

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: 6/3/19

ONSITE SEWAGE DISPOSAL SYSTEM

P 565512

APPROVAL DATE: 06/19/2019

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 1040 Thunderbird Drive

SUBDIVISION: Fairlane Farms

LOT: 36

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 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>156.5</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>7.5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5.5</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	<u>2x 79" TRENCHES</u>	

ISSUED BY: Hank Oswald

ISSUE DATE: 6/3/19

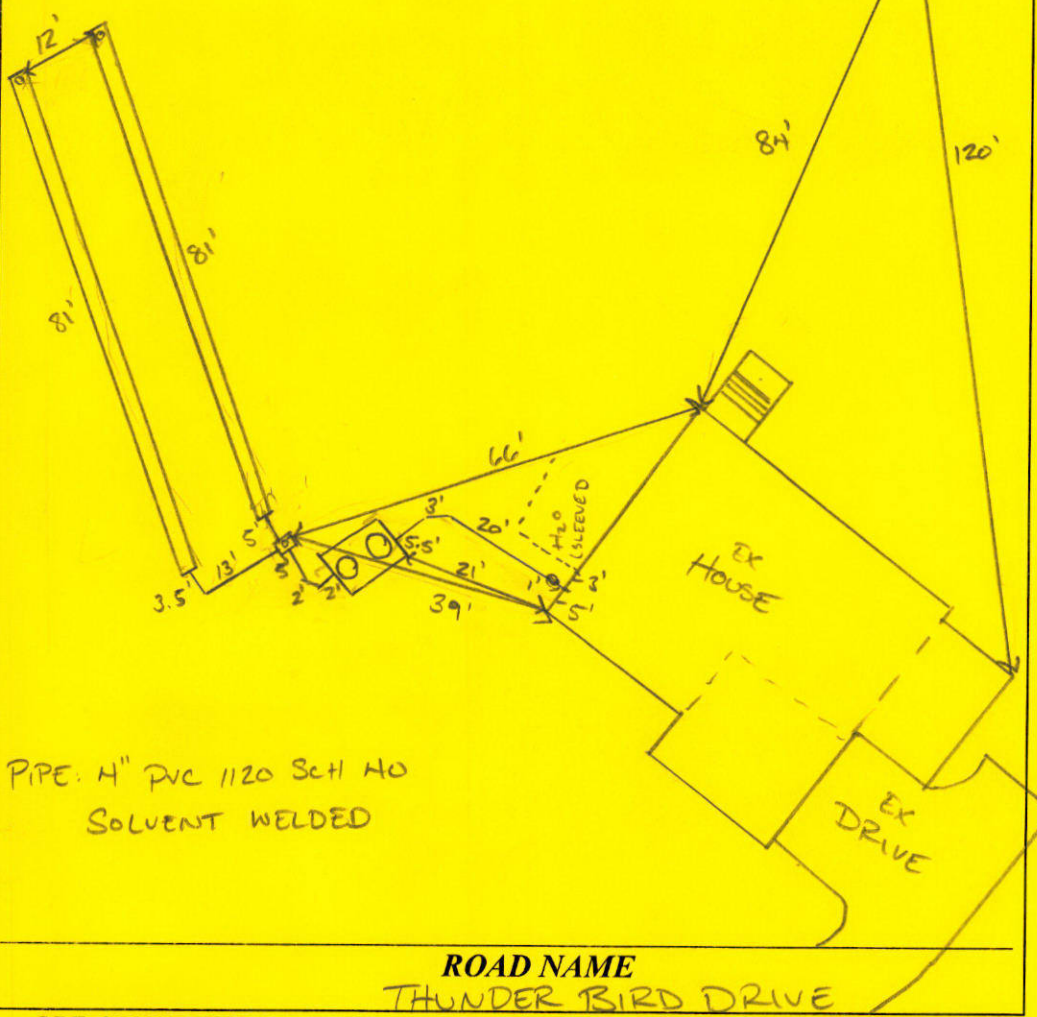
EXPIRATION DATE: 6/3/20

- 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.

NOT TO SCALE

≈ 1:30



PIPE: 4" PVC 1120 SCH 40
SOLVENT WELDED

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3	4	7.5
NUMBER OF TRENCHES		2
TOTAL LENGTH		162 F
ABSORPTION AREA		486 SF
DISTRIBUTION BOX LEVEL		SPEED
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	23'
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	FRONT/BACK
6" PORT LOC	-
WATERTIGHT TEST	-
SLOTTED	YES
DATE ON LID	PASS
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:

6/10/2019 SEWER IS HUNG INSTEAD OF UNDER FOOTER. FALL OK.
TRENCHES LAID OUT ON CONTOUR. OK TO START. (P)

INSTALLATION:

6/12/2019 SL FROM HOUSE TO ST COMPLETE. TANK SET. OK
TO CONTINUE. (P) 6/17/2019 D BOX SET AND LEVELLED WITH SPEED
LEVELS. TRENCHES COMPLETE. OK TO BACKFILL. (P) 6/19/2019 CONTRACTOR
EMAIL CONFIRMATION OF SHC. (P)

FINAL INSPECTOR

DATE OF APPROVAL

6/19/2019

Transmittal

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
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From: Tony Fertitta	CC:
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Re: Fairlane Farms, Lot 36	W.O.# 05106-3003
Date: March 7, 2019	Pages: 0 Page(s) Including this cover

We are forwarding: <input checked="" type="checkbox"/> Prints <input type="checkbox"/> Copy of Letter <input type="checkbox"/> Specifications <input type="checkbox"/> Shop drawings <input type="checkbox"/> Other <input type="checkbox"/> Urgent <input type="checkbox"/> For your use <input type="checkbox"/> As requested <input checked="" type="checkbox"/> For Review & Comment

Remarks:

Re: Fairlane Farm, Lot 36, 1040 Thunderbird Drive.

Here are 3 copies of the OSDS for Lot 36 for your review/approval Please let me know if you have any questions.

Thank You,

Tony.

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

CONFIDENTIALITY NOTICE

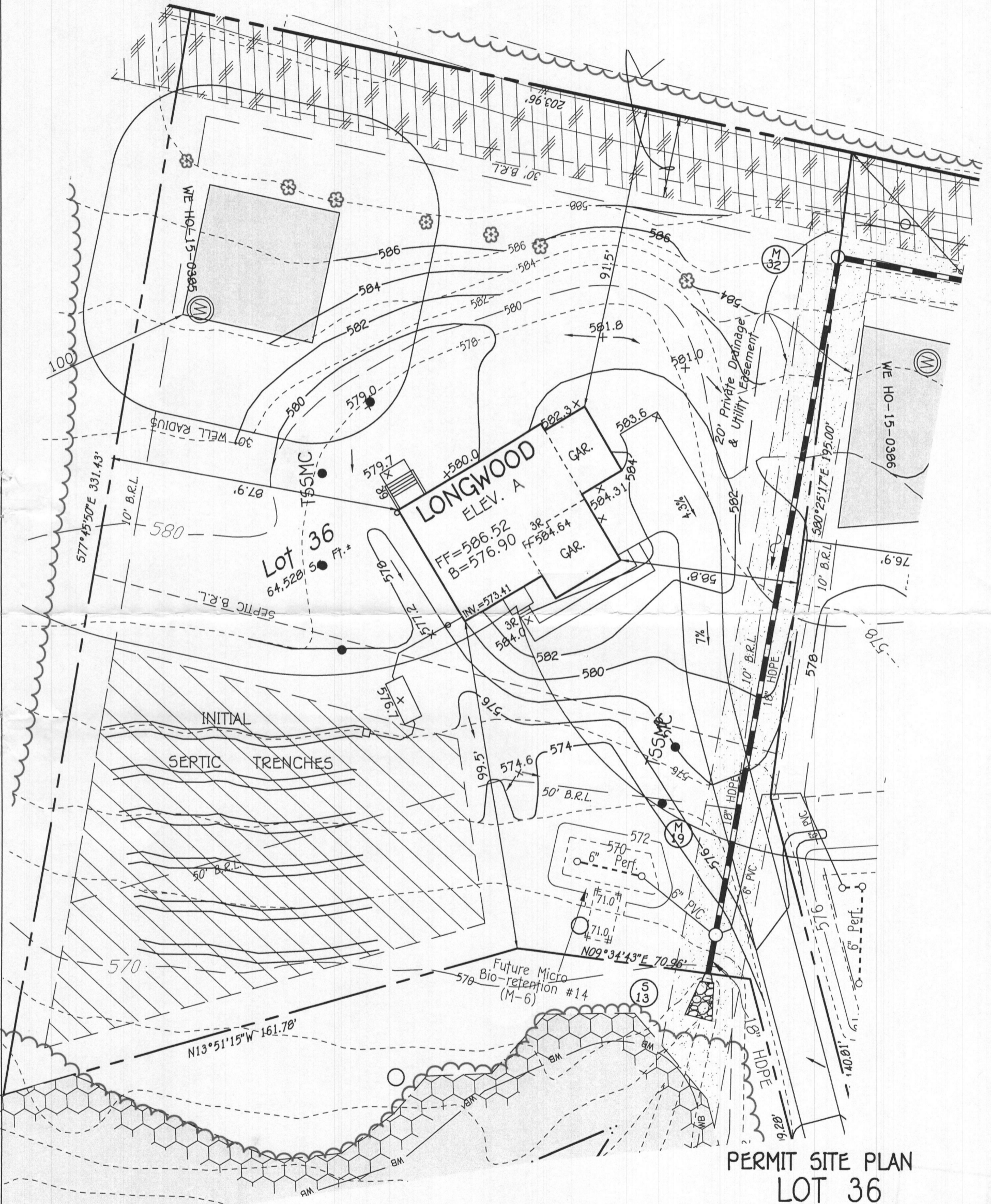
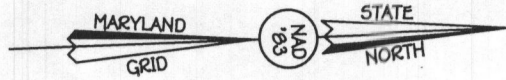
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OWNER/DEVELOPER

NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-5956

STORMWATER MANAGEMENT NOTES:

STORMWATER MANAGEMENT FOR LOT 36 IS BEING PROVIDED BY MICRO-BIORETENTION FACILITY #14 (M-6).



NOTE: THE EXISTING WELL SHOWN ON THIS PLAN, HO-15-0385, HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.

**PERMIT SITE PLAN
LOT 36**
1040 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: FEB. 15, 2019
SHEET 1 OF 1

FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS

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

PLAN

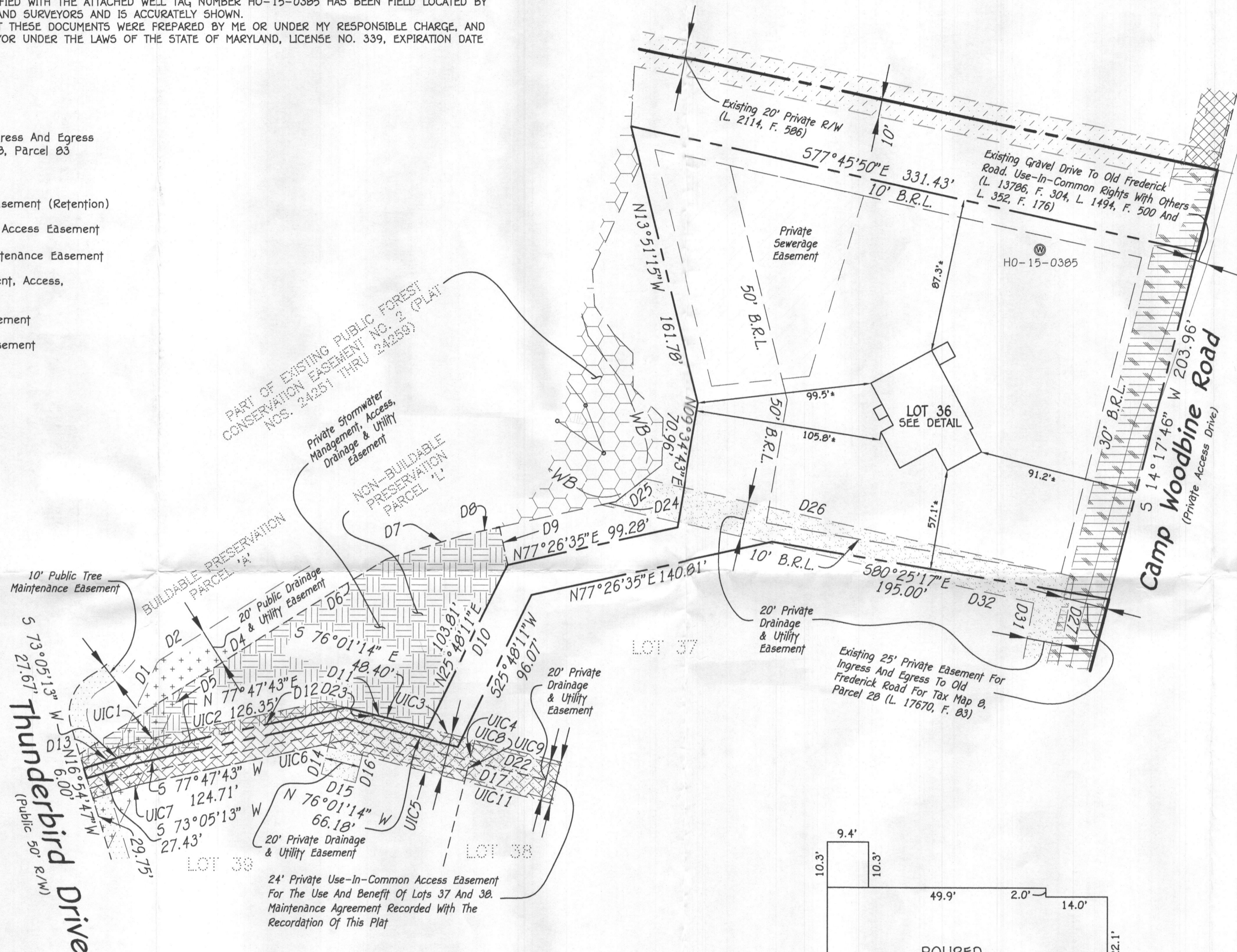
SCALE: 1" = 30'

GENERAL NOTES:

- 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.
- 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.
- THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1.0'.
- NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
- THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-15-0385 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
- 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.
- BUILDING PERMIT #B-19000584

Legend

- Existing 25' Private Easement For Ingress And Egress To Old Frederick Road For Tax Map B, Parcel B3
- Existing 20' Private R/W
- Existing Public Forest Conservation Easement (Retention)
- Existing 24' Private Use-In-Common Access Easement
- Existing 10' And 15' Public Tree Maintenance Easement
- Existing Private Stormwater Management, Access, Drainage & Utility Easement
- Existing Public Drainage & Utility Easement
- Existing Private Drainage & Utility Easement

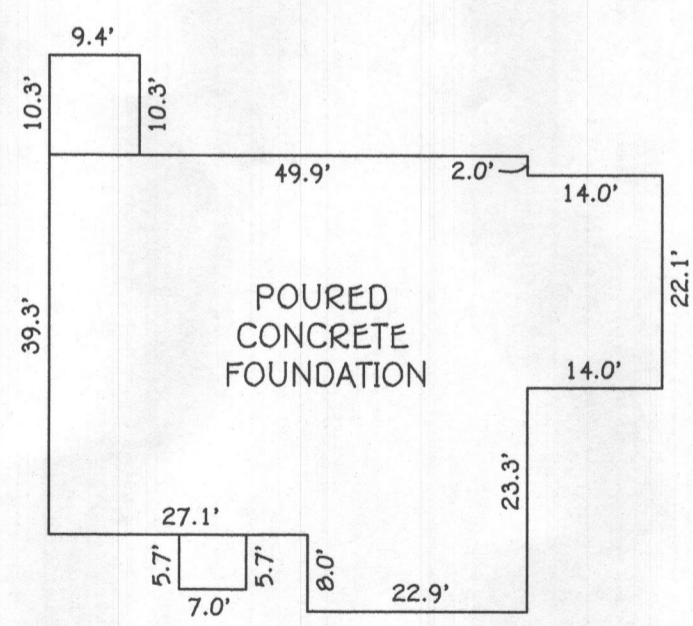
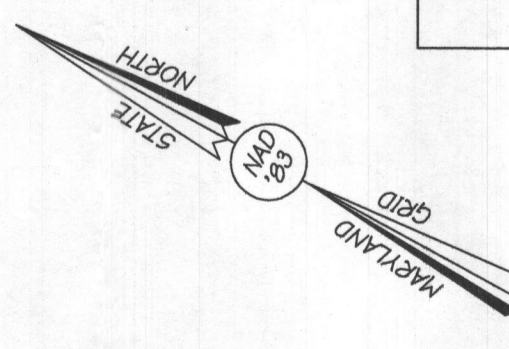


24' Private Use-In-Common Access Easement Line Table

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°58'46"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°58'46"E	24.00'
UIC9	S76°01'14"E	208.08'
UIC11	N76°01'14"W	208.08'

Public And Private Drainage & Utility Easement Line Table

LINE	BEARING	LENGTH
D1	N25°19'38"E	85.36'
D2	N57°33'07"E	103.67'
D4	S57°33'07"W	111.79'
D5	S25°19'38"W	101.61'
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°48'11"W	103.81'
D11	N76°01'14"W	48.40'
D12	S77°47'43"W	121.97'
D13	S73°05'13"W	27.67'
D14	S14°23'36"W	37.99'
D15	S75°36'24"E	20.00'
D16	N14°23'36"E	18.07'
D17	S76°01'14"E	232.22'
D22	N76°01'14"W	252.94'
D23	N14°23'26"W	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°23'25"W	92.37'
D31	N10°23'25"E	72.48'
D32	N77°18'36"W	253.83'



6/3/19 - wall check okay. H.O.

#1040 THUNDERBIRD DRIVE
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 585.7'

Mark L. Robel
PROPERTY LINE SURVEYOR
REG. #339
5/10/19

HOUSE LOCATION DRAWING

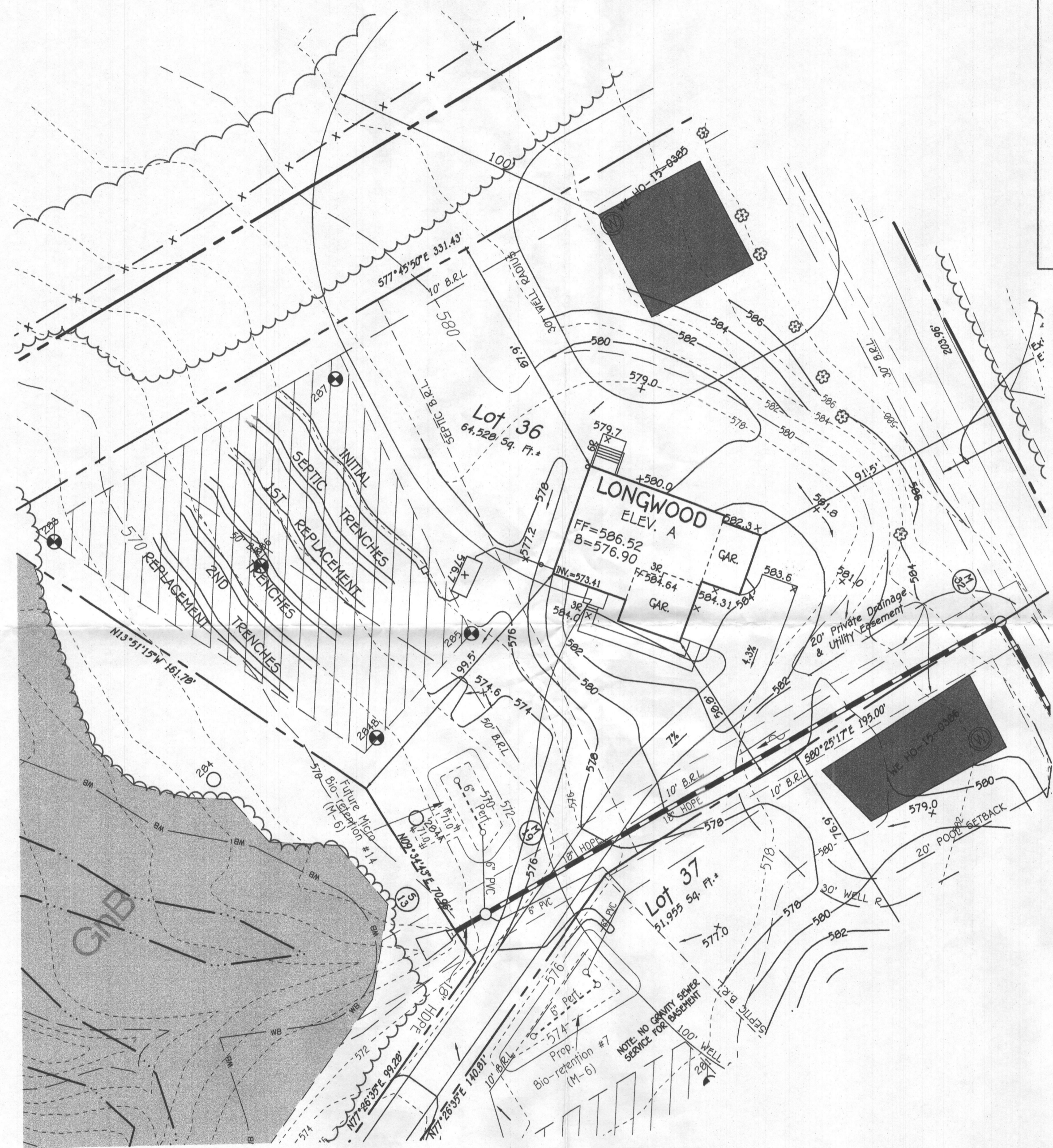
FOUNDATION LOCATION: 5/2/19
FINAL LOCATION:
BOUNDARY SURVEY:

SCALE: 1"=50'
DATE: 5/10/19
DRAWN BY: MD
CHECKED BY: MLR
PROJECT No.: 05106-3003

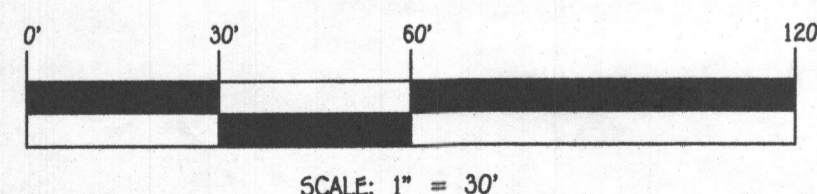
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE

LOT 36
FAIRLANE FARM
PHASE TWO
RESUBDIVISION PLAT-LOTS 19 THRU 44,
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. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0385 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'



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2925

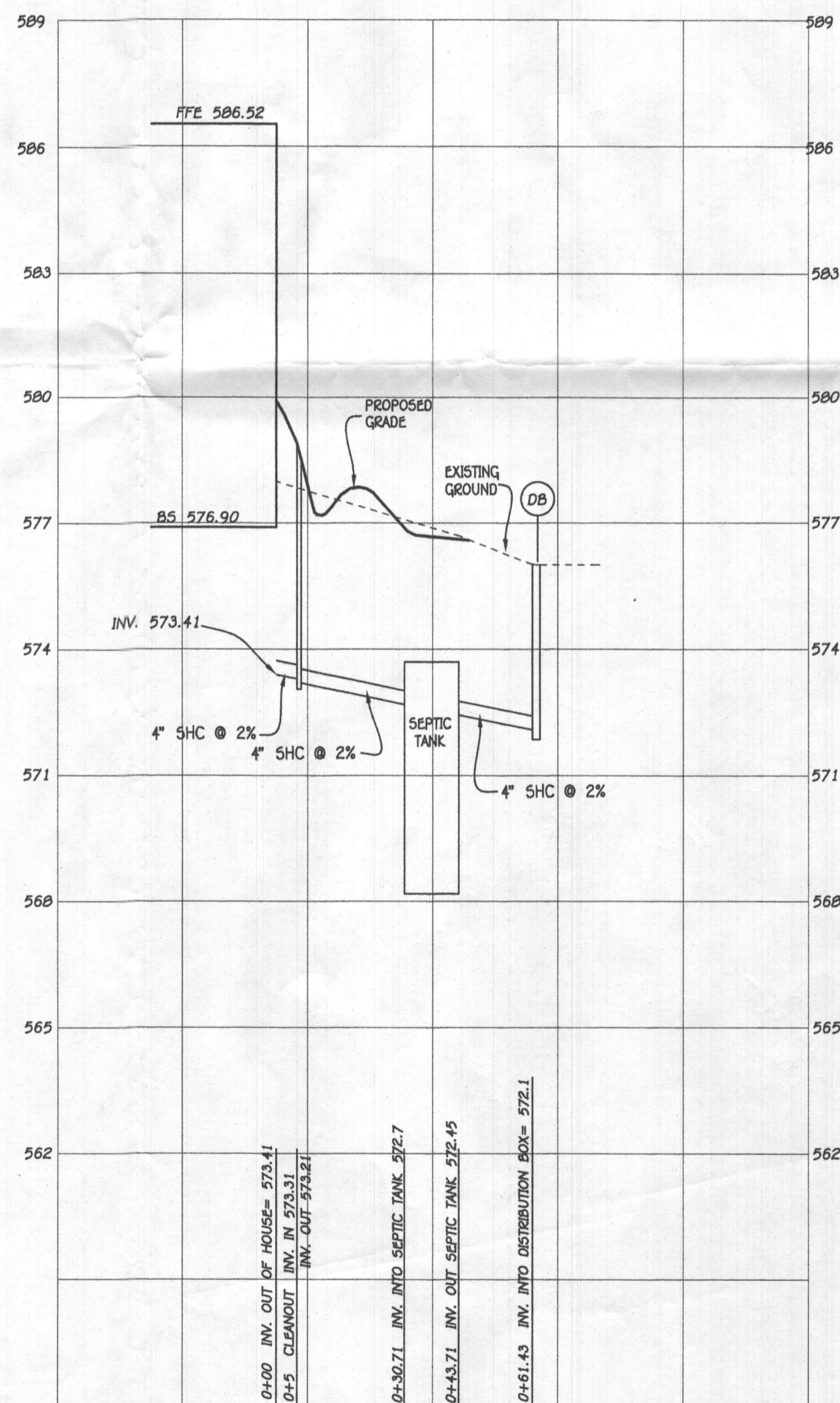
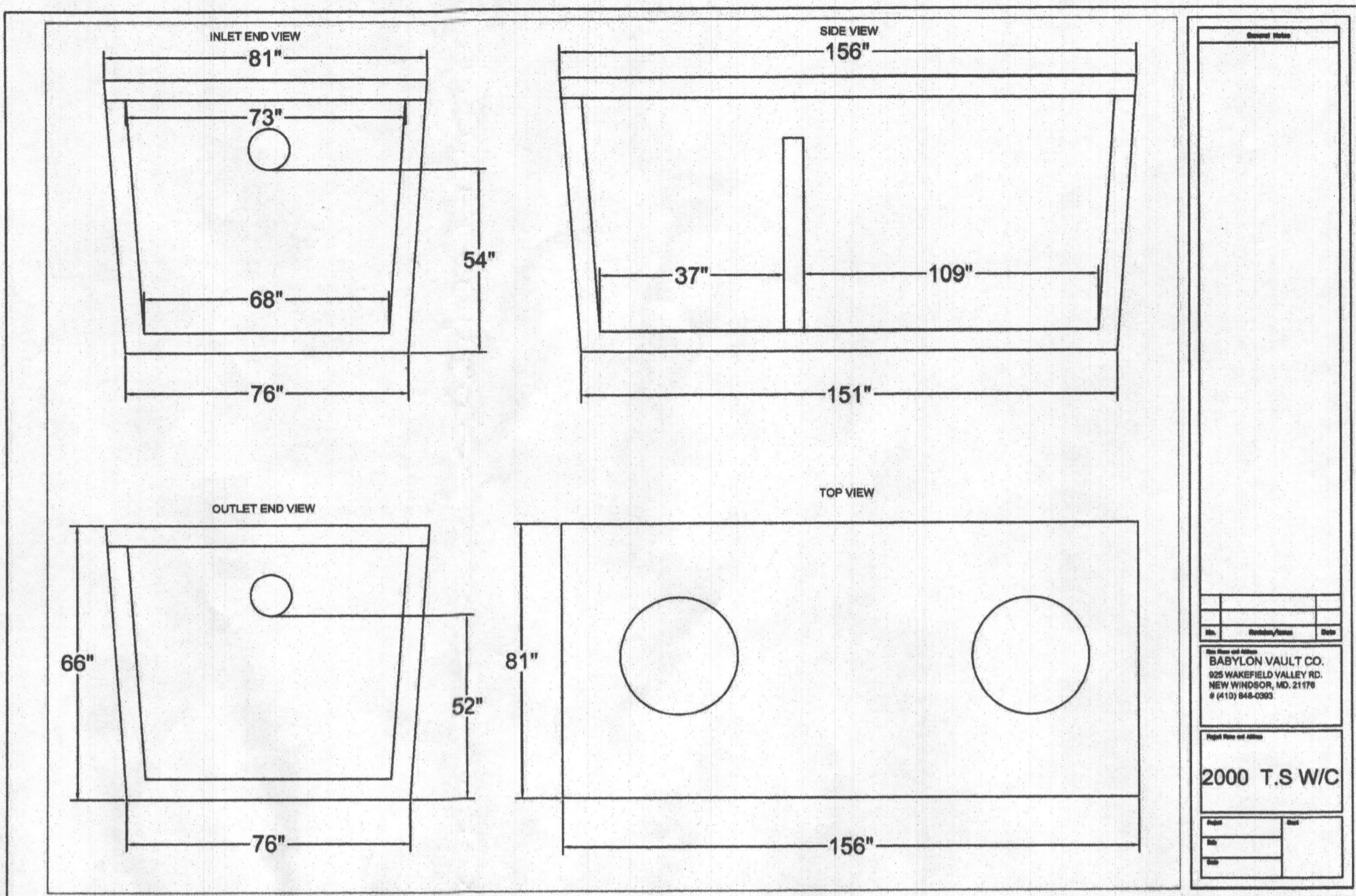
OWNER/DEVELOPER
NV HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-9956



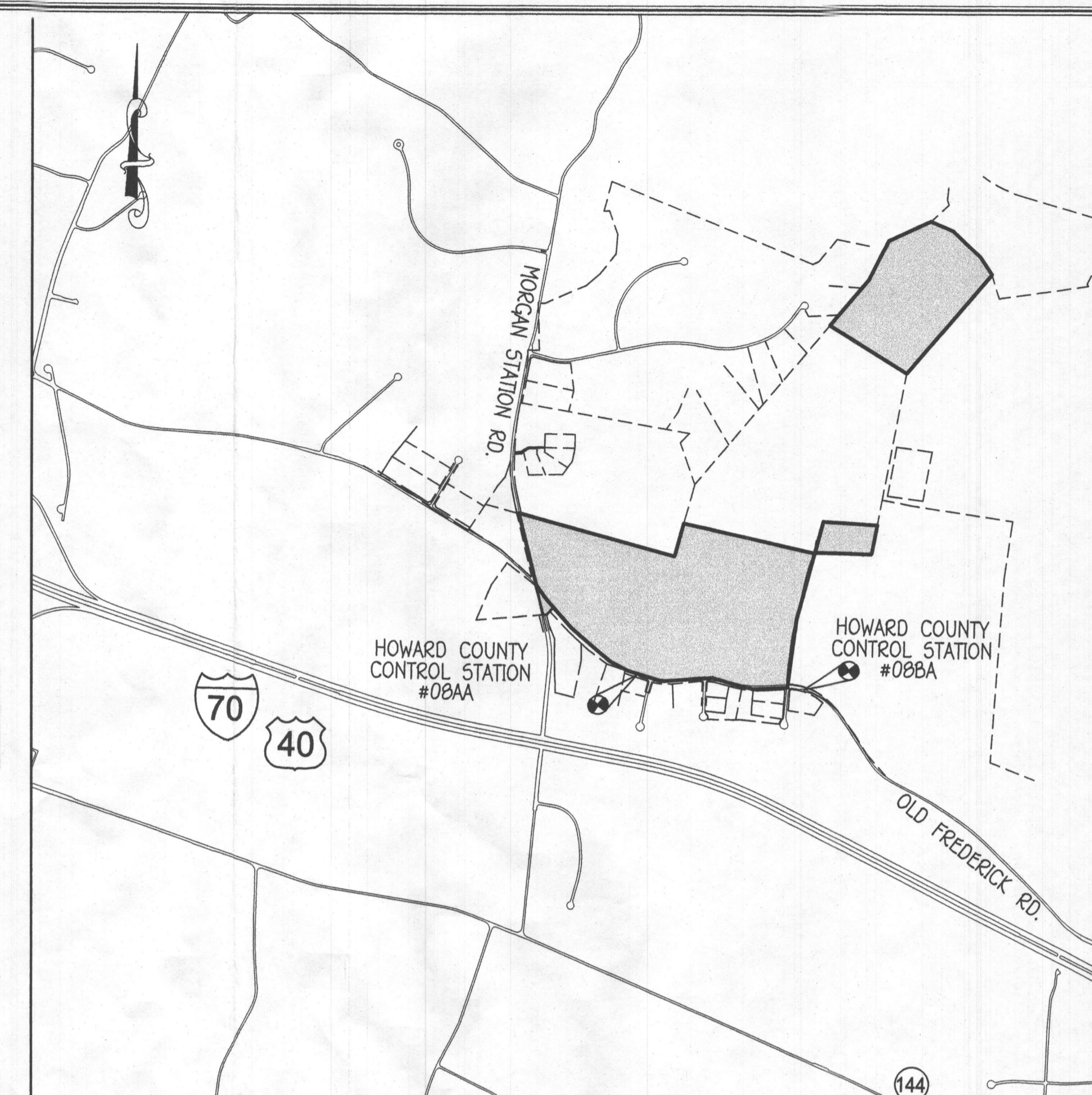
PROFESSIONAL CERTIFICATION

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: 02/22/2021

Michael V. Viteco
Signature of Professional Engineer
3/7/19
DATE



SEPTIC PROFILE
SCALE: 1" = 30'

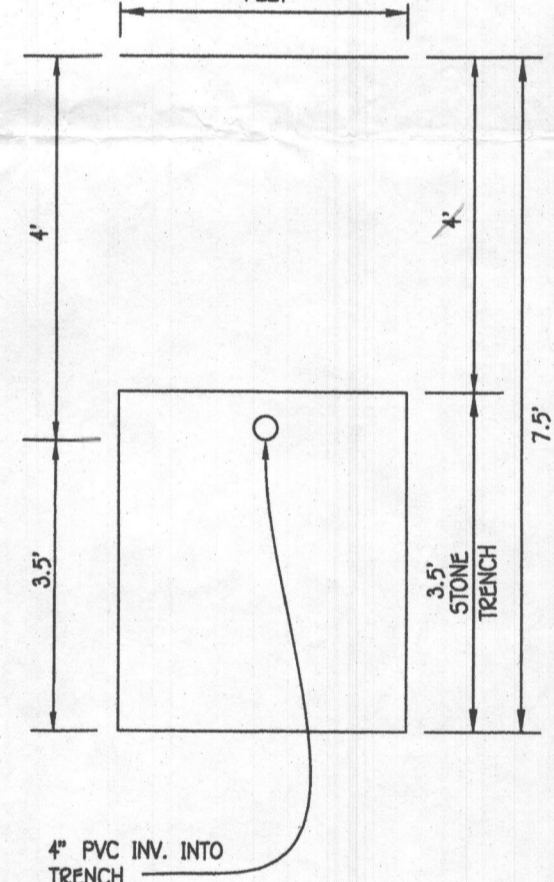


VICINITY MAP
SCALE: 1" = 1200'

FFE 586.52
BSE 576.90
INV. OUT OF HOUSE = 573.41
PROP. GROUND AT CLEANOUT #1 = 578.1
INV. INTO CLEANOUT = 573.31
INV. OUT OF CLEANOUT = 573.21
EX. GROUND AT SEPTIC TANK = 576.7
PROP. GRADE ABOVE SEPTIC TANK = 576.7
TOP OF SEPTIC TANK = 573.7
INV. INTO SEPTIC TANK = 572.7
INV. OUT OF SEPTIC TANK = 572.45
EX. GROUND AT DISTRIBUTION BOX = 576.0
INV. INTO DISTRIBUTION BOX = 572.1
INV. OUT OF DISTRIBUTION BOX = 572.0

Approved Septic System Plan
Howard County Health Department
Hank Oswald 3/15/19
Signature Date

TRENCH DATA:
TRENCH 1:
EX. GROUND ABOVE = 576.0
INV. IN = 572.0
BOTTOM TRENCH = 568.5
TRENCH 2:
EX. GROUND ABOVE = 575.0
INV. IN = 571.0
BOTTOM TRENCH = 567.5



INITIAL TRENCH DETAIL
SCALE: 1" = 2'

INITIAL SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS (PERMIT FOR 5 BEDROOMS)
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 5.5 FEET
TRENCH DEPTH = 7.5 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2 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+(2x2.5)) = 1.2
TRENCH LENGTH = 250 SF x 0.625 = 156.25 FEET
(USE 2 TRENCHES AT 78.13 L.F.)
TRENCH SPACING = 2D+W = ((2x2) + 3) = 7' USE 10'

1ST REPLACEMENT SYSTEM

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 6 BEDROOMS (PERMIT FOR 5 BEDROOMS)
LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2.5)) = 0.56
TRENCH LENGTH = 250.00 SF x 0.56 = 140.00 FEET
(USE 2 TRENCHES AT 70.00 L.F.)
TRENCH SPACING = 2D+W = ((2x2.5) + 3) = 8' USE 10'

2ND REPLACEMENT SYSTEM

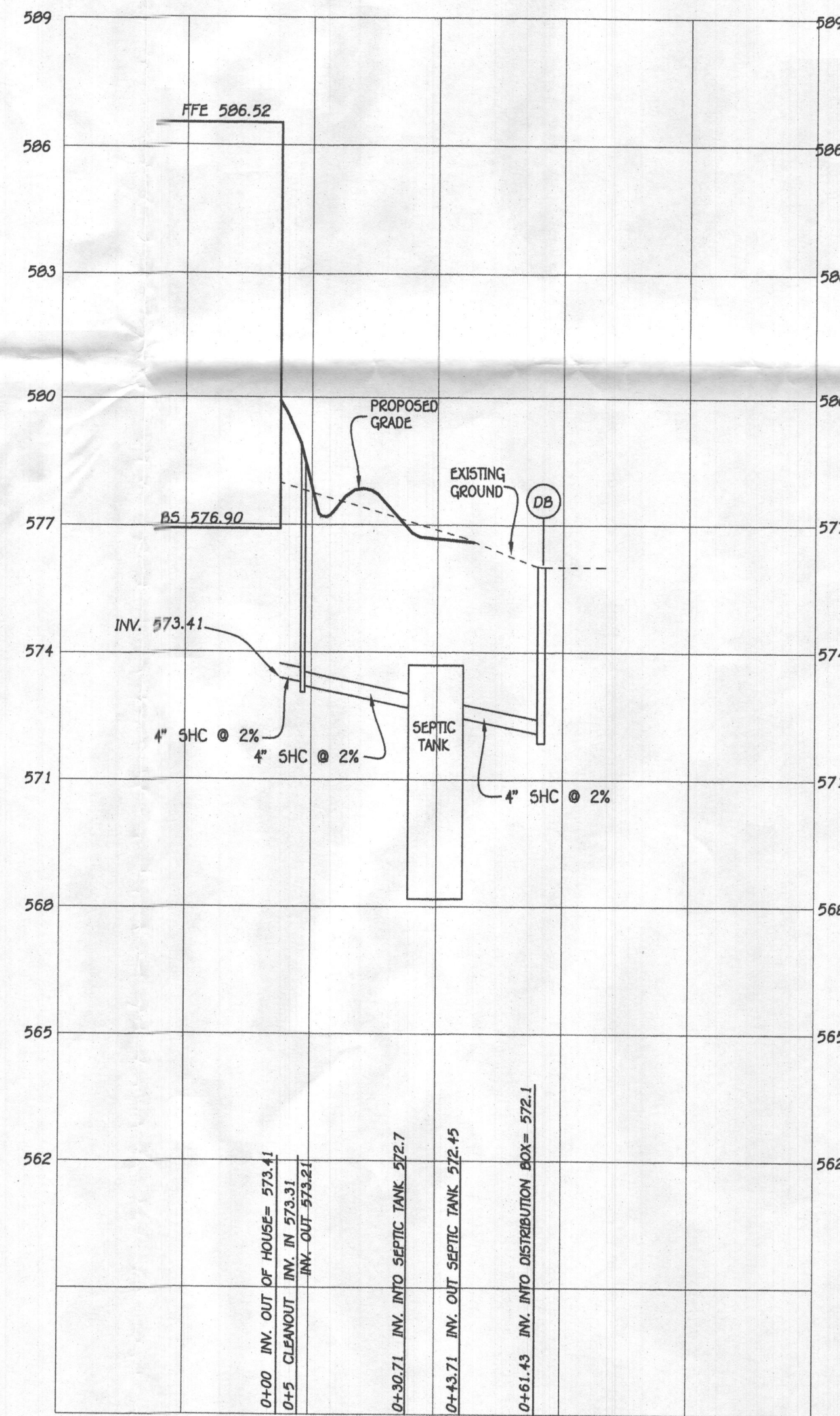
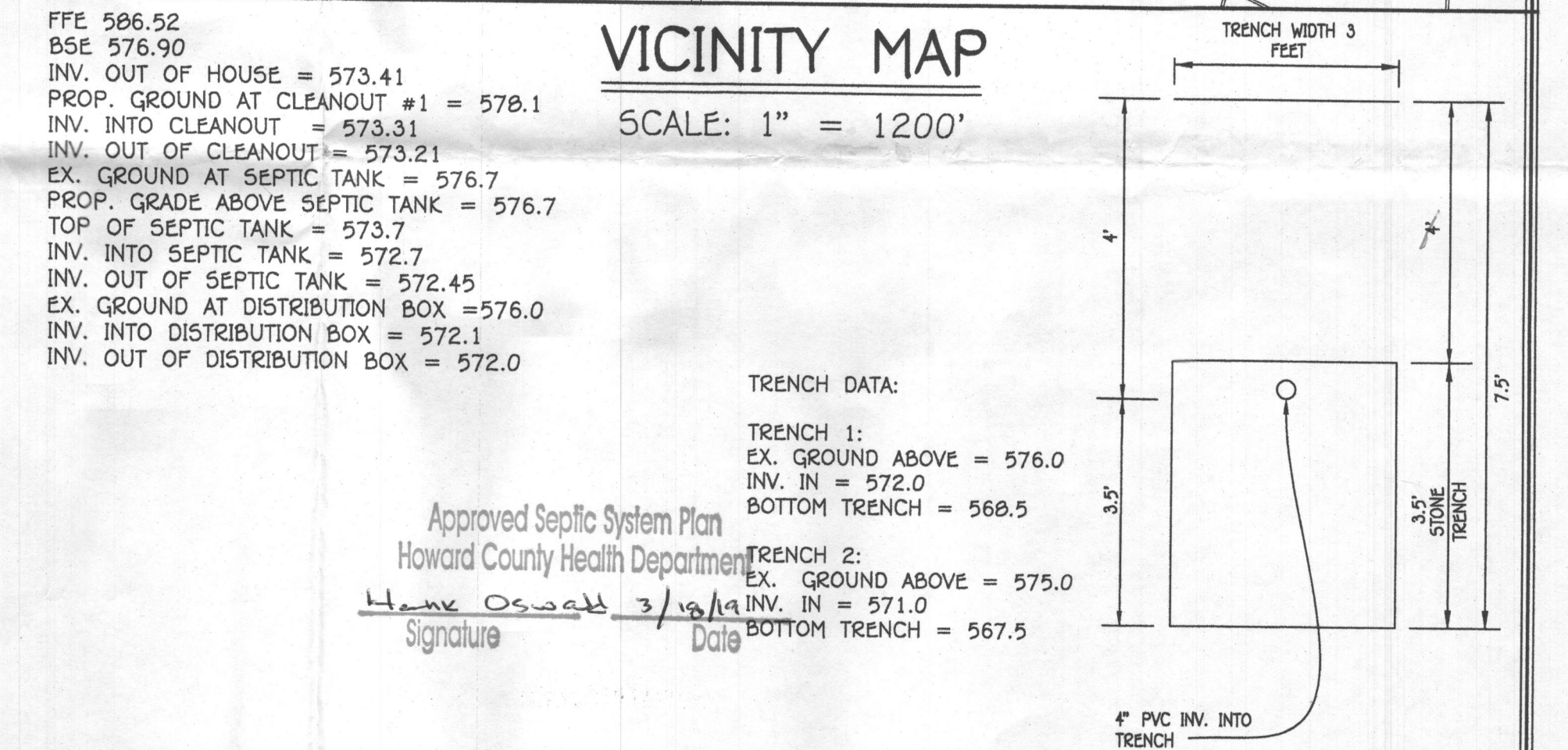
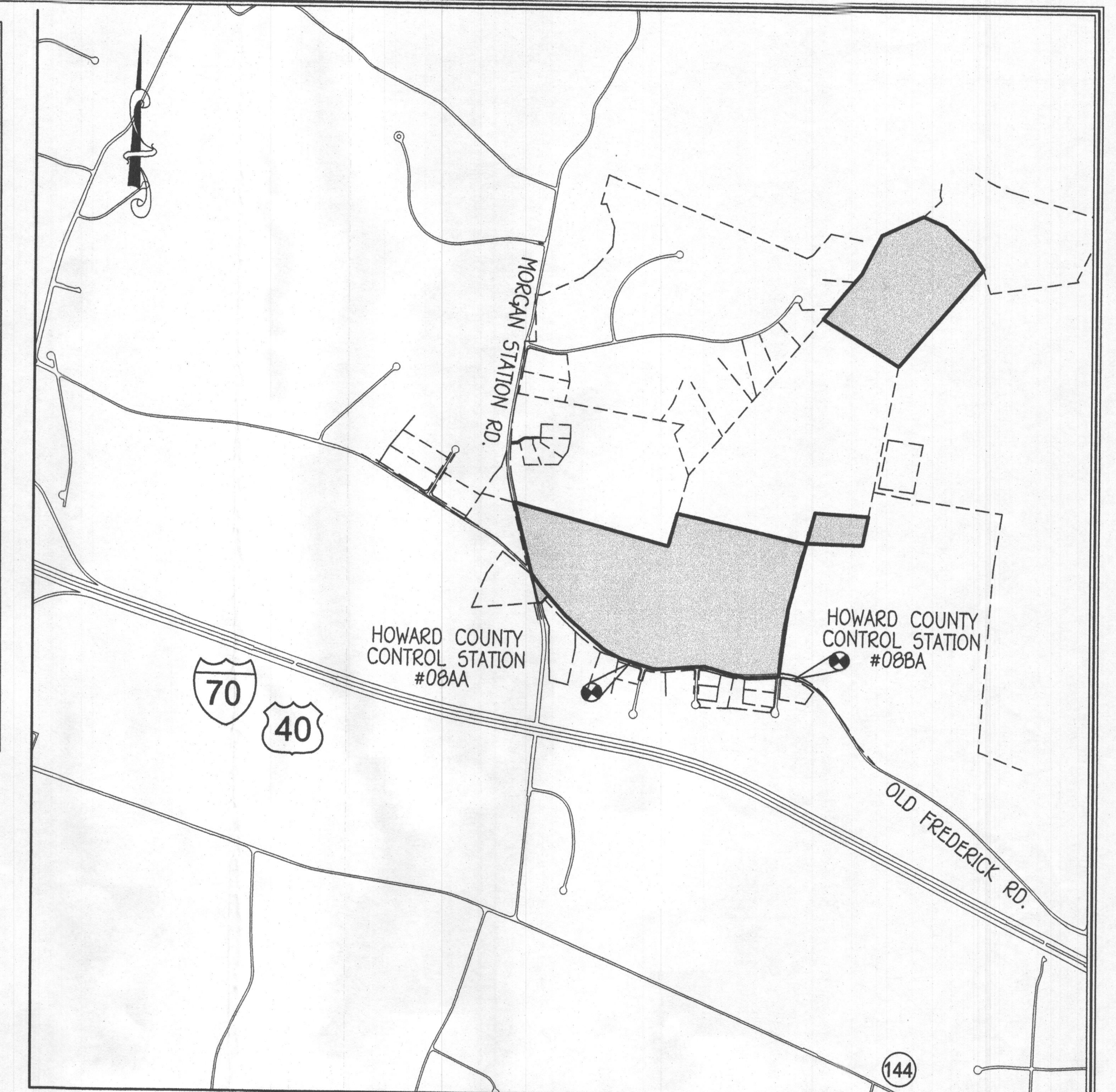
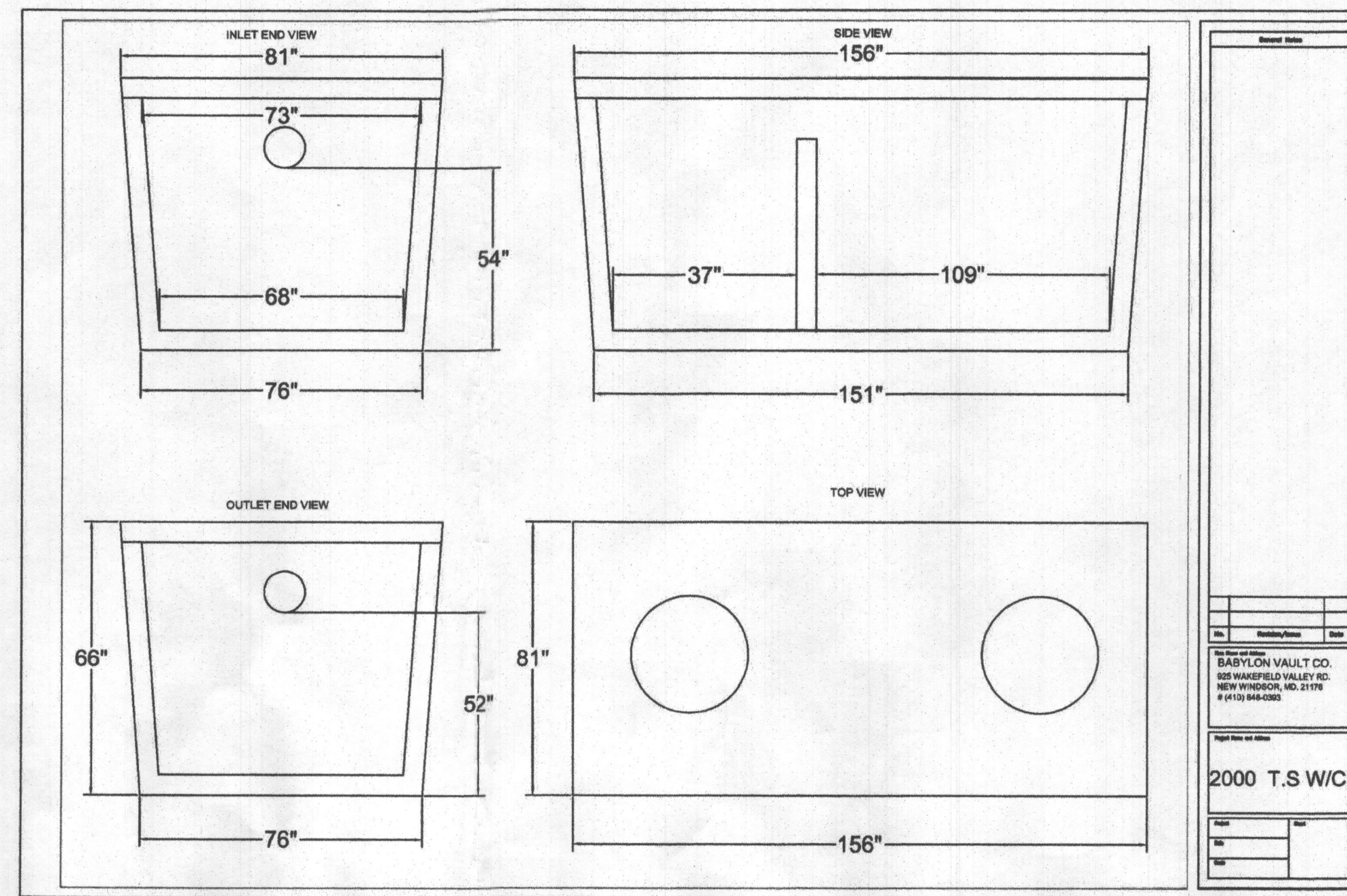
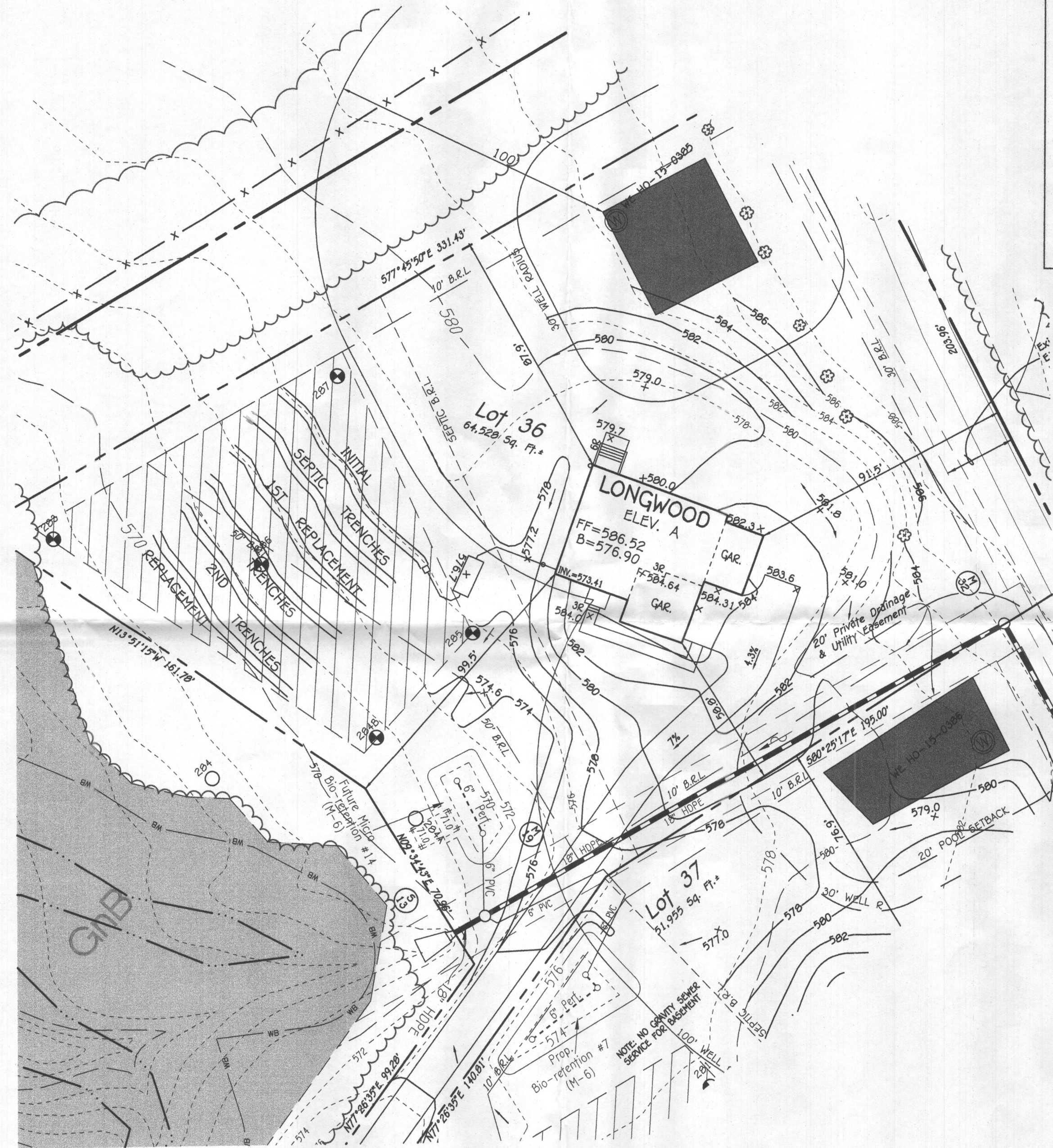
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(USE 2 TRENCHES AT 70.00 L.F.)
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**SEPTIC SYSTEM
INSTALLATION SITE PLAN
LOT 36
1040 THUNDERBIRD DRIVE
FAIRLANE FARMS
PHASE TWO**

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
36	1040 THUNDERBIRD DRIVE

ZONED: RC-DEO
TAX MAP NO.: 8 GRID NO.: 2 PARCEL NO.: 8
5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: MARCH 7, 2019
SHEET 1 OF 1

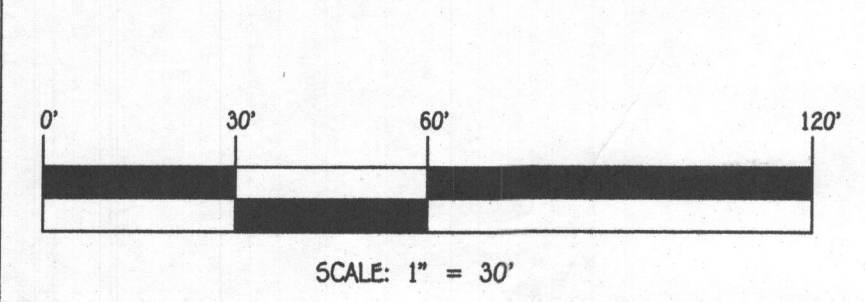
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2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.
3. ELECTRICAL WORK FOR THE INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
4. THE WELL HO-15-0395 HAS BEEN FIELD LOCATED AND IS 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.



INITIAL SYSTEM
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2ND REPLACEMENT SYSTEM
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LOADING RATE = 6 BEDROOMS X 150 GPD/BEDROOM = 900 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 4.5 FEET
TRENCH DEPTH = 7 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 2.5 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 750 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x2.5)) = 0.56
TRENCH LENGTH = 250.00 SF x 0.56 = 140.00 FEET (USE 2 TRENCHES AT 70.00 L.F.)
TRENCH SPACING = 2D+W = ((2x2.5) + 3) = 8' USE 10'



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTRAL SOURCE OFFICE PARK - 10772 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2995

OWNER/DEVELOPER
NY HOMES
9720 PATUXENT WOODS DRIVE
COLUMBIA, MD 21046
410-379-9996



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 V. Vitacek
Signature of Professional Engineer
3/7/19
DATE

SEPTIC PROFILE
SCALE: 1" = 30'

ADDRESS CHART

LOT NUMBER	STREET ADDRESS
36	1040 THUNDERBIRD DRIVE

SEPTIC SYSTEM INSTALLATION SITE PLAN
LOT 36
1040 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: MARCH 7, 2019
SHEET 1 OF 1