

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: 2/28/18 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 562910

APPROVAL DATE: 4/27/18 SEC **PERMIT: CONSTRUCTION**

A _____

PROPERTY ADDRESS: 15320 Galaxy Drive

SUBDIVISION: Fairlane Farms

LOT: 11

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: 6

APPLICATION RATE _____

TRENCHES:	LINEAR FEET REQUIRED: <u>168.75</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Install 2 trenches @ 84.38LF	

ISSUED BY: Hank Oswald

ISSUE DATE: 2/28/18

EXPIRATION DATE: 2/28/19

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

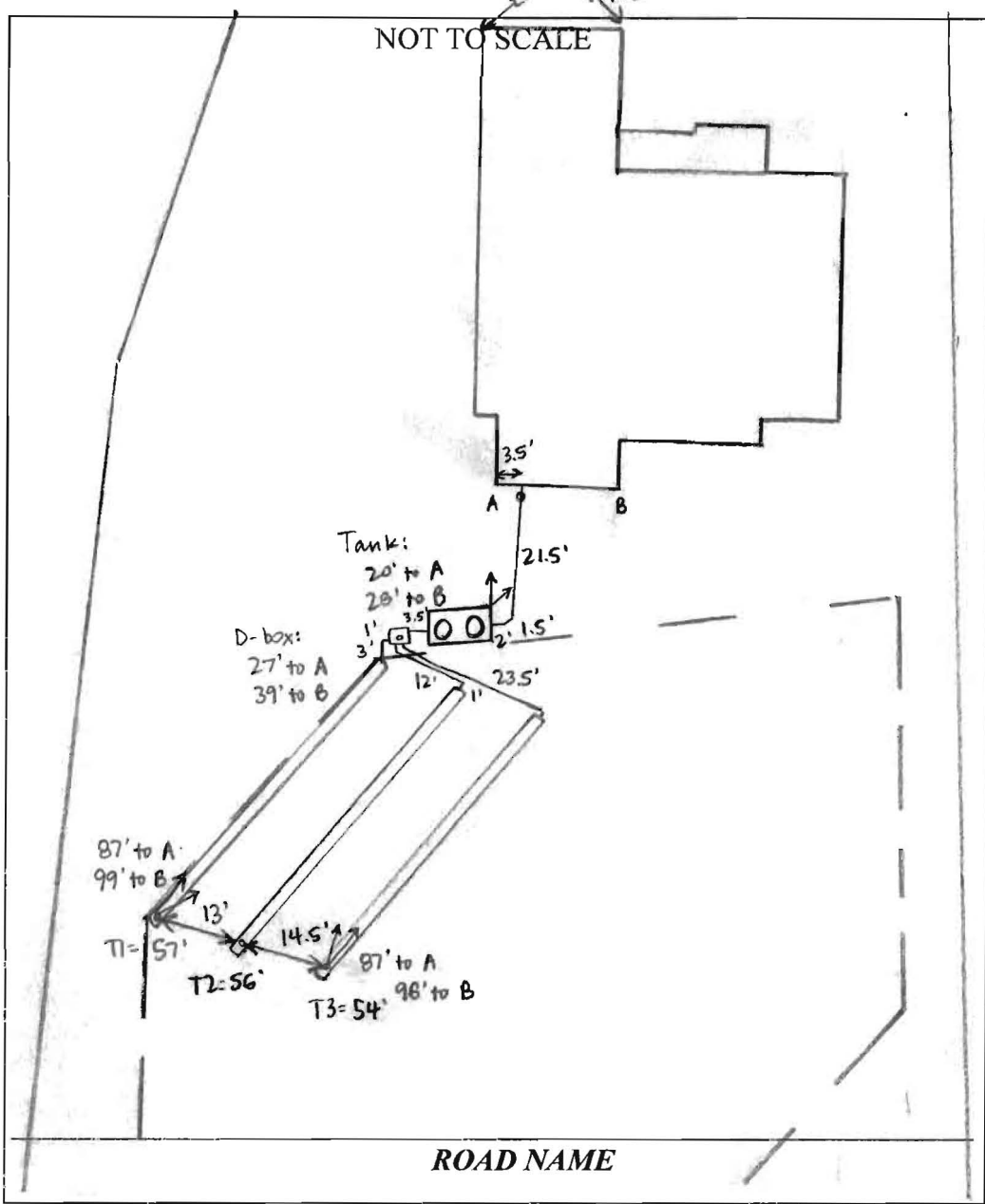
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

102' 102' H0-15-0346

NOT TO SCALE



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES	3	
TOTAL LENGTH	167'	
ABSORPTION AREA	501' + 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	1-2'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT + REAR
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	YES
DATE ON LID	3-20-18

RUMP/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:

3/15/18 Met S. Carroll on site for layout. SDA corners staked. Shot contour - laid out 3 x 56' trenches to use upper SDA corner. Pipe under footer exposed - will not make fall to tank w/ 4' cover. Also will not make 4' inlet @ trench 1. Pipe comes out 43" below basement floor, plan shows 32.8" below. (SC) 4/23/18 Pipe raised 1' at foundation. Shot elevations - will make 4' inlet @ trench 1. Shot contour + laid out 3 x 56' trenches. (SC)

INSTALLATION:

4/26/18 House connection made, tank set. S. Carroll adding stone to T3 - 3' wide, 4' inlet, 8' bottom. (SC) 4/26/18 S. Carroll just finished digging T2 bottom @ 6.5'. Backfilled most of trench + dug to 8'. Using laser to check depths. [corrective action + completed]. (SC) 4/27/18 T1 complete + left open for inspection. 3' wide, 3.5' to stone. D-box installed - connected to tank + trenches. Levelled speed levelers in D-box. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 4/27/18

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

MEMORANDUM

TO: NV Homes
Jeff Hyde, Superintendent
Sent via email to jhyde@nvrinc.com on 3/20/18

FROM: Sarah Collins, L.E.H.S. SEC
Howard County Health Department
Well and Septic Program

DATE: March 20, 2018

RE: Drywell installations at Fairlane Farm

Several of the drywells installed at lots in Fairlane Farm have do not meet the 25' setbacks to the septic tank and sewage disposal area (SDA). On Lot 16, a drywell cleanout is located 7' from the SDA; on Lot 10, one drywell edge is 13' from the SDA and another is 14' from the septic tank.

The septic permits for all lots in Fairlane Farm will not be approved until the drywells meet the 25' setback from the septic tank and SDA and the 100' setback from the well box. The locations shown on the approved septic system installation site plan meet these setbacks and the drywells should be installed per plan.

Feel free to contact me at 410-313-6287 or SCollins@howardcountymd.gov with any questions.

Cc: NV Homes, Clint Cagle (ccagle@nvrinc.com)
Tony Fertita - Fisher, Collins & Carter (tonyf@fcc-eng.com)
File

Oswald, Hank

From: Oswald, Hank
Sent: Wednesday, January 03, 2018 10:58 AM
To: Cagle, Clint (ccagle@nvrinc.com)
Cc: 'Tony Fertitta'
Subject: B17004472_5320 Galaxy Drive

Hi Clint:

The floor plan for 5320 Galaxy Drive shows 6 bedrooms (1 B.R./Home Office in the basement and 5 B.R. on the second floor) but the septic plan is only sized for 5 bedrooms. In addition, the building permit site plan shows the morning room within 20 feet of the septic tank (the setback is at least 20 feet). Please revise the floor plans or the septic plan and BP site plan accordingly.

Should you have any questions, please don't hesitate to ask.

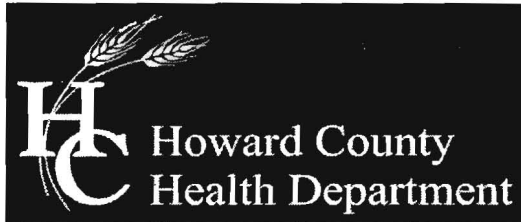
Respectfully,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

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Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

December 15, 2017

Fisher, Collins and Carter
Centennial Square Office Park
10272 Baltimore National Pike
Ellicott City, MD 21042

Sent via email to: tonyf@fcc-eng.com

**RE: OSDS Plan
15320 Galaxy Drive**

Hi Tony:

The following comments pertain to the review of the OSDS Plan for 15320 Galaxy Drive:

- 1.) The septic tank does not meet the 20 foot setback to residence.
- 2.) The sidewall credit for initial system should be 0.625 (not 0.556) in your calculation. However, you could use up to 3.5 feet of sidewall credit reducing the required length of trench (See attached septic specs)
- 3.) Application rate for 1st replacement system should be 0.8 (not 0.6)
- 4.) Application rate for 2nd replacement system should be 0.6 (not 0.8)
- 5.) Align trench data with trench detail. The difference between grade and bottom of trench should be 8 ft. (not 7.9 ft.).
- 6.) Match septic profile BSE (597.10) with BSE on plan (596.92).
- 7.) Trench Depth for initial and replacement system should be 8 feet (not 7 and 7.5 respectively) in calculations.

Should you have any questions, please don't hesitate to ask.

Respectfully,

Hank Oswald

Hank Oswald, L.E.H.S
Bureau of Environmental Health
Well & Septic Program

Oswald, Hank

From: Oswald, Hank
Sent: Friday, December 15, 2017 10:54 AM
To: Tony Fertitta
Subject: OSDS_15320 Galaxy Drive_Plan Review Comments
Attachments: OSDS_15320 Galaxy Drive_12.13.17.pdf; Septic Specs_15320 Galaxy Dr_2017.pdf

Hi Tony:

Attached, please find comments pertaining to the review of OSDS Plan for 15320 Galaxy Drive.

Thanks,

Hank

Hank Oswald
Licensed Environmental Health Specialist
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
hoswald@howardcountymd.gov

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Oswald, Hank

From: Oswald, Hank
Sent: Tuesday, December 26, 2017 10:17 AM
To: 'Tony Fertitta'
Subject: RE: Fairlane Farms Lot 11

Hi Tony:

- 1.) Initial system sidewall credit calculation has a 2 in it but should be a 3.5. Otherwise 0.45 is still correct.
- 2.) First system calculation is not utilizing entire sidewall credit of 3.5 feet. It is not mandatory but it would reduce required trench length to approx. 141 feet.
- 3.) Show space between d-box and initial trench on plan. In general, label trenches a little better. Please be sure that trench lengths on plan match calculated lengths.
- 4.) Define 2nd replacement trenches and label (i.e. show 4 separate trenches)
- 5.) Make septic tank 20 feet from house.

Hank

From: Tony Fertitta [<mailto:tonyf@fcc-eng.com>]
Sent: Tuesday, December 26, 2017 9:30 AM
To: Oswald, Hank
Subject:





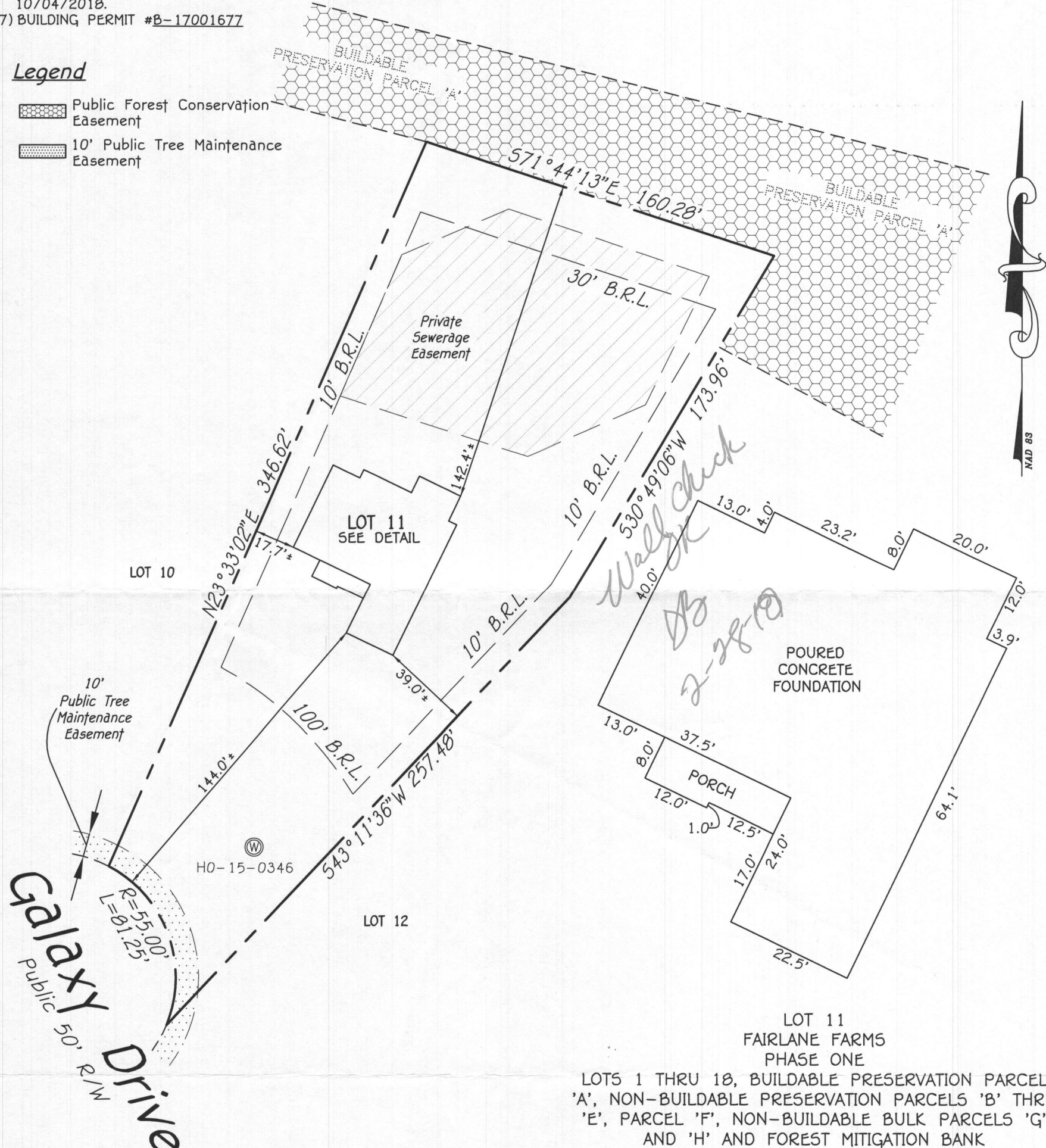
Right Click the Card to add me to your Contacts

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'.
- 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-15-0346 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-17001677

Legend

-  Public Forest Conservation Easement
-  10' Public Tree Maintenance Easement



#12523 GALAXY DRIVE
 B.R.L. = BUILDING RESTRICTION LINE
 TOP OF FOUNDATION ELEVATION = 605.5'±

LOT 11
 FAIRLANE FARMS
 PHASE ONE
 LOTS 1 THRU 18, BUILDABLE PRESERVATION PARCEL 'A', NON-BUILDABLE PRESERVATION PARCELS 'B' THRU 'E', PARCEL 'F', NON-BUILDABLE BULK PARCELS 'G' AND 'H' AND FOREST MITIGATION BANK
 PLAT NOS. 24251 THRU 24259
 FOURTH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

FISHER, COLLINS & CARTER, INC.
 CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
 CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 ELLICOTT CITY, MARYLAND 21042
 (410) 461 - 2855

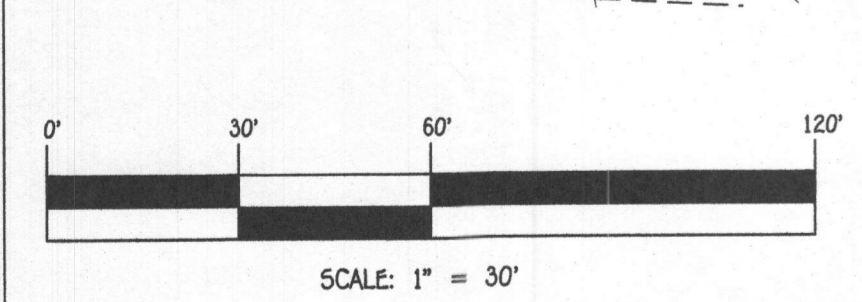
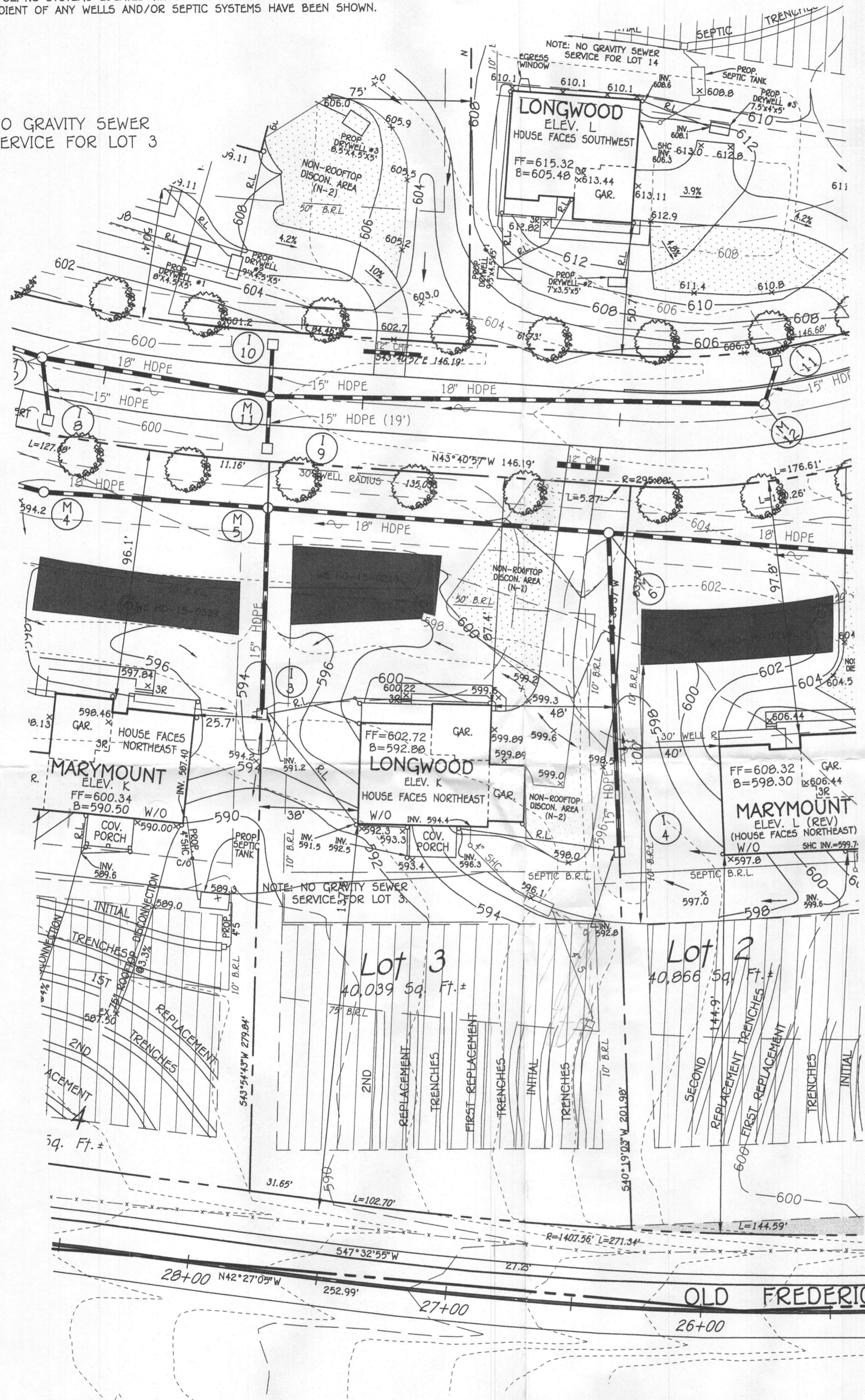
STATE OF MARYLAND
 MARK L. ROBEL
 PROPERTY LINE SURVEYOR
 No. 339
 DATE: 2/02/18
 PROPERTY LINE SURVEYOR
 REG. #339

HOUSE LOCATION DRAWING
 FOUNDATION LOCATION: 2/1/18
 FINAL LOCATION: _____
 BOUNDARY SURVEY: _____
 SCALE: 1" = 50'
 DATE: 2/2/18
 DRAWN BY: MSD
 CHECKED BY: MLR
 PROJECT No.: 05106-3003

Drawing Name: _____

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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-15-0215 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.

NOTE: NO GRAVITY SEWER SERVICE FOR LOT 3

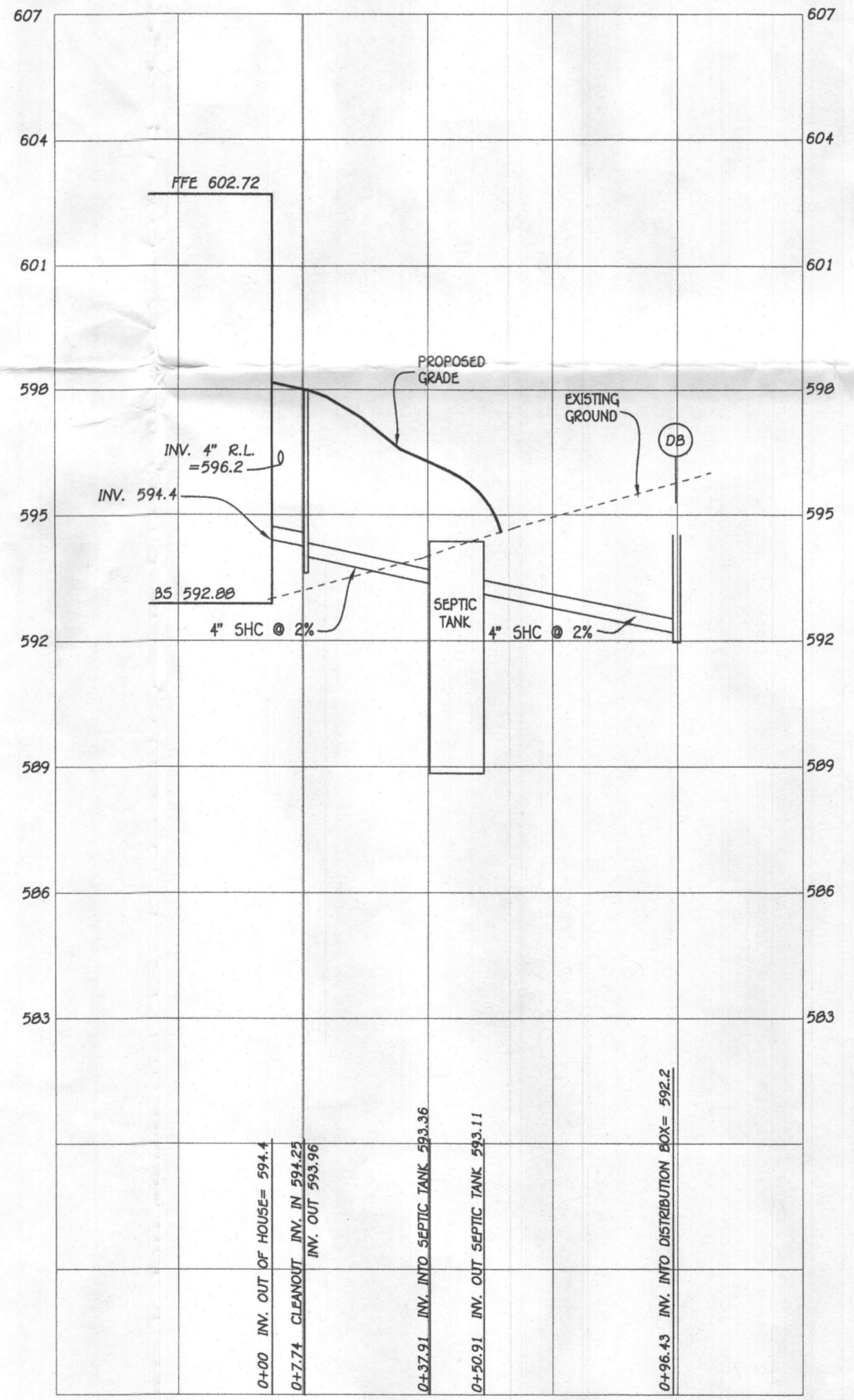
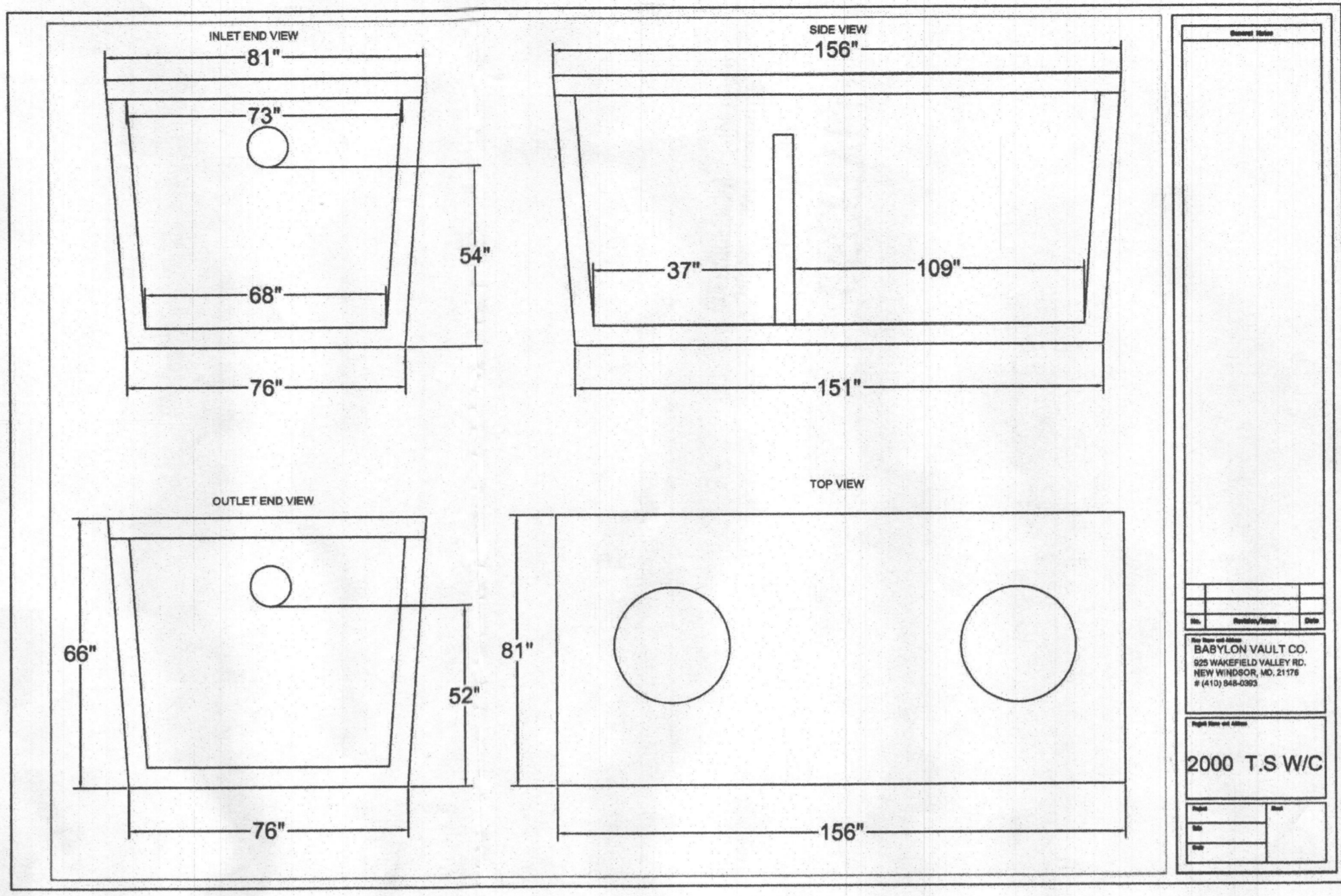


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 CENTENAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
 GLENELEIGH CITY, MARYLAND 21042
 (410) 461-2895

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

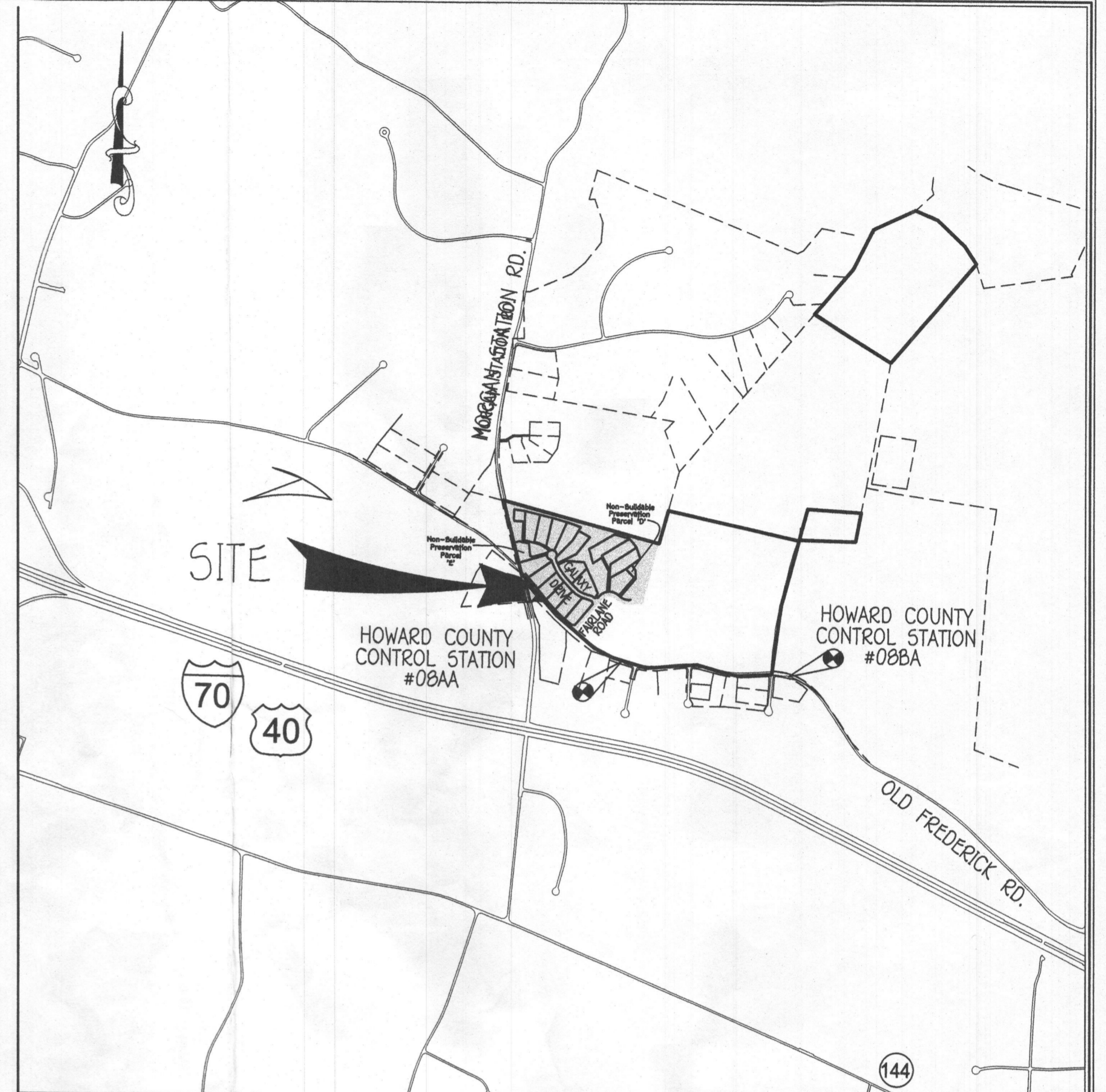


PROFESSIONAL CERTIFICATION
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2015.
Aldo M. Vitucci 2/6/18
 Signature Of Professional Engineer DATE



SEPTIC PROFILE
 SCALE: 1" = 30'

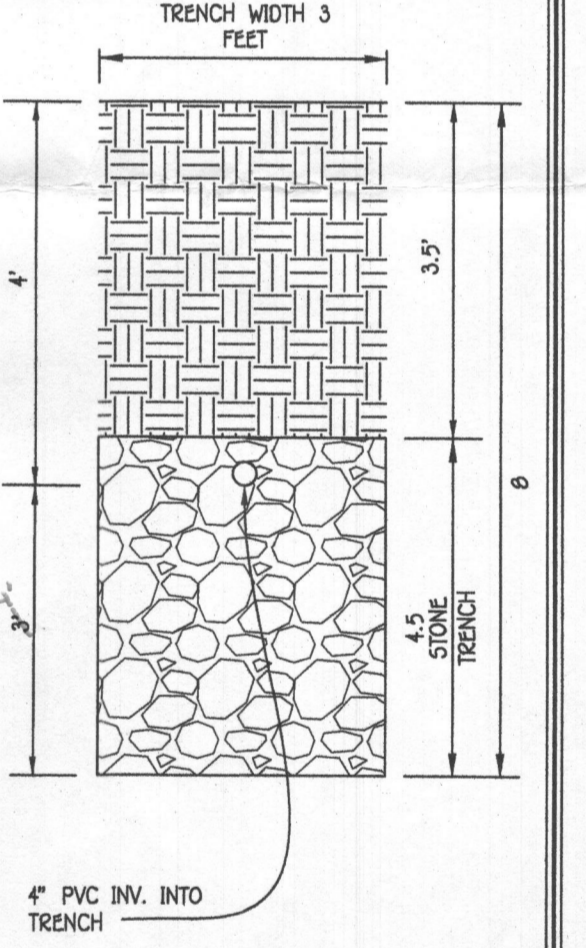
NOTE: NO GRAVITY SEWER SERVICE FOR LOT 3.



VICINITY MAP
 SCALE: 1" = 1200'

FFE 602.72
 BSE 592.00
 INV. OUT OF HOUSE = 594.24
 PROP. GROUND AT CLEANOUT #1 = 597.2
 INV. INTO CLEANOUT = 594.09
 INV. OUT OF CLEANOUT = 593.99
 EX. GROUND AT SEPTIC TANK = 596.1
 PROP. GRADE ABOVE SEPTIC TANK = 596.1
 TOP OF SEPTIC TANK = 594.36
 INV. INTO SEPTIC TANK = 593.36
 INV. OUT OF SEPTIC TANK = 593.11
 EX. GROUND AT DISTRIBUTION BOX = 596.1
 INV. INTO DISTRIBUTION BOX = 592.2
 INV. OUT OF DISTRIBUTION BOX = 592.1

TRENCH DATA:
 TRENCH 1:
 EX. GROUND ABOVE = 596.1
 INV. IN = 592.1
 BOTTOM TRENCH = 500.1
 TRENCH 2:
 EX. GROUND ABOVE = 595.2
 INV. IN = 591.2
 BOTTOM TRENCH = 507.2



INITIAL TRENCH DETAIL
 SCALE: 1" = 2'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 1.2
 EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
 TRENCH DEPTH = 0 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3.5 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+(2x3.5)) = 0.455
 TRENCH LENGTH = 208.33 SF x 0.455 = 94.79 FEET
 (USE 2 TRENCHES AT 47.40 LF.)
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 1.2
 EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
 TRENCH DEPTH = 0 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3.5 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+(2x3.5)) = 0.455
 TRENCH LENGTH = 208.33 SF x 0.455 = 94.79 FEET
 (USE 2 TRENCHES AT 47.40 LF.)
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 7' USE 10'

2ND REPLACEMENT SYSTEM

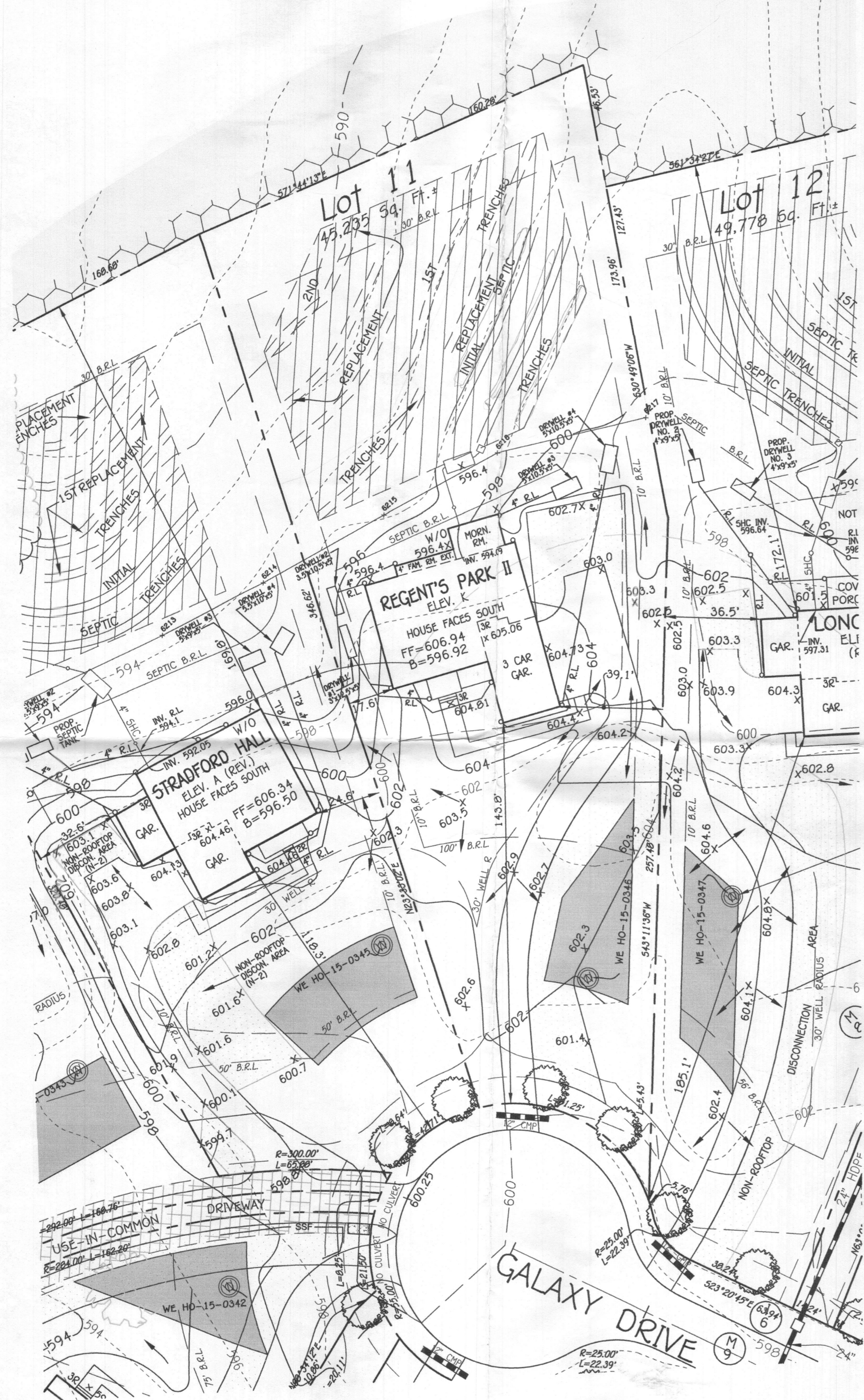
SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 5 BEDROOMS (PERMIT FOR 4 BEDROOMS)
 LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
 APPLICATION RATE = 0.8
 EFFECTIVE SIDEWALL BEGINS AT 5 FEET
 TRENCH DEPTH = 0 FEET
 TRENCH WIDTH (W) = 3 FEET
 EFFECTIVE DEPTH (D) = 3 FEET
 SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF
 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
 TRENCH LENGTH = 312.50 SF x 0.50 = 156.25 FEET
 (USE 3 TRENCHES AT 52.08 LF.)
 TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

SEPTIC SYSTEM INSTALLATION SITE PLAN

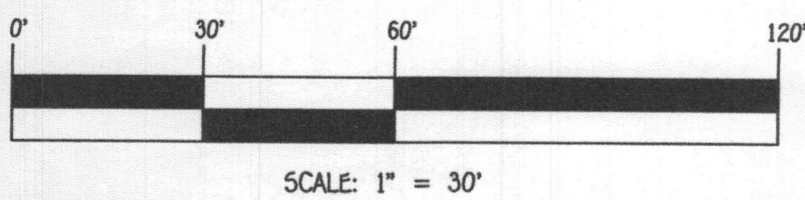
LOT 3
 15309 GALAXY DRIVE
FAIRLANE FARMS
 PHASE ONE
 ZONED: RC-DEO
 TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
 SCALE: 1" = 30' DATE: FEB. 5, 2018
 SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
3	15309 GALAXY DRIVE

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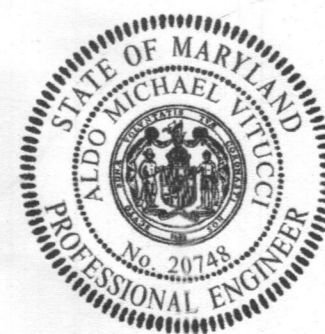
PLAN
SCALE: 1" = 30'



SCALE: 1" = 30'

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CONTINENTAL SQUARE OFFICE PARK - 15272 BALTIMORE NATIONAL PIKE
COLLETT CITY, MARYLAND 21042
(410) 461-2895

OWNER/DEVELOPER
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COLUMBIA, MD 21046
410-379-5996

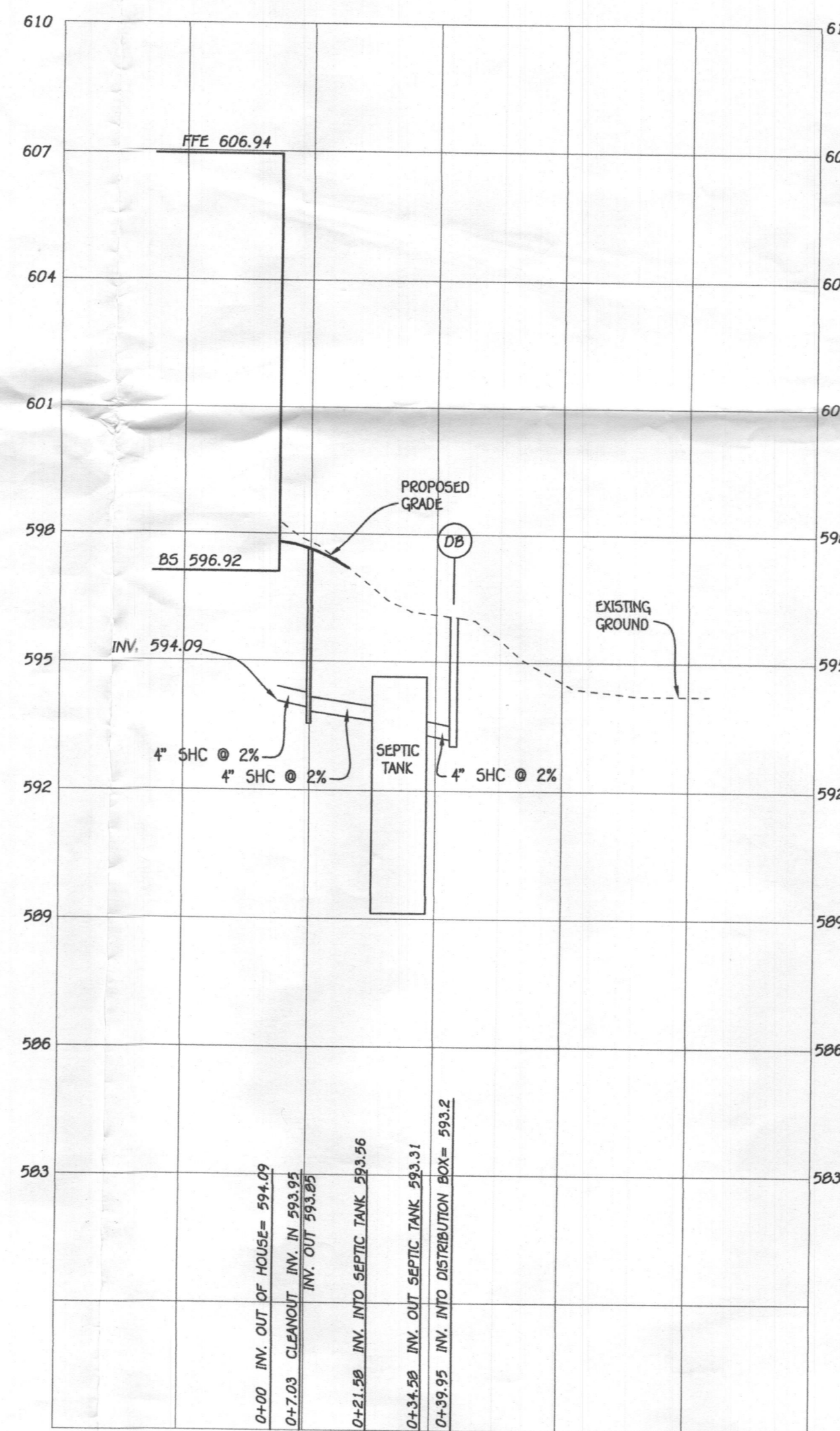
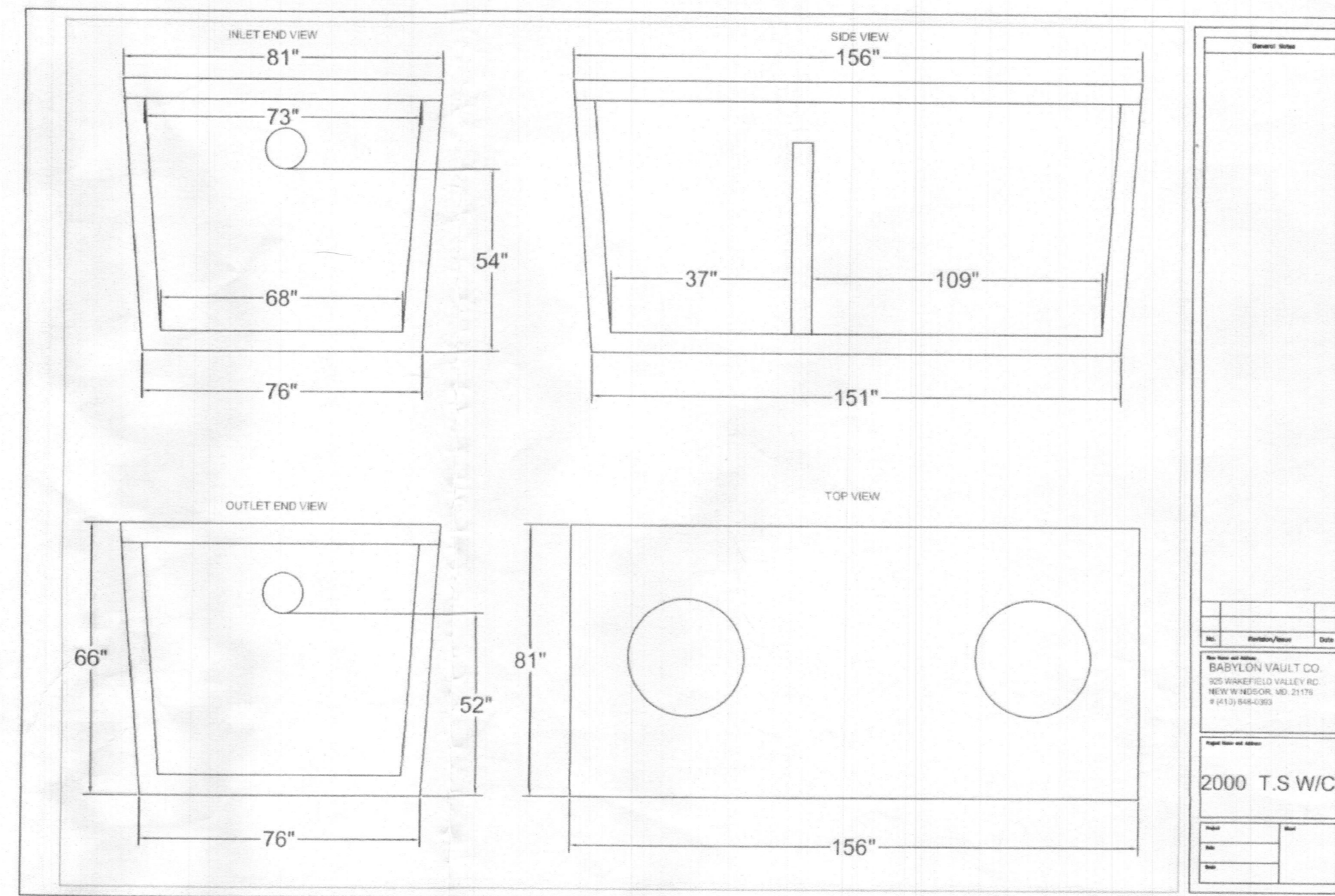


PROFESSIONAL CERTIFICATION

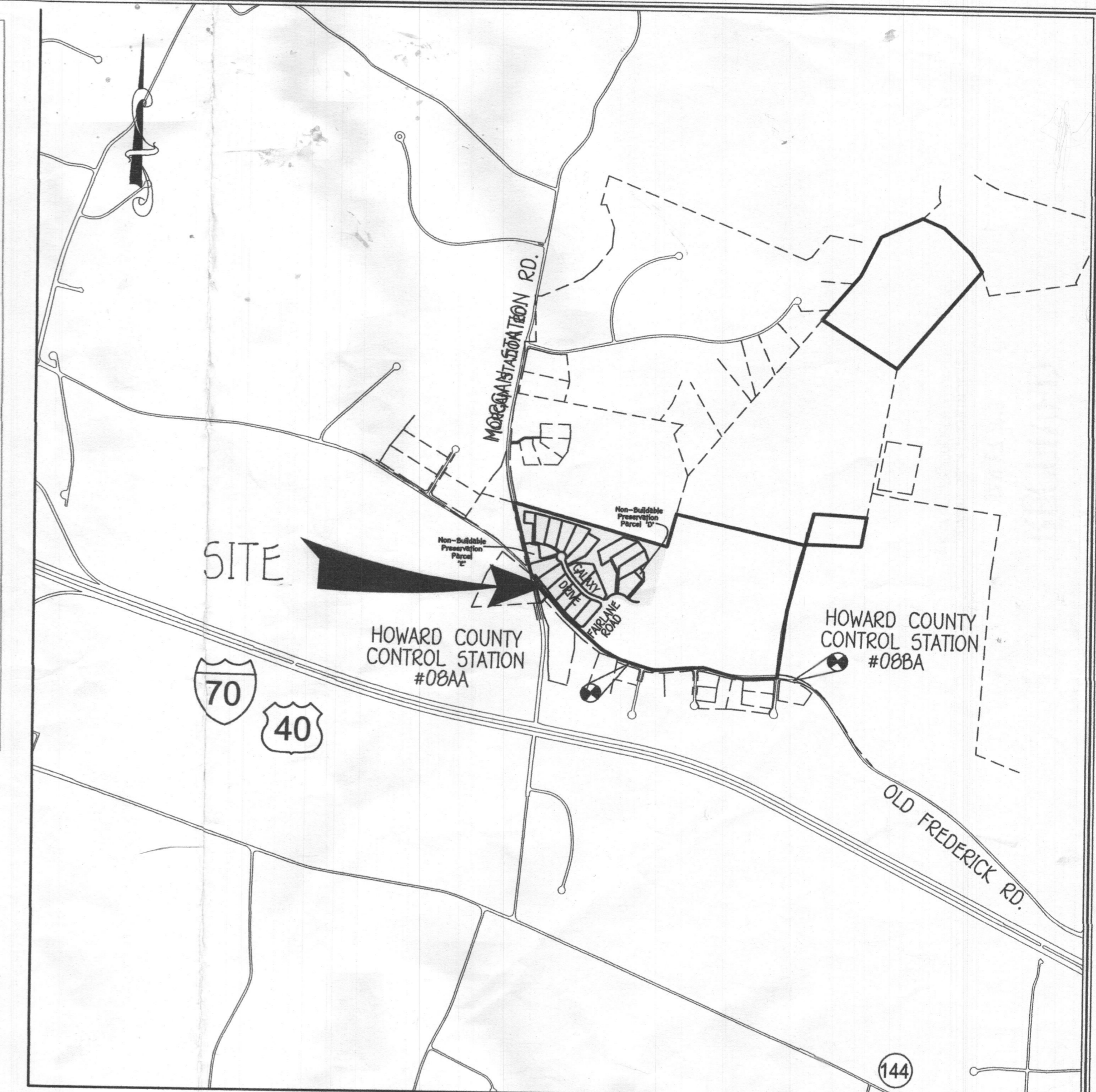
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Al M. Vitucci
Signature of Professional Engineer

1/9/18
DATE



SEPTIC PROFILE
SCALE: 1" = 30'



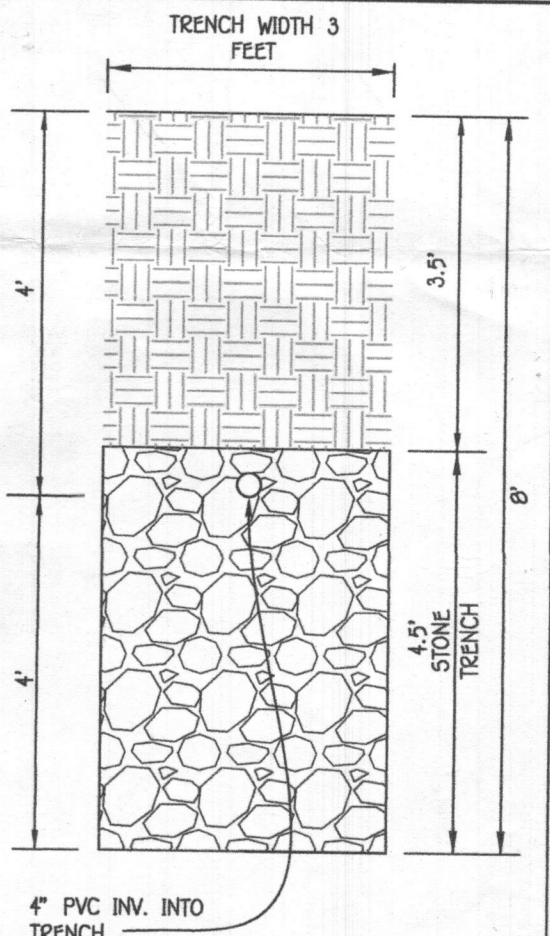
VICINITY MAP

SCALE: 1" = 1200'

FFE 606.94
BSE 596.92
INV. OUT OF HOUSE = 594.04
PROP. GROUND AT CLEANOUT #1 = 593.95
INV. INTO CLEANOUT = 593.95
EX. GROUND AT CLEANOUT = 593.05
PROP. GRADE ABOVE SEPTIC TANK = 596.4
TOP OF SEPTIC TANK = 594.56
INV. INTO SEPTIC TANK = 593.56
INV. OUT OF SEPTIC TANK = 593.31
EX. GROUND AT DISTRIBUTION BOX = 597.2
INV. INTO DISTRIBUTION BOX = 593.2
INV. OUT OF DISTRIBUTION BOX = 593.1

Approved Septic System Plan
Howard County Health Department
Yank Oswald 1/10/18
Signature Date

TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 597.1
INV. IN = 593.1
BOTTOM TRENCH = 509.1
TRENCH 2:
EX. GROUND ABOVE = 596.1
INV. IN = 592.1
BOTTOM TRENCH = 508.1



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2.5)) = 0.45
TRENCH LENGTH = 375 SF x 0.45 = 168.75 FEET
(USE 2 TRENCHES AT 84.38 LF.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 375 SF x 0.5 = 187.50 FEET
(USE 2 TRENCHES AT 93.75 LF.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 500 SF x 0.5 = 250.00 FEET
(USE 4 TRENCHES AT 62.50 LF.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

SEPTIC SYSTEM
INSTALLATION SITE PLAN

LOT 11
15320 GALAXY DRIVE
FAIRLANE FARMS

PHASE ONE

ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JANUARY 4, 2018
SHEET 1 OF 1

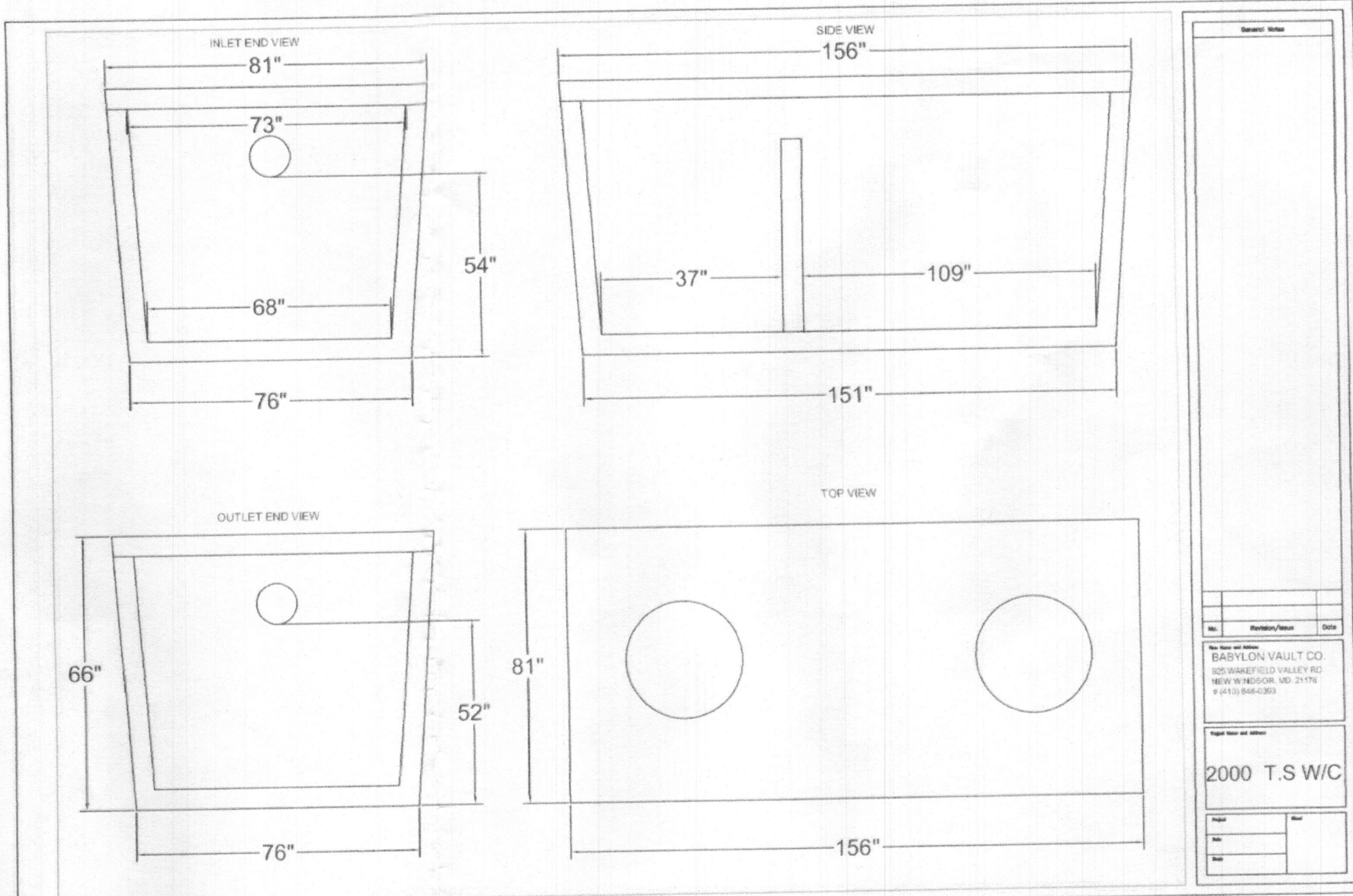
ADDRESS CHART

LOT NUMBER	STREET ADDRESS
11	15320 GALAXY DRIVE

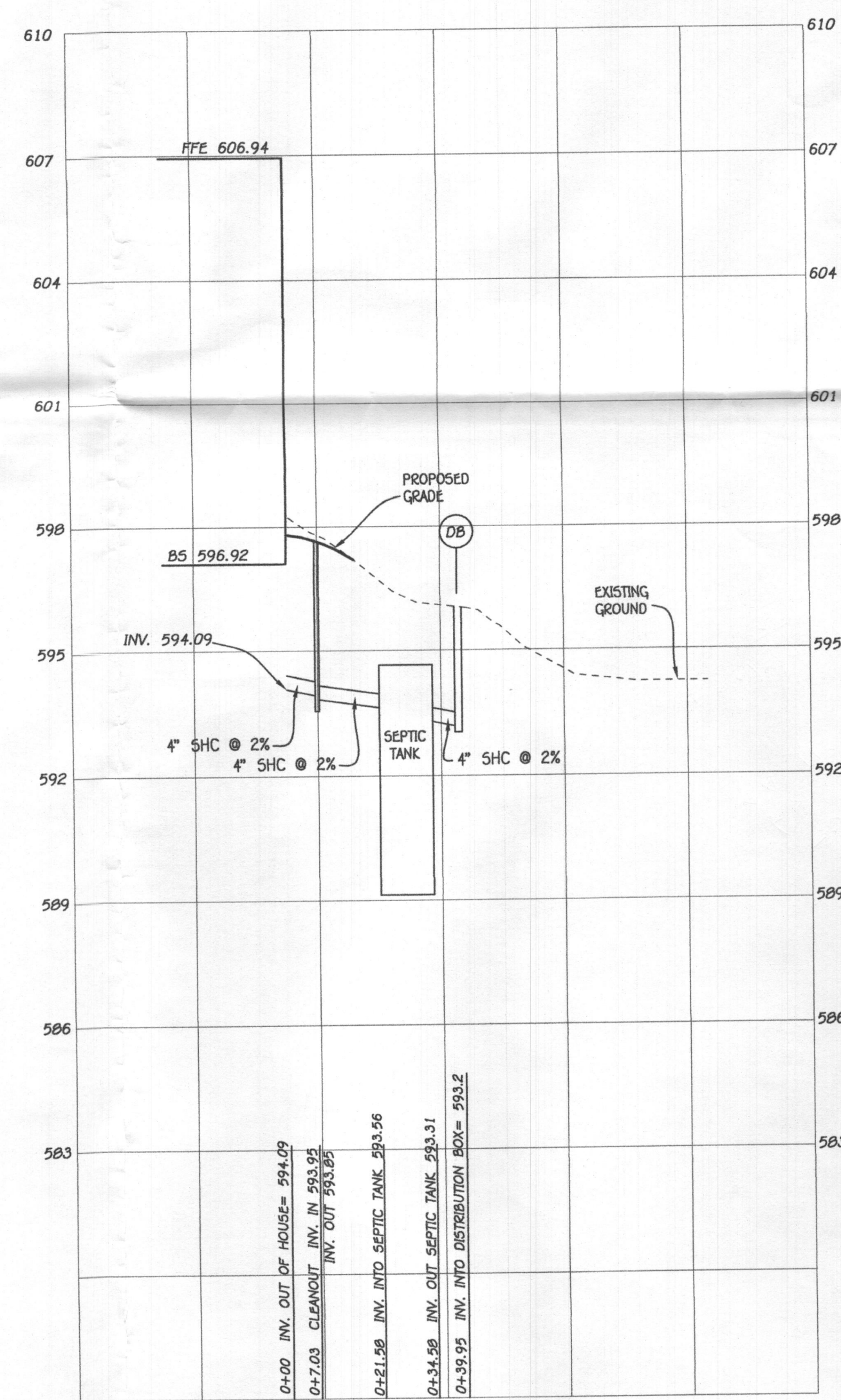
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0346 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.



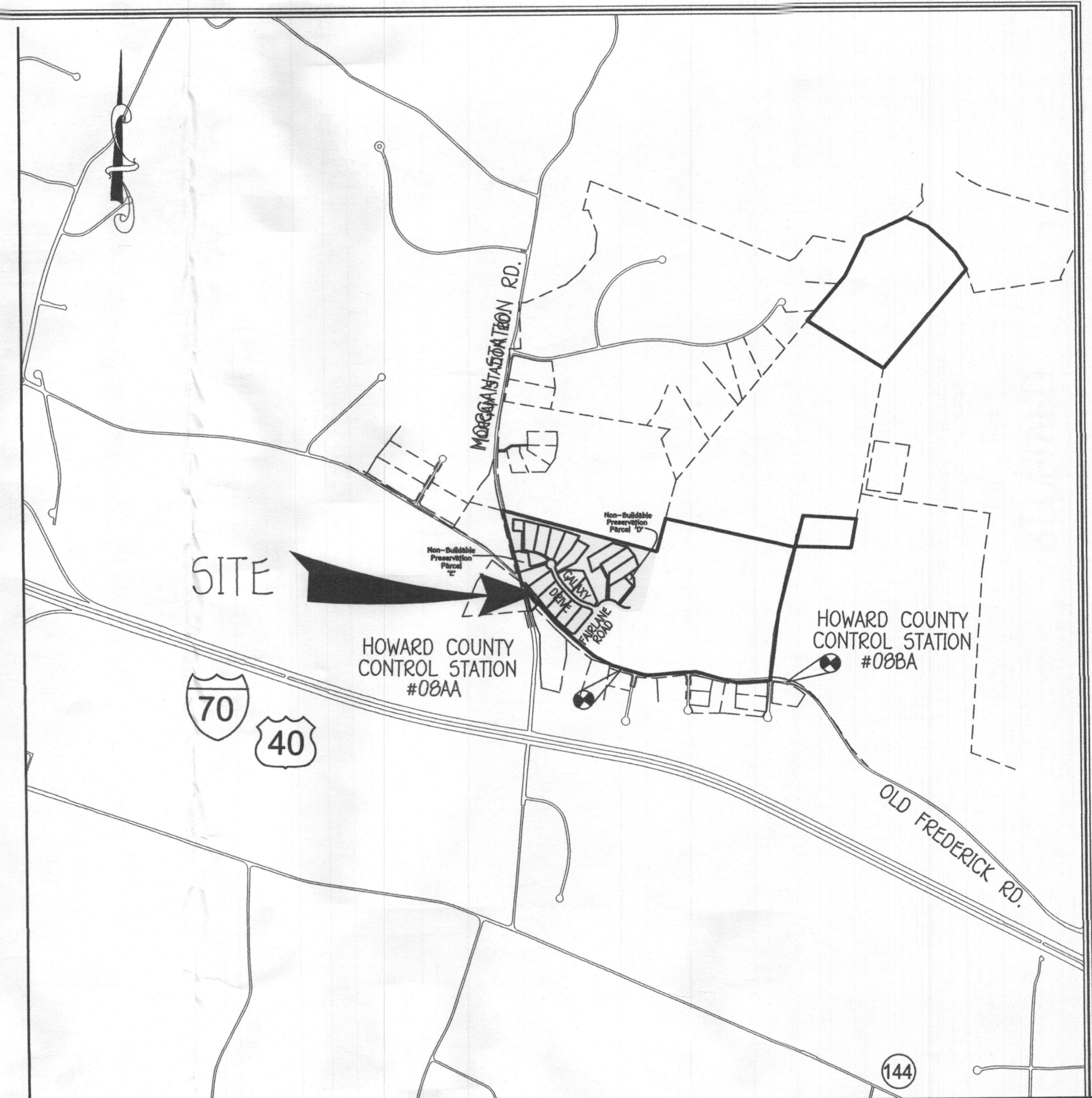
PLAN
SCALE: 1" = 30'



NO.	DESCRIPTION	DATE
1	BARBERON VAULT CO. REVISIONS TO ORIGINAL PLAN	11/15/2019
2	2000 T.S.W.C.	



SEPTIC PROFILE
SCALE: 1" = 30'

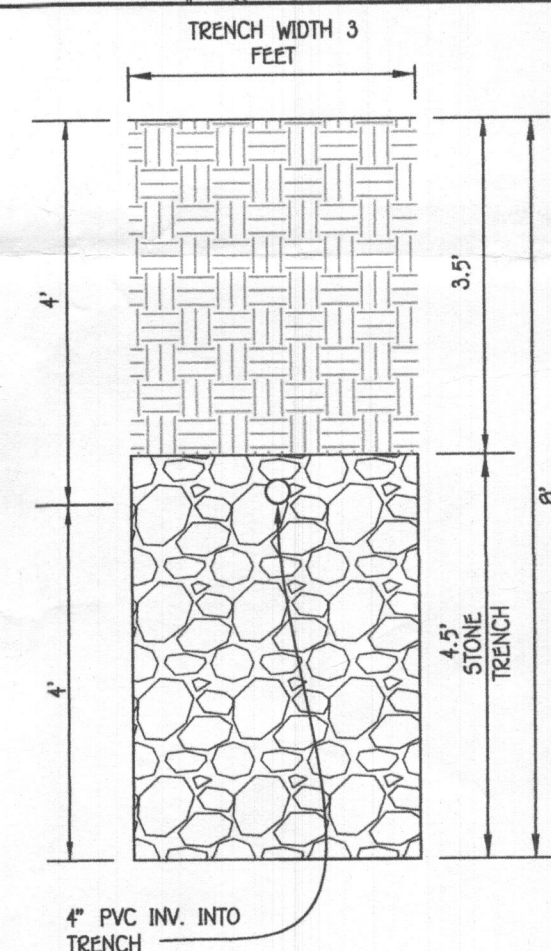


VICINITY MAP
SCALE: 1" = 1200'

FFE 606.94
BSE 596.92
INV. OUT OF HOUSE = 594.04
PROP. GROUND AT CLEANOUT #1 = 593.95
INV. INTO CLEANOUT = 593.95
EX. GROUND AT SEPTIC TANK = 596.6
PROP. GRADE ABOVE SEPTIC TANK = 596.4
TOP OF SEPTIC TANK = 594.56
INV. INTO SEPTIC TANK = 593.56
INV. OUT OF SEPTIC TANK = 593.31
EX. GROUND AT DISTRIBUTION BOX = 597.2
INV. INTO DISTRIBUTION BOX = 593.2
INV. OUT OF DISTRIBUTION BOX = 593.1

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] Date: [Date]

TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 597.1
INV. IN = 593.1
BOTTOM TRENCH = 589.1
TRENCH 2:
EX. GROUND ABOVE = 596.1
INV. IN = 592.1
BOTTOM TRENCH = 588.1



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH (D) = 3 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 375 SF x 0.45 = 168.75 FEET (USE 2 TRENCHES AT 84.38 L.F.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH (D) = 3 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.8 = 1125 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 375 SF x 0.50 = 187.50 FEET (USE 2 TRENCHES AT 93.75 L.F.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

2ND REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 0.6
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH (D) = 3 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 900 GPD / 0.6 = 1250 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.5
TRENCH LENGTH = 500.00 SF x 0.50 = 250.00 FEET (USE 4 TRENCHES AT 62.50 L.F.)
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9' USE 10'

SEPTIC SYSTEM INSTALLATION SITE PLAN

LOT 11
15320 GALAXY DRIVE
FAIRLANE FARMS
PHASE ONE
ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: JANUARY 4, 2018
SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
11	15320 GALAXY DRIVE

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. 20746, EXPIRATION DATE: 02/22/2019.



Signature: [Signature] DATE: 1/9/20

OWNER/DEVELOPER
NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21045
410-379-5956

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2899