


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: 11/7/17

ONSITE SEWAGE DISPOSAL SYSTEM

P 562326

APPROVAL DATE: 11/17/17 

PERMIT: CONSTRUCTION

A _____

PROPERTY ADDRESS: 15439 Rivercrest Court

SUBDIVISION: Rivercrest

LOT: 5 TAX ID: 04-370600

CONTRACTOR: Hatfield's Equipment

EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519 Annapolis Junction, MD 20701

PHONE: 301-490-4289

PROPERTY OWNER: Roxbury Farms LLC, C/O Columbia, Developers

EMAIL: _____

OWNER ADDRESS: 6420 Autumn Sky Way, Columbia, MD 21044

PHONE: 410-730-3940

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon Vault

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>65.59 x 2 = 131'</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>11</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4</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 3- 45' trenches.	

ISSUED BY: Robert Freemon

ISSUE DATE: 11/7/17

EXPIRATION DATE: 11/7/18

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

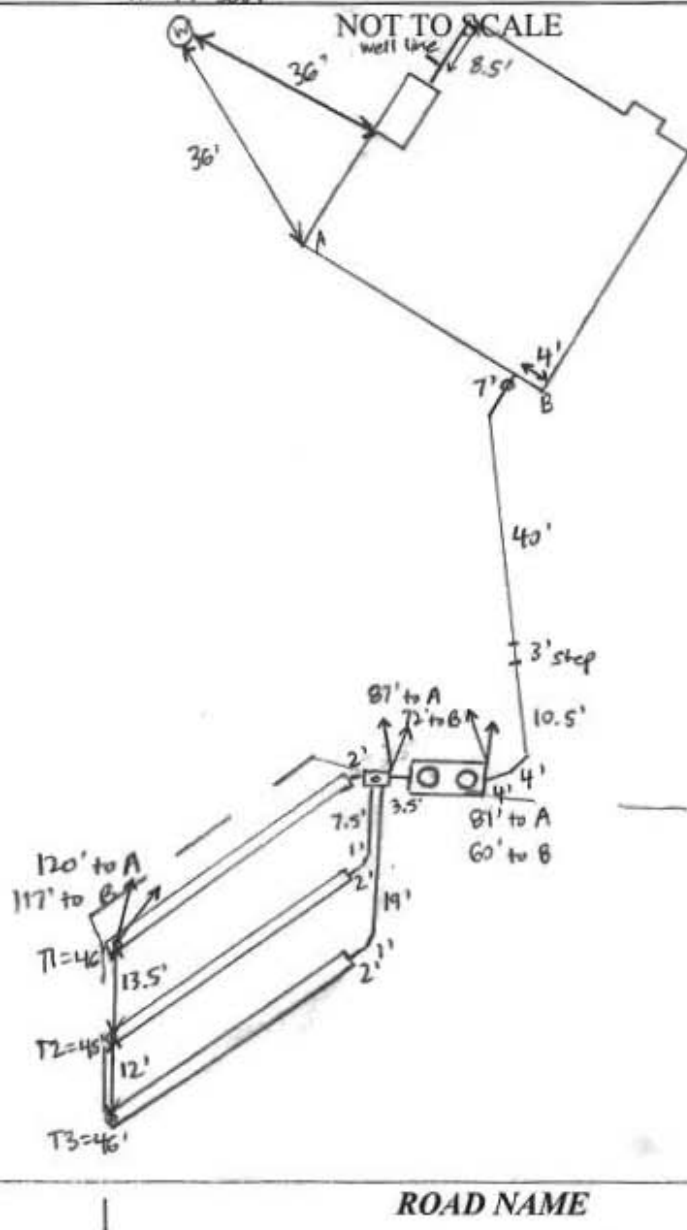
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

HO-94-3839

NOT TO SCALE

**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES		3
TOTAL LENGTH		137'
ABSORPTION AREA		411' + SIDEWALL
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		TDP
TANK LID DEPTH		1-2.5'
BAFFLES		YES
BAFFLE FILTER		NO
MANHOLE LOC		FRONT + REAR
6" PORT LOC		NONE
WATERTIGHT TEST		NO
SLOTTED		YES
DATE ON LID		10-7-17

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:

11/15/17 Met Hatfield's on site for layout. SDA, tank, + trenches staked. Shot contour + laid out 3 x 45' trenches in SE corner of SDA. Moved tank a few feet off steep grade built on side of house.

INSTALLATION: 11/16/17 House connection made. Tank set + pipe laid from house to tank. D-box set + Hatfield's digging T3. Not using laser to check depths, set up during site visit. 3.5' to stone, 8' bottom. Pockets of rock 30-40%. 7-8' deep. (SC) 11/17/17 Trenches complete. T1 left open for inspection. T2 left open at end. 3' wide, 3.5' to stone. T1 + T2 had pockets of >50% rock for about 4' near trench ends. Levelled speed levelers in D-box. Pipes of D-box sealed with hydraulic cement. (SC)

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 11/17/17

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 BEARING TANK.
3. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND 200 FEET DOWNGRADE OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
4. THE FOREST CONSERVATION EASEMENTS SURROUNDING THE SEWAGE DISPOSAL AREA MUST BE PROFESSIONALLY STAKED BY A LICENSED SURVEYOR AND VERIFIED BY THE HEALTH DEPT PRIOR TO INSTALLATION.

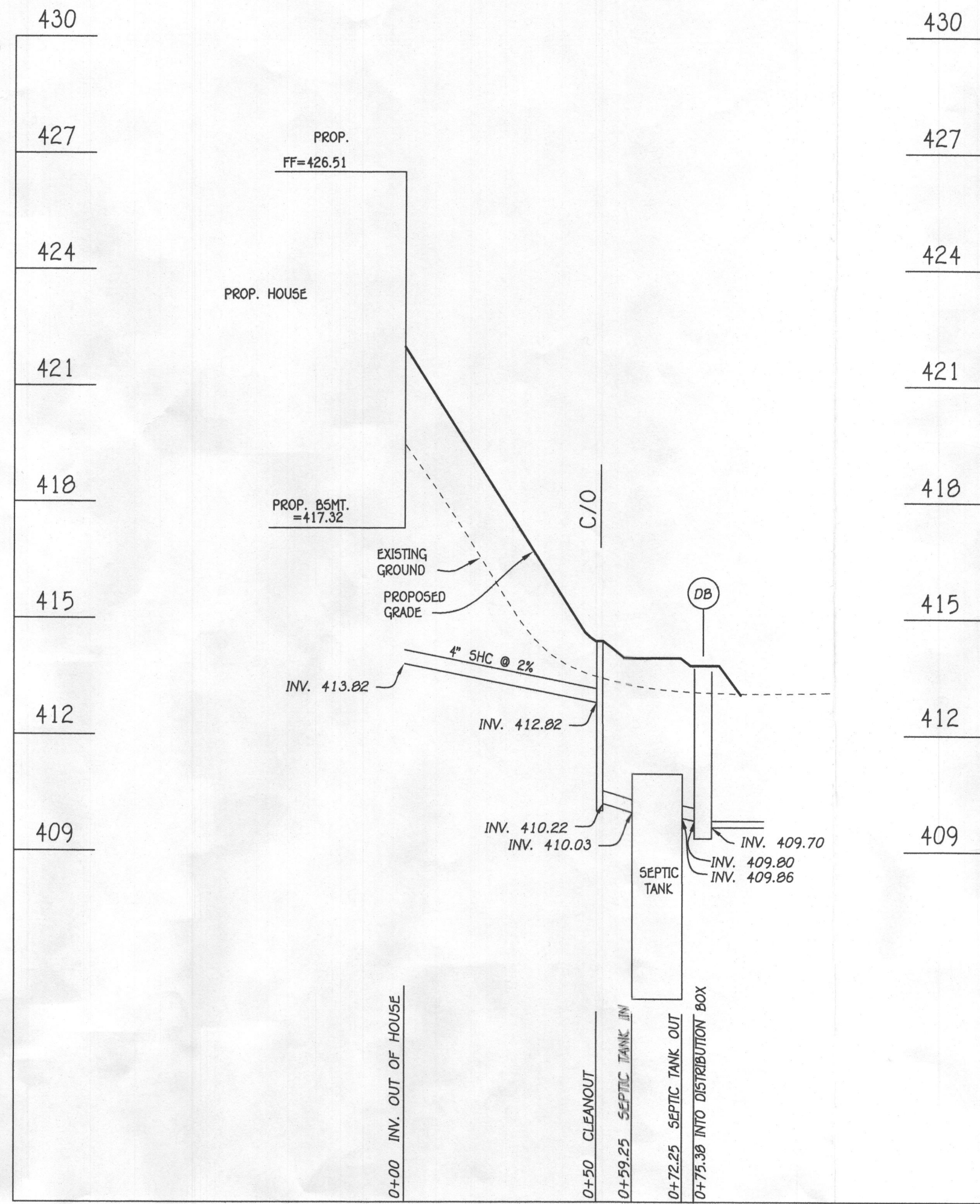
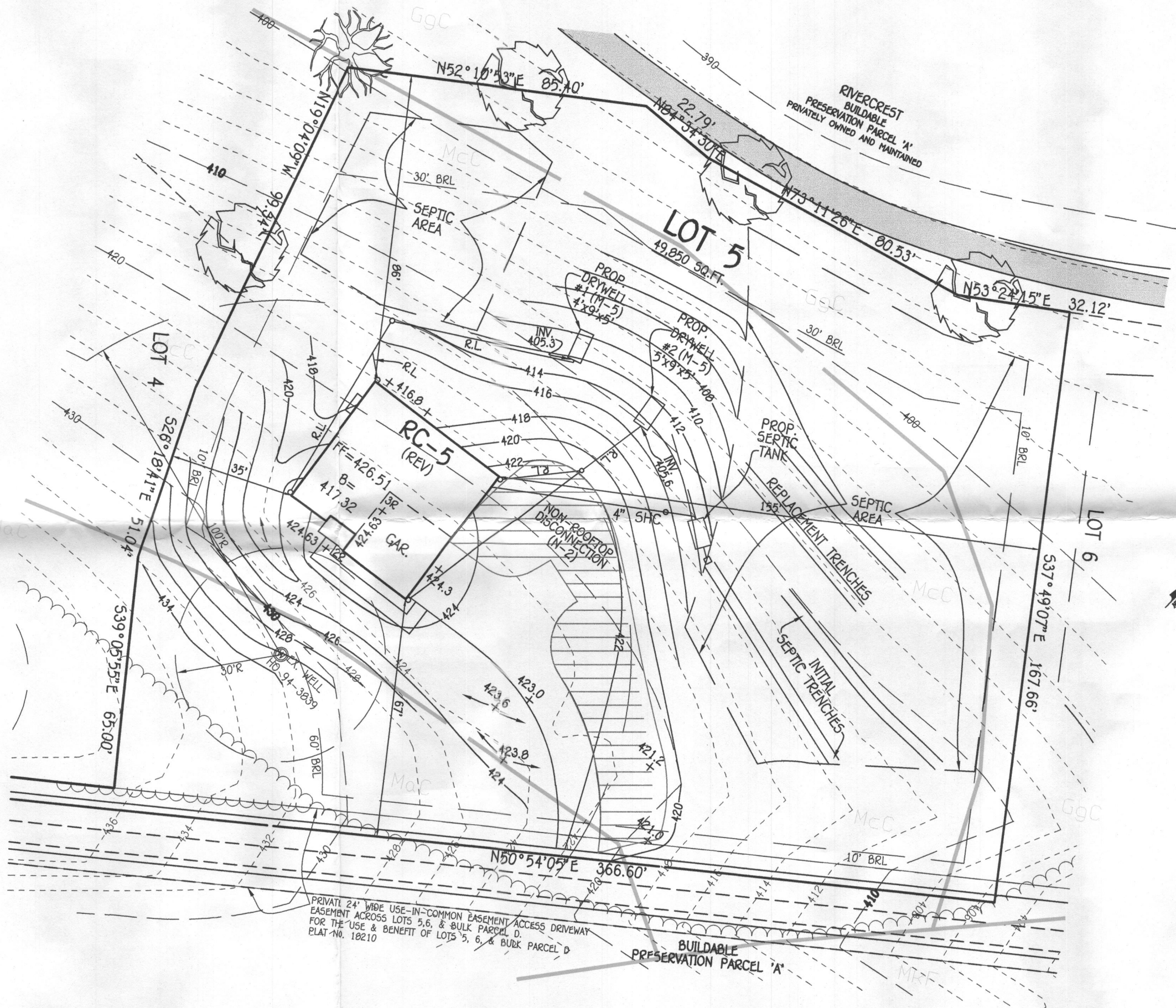
NOTE:

1. THE EXISTING WELL SHOWN ON THIS PLAN, HO-94-3839 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
2. IF THE HOUSE ELEVATION AND/OR FIELD ELEVATIONS CHANGE FROM THE DESIGNED SEPTIC PLAN, A NEW SEPTIC PLAN WILL BE REQUIRED.

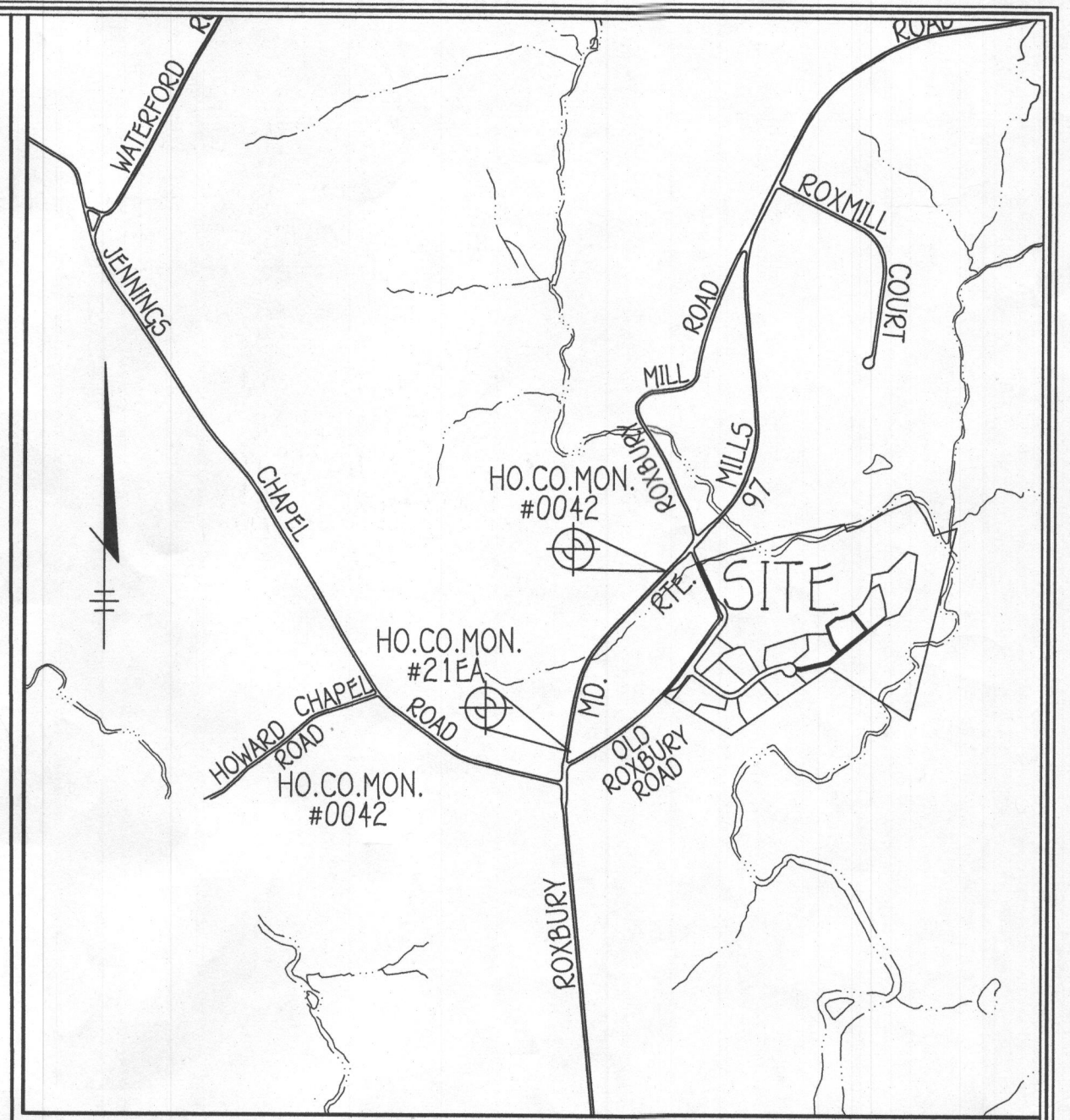
FFE 426.51
BSE 417.32
INV. OUT OF HOUSE = 413.82
PROP. GROUND AT CLEANOUT = 416.2
INV. INTO CLEANOUT = 412.82
INV. OUT OF CLEANOUT = 410.22
EX. GROUND AT SEPTIC TANK = 414.00
TOP OF SEPTIC TANK = 411.03
COVER OVER SEPTIC TANK = 2.97'
INV. INTO SEPTIC TANK = 410.03
INV. OUT OF SEPTIC TANK = 409.86
EX. GROUND AT DISTRIBUTION BOX = 413.8
INV. INTO DISTRIBUTION BOX = 409.8
INV. OUT OF DISTRIBUTION BOX = 409.7

SEWAGE DISPOSAL SYSTEM DATA (INITIAL) 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 4 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 312.50 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2*4))=0.417
TRENCH LENGTH = 312.50 SF x 0.417 / 2 = 65.59 FEET
TRENCH SPACING = 2D+W = ((2*4) + 3) = 11 USE 11'

SEWAGE DISPOSAL SYSTEM DATA (FIRST REPLACEMENT) 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 0 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 104.17 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2*4))=0.5
TRENCH LENGTH = 104.17 SF x 0.5 / 2 = 52.09 FEET
TRENCH SPACING = 2D+W = ((2*4) + 3) = 11 USE 11'



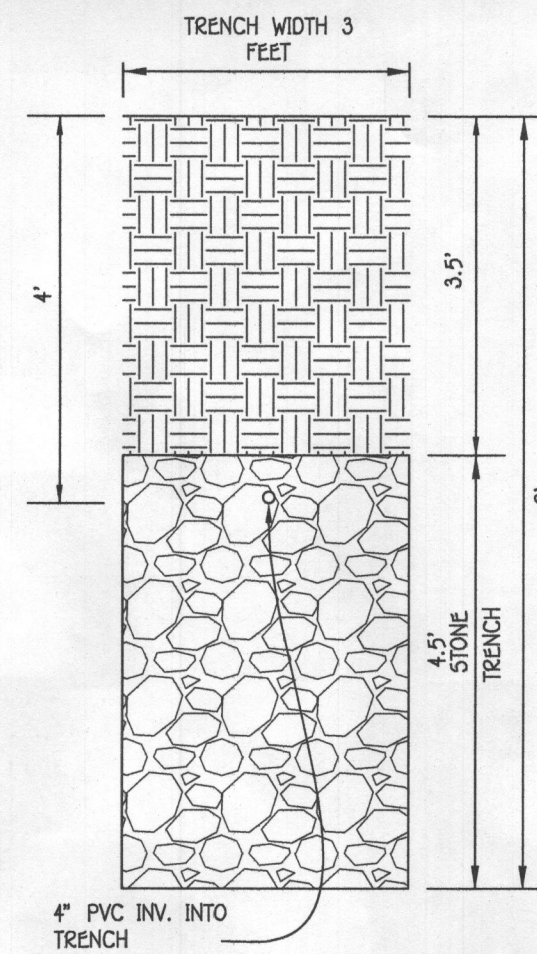
SEPTIC PROFILE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



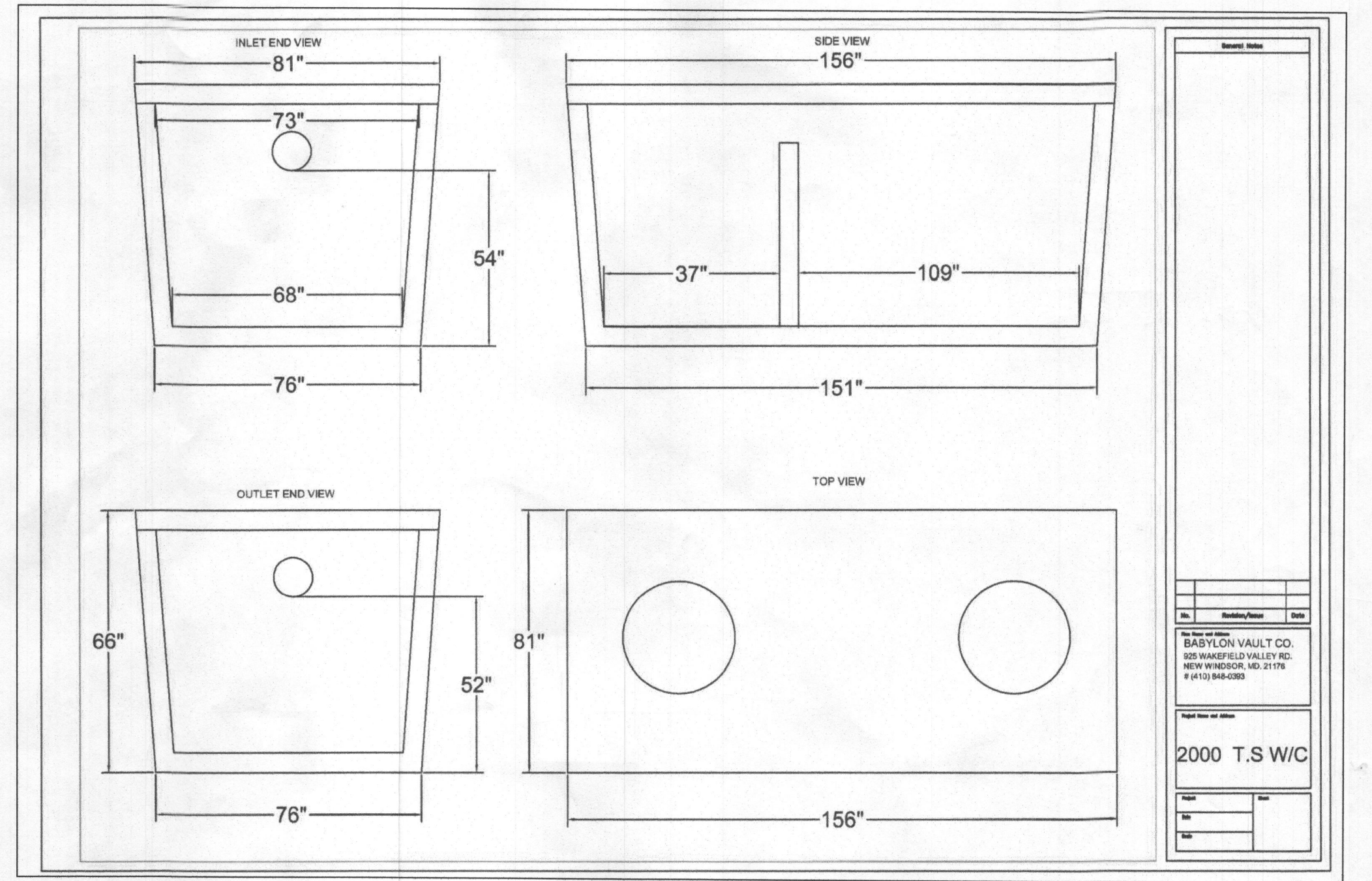
VICINITY MAP
SCALE: 1" = 1200'

LEGEND

- EXISTING 2' CONTOURS
- EXISTING 10' CONTOURS
- - - EXISTING TREE LINE
- - - SOIL LINES AND TYPES
- ⊙ DENOTES EXISTING WELL
- ⊙ DENOTES PASSED PERC HOLE
- ⊙ 2511 POINT NUMBER
- ⊙ 563.1 ELEVATION
- ⊙ DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE



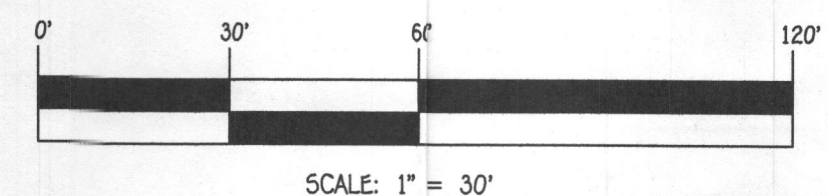
INITIAL TRENCH DETAIL
SCALE: 1"=2'



SEPTIC PLAN
RIVERCREST

LOT 5
15439 RIVERCREST COURT

ZONED: RC-DEO PLAT NO.: 18208 THRU 18210
TAX MAP NO.: 21 GRID NO.: 20 PARCEL NO.: 84
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: SEPTEMBER 23, 2017



SOILS LEGEND		
SOIL	NAME	CLASS
GgC	Glenelg loam, 8 to 15 percent slopes	B
MaC	Manor loam, 8 to 15 percent slopes	B
McC	Manor-channery loam, 8 to 15 percent slopes	B

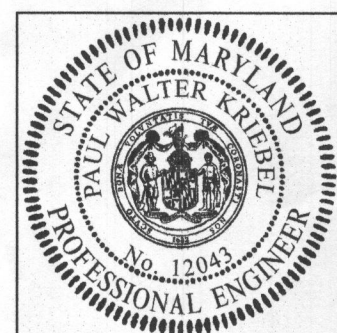
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE
ELICOTT CITY, MARYLAND 21042
(410) 461 - 2895

OWNER

ROXBURY FARMS LLC, C/O
COLUMBIA DEVELOPERS LLC
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3940

BUILDER/DEVELOPER

COLUMBIA BUILDERS
P.O. BOX 999
COLUMBIA, MARYLAND 21044
410-730-3940



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. 12043, EXPIRATION DATE: 07/16/2018.

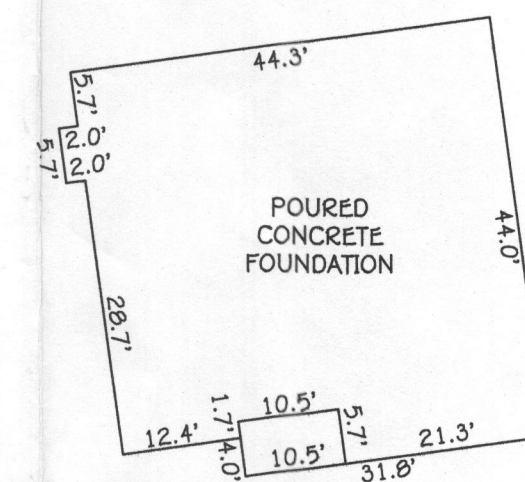
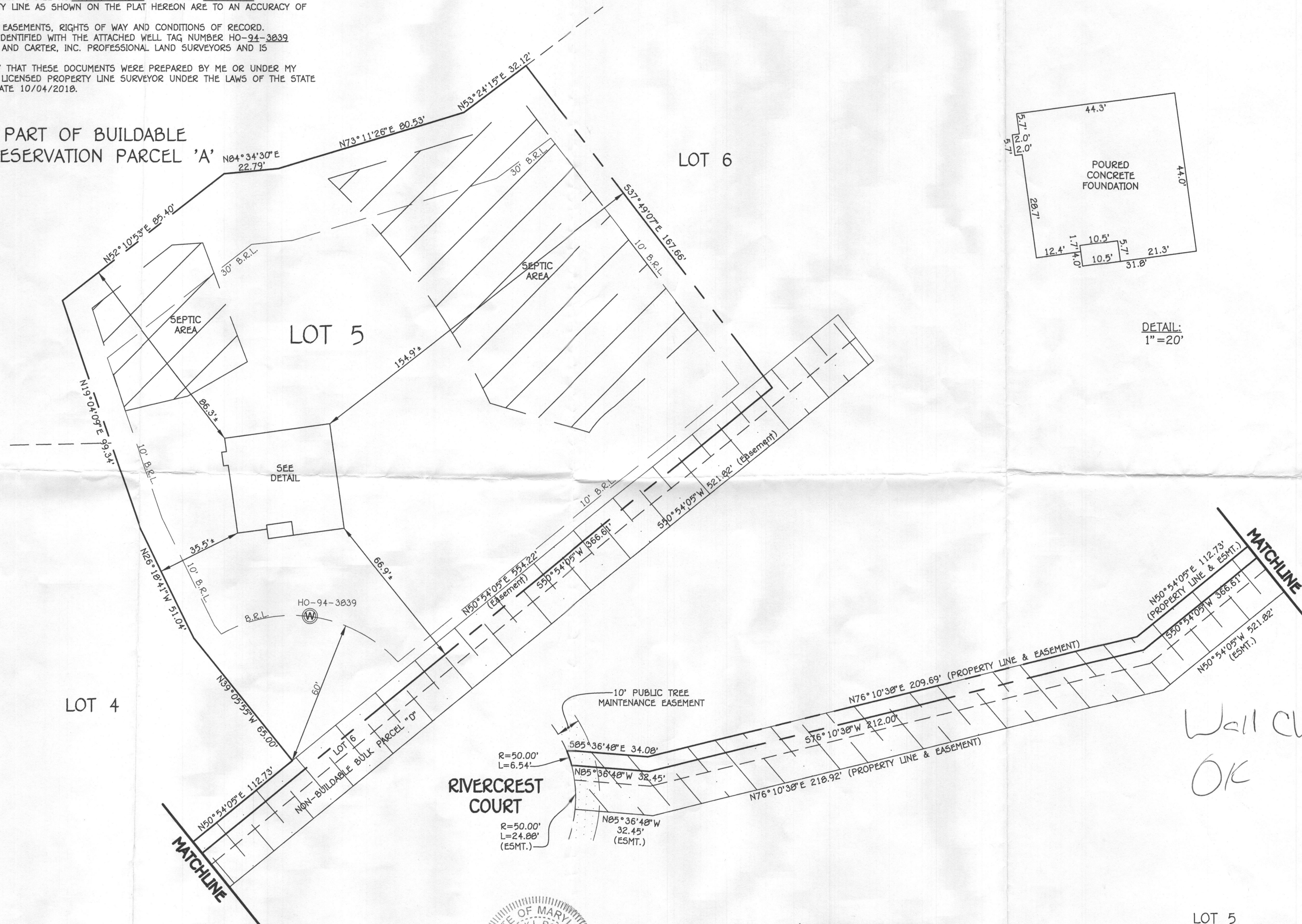
Paul W. Kiechel
Signature Of Professional Engineer

09/25/17
DATE

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. 24027C00450 EFFECTIVE 11/6/2013.
- 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-94-3839 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 NUMBER: B-17003215

PART OF BUILDABLE PRESERVATION PARCEL 'A'



DETAIL:
1"=20'

Well Check
OK



HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 11/11/17
FINAL LOCATION:
BOUNDARY SURVEY:

SCALE: 1"=30'
DATE: 11/3/17
DRAWN BY: JMP
CHECKED BY: MLR
PROJECT No.: 30636-2001

LOT 5
RIVERCREST
LOTS 1 THRU 10, BUILDABLE PRESERVATION PARCEL 'A', NON-BUILDABLE PARCEL 'B' & 'C' AND NON-BUILDABLE BULK PARCEL 'D' PLATS #18208 THRU #18210 FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND

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

#15439 RIVERCREST COURT
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 425.0'±

Mark L. Robel 11/03/17
PROPERTY LINE SURVEYOR DATE
REG. # 339

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 BEARING TANK.
3. ALL WELLS AND SEPTIC SYSTEMS LOCATED WITHIN 100 FEET OF THE PROPERTY BOUNDARIES AND 200 FEET DOWNGRADIENT OF ANY WELLS AND/OR SEPTIC SYSTEMS HAVE BEEN SHOWN.
4. THE FOREST CONSERVATION EASEMENTS SURROUNDING THE SEWAGE DISPOSAL AREA MUST BE PROFESSIONALLY STAKED BY A LICENSED SURVEYOR AND VERIFIED BY THE HEALTH DEPT PRIOR TO INSTALLATION.

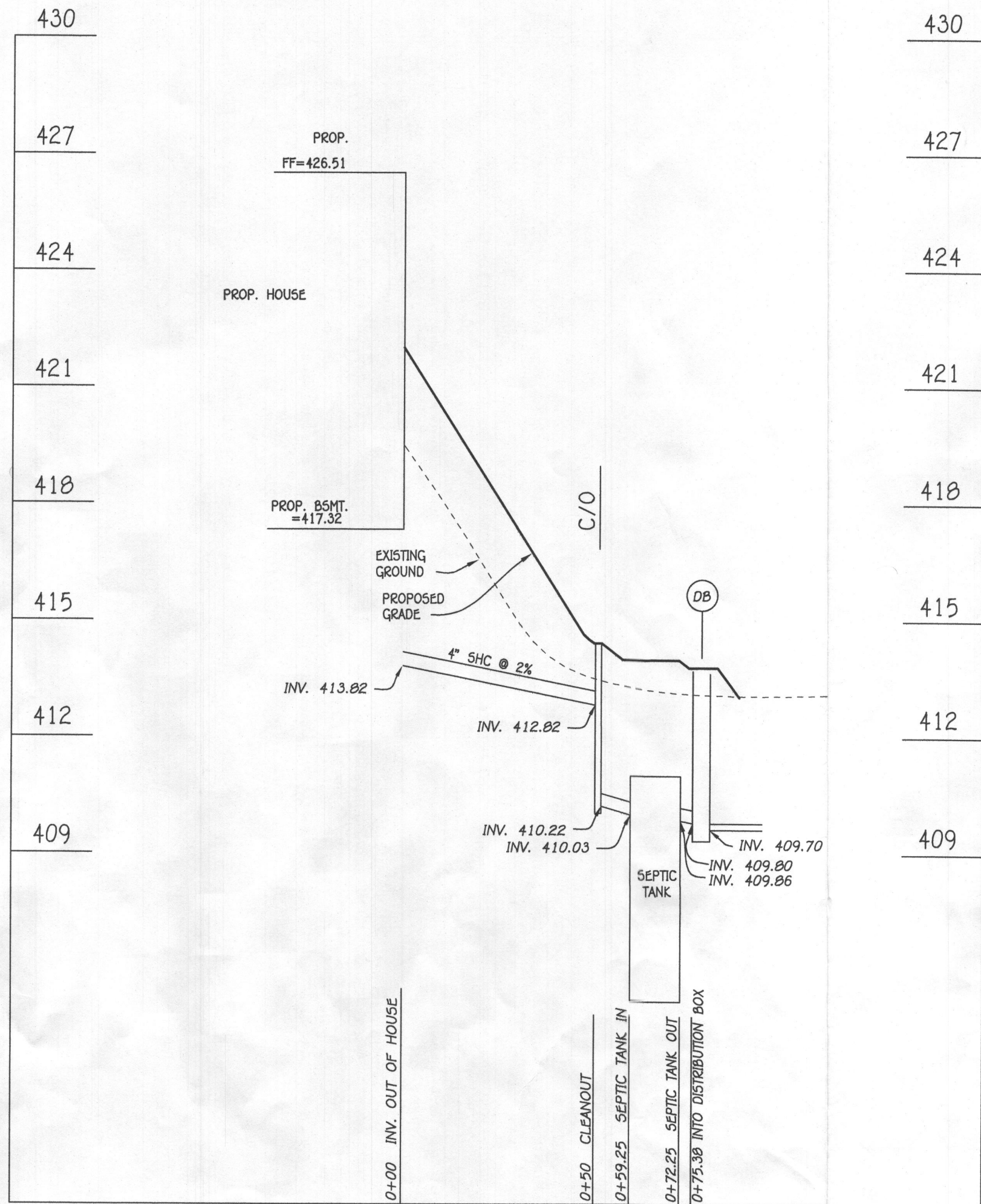
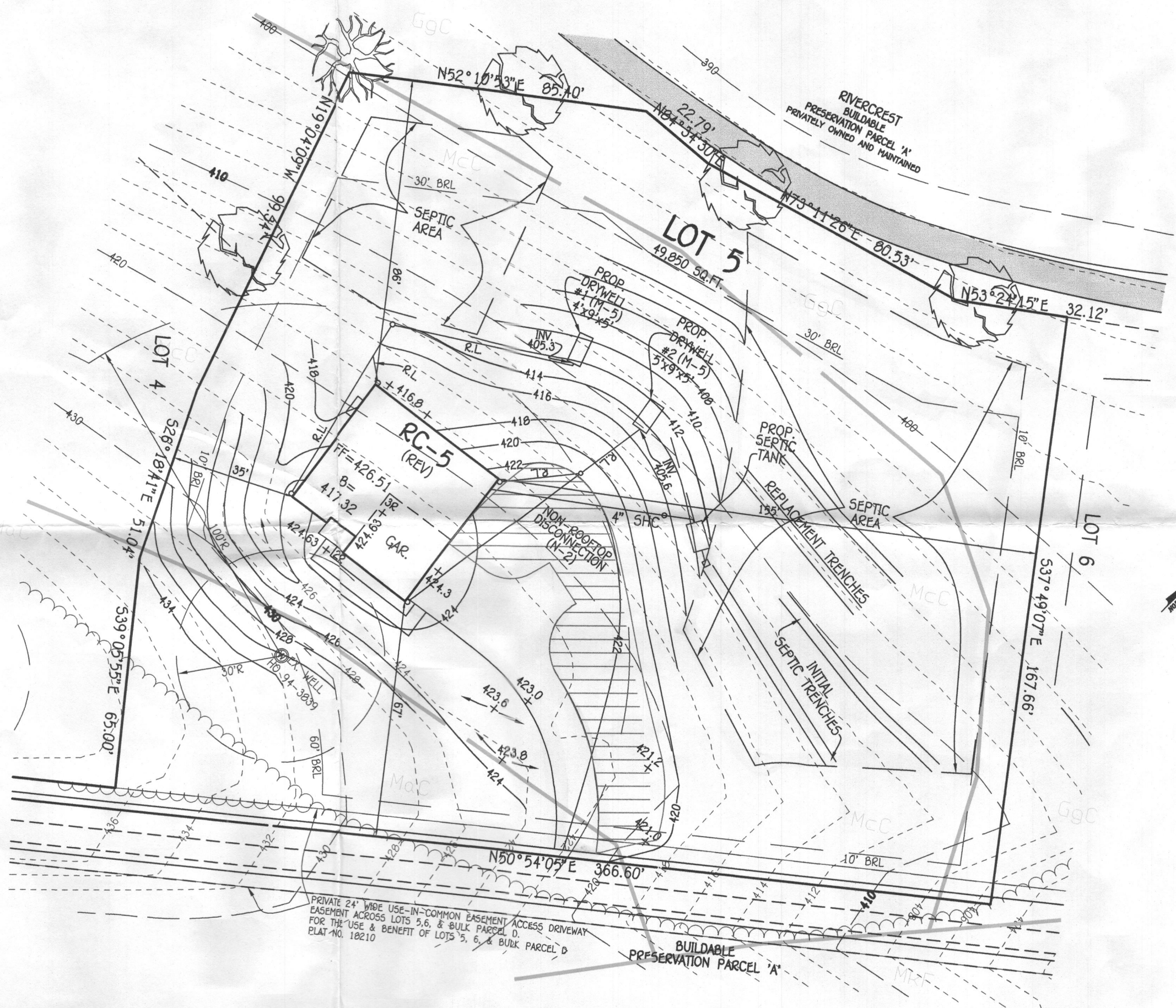
NOTE:

1. THE EXISTING WELL SHOWN ON THIS PLAN, HO-94-3839 HAS BEEN FIELD LOCATED BY FISHER, COLLINS & CARTER, INC., PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
2. IF THE HOUSE ELEVATION AND/OR FIELD ELEVATIONS CHANGE FROM THE DESIGNED SEPTIC PLAN, A NEW SEPTIC PLAN WILL BE REQUIRED.

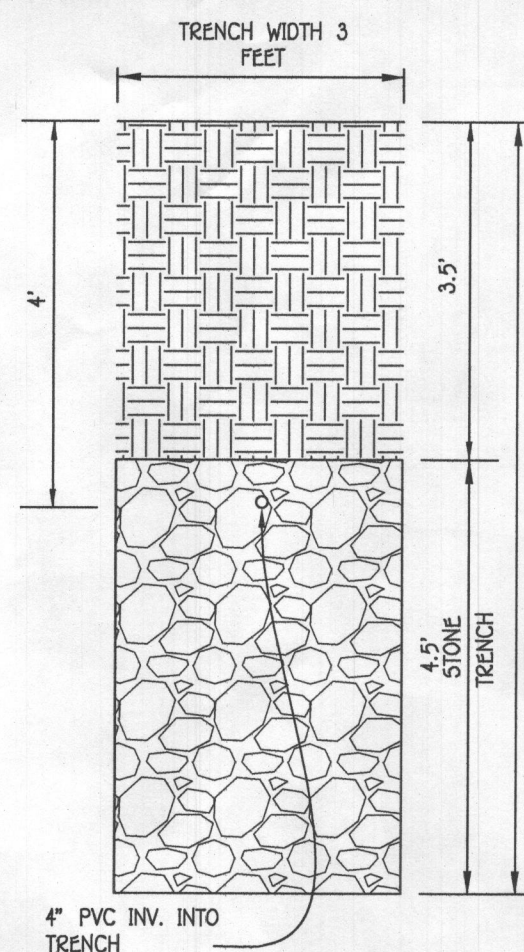
FFE 426.51
BSE 417.32
INV. OUT OF HOUSE = 413.82
PROP. GROUND AT CLEANOUT = 416.2
INV. INTO CLEANOUT = 412.82
INV. OUT OF CLEANOUT = 410.22
EX. GROUND AT SEPTIC TANK = 414.00
TOP OF SEPTIC TANK = 411.03
COVER OVER SEPTIC TANK = 2.97'
INV. INTO SEPTIC TANK = 410.03
INV. OUT OF SEPTIC TANK = 409.86
EX. GROUND AT DISTRIBUTION BOX = 413.8
INV. INTO DISTRIBUTION BOX = 409.8
INV. OUT OF DISTRIBUTION BOX = 409.7

SEWAGE DISPOSAL SYSTEM DATA (INITIAL) 5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 0.8
EFFECTIVE SIDEWALL BEGINS AT 4 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 4 FEET
SF OF DRAINFIELD = 750 GPD / 0.8 = 312.50 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x4))=0.417
TRENCH LENGTH = 312.50 SF x 0.417 / 2. = 65.59 FEET
TRENCH SPACING = 2D+W = ((2x4) + 3) = 11 USE 11'

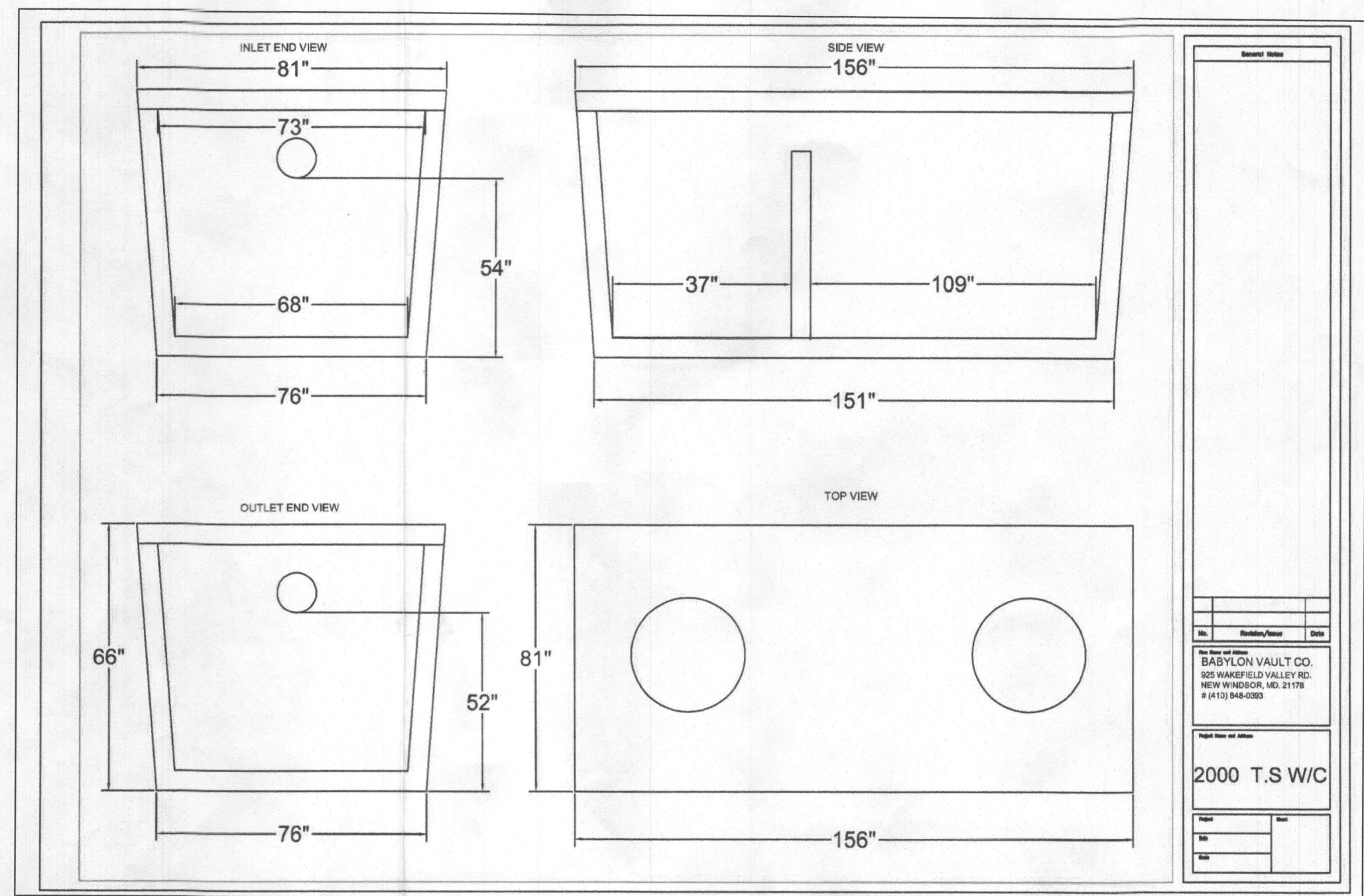
SEWAGE DISPOSAL SYSTEM DATA (FIRST REPLACEMENT)
5 BEDROOMS
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD
APPLICATION RATE = 1.2
EFFECTIVE SIDEWALL BEGINS AT 3 FEET
TRENCH DEPTH = 8 FEET
TRENCH WIDTH (W) = 3 FEET
EFFECTIVE DEPTH (D) = 3 FEET
SF OF DRAINFIELD = 750 GPD / 1.2 = 104.17 SF
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D)=(3+2)/(3+1+(2x4))=0.5
TRENCH LENGTH = 104.17 SF x 0.5 / 2 = 52.09 FEET
TRENCH SPACING = 2D+W = ((2x4) + 3) = 11 USE 11'



SEPTIC PROFILE
HORIZONTAL SCALE: 1"=30'
VERTICAL SCALE: 1"=3'



INITIAL TRENCH DETAIL
SCALE: 1"=2'



SEPTIC PLAN RIVERCREST

LOT 5
15439 RIVERCREST COURT
ZONED: RC-DEO
TAX MAP NO.: 21
4TH ELECTION DISTRICT
PLAT NO.: 1820B THRU 18210
GRID NO.: 20
PARCEL NO.: 84
DATE: SEPTEMBER 25, 2017

SOILS LEGEND		
SOIL	NAME	CLASS
GgC	Glenelg loam, 0 to 15 percent slopes	B
MaC	Manor loam, 0 to 15 percent slopes	B
McC	Manor-channery loam, 0 to 15 percent slopes	B

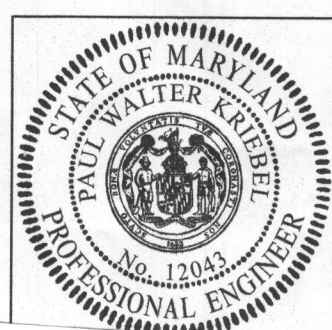
FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONFIDENTIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK
BLISSVILLE, OHIO 44142
(419) 461-2895

OWNER

ROXBURY FARMS LLC, C/O
COLUMBIA DEVELOPERS, LLC
6420 AUTUMN SKY WAY
COLUMBIA, MARYLAND 21044
410-730-3940

BUILDER/DEVELOPER

COLUMBIA BUILDERS
P.O. BOX 999
COLUMBIA, MARYLAND 21044
410-730-3940



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. 12043, EXPIRATION DATE: 07/16/2018.

Paul W. Keibel
Signature Of Professional Engineer

09/25/17
DATE

