

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: 5-15-19 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 565491

APPROVAL DATE: 5-15-19 **PERMIT: CONSTRUCTION**

A

PROPERTY ADDRESS: 1032 Thunderbird Drive

SUBDIVISION: Fairlane Farms

LOT: 38

TAX ID: _____

CONTRACTOR: South Carroll Backhoe

EMAIL: scbackhoe@comcast.com

CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157

PHONE: 410-596-3618

PROPERTY OWNER: NV Homes

EMAIL: _____

OWNER ADDRESS: 9720 Patuxent Woods Drive, Columbia, MD 21046

PHONE: 410-379-5956

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon Vault or equivalent

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: <u>259.38</u>	INLET DEPTH: <u>1.5</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>4</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</u>
	LOCATION: <u>PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.</u>	
NOTES:	<u>5 x 52' TRENCHES</u>	

ISSUED BY: Hank Oswald

ISSUE DATE: 5-15-19

EXPIRATION DATE: 5-15-20

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

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

SEE ATTACHED
AS BUILT

EX
HOUSE

ROAD NAME
THUNDERBIRD DRIVE

TRENCH/DRAINFIELD DATA

WIDTH INLET BOTTOM
3' 1.5' 4'

NUMBER OF TRENCHES _____

TOTAL LENGTH _____

ABSORPTION AREA _____

DISTRIBUTION BOX LEVEL _____

DISTRIBUTION BOX BAFFLE _____

DISTRIBUTION BOX PORT _____

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes

MANUFACTURER Babylon

CAPACITY 2000 GAL

SEAM LOC Top

TANK LID DEPTH 20"

BAFFLES _____

BAFFLE FILTER _____

MANHOLE LOC Front/Rear

6" PORT LOC none

WATERTIGHT TEST —

SLOTTED Yes

DATE ON LID 4/17/19

PUMP/SEPTIC TANK LEVEL _____

MANUFACTURER Babylon

CAPACITY 1500 GAL

SEAM LOC Top

TANK LID DEPTH 12"

BAFFLES _____

BAFFLE FILTER _____

MANHOLE LOC Rear

6" PORT LOC none

WATERTIGHT TEST —

SLOTTED no

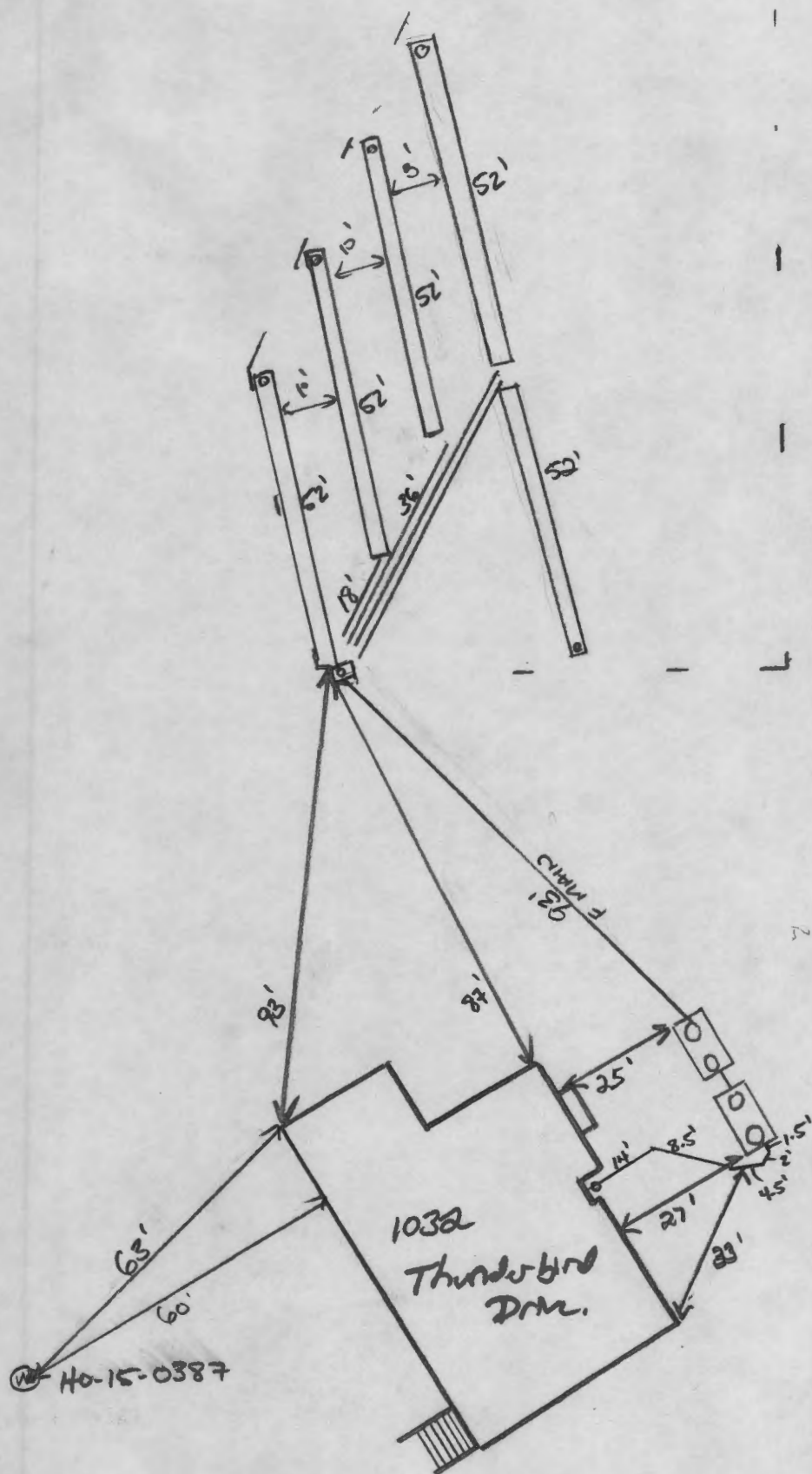
DATE ON LID 2/29/19

PRE-CONSTRUCTION:

5/23/2019 TANKS AND SDA STAKED. LAID OUT TWO UPPER TRENCH. OK TO PULL 18' CTC FOR THIRD TRENCH. LAYOUT BOTTOM TWO TRENCHES. (KMP)

INSTALLATION: 5/25/19 Tanks set previous date. Top 3 trenches installed per plan w/ 10' edge to edge. Told contractor to shorten to 8' E+E or just 2 trenches. OK to continue. (KMP) 5/28/2019 LOWER TRENCHES COMPLETE. SEWER LINE INSTALLED TO TANK. REINSP SHC, F.M. AND D BOX. (KMP) 5/30/19 FM INSTALLED INTO D BOX w/ TURN DOWN INSIDE BOX. REINSP. P/A (KMP) 6/4/19 SHC confirmed (KMP)

FINAL INSPECTOR _____ DATE OF APPROVAL _____



December 28, 2018

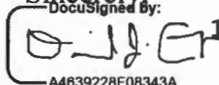
Mr. Jeff Williams
Howard County Health Department
Bureau of Environmental Health
8930 Stanford Blvd
Columbia, Maryland 21045

Re: Fairlane Farms: Lot 38
Percolation Certification Plat
Waiver Request

Dear Mr. Williams,

We are requesting a variance for the proposed septic easement on Lot 38 for the above referenced project. The variance we are requesting is for a reduction from 10' off the property line to 5', to enable the required septic trenches to fit on this lot.

Thank you for your consideration of this request.

Sincerely,
DocuSigned By:
 1/6/2019
A4639228F08343A...
David J. Cooper

Homebuyer of Lot 38 (1032 Thunderbird Drive)

WO #05106-3003

**FISHER, COLLINS
& CARTER, INC.**

**CIVIL ENGINEERING CONSULTANTS
and LAND SURVEYORS**

Transmittal

Terrell A. Fisher, P.E., L.S.
Earl D. Collins, P.E.
Charles J. Crovo, Sr., P.E., L.S.

Paul W. Kriebel, P.E.
Mark L. Robel, P.L.S.
Aldo M. Vitucci, P.E.
Frank Manalansan II, L.S.
Stephanie Tuite, RLA, P.E., LEED AP BD&C

Via: ☐ Fax ☐ Mail ☒ Messenger ☐ E-Mail ☐ To Be Picked Up
☐ Fax (original to follow via U.S. Mail)

To: **Bureau of Environmental Health**
8930 Stanford Blvd.
Columbia, Maryland 21046-4544

Attn: **Hank**
Fax:
Phone: **410-313-2640**

From: **Tony Fertitta**

CC:

Re: **Fairlane Farms, Lot 38**

W.O.# **05106-3003**

Date: **January 28, 2019**

Pages: **0** Page(s) Including this cover

We are forwarding: ☒ Prints ☐ Copy of Letter ☐ Specifications ☐ Shop drawings ☐ Other
☐ Urgent ☐ For your use ☐ As requested ☒ For Review & Comment

Remarks:

Re: Fairlane Farm, Lot 38, 15215 Torino Way.

Here are 3 new copies of the OSDS for Lot 38 for your review. Please let me know if you have any questions.

Thank You,

Tony.

Fisher, Collins, & Carter, Inc. Ph. 410-461-2855

CONFIDENTIALITY NOTICE

This transmission contains confidential information which may be legally privileged, and is intended only for the use of the individual named above. If you are not the intended recipient, you are hereby notified that any distribution (except to the intended recipient), copying, or disclosure of this transmission is strictly prohibited.

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. 24027C0035D 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 1.0'.
- 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-15-0387 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 10/04/2020.
- 7) BUILDING PERMIT #B-19000567

Legend

- 10' Public Tree Maintenance Easement
- Public Drainage & Utility Easement

LINE	BEARING	LENGTH
PL1	N72°31'13"E	45.90'
PL2	N77°37'38"E	21.10'
PL3	S12°22'22"E	21.98'
PL4	N76°01'14"W	48.40'
PL5	S77°47'43"W	126.35'
PL7	N73°05'13"E	27.43'
PL8	N77°47'43"E	124.71'
PL9	S76°01'14"E	66.18'
PL14	S76°01'14"E	25.27'

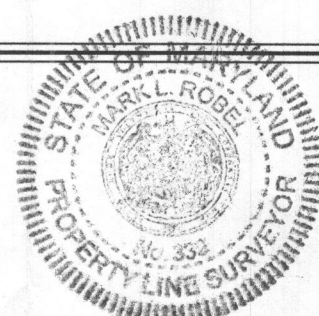
LINE	BEARING	LENGTH
D2	N57°33'07"E	103.67'
D3	S67°14'19"E	24.35'
D4	S57°33'07"W	111.79'
D6	N57°33'07"E	137.05'
D7	N72°31'13"E	45.90'
D8	N77°37'38"E	21.10'
D9	S12°22'22"E	21.98'
D10	S25°49'11"W	103.81'
D11	N76°01'14"W	48.40'
D17	S76°01'14"E	232.22'
D19	S11°44'00"W	45.53'

LINE	BEARING	LENGTH
D22	N76°01'14"W	252.94'
D23	N14°23'36"E	2.00'
D24	N77°37'38"E	8.69'
D25	N51°34'47"E	20.97'
D26	S77°18'36"E	252.01'
D27	S10°23'29"W	92.37'
D31	N10°23'29"E	72.48'
D32	N77°18'36"W	253.83'
D33	N20°48'59"W	14.45'
D34	N69°11'09"E	10.00'
D35	S20°48'59"E	15.13'
D36	N44°29'22"W	22.87'
D37	N43°02'43"E	10.01'
D38	S44°29'22"E	26.23'
D39	S72°31'13"W	3.03'
D40	S57°33'07"W	7.46'

LINE	BEARING	LENGTH
UIC1	N73°05'13"E	27.92'
UIC2	N77°47'43"E	114.39'
UIC3	S76°01'14"E	89.70'
UIC4	S13°58'48"W	24.00'
UIC5	N76°01'14"W	84.11'
UIC6	S77°47'43"W	107.82'
UIC7	S73°05'13"W	26.93'
UIC8	N13°58'48"E	24.00'
UIC9	S76°01'14"E	208.08'
UIC10	S13°58'48"W	24.00'
UIC11	N76°01'14"W	208.08'

#1032 THUNDERBIRD DRIVE
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 598.0'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

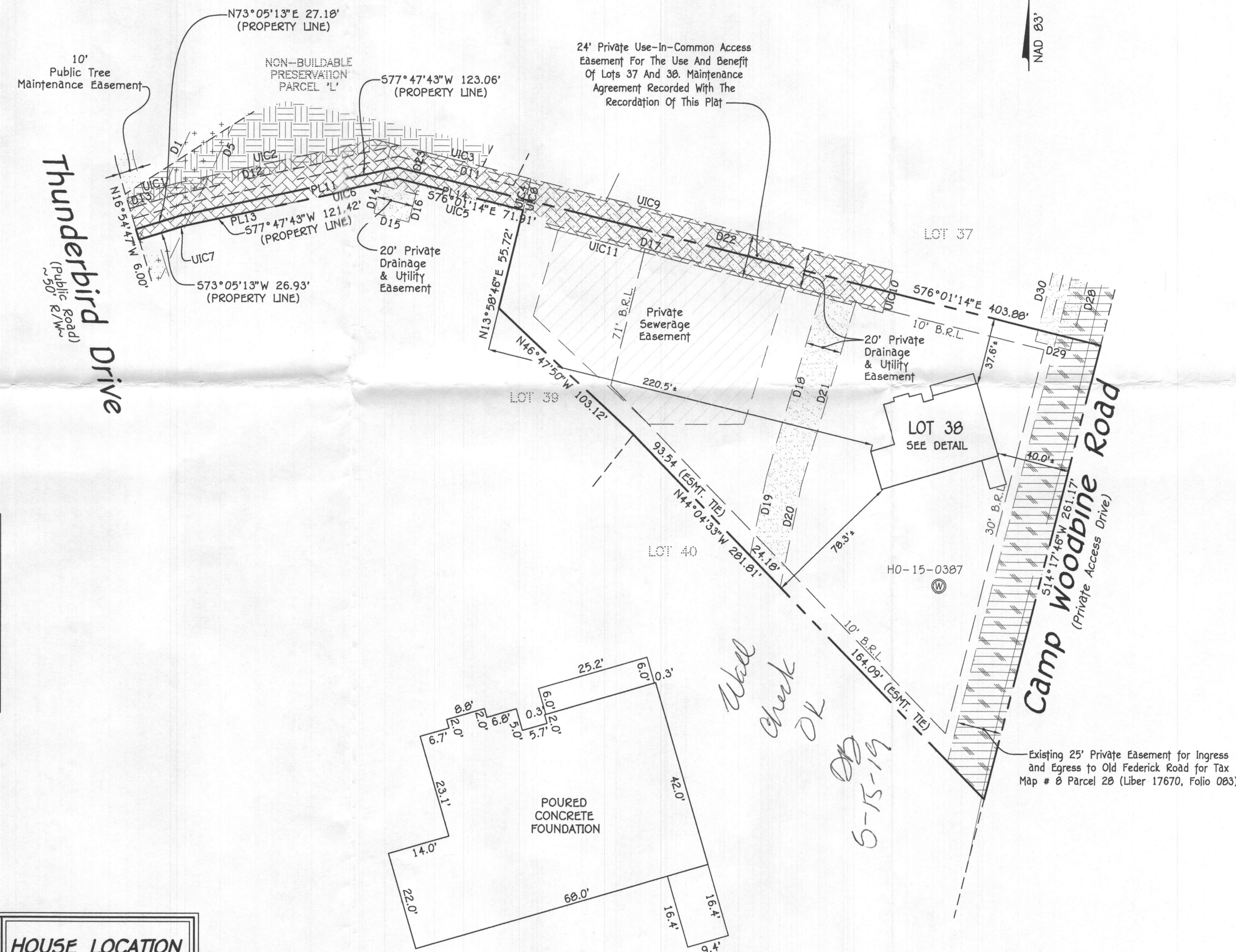


Mark L. Rose
PROPERTY LINE SURVEYOR
REG. #339

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 4/15/19
FINAL LOCATION:
BOUNDARY SURVEY:

SCALE: 1"=50'
DATE: 4/17/19
DRAWN BY: JIMP
CHECKED BY: MLR
PROJECT No.: 05106-3003

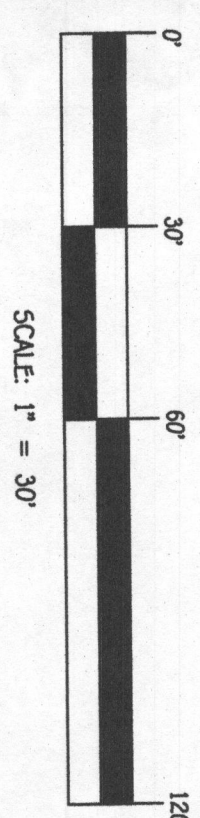


LOT 38
FAIRLANE FARM
PHASE TWO
RESUBDIVISION PLAT--LOTS 19 THRU 44 AND
NON-BUILDABLE PRESERVATION PARCELS 'I' THRU 'N',
& REVISION PLAT--BUILDABLE PRESERVATION PARCEL 'A'
PLAT NOS. 24367 THRU 24372
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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. THE TANK SHALL BE INSTALLED AND BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0387 HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.
5. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100' OF THE PROPERTY BOUNDARIES AND 200' DOWN GRADE/ENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.

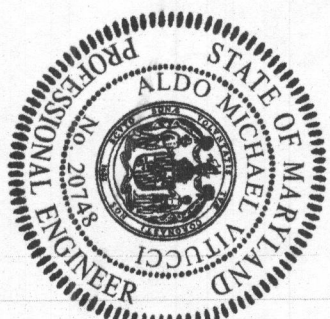


PLAN
SCALE: 1" = 30'
NOTE: FOR LOT 38, NO GRANTY
SEWER SERVICE FOR BASEMENT



FISHER, COLLINS & CARTER, INC.
Civil Engineering, Surveying & Land Use Services
10000 S. W. 11th St., Suite 200, Boca Raton, FL 33433
Tel: (561) 461-5993 Fax: (561) 461-5995

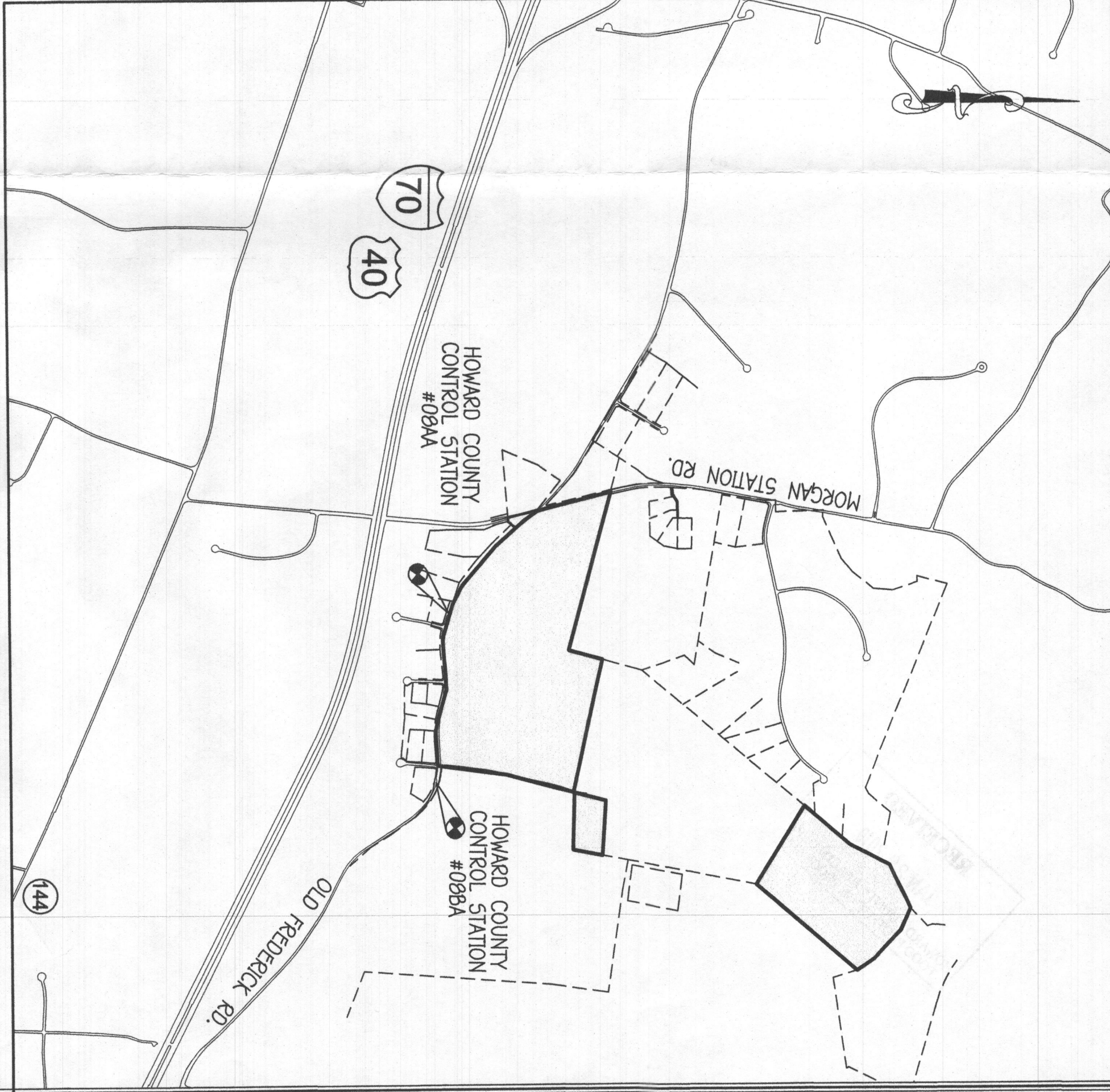
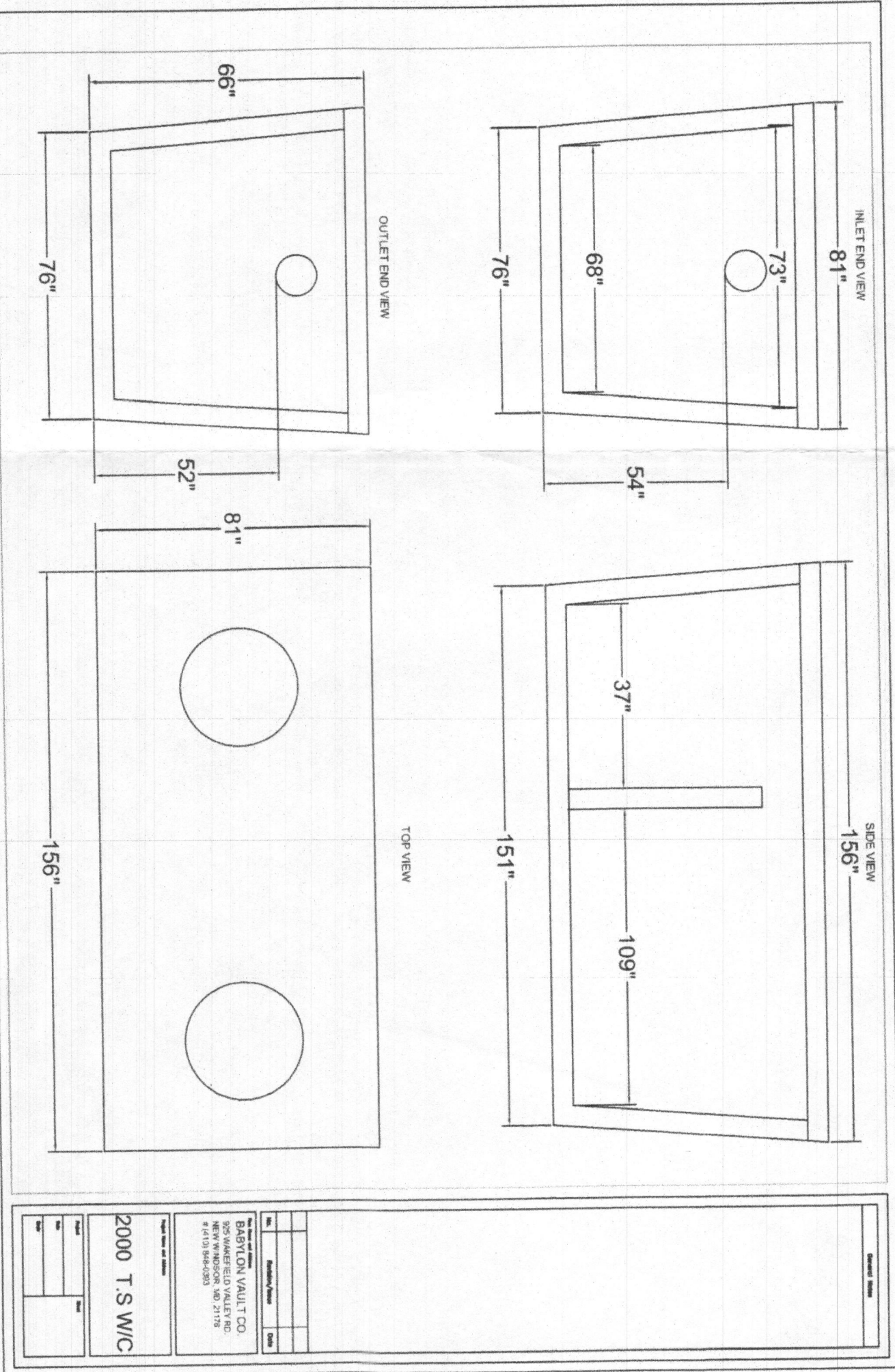
OWNER/DEVELOPER
IN HOWARD COUNTY
9720 PINEVIEW DRIVE
COLUMBIA, MD 21046
410-373-5956



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME
ON THE DATE SHOWN HEREON AND THAT I AM A LICENSED PROFESSIONAL ENGINEER
IN THE STATE OF MARYLAND, LICENSE NO. 20716, EXPIRATION DATE: 02/22/2019.

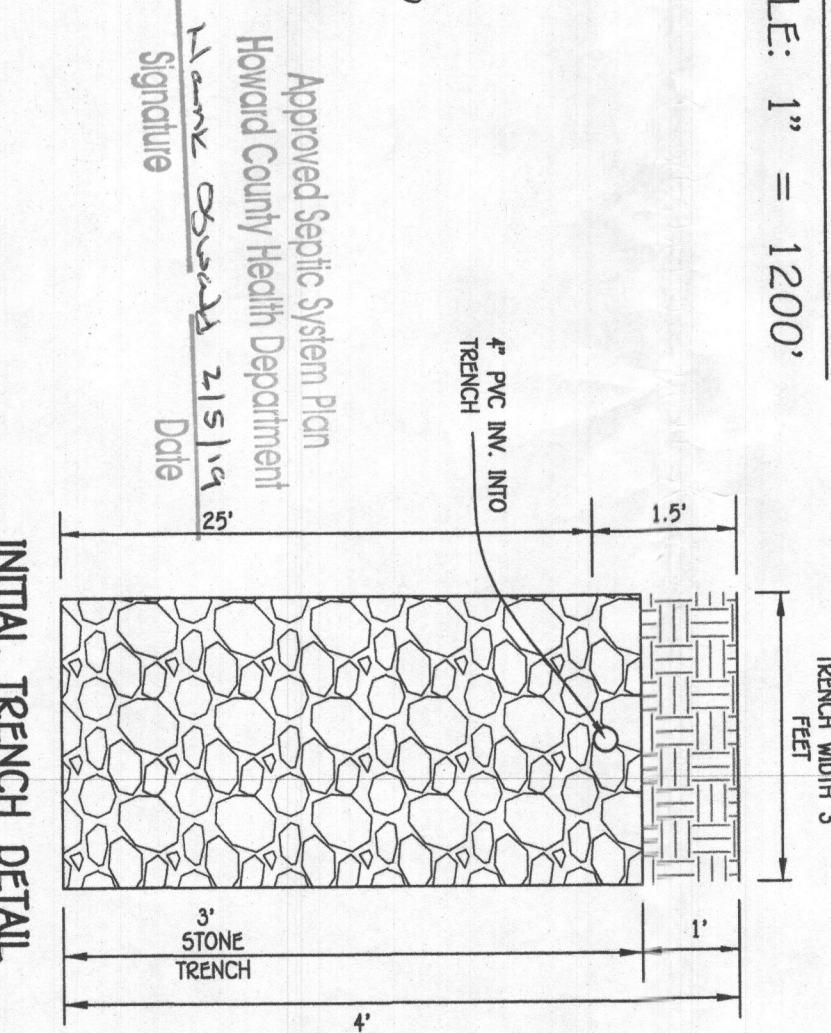
Signature of Professional Engineer
William M. Fisher

DATE: 1/29/19



VICINITY MAP
SCALE: 1" = 1200'

TRENCH DATA:
TRENCH 1: EX. GROUND ABOVE = 604.1
INV. IN = 602.6
BOTTOM TRENCH = 600.1
TRENCH 2: EX. GROUND ABOVE = 603.0
INV. IN = 601.5
BOTTOM TRENCH = 599.0
TRENCH 3: EX. GROUND ABOVE = 602.0
INV. IN = 600.5
BOTTOM TRENCH = 598.0
TRENCH 4: EX. GROUND ABOVE = 600
INV. IN = 596.5
BOTTOM TRENCH = 596.0
TRENCH 5: EX. GROUND ABOVE = 600
INV. IN = 598.5
BOTTOM TRENCH = 596.0



INITIAL SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH (D) = 3 FEET
TRENCH WIDTH (W) = 4 FEET
EFFECTIVE DEPTH (D) = 3 FEET
5' OF UNGRAVELLED = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(4+2)/(4+1+2(3))=0.83
TRENCH LENGTH = 312.5 SF X 0.83 = 259.38 FEET
(USE 5 TRENCHES AT 51.88 LF.)
TRENCH SPACING = 20'-W = ((2+1) + 3) = 5' USE 10'

1ST REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH (D) = 3 FEET
TRENCH WIDTH (W) = 4 FEET
EFFECTIVE DEPTH (D) = 3 FEET
5' OF UNGRAVELLED = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(4+2)/(4+1+2(3))=0.83
TRENCH LENGTH = 312.5 SF X 0.83 = 259.38 FEET
(USE 5 TRENCHES AT 51.88 LF.)
TRENCH SPACING = 20'-W = ((2+1) + 3) = 5' USE 10'

2ND REPLACEMENT SYSTEM
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH (D) = 1.5 FEET
TRENCH WIDTH (W) = 4.5 FEET
5' OF UNGRAVELLED = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH =
(W+2)/(W+1+2D)=(4.5+2)/(4.5+1+2(1.5))=0.83
TRENCH LENGTH = 312.5 SF X 0.83 = 259.38 FEET
(USE 3 TRENCHES AT 44.31 LF.)
TRENCH SPACING = 20'-W = ((2+1.5) + 3) = 6' USE 10'

**SEPTIC SYSTEM
INSTALLATION SITE PLAN**

LOT 38

FAIRLANE FARMS

1032 THUNDERBIRD DRIVE
PHASE TWO
ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1"=30'
DATE: JANUARY, 28, 2019
SHEET 1 OF 2

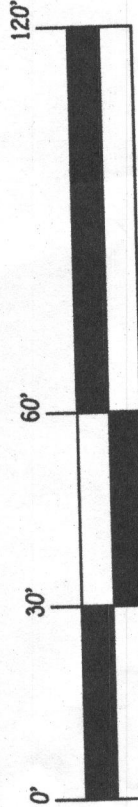
ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
38	1032 THUNDERBIRD DRIVE

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2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY DUTY CONCRETE TANK.
3. A HEAVY DUTY CONCRETE TANK SHALL BE USED FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0387 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.



PLAN
SCALE: 1" = 30'

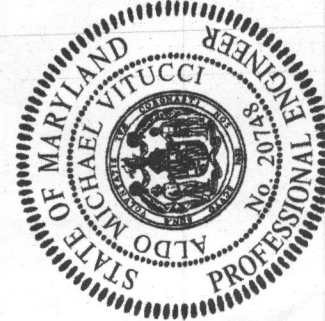
NOTE: FOR LOT 38, NO GRAVITY SEWER SERVICE FOR BASEMENT



SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
9789 THUNDERBIRD DRIVE
COLLEGE PARK, MD 21046
CELL: 410-379-5956 FAX: 410-379-5955
WWW.FCS-INC.COM

OWNER/DEVELOPER
9789 THUNDERBIRD DRIVE
COLLEGE PARK, MD 21046
410-379-5955



PROFESSIONAL CERTIFICATION
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND TO THE BEST OF MY KNOWLEDGE AND BELIEF THEY COMPLY WITH ALL REQUIREMENTS OF THE ENGINEERING PROFESSION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20716A, EXPIRATION DATE: 02/22/2019.

Robert M. Fisher
Signature of Professional Engineer
DATE: 1/29/19

SEPTIC PROFILE

SCALE: 1" = 30'

SEPTIC SYSTEM
INSTALLATION SITE PLAN
LOT 38
1032 THUNDERBIRD DRIVE
FAIRLANE FARMS
PHASE TWO
ZONED: RC-DEO
TAX MAP NO.: 8
ELECTION DISTRICT: 5TH
SCALE: 1" = 30'

ADDRESS CHART		
LOT NUMBER	STREET ADDRESS	
38	1032 THUNDERBIRD DRIVE	

VICINITY MAP

SCALE: 1" = 1200'

TRENCH DATA:

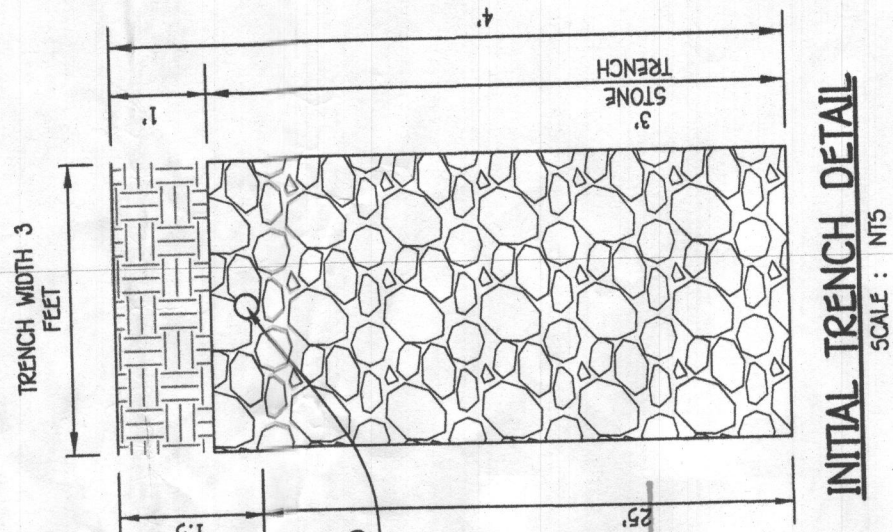
TRENCH 1:
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INV. IN = 602.6
BOTTOM TRENCH = 600.1

TRENCH 2:
EX. GROUND ABOVE = 603.0
INV. IN = 601.5
BOTTOM TRENCH = 599.0

TRENCH 3:
EX. GROUND ABOVE = 602.0
INV. IN = 600.5
BOTTOM TRENCH = 598.0

TRENCH 4:
EX. GROUND ABOVE = 600
INV. IN = 598.5
BOTTOM TRENCH = 596.0

TRENCH 5:
EX. GROUND ABOVE = 600
INV. IN = 598.5
BOTTOM TRENCH = 596.0



INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
TRENCH SPACING = 20' HW = ((2+1) + 3) = 5' USE 10'
TRENCH DEPTH (D) = 1 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 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)) = 0.83
TRENCH LENGTH = 312.5 SF x 0.83 = 259.38 FEET
(USE 5 TRENCHES AT 51.88 LF.)
TRENCH SPACING = 20' HW = ((2+1) + 3) = 5' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
TRENCH SPACING = 20' HW = ((2+1.5) + 3) = 6' USE 10'
TRENCH DEPTH (D) = 1 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 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)) = 0.83
TRENCH LENGTH = 312.5 SF x 0.83 = 259.38 FEET
(USE 4 TRENCHES AT 64.84 LF.)
TRENCH SPACING = 20' HW = ((2+1.5) + 3) = 6' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR
5 BEDROOMS
LOADING RATE = 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
TRENCH SPACING = 20' HW = ((2+1.5) + 3) = 6' USE 10'
TRENCH DEPTH (D) = 1 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 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)) = 0.83
TRENCH LENGTH = 312.5 SF x 0.83 = 259.38 FEET
(USE 4 TRENCHES AT 64.84 LF.)
TRENCH SPACING = 20' HW = ((2+1.5) + 3) = 6' USE 10'

SEPTIC SYSTEM
INSTALLATION SITE PLAN

LOT 38

1032 THUNDERBIRD DRIVE
FAIRLANE FARMS

PHASE TWO

ZONED: RC-DEO
TAX MAP NO.: 8
ELECTION DISTRICT: 5TH
SCALE: 1" = 30'

PARCEL NO.: 8
GRID NO.: 2
HOWARD COUNTY, MARYLAND
DATE: JANUARY, 28, 2019
SHEET 1 OF 2

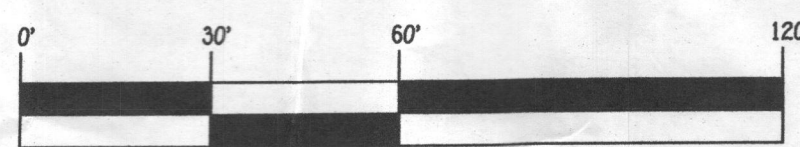
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0387 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.



PLAN

SCALE: 1" = 30'

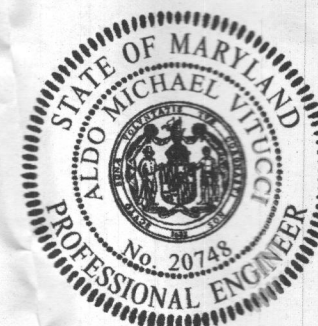
NOTE: FOR LOT 38, NO GRAVITY SEWER SERVICE FOR BASEMENT



SCALE: 1" = 30'

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2299

OWNER/DEVELOPER
NY HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-5956



PROFESSIONAL CERTIFICATION

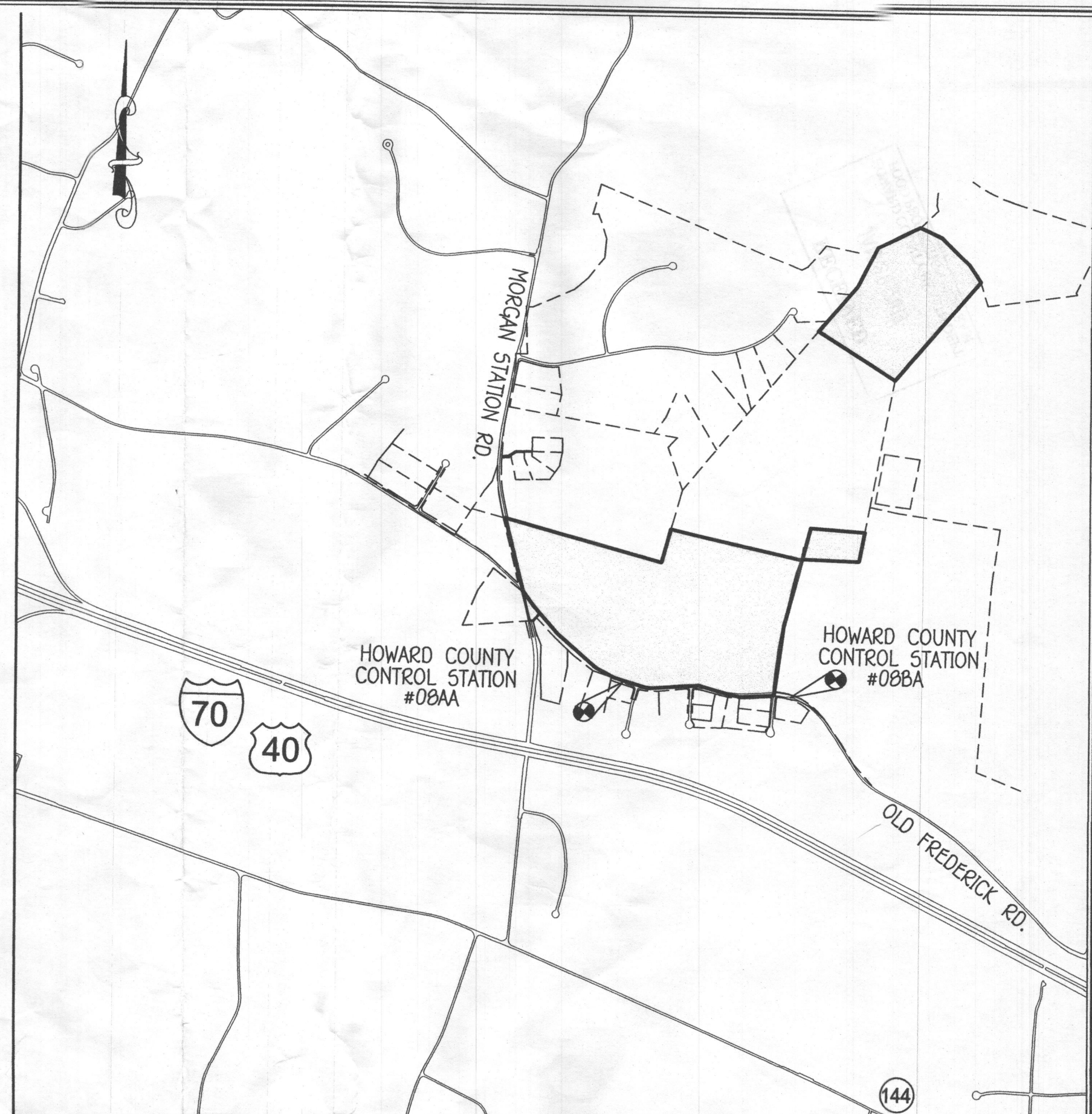
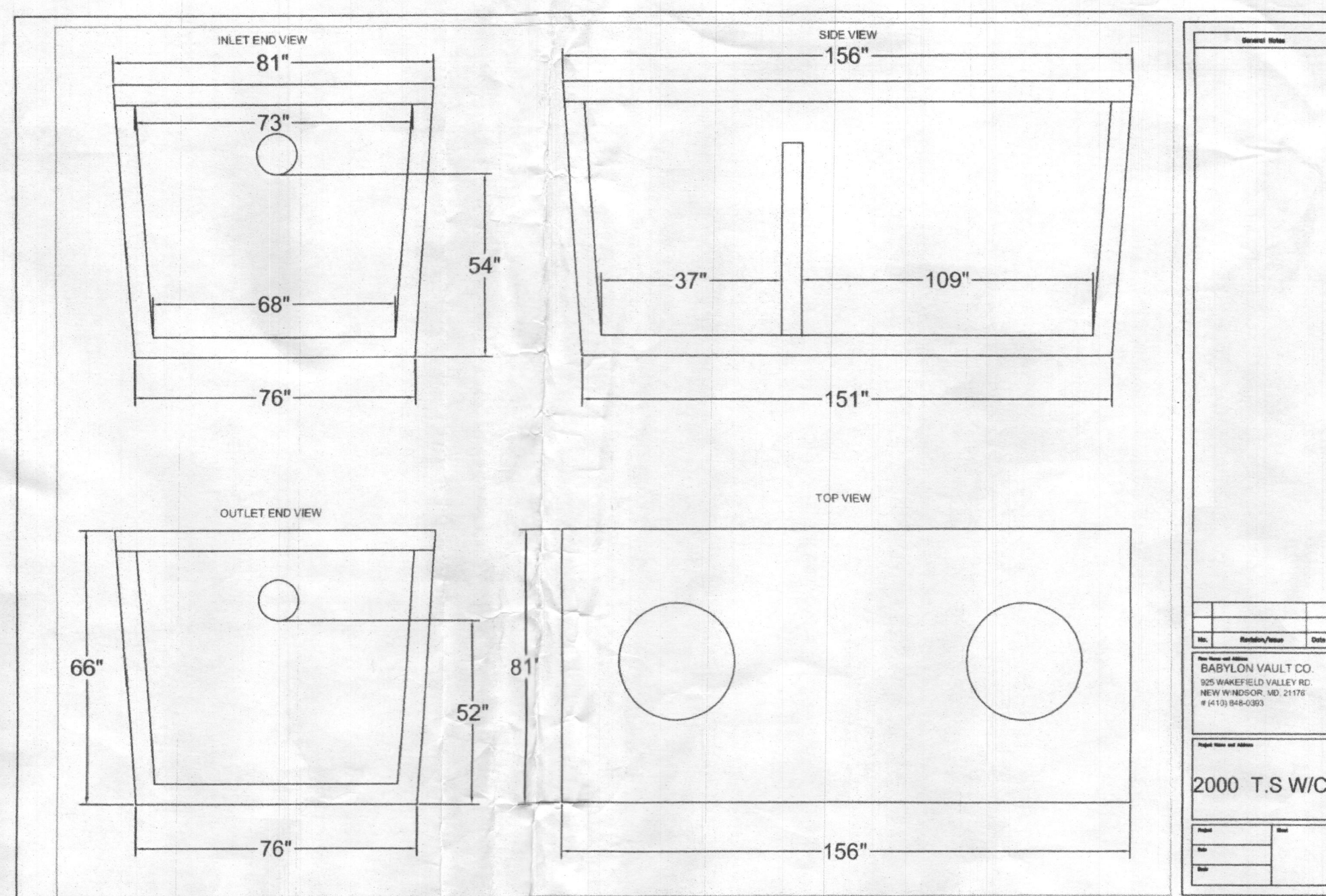
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2019.

Michael J. Vetter
Signature Of Professional Engineer

1/29/19
DATE

SEPTIC PROFILE

SCALE: 1" = 30'



VICINITY MAP

SCALE: 1" = 1200'

TRENCH DATA:

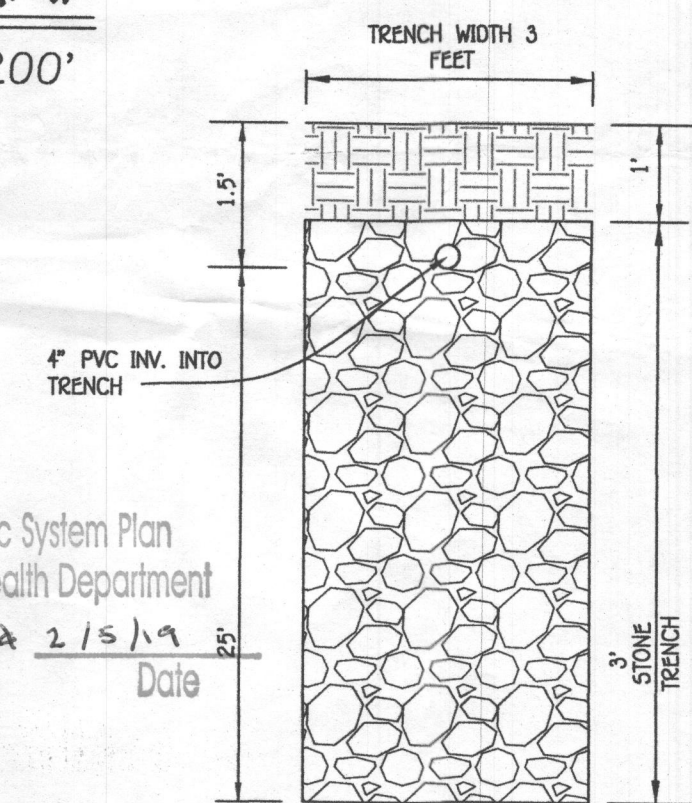
TRENCH 1:
EX. GROUND ABOVE = 604.1
INV. IN = 602.6
BOTTOM TRENCH = 600.1

TRENCH 2:
EX. GROUND ABOVE = 603.0
INV. IN = 601.5
BOTTOM TRENCH = 599.0

TRENCH 3:
EX. GROUND ABOVE = 602.0
INV. IN = 600.5
BOTTOM TRENCH = 598.0

TRENCH 4:
EX. GROUND ABOVE = 600
INV. IN = 598.5
BOTTOM TRENCH = 596.0

TRENCH 5:
EX. GROUND ABOVE = 600
INV. IN = 598.5
BOTTOM TRENCH = 596.0



INITIAL TRENCH DETAIL

SCALE: 1" = 1200'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS

LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 4 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 1)) = 0.83$
TRENCH LENGTH = 312.5 SF X 0.83 = 259.38 FEET
(USE 5 TRENCHES AT 51.88 L.F.)
TRENCH SPACING = 2D+W = ((2 \times 1) + 3) = 5' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS

LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 4 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 1 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 1)) = 0.83$
TRENCH LENGTH = 312.5 SF X 0.83 = 259.38 FEET
(USE 4 TRENCHES AT 64.84 L.F.)
TRENCH SPACING = 2D+W = ((2 \times 1) + 3) = 5' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS

LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 4.5 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 = $(W+2)/(W+1+2D) = (3+2)/(3+1+(2 \times 1.5)) = 0.71$
TRENCH LENGTH = 312.5 SF X 0.71 = 221.88 FEET
(USE 3 TRENCHES AT 73.96 L.F.)
TRENCH SPACING = 2D+W = ((2 \times 1.5) + 3) = 6' USE 10'

SEPTIC SYSTEM INSTALLATION SITE PLAN

LOT 38

1032 THUNDERBIRD DRIVE

FAIRLANE FARMS

PHASE TWO

ZONED: RC-DEO

TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8

5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: 1"=30' DATE: JANUARY, 28, 2019

SHEET 1 OF 2

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
38	1032 THUNDERBIRD DRIVE

