

**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](http://www.hchealth.org)  
 Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 11-14-17 **ONSITE SEWAGE DISPOSAL SYSTEM** P 582332

APPROVAL DATE: 11/20/17 **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 5320 Catalpa Court

SUBDIVISION: Walnut Creek LOT: 163 TAX ID: \_\_\_\_\_

CONTRACTOR: Fogel's Septic Clean Inc EMAIL: Kim@fogelsinc.com

CONTRACTOR ADDRESS: 580 Obercht RD, Sykesville, MD 21154 PHONE: 410-795-5270

PROPERTY OWNER: Cairn Custom Homes EMAIL: \_\_\_\_\_

OWNER ADDRESS: 10548 Gorman Road, Laurel, MD 21723 PHONE: 301-490-5317

SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: \_\_\_\_\_

PUMP MODEL: \_\_\_\_\_ PUMP SIZE \_\_\_\_\_ PUMP TANK CAPACITY: \_\_\_\_\_

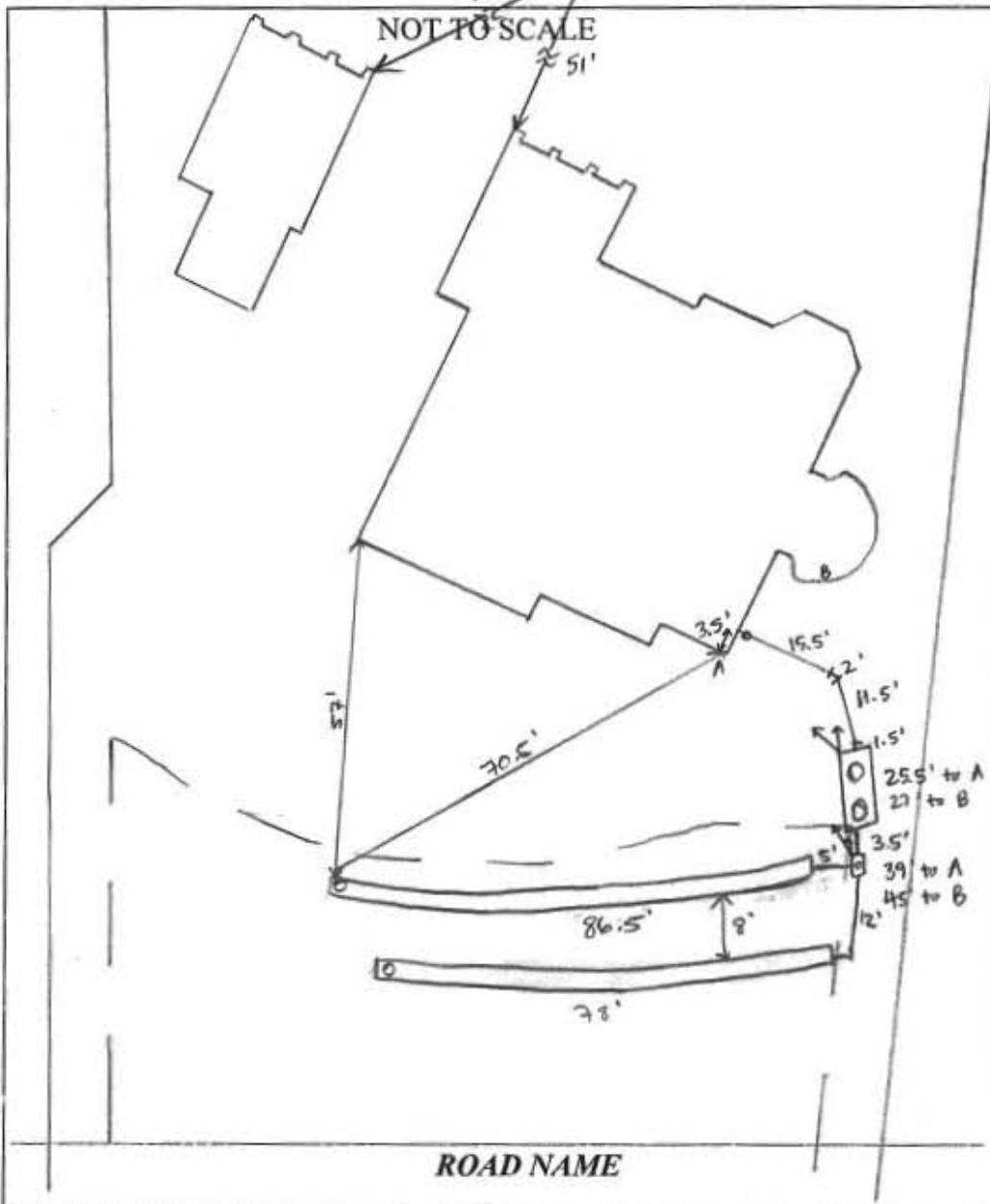
DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 4 APPLICATION RATE: \_\_\_\_\_

TRENCHES:	LINEAR FEET REQUIRED: <u>156.4</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:		

ISSUED BY: Sarah Collins ISSUE DATE: 11-14-17 EXPIRATION DATE: 11-15-17

- 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.**



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	4'	8'
NUMBER OF TRENCHES		2
TOTAL LENGTH		164.5'
ABSORPTION AREA		493.5 sq ft
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	10-6-17

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: 11/14/17 Met Fogle's on site for layout. SDA corners not staked. Okay to set tank, layout trenches once SDA corners are staked. (SC) 11/17/17 SDA corners staked. Shot contour of T2, measured 12' CTC to layout T1 (uneven ground). T2 will be ~82', T1 ~78'. (SC)

INSTALLATION: 11/17/17 Tank set, house connection made. Pipe laid from house to tanks. Okay to backfill sewer line + front half of tank. (SC) 11/20/17 Trenches installed. D Box level. Ok to Backfill (P)

FINAL INSPECTOR [Signature] DATE OF APPROVAL 11/20/17



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 www.hchealth.org  
 Facebook: www.facebook.com/hocohealth  
 Twitter: HowardCoHealthDep

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

**OPERATING AND MAINTENANCE AGREEMENT  
 FOR AN ON-SITE SEWAGE DISPOSAL SYSTEM  
 HAVING AN ADVANCED PRE-TREATMENT SYSTEM**

THIS AGREEMENT is made this 17th day of October, 2016, among Dr. James K. King hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County"

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 5324 Cr. View Ln, Bethesda, MD 20814 in the      Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber      Folio     .

WHEREAS, The Lot is suitable for the installation of a conventional on-site sewage disposal system with an advanced pre-treatment system, utilizing best available technology to perform nitrogen reduction, in accordance with the Code of Maryland Regulations 26.04.02.07, effective January 1, 2013. The pre-treatment device being installed is Advanced Biological Treatment SUD

NOW, THEREFORE, the parties hereto agree as follows:

- A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.
- B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, supervises the operation of any system approved by them.
- C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.
- D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.
- E. This agreement shall run with the land and when Owner's taking title to the Lot shall be the Owner, their heirs, successors, and assigns to the provisions of the agreement as long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require

maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

F. This agreement shall not be construed to limit any authority of the County to protect the public health, safety or comfort or to issue any other orders to take any other action which is now or may hereafter be within its authority.

G. This agreement may be voided at any time at the discretion of the County.

H. This agreement contains the entire agreement and understanding between the County and the Owner. There are no additional terms other than as contained in this agreement. This agreement may not be modified, except in writing signed by each of the parties or by their authorized representatives.

I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

J. Owner acknowledges and agrees that interior renovations to increase the number of bedrooms or an increase in living space shall not be permitted without approval from the County.

IN WITNESS WHEREOF, the parties have signed and sealed this agreement on the date indicated above.

Bert Nye 10/6/2016  
Howard County Health Department

Hill 09/27/2016  
Owner #1 Signature Date

Adnan Khan  
Owner #1 Print Name

\_\_\_\_\_  
Buyer #1 Signature Date

\_\_\_\_\_  
Buyer #1 Print Name

\_\_\_\_\_  
Owner #2 Signature Date

\_\_\_\_\_  
Owner #2 Print Name

\_\_\_\_\_  
Buyer #2 Signature Date

\_\_\_\_\_  
Buyer #2 Print Name

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Thursday, December 03, 2015 11:25 AM  
**To:** amv@fcc-eng.com  
**Subject:** BAT Plan\_5320 Catalpa Court

Hi Aldo:

The BAT Plan for *5320 Catalpa Court (Walnut Creek Lot 163)* has been reviewed with the following comment:

- 1.) Under sewage disposal system data, there is a comment "(Max. No. BDRMS = 6)" that seems to indicate that the Norweco TNT 500 can be sized up to 6 bedrooms. According to a memo from MDE dated 3.10.15, the this unit is only rated up to 5 bedroom design flow. I can redline this comment or you may revise the plan accordingly.

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

Respectfully,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
410.313.2648 (Fax)

## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Friday, September 30, 2016 9:01 AM  
**To:** 'Dave Harward, III'  
**Subject:** RE: Walnut Creek, Lot 163 BAT

Hi Dave:

The Norweco TNT 500 is only good for 5 bedrooms. The 750 / 800 GPD version will do a 1 - 6 bedroom house. Also, when using more than 3.5 feet of sidewall credit, the spacing formula is  $2D+W = 2(4)+3 = 11$  feet.

Thanks,

Hank

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**From:** Dave Harward, III [<mailto:DaveH@fcc-eng.com>]  
**Sent:** Thursday, September 29, 2016 1:30 PM  
**To:** Oswald, Hank  
**Subject:** Walnut Creek, Lot 163 BAT

Hi Hank,

I had 3 copies of a new BAT plan for Lot 163 at Walnut Creek (**5320 Catalpa Ct.**) delivered to you today. This Lot was approved for 5 bedrooms previously, but the builder wanted to have the septic design be revised to 6 bedroom, so that the homebuyer would have the flexibility of converting the office to a bedroom in the future, if desired. I have attached to this email, a pdf of the permit architectural plans for you.

Please let me know if you have any questions or comments. And if you can approve it as is, please leave a copy of the approved plan up front for us to pick up.

Thanks Hank,

Dave.



## Oswald, Hank

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**From:** Oswald, Hank  
**Sent:** Tuesday, November 29, 2016 11:17 AM  
**To:** amv@fcc-eng.com  
**Subject:** BAT Plan\_5320 Catalpa Court  
**Attachments:** OSDS design plan requirements 11.21.16.pdf

Hello Aldo:

This office is in receipt of the revised plan for **5320 Catalpa Court**. Please be aware, the OSDS design plans still require specific notes (see attachment).

**Required Plan 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 load bearing tank.
3. Electrical work for the installation must be performed by a licensed electrician. (If applicable)
4. The well (tag # \_\_\_\_\_) 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.

**Please Note:** For septic tank construction, all tanks must meet the requirements in Howard County Code Section 3.810.

For septic tank sizing, see COMAR 26.04.02.05.

- 1000 gallon tank – 3 bedrooms
- 1250 gallon tank – 4 bedrooms
- For each additional bedroom, add 250 gallons.

The proposed 2000 gallon tank is more than sufficient for a 4 bedroom residence. I highlighted the notes that still pertain to this plan and approved it.

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

Respectfully,

Hank

Hank Oswald, L.E.H.S.  
Howard County Health Department  
Bureau of Environmental Health  
Well & Septic Program  
8930 Stanford Boulevard  
Columbia, MD 21045  
410.313.1786 (Office)  
410.313.2648 (Fax)

# Transmittal

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

To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Blvd.</b> <b>Columbia, Maryland 21046-4544</b>	Attn: <b>Hank Oswald</b> Fax: Phone: <b>410-313-2640</b>
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From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Dec. 17, 2015</b>	Pages: <b>0</b> 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
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Remarks:

Re: Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan

Hank, here are 3 copies of the BAT Plan with the note regarding the maximum no. of bedrooms being 5, and the driveway (dimensioned off the well) shown. Please leave 1 approved copy up front for us to pick up, so we have a stamped copy.

Thank You,

Dave Harward

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



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---	--

From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Dec. 3, 2015</b>	Pages: <b>0</b> 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: Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan**

**Hank, here are 3 copies of the BAT Plan with the note regarding 6 bedrooms removed. Please stamp all of these and leave 1 copy up front for us to pick up, so we have a stamped copy.**

**Thank You,**

**Dave Harward**

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



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To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Blvd.</b> <b>Columbia, Maryland 21046-4544</b>	Attn: <b>Sharhonda</b> Fax: Phone: <b>410-313-2640</b>
---	--

From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Dec. 2, 2015</b>	Pages: <b>0</b> <b>Page(s) Including this cover</b>

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Remarks:

**Re: Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan**

**To accompany the plans submitted on Nov. 25, here are a set of architectural plans.**

**The architectural covenants at Walnut Creek limit the number of bedrooms to 5, so the septic system must and is designed for 5 bedrooms.**

**Please forward this to the reviewer that the BAT plans were forwarded to.**

**Thank You,**

**Dave Harward**

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



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

**CIVIL ENGINEERING CONSULTANTS  
and LAND SURVEYORS**

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.

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---	--

From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Oct. 4, 2016</b>	Pages: <b>0</b> 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: **Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan**

Hank, here are 3 copies of the new BAT Plan for this lot, showing the Norweco, TNTLP-750 GPD (approved for 800 GPD, & 6 bedrooms). As I stated previously, we have re-designed the septic for 6 bedrooms. And the builder wishes to accommodate the possibility for the homebuyer to convert the office to a 6<sup>th</sup> bedroom. In your review, if this is plan is approvable, please leave 1 approved copy up front for us to pick up, so we have a stamped copy, and let me know. If you have any questions or comments, please contact me.

Thank You Again,

Dave Harward

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

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---	--

From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Sept. 29, 2016</b>	Pages: <b>0</b> 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: Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan**

Hank, here are 3 copies of the new BAT Plan for this lot. You had previously approved the BAT plan for 5 bedrooms. The house has 5 bedrooms, however we have re-designed the septic for 6 bedrooms. And the builder wishes to accommodate the possibility for the homebuyer to convert the office to a 6<sup>th</sup> bedroom. In your review, if this is plan is approvable, please leave 1 approved copy up front for us to pick up, so we have a stamped copy, and let me know. If you have any questions or comments, please contact me.

Thank You,

**Dave Harward**

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

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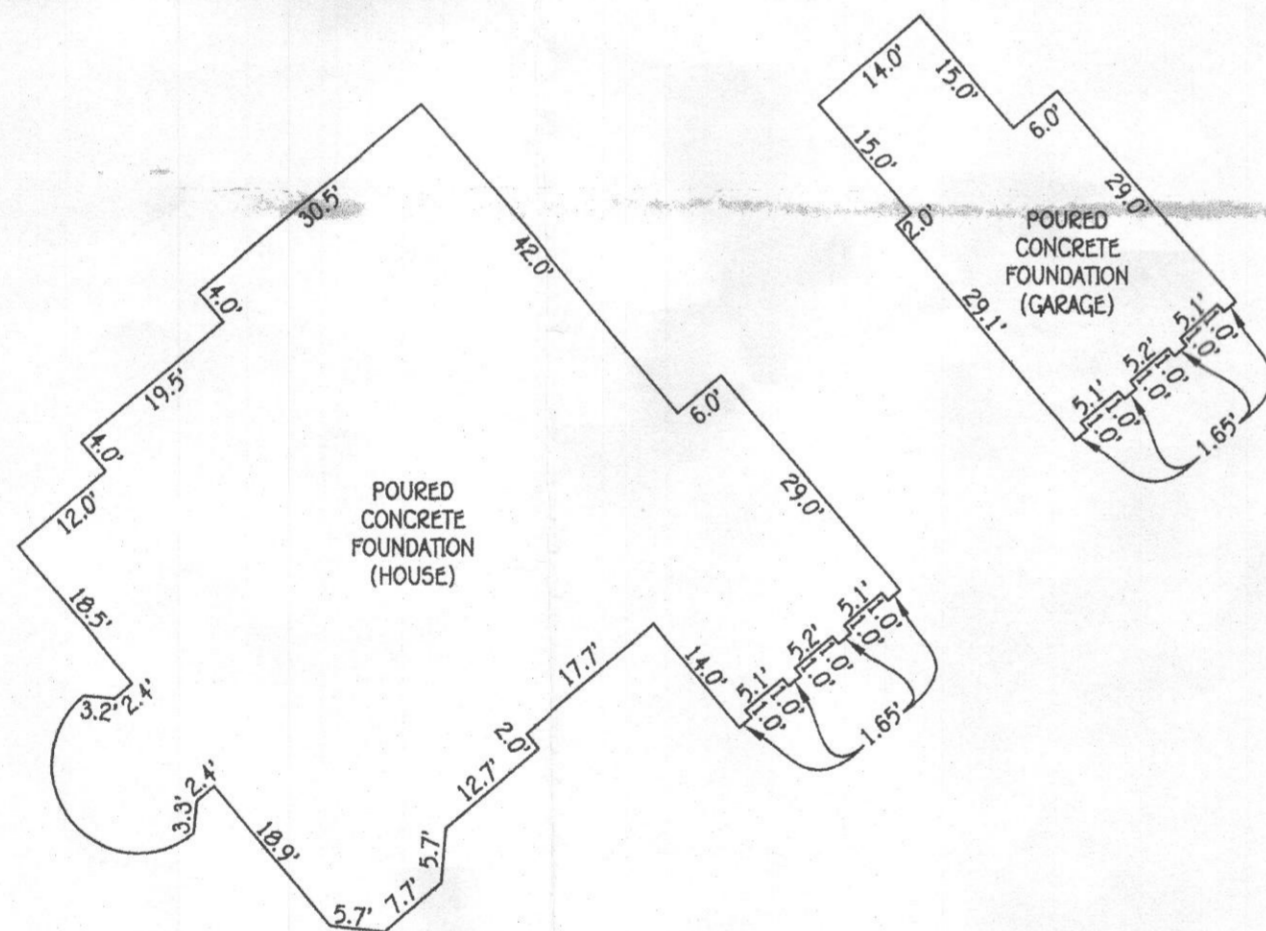
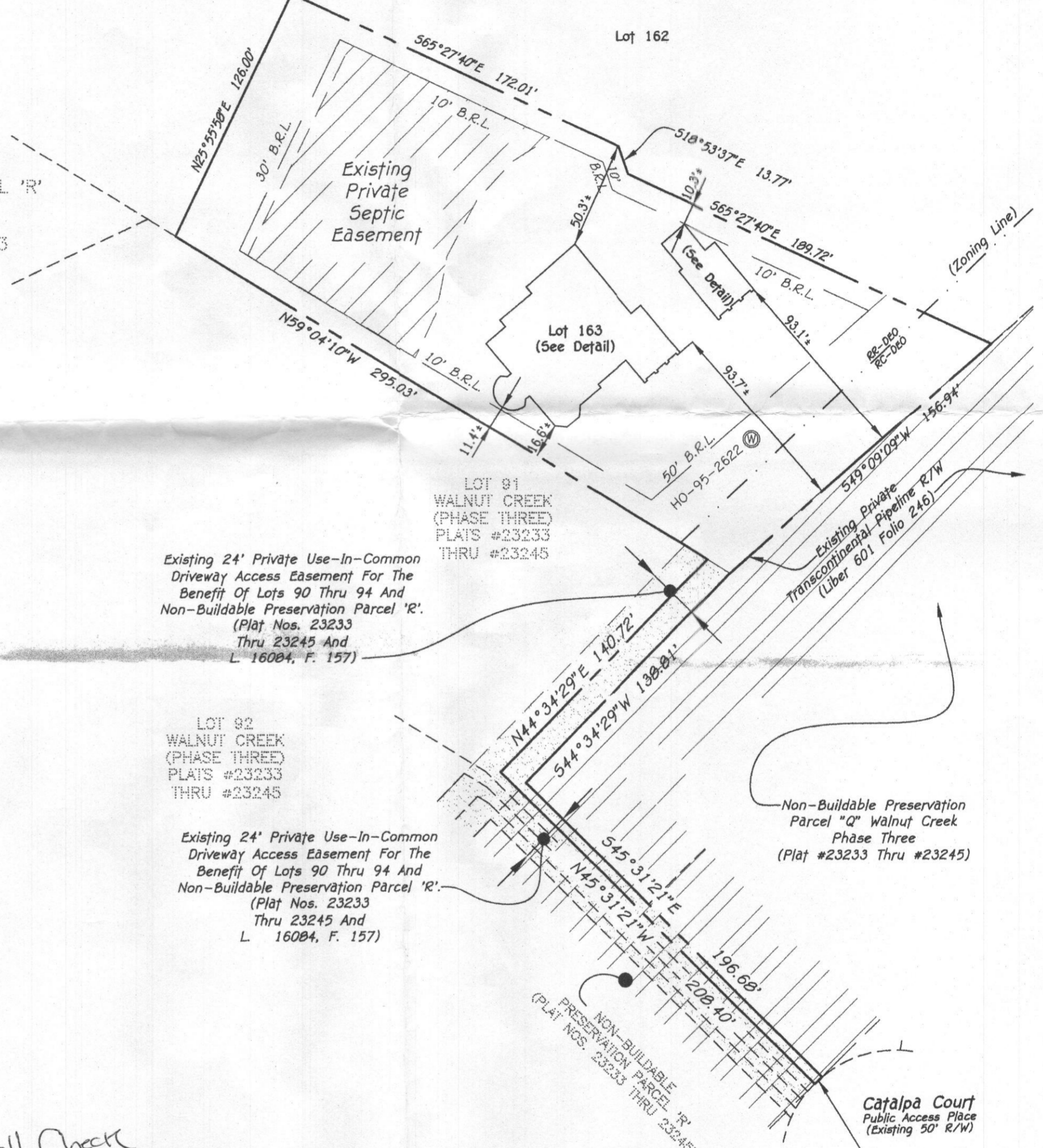
**GENERAL NOTES:**

- 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 C ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0130D EFFECTIVE NOV. 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 0.3'
- 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-95-2622 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-16004310



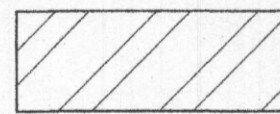
PART OF  
BUILDABLE PRESERVATION PARCEL  
'T'  
WALNUT CREEK  
PHASE THREE  
(PLAT NOS. 23233  
THRU 23245)

NON-BUILDABLE  
PRESERVATION PARCEL 'R'  
WALNUT CREEK  
PHASE THREE  
(PLAT NOS. 23233  
THRU 23245)



DETAIL:  
1"=20'

Existing Private  
Transcontinental  
Pipeline R/W  
(L. 601, F. 246)



Wall Check  
OK  
RAE 11/1/17

LOT 163  
WALNUT CREEK  
PHASE THREE  
REVISION PLAT - LOTS 97, 98, 100, 101 AND  
RESUBDIVISION PLATS - LOTS 160 THRU 163  
PLATS #23632 THRU 23634  
FIFTH ELECTION DISTRICT  
HOWARD COUNTY, MARYLAND

#5320 CATALPA COURT  
B.R.L. = BUILDING RESTRICTION LINE  
TOP OF FOUNDATION WALL ELEVATION = UPPER = 454.1'±  
LOWER = 444.5'±



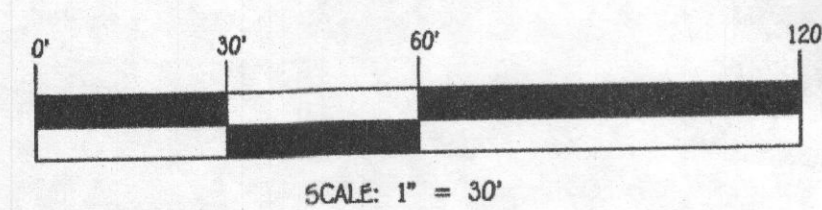
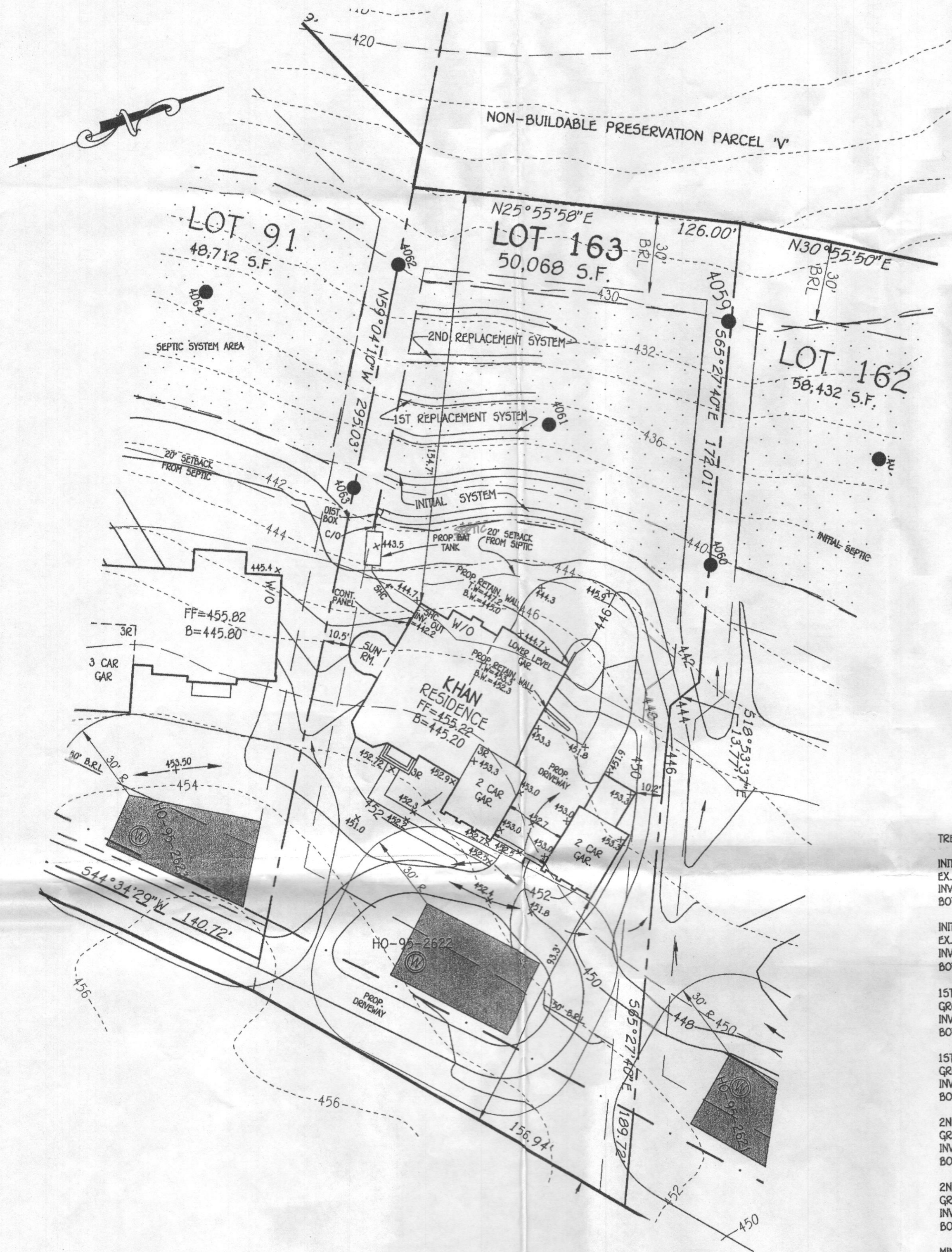
Mark L. Riegel  
PROPERTY LINE SURVEYOR  
REG. #339

1/25/17  
DATE

**HOUSE LOCATION  
DRAWING**

FOUNDATION LOCATION: 1/20/17  
FINAL LOCATION:  
BOUNDARY SURVEY:

SCALE: 1"=50'  
DATE: 1/25/17  
DRAWN BY: JIMP  
CHECKED BY: MLR  
PROJECT No.: 04001-3007



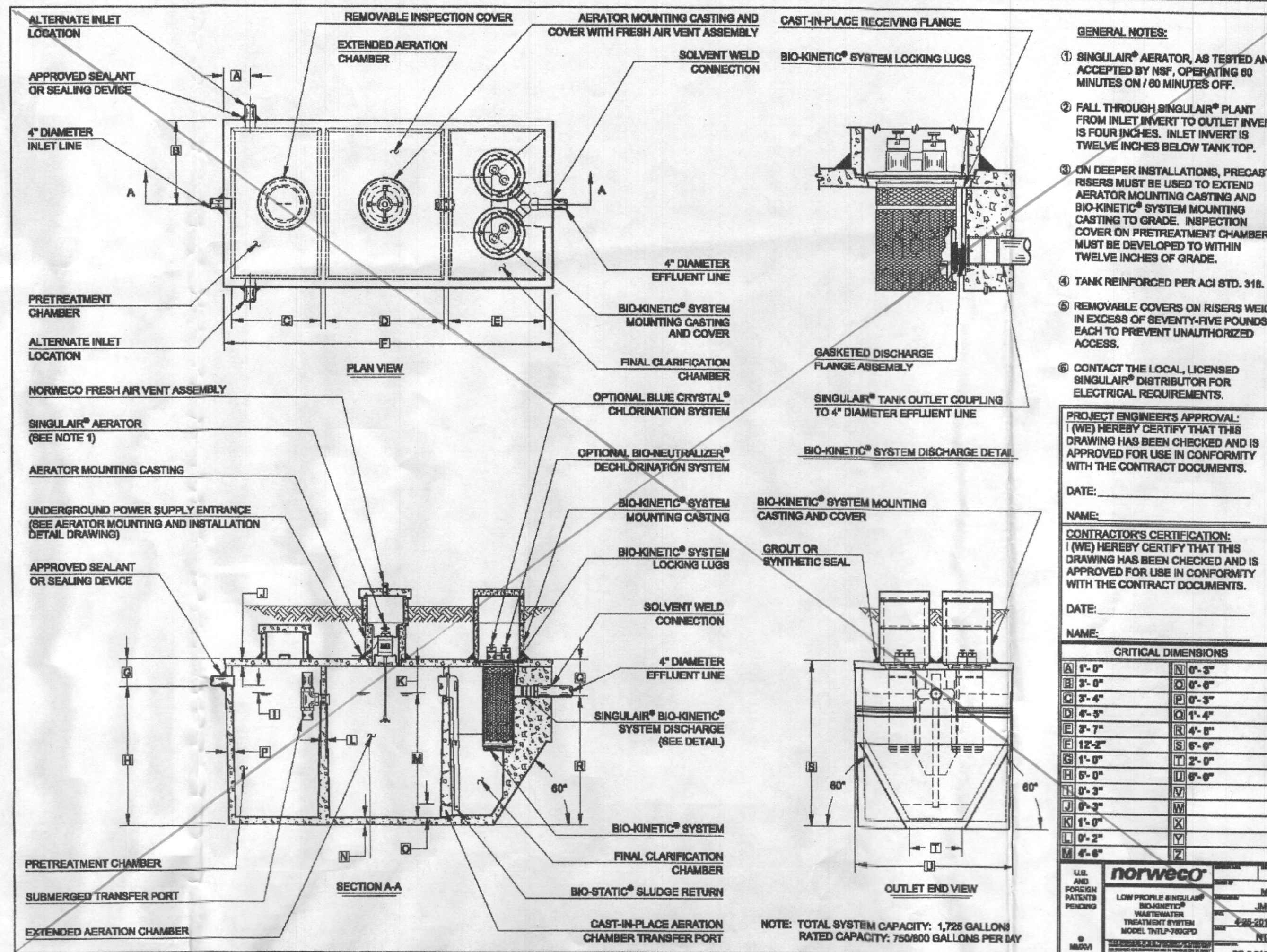
PLAN VIEW  
SCALE: 1" = 30'

NOTE:  
ANY NEW WELL INSTALLED ON THIS PROPERTY WILL REQUIRE THAT BOLLARDS OR LARGE LANDSCAPING ROCKS BE INSTALLED TO PROTECT THAT NEW WELL, IF IT CLOSER THAN 10 FT. TO THE EDGE OF THE DRIVEWAY.

**OWNER/DEVELOPER**  
CARRN CUSTOM HOMES  
10548 GORHAM ROAD  
LAUREL, MARYLAND 21723  
PH. 301-496-5317

TRENCH DATA:  
INITIAL TRENCH 1:  
EX. GROUND ABOVE = 441.7  
INV. IN = 437.7  
BOTTOM TRENCH = 433.7  
INITIAL TRENCH 2:  
EX. GROUND ABOVE = 439.4  
INV. IN = 435.4  
BOTTOM TRENCH = 431.4  
1ST REPLACEMENT TRENCH 1:  
GROUND ABOVE = 437.6  
INV. IN = 433.6  
BOTTOM TRENCH = 429.6  
1ST REPLACEMENT TRENCH 2:  
GROUND ABOVE = 435.8  
INV. IN = 431.8  
BOTTOM TRENCH = 427.8  
2ND REPLACEMENT TRENCH 1:  
GROUND ABOVE = 433.8  
INV. IN = 429.8  
BOTTOM TRENCH = 425.8  
2ND REPLACEMENT TRENCH 2:  
GROUND ABOVE = 431.6  
INV. IN = 427.6  
BOTTOM TRENCH = 423.6  
MINIMUM SPACING BETWEEN TRENCHES = 11 FT.

SEWAGE DISPOSAL SYSTEM DATA (PERMIT FOR 6 BEDROOMS)  
PROP. INVERT AT FOUNDATION WALL: 506.67  
1. NORWECO TINTLP=50 GPD (MAX. NO. BDRMS. 6)  
EX. GRADE OVER TANK: 443.5  
PROP. GRADE OVER TANK: 443.5  
INVERT IN: 441.20  
INVERT OUT: 440.87  
TOP OF TANK ELEV.: 442.20  
2. DISTRIBUTION BOX:  
EX. GRADE: 441.7  
PROP. GRADE: 441.7  
INVERT IN: 437.8  
3. TRENCH DESIGN (INITIAL SYSTEM):  
(6 BDRM X 150 GPD/BDRM = 900 GPD)  
900 / 0.8 APP. RATE = 1125 SF  
USE 3' WIDE TRENCH AND 10' MIN. SPACING BETWEEN TRENCH EDGES.  
1125 SF / 3' WIDTH = 375 L.F. X 0.417 = 156.38 L.F. MIN. TRENCH  
USE 2- 78.2' LONG TRENCHES = 156.4 L.F.  
4. TRENCH DESIGN (1ST REPLACEMENT SYSTEM):  
(6 BDRM X 150 GPD/BDRM = 900 GPD)  
900 / 1.2 APP. RATE = 750 SF  
USE 3' WIDE TRENCH AND 10' MIN. SPACING BETWEEN TRENCH EDGES.  
750 SF / 3' WIDTH = 250 L.F. X 0.417 = 104.25 L.F. MIN. TRENCH  
USE 2- 52.2' LONG TRENCHES = 104.4 L.F.



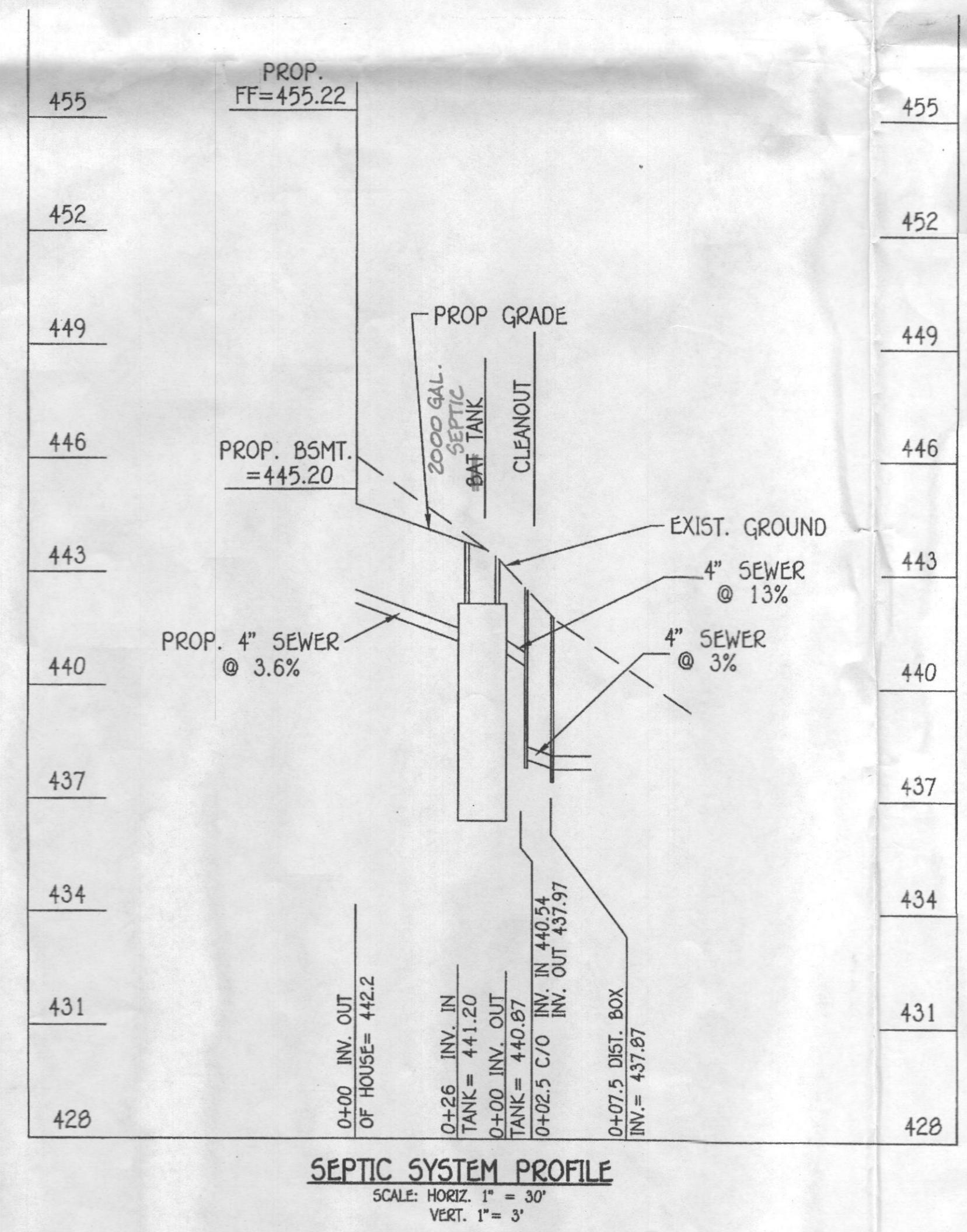
**GENERAL NOTES:**  
 1. SINGULAR® AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 80 MINUTES ON / 80 MINUTES OFF.  
 2. FALL THROUGH SINGULAR® PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.  
 3. ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC® SYSTEM MOUNTING CASTING TO GRADE. INSPECTION COVER ON PRETREATMENT CHAMBER MUST BE DEVELOPED TO WITHIN TWELVE INCHES OF GRADE.  
 4. TANK REINFORCED PER ACI 810, 318.  
 5. REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.  
 6. CONTACT THE LOCAL LICENSED SINGULAR® DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

**PROJECT ENGINEER'S APPROVAL:**  
 (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.  
 DATE: \_\_\_\_\_  
 NAME: \_\_\_\_\_

**CONTRACTOR'S CERTIFICATION:**  
 (WE) HEREBY CERTIFY THAT THIS DRAWING HAS BEEN CHECKED AND IS APPROVED FOR USE IN CONFORMITY WITH THE CONTRACT DOCUMENTS.  
 DATE: \_\_\_\_\_  
 NAME: \_\_\_\_\_

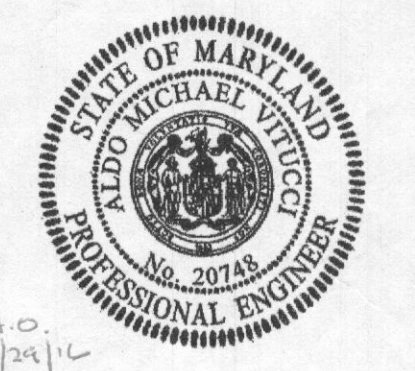
CRITICAL DIMENSIONS	
A	1'-0"
B	3'-0"
C	2'-4"
D	0'-6"
E	2'-7"
F	1'-0"
G	0'-3"
H	0'-3"
I	0'-3"
J	0'-2"
K	0'-2"
L	0'-2"
M	0'-2"
N	0'-3"
O	0'-3"
P	0'-3"
Q	0'-3"
R	0'-3"
S	0'-3"
T	0'-3"
U	0'-3"
V	0'-3"
W	0'-3"
X	0'-3"
Y	0'-3"
Z	0'-3"

NOTE: TOTAL SYSTEM CAPACITY: 1,728 GALLONS  
 RATED CAPACITY: 750/800 GALLONS PER DAY



**WELL CERTIFICATION:**  
 THE EXISTING WELL, TAG NO. HO-95-2622, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 2/22/17.  
 Signature: *Alto M. Vitucci* Date: 10/4/16  
 ALDO M. VITUCCI DATE



Approved Septic System Plan  
 Howard County Health Department  
 Signature: \_\_\_\_\_ Date: 10/20/16

**SEPTIC DESIGN AND  
 BAT INSTALLATION  
 SITE PLAN**  
**WALNUT CREEK**  
 LOT 163  
 5320 CATALPA COURT  
 PHASE THREE  
 ZONED: RC-DEO AND RC-DEO  
 TAX MAP NO.: 28 GRID NO.: 17 & 18 PARCEL NO.: 49  
 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 SCALE: AS NOTED DATE: OCT-4-2016 Nov. 23, 2016  
 SHEET 1 OF 1

# Transmittal

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

To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Blvd.</b> <b>Columbia, Maryland 21046-4544</b>	Attn: <b>Sharhonda</b> Fax: Phone: <b>410-313-2640</b>
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From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-4022</b>
Date: <b>Nov. 25, 2015</b> <i>5320 Catalpa Ct.</i>	Pages: <b>0</b> 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: Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan

Provide here are two prints of the BAT plan for review.

Please have any review comments emailed to my attention.

Thank You,

Dave Harward

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

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### **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.

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 Fax (original to follow via U.S. Mail)

To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Blvd.</b> <b>Columbia, Maryland 21046-4544</b>	Attn: <b>Hank Oswald</b> Fax: Phone: <b>410-313-2640</b>
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From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Oct. 24, 2017</b>	Pages: <b>0</b> 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
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Remarks:

Re: Walnut Creek, Lot 163, 5320 Catalpa Court

Hank, Here are 2 copies the Wall Check (House Location Drawing) for Lot 163. Cairn Custom Homes had sent copies to your office that were not to scale, so they asked that we send you a copy that does scale correctly.

Let me know if you have any question or issue.

Thank You,

Dave Harward

Email: [daveh@fcc-eng.com](mailto:daveh@fcc-eng.com)

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

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From: <b>Dave Harward</b>	CC:
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Re: <b>Walnut Creek, Lot 163</b>	W.O.# <b>04001-6022</b>
Date: <b>Dec. 14, 2015</b>	Pages: <b>0</b> 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
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Remarks:

Re: **Walnut Creek, Lot 163 5320 Catalpa Ct. BAT Plan**

Hank, here are 3 copies of the BAT Plan with the note in the treach computations, regarding 6 bedrooms removed, stating 5 bedrooms instead. Please stamp all of these and leave 1 copy up front for us to pick up, so we have a stamped copy.

Thank You,

Dave Harward

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

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