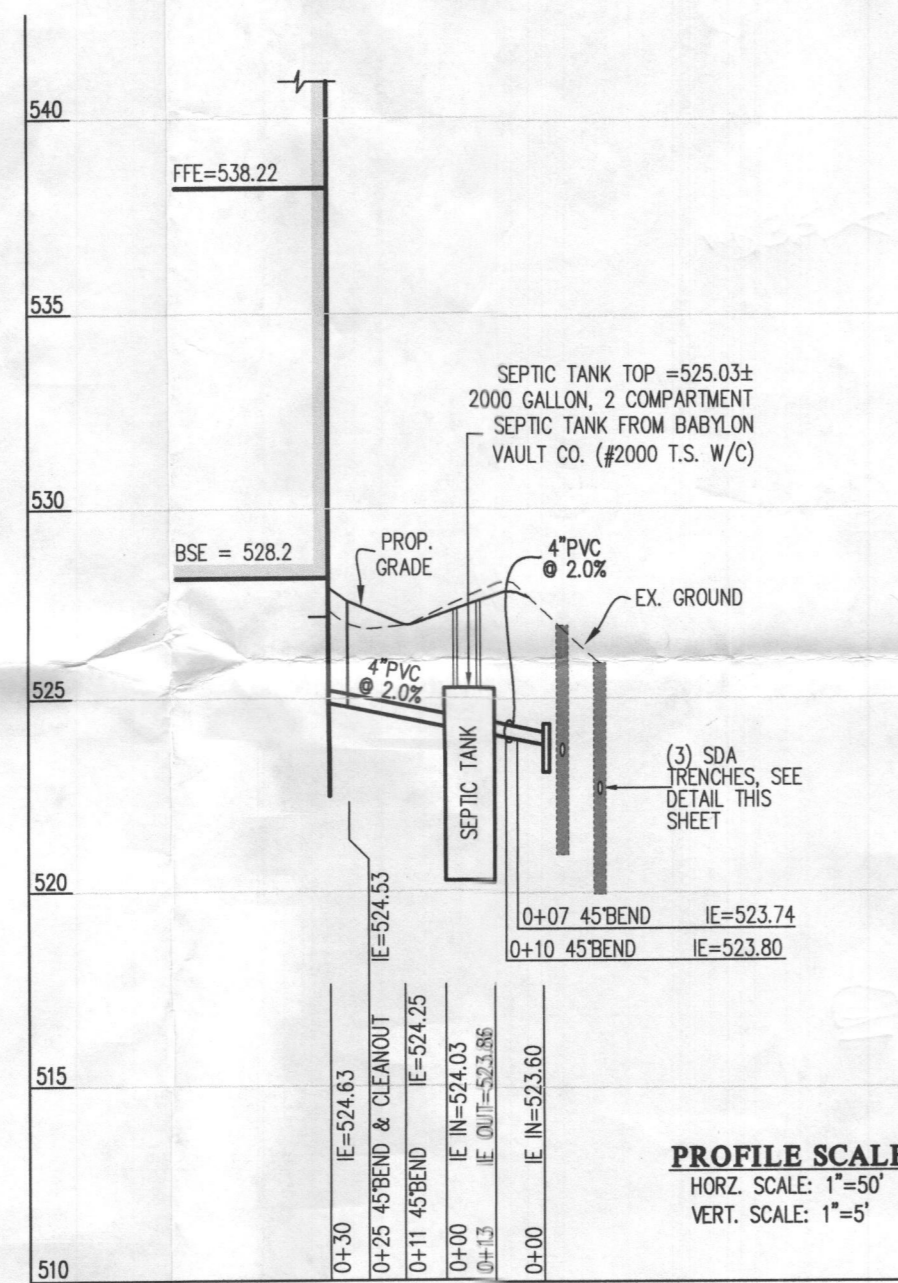
GAITHER'S CHANCE Lot 14

System Input Information	Initial System	Replacem't System No.1	Replacem't System No.2
Application Rate	1.2	1.2	1.2
Effective area beginning depth	3.5	2.5	4
Effective area maximum bottom depth	6	6	7
Number of Bedrooms	5	5	5
Design flow at 150 gal./day/bedroom	750	750	750

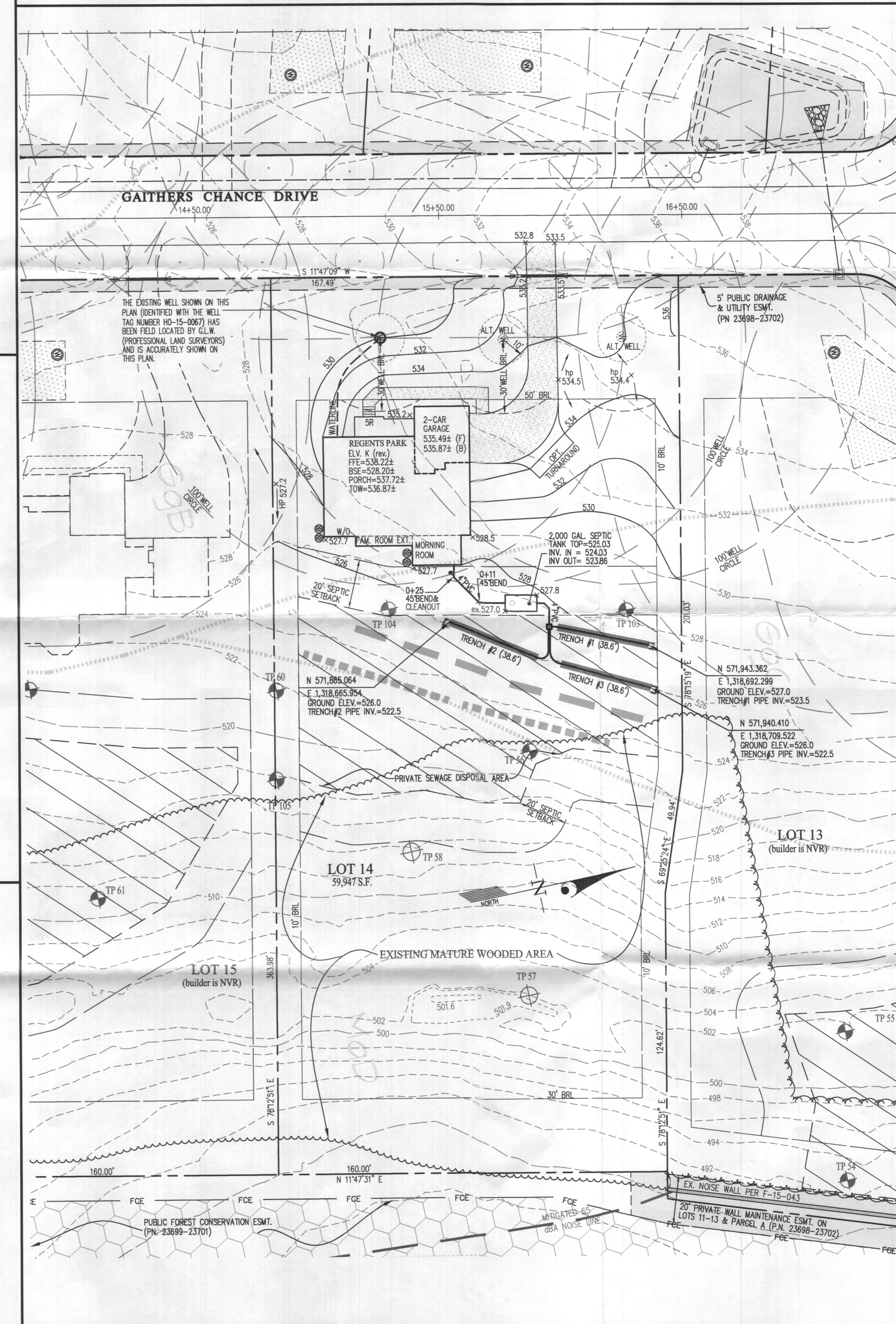
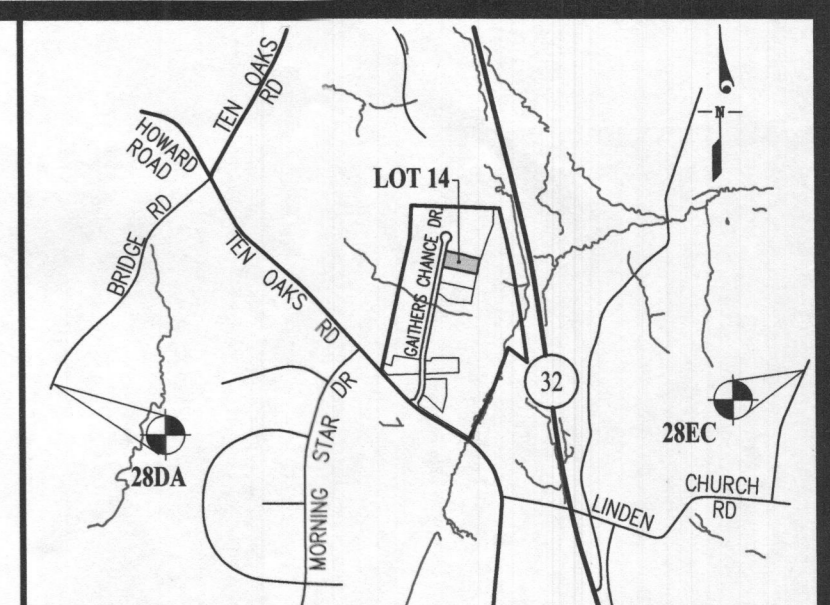
Absorption Trench Calculations	Initial System	Replacem't System No.1	Replacem't System No.2
Drainfield area required (Design flow/application rate)	625	625	625
Effluent pipe depth to invert	3.5	2.5	2.5
Effective sidewall depth "D"	2.5	3.5	3
Trench Width "W" (2 or 3 feet)	3	3	3
SideWall Reduction Percent = (W+2)/(W+1+2D)	55.56%	45.45%	50.00%
Linear feet of trench required = (drainfield area x sidewall reduction)/W	115.74	94.70	104.17

Trench Layout Information	Initial System	Replacem't System No.1	Replacem't System No.2
Approximate length available on contour & not exceeding 100-ft	100	100	100
Number of trenches to use	3	2	2
Min. length (linear feet)	38.6	47.4	52.1
Total (linear feet)	115.8	94.8	104.2
Minium Trench Spacing:	10	10	10

For trenches with no sidewall credit the spacing is 6' for a 2' wide trench and 9' for a 3' wide trench (measured edge to edge). All trenches utilizing sidewall reduction credit must be spaced a min. of 10' for effective sidewall not over 3.5'. If >3.5', then spacing formula is 2D+W up to a maximum of 18'.



- NOTES:**
- 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.
 - THE EXISTING WELL (TAG #15-0067) HAS BEEN FIELD LOCATED BY G.L.W. (PROFESSIONAL LAND SURVEYORS) AND IS ACCURATELY SHOWN ON THIS PLAN.
 - 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.



- LEGEND**
- 600 --- EXISTING CONTOUR
 - 600 --- PROPOSED CONTOUR
 - FFE FIRST FLOOR ELEVATION
 - ToW TOP OF FOUNDATION WALL
 - BSE BASEMENT SLAB ELEVATION
 - PRIVATE SEWAGE DISPOSAL AREA
 - EXISTING WELL LOCATION
 - WELL BOX AREA
 - ALTERNATE WELL LOCATION

TP # PERCOLATION TEST HOLES (PASSED)

TP # PERCOLATION TEST HOLES (FAILED)

--- INITIAL SYSTEM 3' WIDE TRENCH

--- FIRST REPLACEMENT SYSTEM 3' WIDE TRENCH

--- SECOND REPLACEMENT SYSTEM 3' WIDE TRENCH

Approved Septic System Plan
Howard County Health Department
2000 gal septic tank
to gravity drainfield

Richard 7/22/2019
Signature Date

For 5-Bedroom Floor Plan

GLW
PLANNING | ENGINEERING | SURVEYING

3909 NATIONAL DRIVE | SUITE 250 | BURTONSVILLE, MD 20886 | GLWPA.COM
PHONE: 301-421-4024 | BALT: 410-880-1620 | DC&VA: 301-989-2524 | FAX: 301-421-4186

DESIGNED BY:	DATE	REVISION	BY	APPR.
MBT				
DRAWN BY:				
KLP				
CHECKED BY:				
CKG				

PREPARED FOR:
NVR INC
9720 PATUXENT WOODS DRIVE
COLUMBIA, MARYLAND 21045
PH: 410-379-5956

PROFESSIONAL CERTIFICATION

I HEREBY CERTIFY THAT THESE PLANS 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. 12975

EXPIRATION DATE: MAY 28, 2020

7/10/19

STATE OF MARYLAND
PROFESSIONAL ENGINEER

ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN

GAITHER'S CHANCE
LOT 14 (5047 Gaithers Chance Drive)
PLAT NO. 23698-23702

ELECTION DISTRICT No. 5

HOWARD COUNTY, MARYLAND

SCALE	ZONING	G. L. W. FILE No.
1"=30'	RR-DEO	13070
DATE	TAX MAP - GRID	SHEET
JULY 2019	28-8,9,14&15	1 OF 1