



**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: 5/7/19 **ONSITE SEWAGE DISPOSAL SYSTEM** P 565479

APPROVAL DATE: 07/30/2019 **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 5328 Catalpa Court

SUBDIVISION: Walnut Creek LOT: 92 TAX ID: \_\_\_\_\_

CONTRACTOR: Fogles Septic Clean Inc EMAIL: kimp@foglesinc.com

CONTRACTOR ADDRESS: 580 Obercht Rd, Sykesville, MD 21784 PHONE: 410-795-5670

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: Babylon or Equivalent

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

DISTRIBUTION SYSTEM:  GRAVITY  PRESSURE DOSED BEDROOMS: 7 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>121.63</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: Hank Oswald ISSUE DATE: 5/7/19 EXPIRATION DATE: 5/7/20

- 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

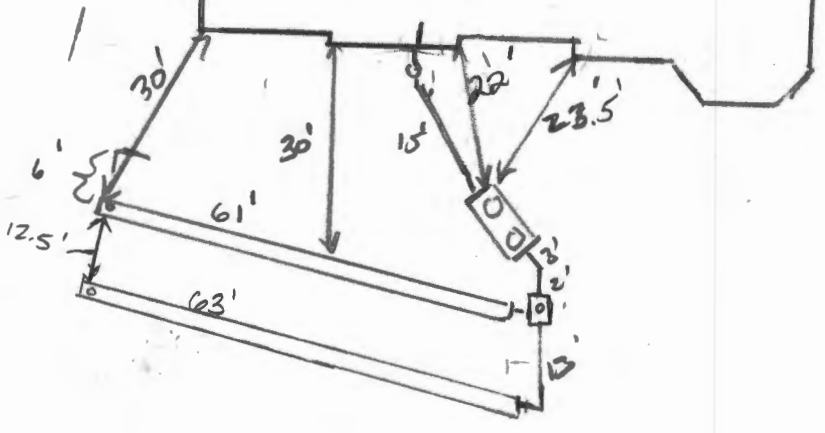
**NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.  
 PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.  
 CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

1" = 30'

HO-95-26-10  
\*WELL IS IN FRONT OF HOUSE, NOT AS SHOWN...

NOT TO SCALE

Ex HOUSE



**TRENCH/DRAINFIELD DATA**

WIDTH	INLET	BOTTOM
3	4	8
NUMBER OF TRENCHES <u>2</u>		
TOTAL LENGTH <u>124 F</u>		
ABSORPTION AREA <u>372 SF</u>		
DISTRIBUTION BOX LEVEL <u>SPEED</u>		
DISTRIBUTION BOX BAFFLE <u>Yes</u>		
DISTRIBUTION BOX PORT <u>Yes</u>		

**SEPTIC TANK DATA**

SEPTIC TANK I LEVEL	<u>YES</u>
MANUFACTURER	<u>Babylon</u>
CAPACITY	<u>2000</u> GAL
SEAM LOC	<u>Top</u>
TANK LID DEPTH	<u>30"</u>
BAFFLES	<u>YES</u>
BAFFLE FILTER	<u>—</u>
MANHOLE LOC	<u>Front/Rear</u>
6" PORT LOC	<u>none</u>
WATERTIGHT TEST	<u>—</u>
SLOTTED	<u>Yes</u>
DATE ON LID	<u>6/24/19</u>
PUMP/SEPTIC TANK LEVEL	<u>N/A</u>
MANUFACTURER	_____
CAPACITY	_____ GAL
SEAM LOC	_____
TANK LID DEPTH	_____
BAFFLES	_____
BAFFLE FILTER	_____
MANHOLE LOC	_____
6" PORT LOC	_____
WATERTIGHT TEST	_____
SLOTTED	_____
DATE ON LID	_____

ROAD NAME

**PRE-CONSTRUCTION:**

7/26/19 Contour shot in field. Elevations run straight/parallel w/ top of SAA. Install 2 x 62' trenches on contour. Set septic tank per plan. OK to turn tank slightly towards start of upper trench. (Kor)

INSTALLATION: 7/29/19 SNG made. Tank sets. Upper trench complete. Dbox set per plan. Lower trench started. OK to center. (Kor)

7/30/19 Dbox LEVELED w/ SPEED LEVELS. LOWER TRENCH COMPLETE. OK TO BACKFILL - BAFFLES INSTALLED. (Kor)

FINAL INSPECTOR

DATE OF APPROVAL

07/30/2019

# Howard County Health Department

Bureau of Environmental Health, Ellicott City, Maryland 410-313-2640

SEWAGE DISPOSAL PERMIT NO. A-\_\_\_\_\_ P-\_\_\_\_\_

PERMITTEE

LOCATION

5328 Catalpa Court Walnut Creek Lot 92  
Carr Custom Homes

Do Not Cover Work Until Health Department Approval Appears On This Card

POST THIS CARD WHERE IT CAN BE SEEN FROM ROAD

STOP ALL CONSTRUCTION ON SEWAGE DISPOSAL SYSTEM AND CONTACT HEALTH DEPARTMENT BEFORE CONTINUING

WORK IS SATISFACTORY, CONTINUE

Inspector

Date

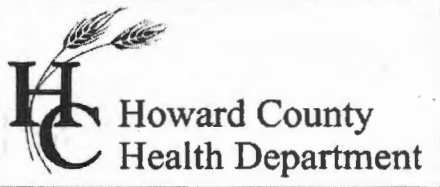
Inspector

Date

FINAL INSPECTION MADE, COVER ALL WORK

Inspector

Date



**Bureau of Environmental Health**

8930 Stanford Boulevard, Columbia, MD 21045

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

RECEIPT DATE: \_\_\_\_\_ **ONSITE SEWAGE DISPOSAL SYSTEM** P \_\_\_\_\_

APPROVAL DATE: \_\_\_\_\_ **PERMIT: CONSTRUCTION** A \_\_\_\_\_

PROPERTY ADDRESS: 5328 Catalpa Court

SUBDIVISION: Walnut Creek LOT: 92 TAX ID: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ EMAIL: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_ PHONE: \_\_\_\_\_

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

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TRENCHES:	LINEAR FEET REQUIRED: <u>121.63</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
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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: Hank Oswald ISSUE DATE: \_\_\_\_\_ EXPIRATION DATE: \_\_\_\_\_

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

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**PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.**

**CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE

**TRENCH/DRAINFIELD DATA**

WIDTH                      INLET                      BOTTOM

NUMBER OF TRENCHES \_\_\_\_\_

TOTAL LENGTH \_\_\_\_\_

ABSORPTION AREA \_\_\_\_\_

DISTRIBUTION BOX LEVEL \_\_\_\_\_

DISTRIBUTION BOX BAFFLE \_\_\_\_\_

DISTRIBUTION BOX PORT \_\_\_\_\_

**SEPTIC TANK DATA**

SEPTIC TANK I LEVEL \_\_\_\_\_

MANUFACTURER \_\_\_\_\_

CAPACITY \_\_\_\_\_ GAL

SEAM LOC \_\_\_\_\_

TANK LID DEPTH \_\_\_\_\_

BAFFLES \_\_\_\_\_

BAFFLE FILTER \_\_\_\_\_

MANHOLE LOC \_\_\_\_\_

6" PORT LOC \_\_\_\_\_

WATERTIGHT TEST \_\_\_\_\_

SLOTTED \_\_\_\_\_

DATE ON LID \_\_\_\_\_

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 \_\_\_\_\_

**ROAD NAME**

PRE-CONSTRUCTION:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

INSTALLATION:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

FINAL INSPECTOR \_\_\_\_\_ DATE OF APPROVAL \_\_\_\_\_

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

**CIVIL ENGINEERING CONSULTANTS  
and LAND SURVEYORS**

# Transmittal

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

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

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

To: <b>Bureau of Environmental Health</b> <b>8930 Stanford Boulevard</b> <b>Columbia, MD 21046-4544</b>	Attn: <b>Hank</b> Fax: <b>(410) 313-2648</b> Phone: <b>(410) 313-2640</b>
---------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------

From: <b>Tony Fertitta</b>	CC:
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Re: <b>Walnut Creek Lot 92</b>	W.O.# <b>17019</b>
Date: <b>May 22, 2018</b>	Pages: <b>3</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 type="checkbox"/> For Review & Comment
----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Remarks:

**Hank:**

Enclosed please find Two (2) prints of the drawing entitled " Septic Install Plan " dated May 22, 2018. If we may be of any further assistance, please do not hesitate to call.

Very truly yours,

Tony Fertitta

**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.

RECEIVED  
MAY 30 2018  
HOWARD COUNTY HEALTH DEPARTMENT  
FOOD PROTECTION PROGRAM

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

**MEMORANDUM**

**TO:** Fisher, Collins & Carter, Inc.  
10272 Baltimore National Pike  
Ellicott City, MD 21042

**FROM:** Hank Oswald, L.E.H.S.  
Well & Septic Program

**RE:** 5328 Catalpa Court  
Walnut Creek, Lot 92

**Date:** May 29, 2018

---

The OSDS Plan for 5328 Catalpa Court has been reviewed with the following comments:

- 1.) Show sidewall at 4 feet and bottom of trench at 8 feet in calculations. ✓
- 2.) Show trench spacing at  $2D+W = 2(4) + 3 = 11$  feet. ✓
- 3.) Change proposed grade over tank to 3 feet or less. ✓
- 4.) Change initial trench detail to show trench invert at 4 feet (or less) and a max bottom depth of 8 feet. ✓
- 5.) Increase pipe length (as much as possible) between last cleanout and tank. ✓
- 6.) Show sanitary tees "sweeping tee" at top and bottom of cleanouts before tank. ✓
- 7.) Improve trench labeling in layout. ✓

## Oswald, Hank

---

**From:** Oswald, Hank  
**Sent:** Tuesday, May 29, 2018 2:07 PM  
**To:** 'Tony Fertitta'  
**Subject:** OSDS\_5328 Catalpa Court  
**Attachments:** OSDS Memo To FCC\_\_2018 (Autosaved).pdf

Hi Tony:

Attached, please find memo containing comments for 5328 Catalpa Court, OSDS Plan.

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](mailto:hoswald@howardcountymd.gov)

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

**CIVIL ENGINEERING CONSULTANTS  
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Remarks:

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**Very truly yours,**

**Tony Fertitta**

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## Oswald, Hank

---

**From:** Tony Fertitta <tonyf@fcc-eng.com>  
**Sent:** Thursday, May 31, 2018 11:33 AM  
**To:** Oswald, Hank  
**Subject:** RE: OSDS\_5328 Catalpa Court

\* no there are not

---

**From:** Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]  
**Sent:** Thursday, May 31, 2018 11:27 AM  
**To:** Tony Fertitta  
**Subject:** RE: OSDS\_5328 Catalpa Court

Hi Tony:

\* Are there any storm water management devices on 5328 Catalpa Court?

Thanks,

Hank

---

**From:** Oswald, Hank  
**Sent:** Tuesday, May 29, 2018 2:07 PM  
**To:** 'Tony Fertitta'  
**Subject:** OSDS\_5328 Catalpa Court

Hi Tony:

Attached, please find memo containing comments for 5328 Catalpa Court, OSDS Plan.

Thanks,

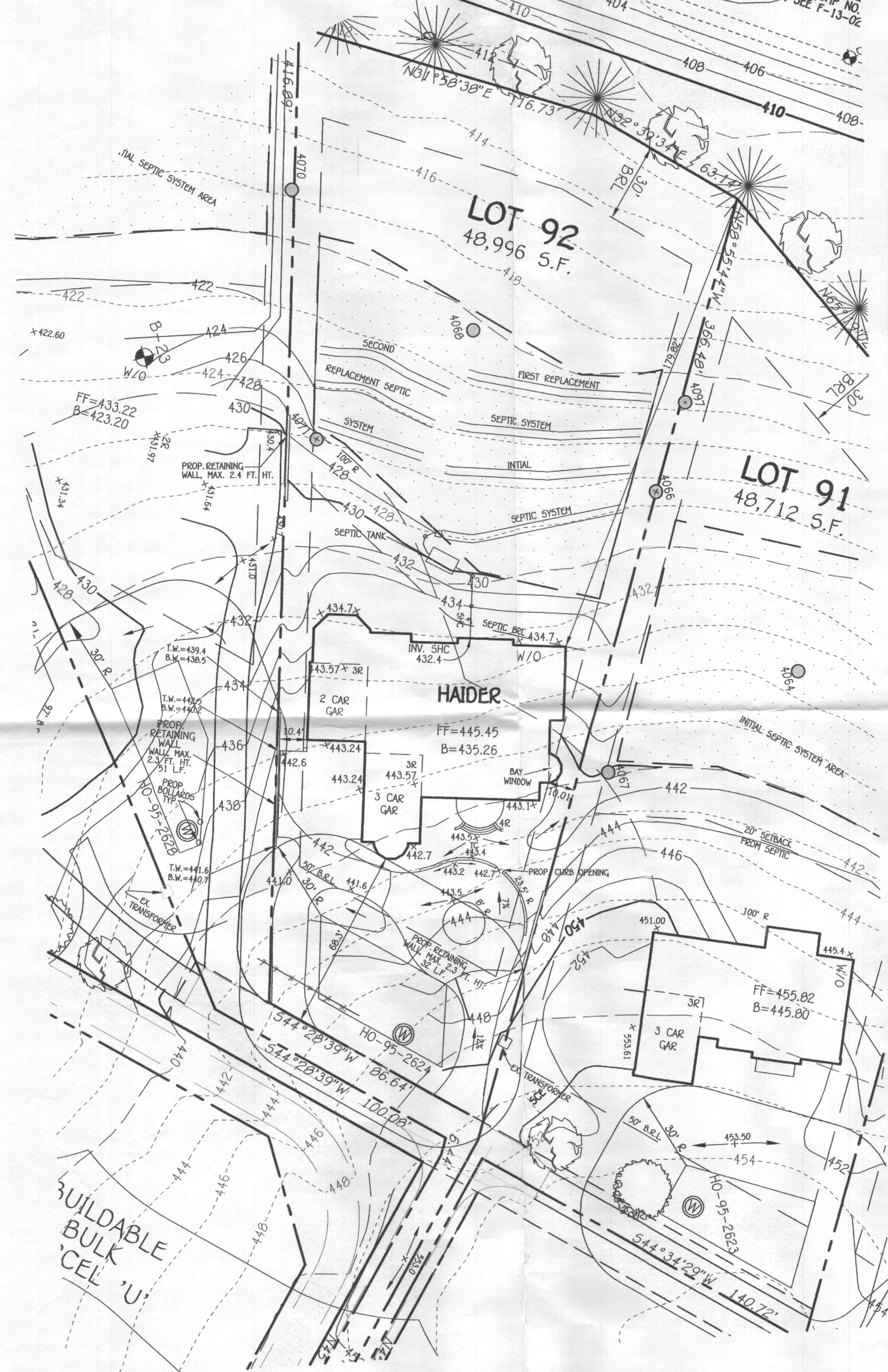
Hank

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)  
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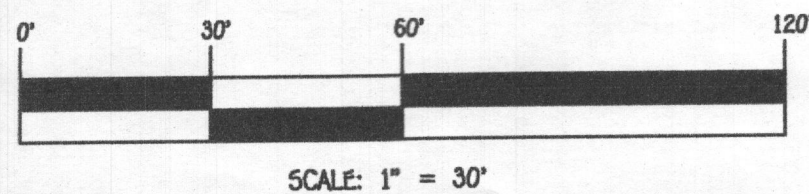
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1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER 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-95-2624 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.
6. Install venturis around future replacement well located less than 10' of driveway.



**PLAN**  
SCALE: 1" = 30'



**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-2995

**OWNER/DEVELOPER**  
CAREN CUSTOM HOMES  
10548 GORMAN ROAD  
LAUREL, MARYLAND 20723  
410-918-7382

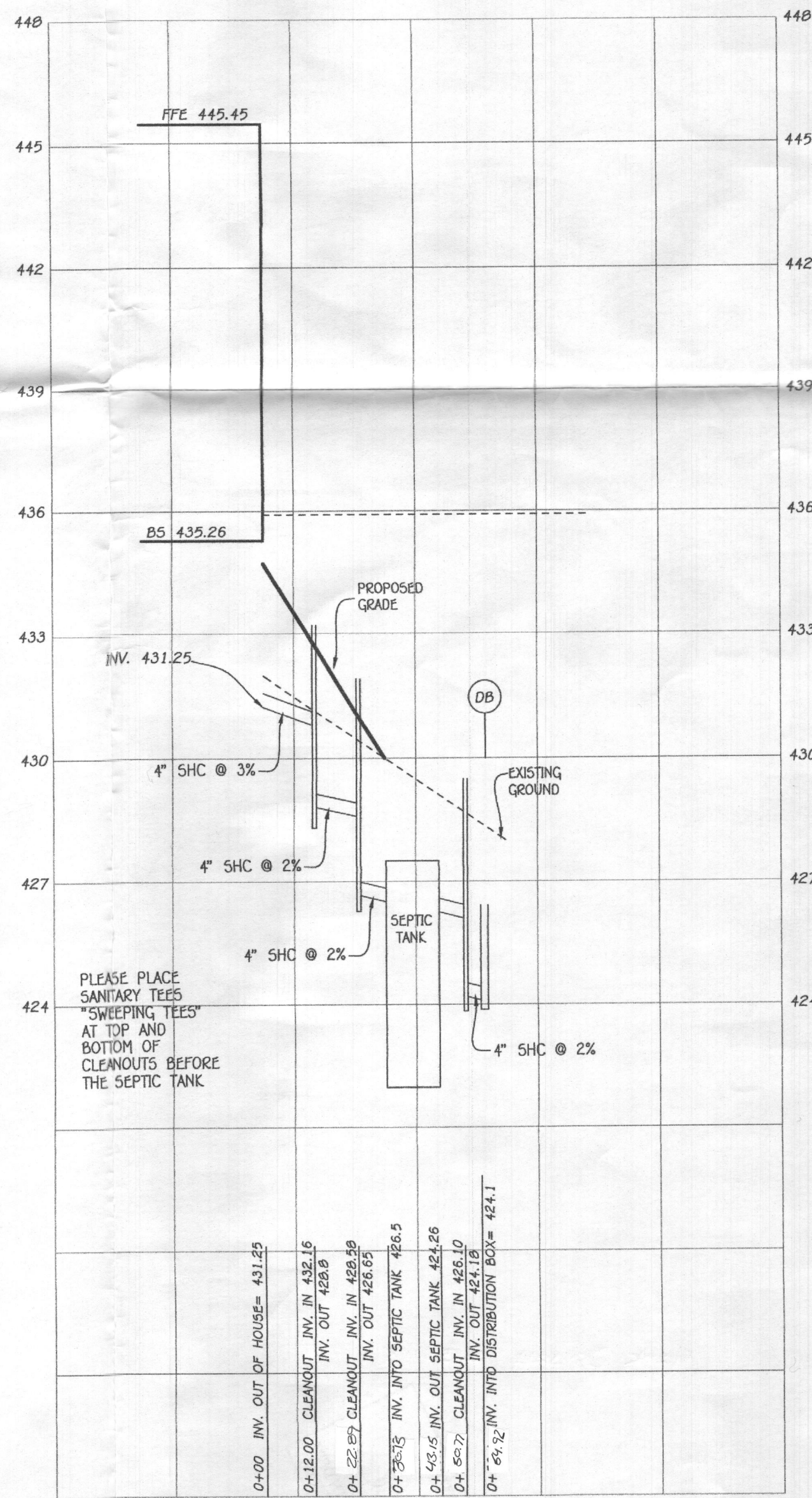
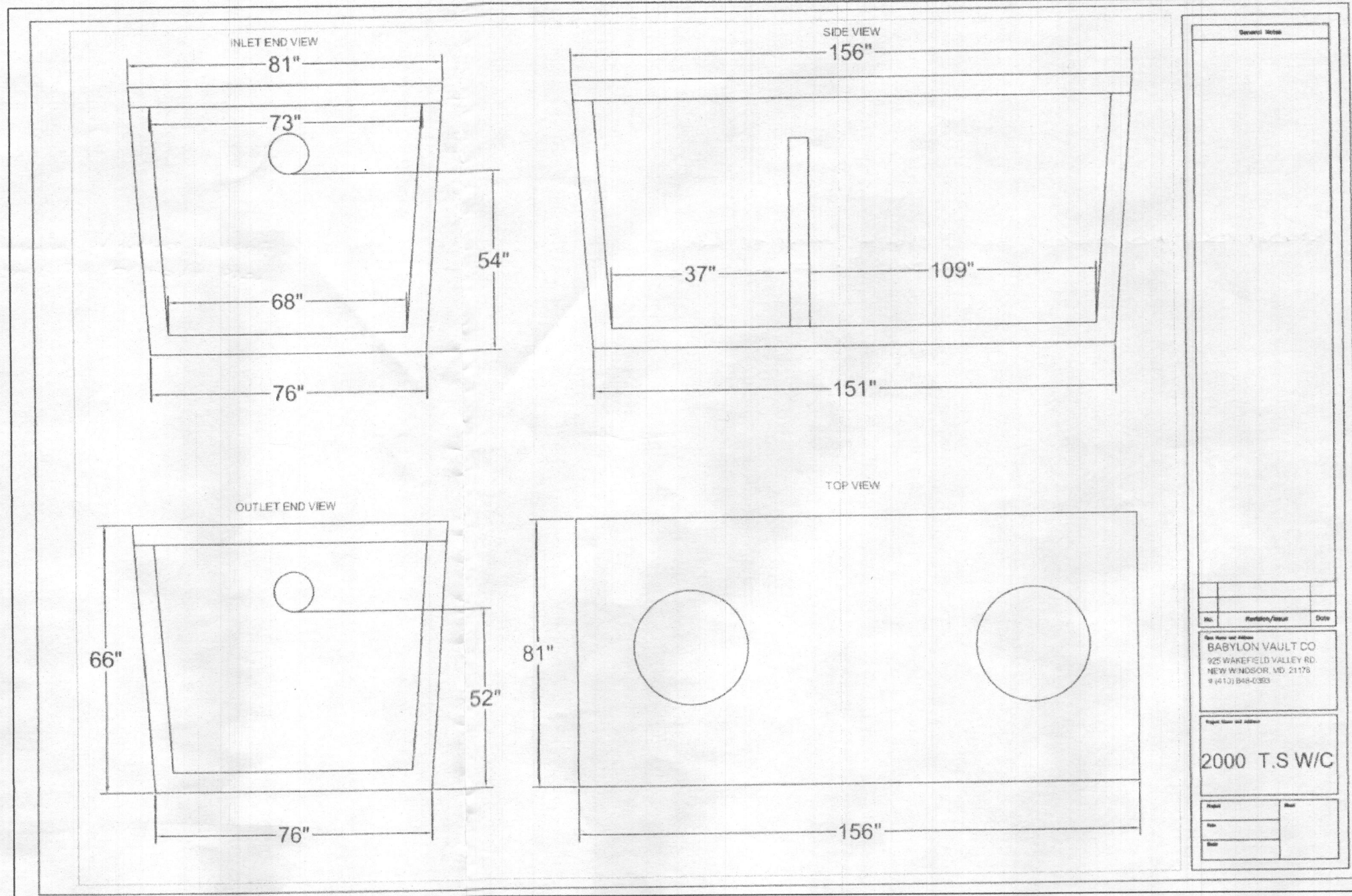


**PROFESSIONAL CERTIFICATION**

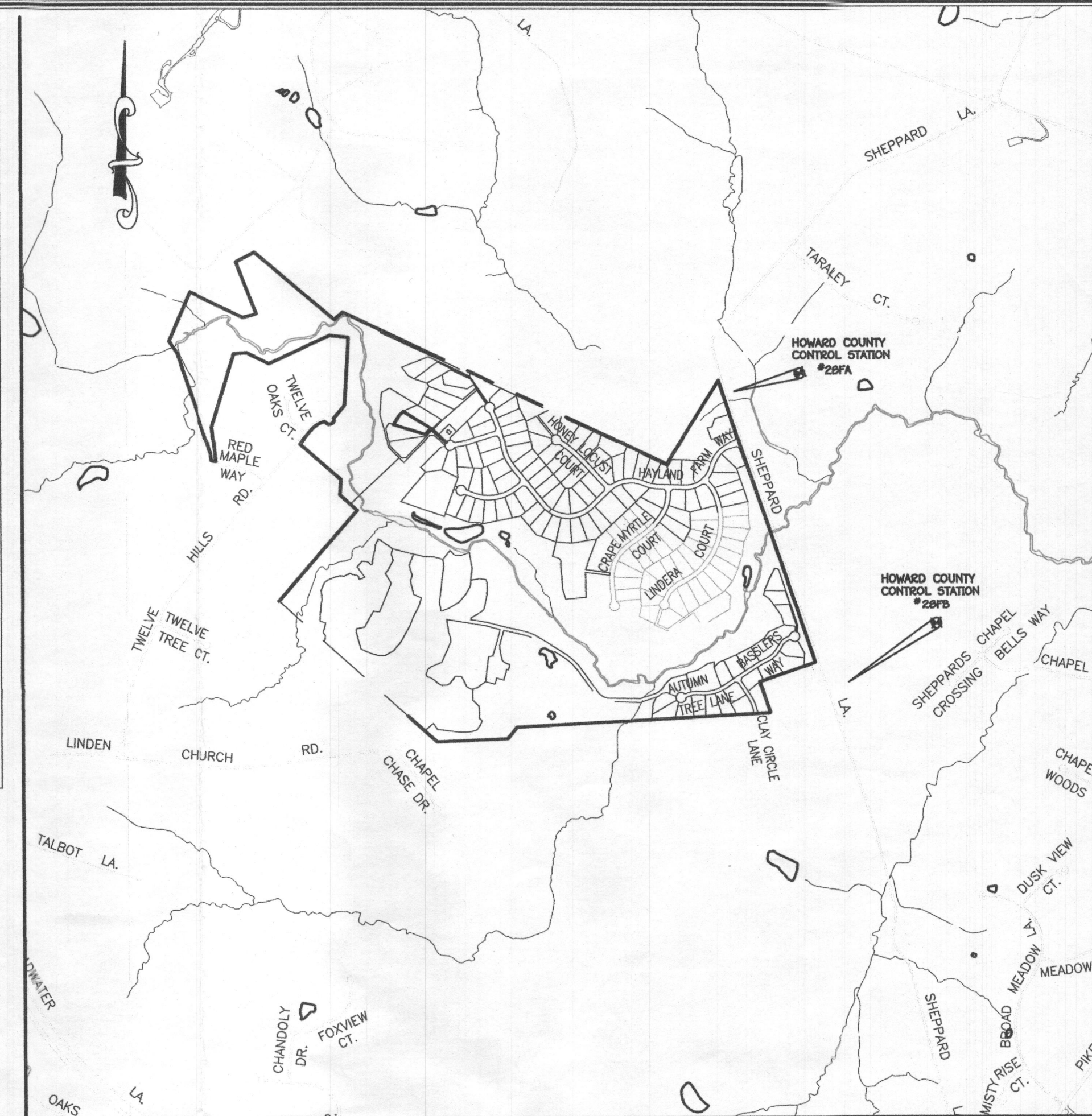
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2019.

*Michael J. Vitucci*  
Signature of Professional Engineer

5/30/18  
DATE



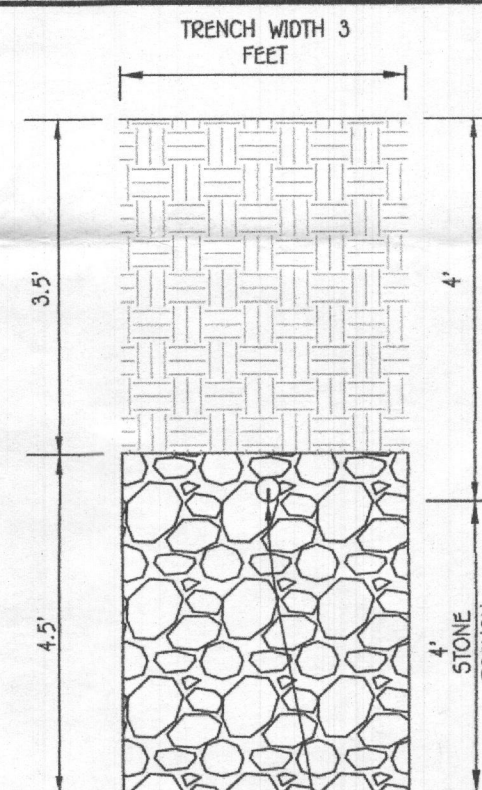
**SEPTIC PROFILE**  
SCALE: 1" = 30'



**VICINITY MAP**  
SCALE: 1" = 1200'

FFE 445.45  
BSE 435.26  
INV. OUT OF HOUSE = 431.25  
PROP. GROUND AT CLEANOUT #1 = 434.0  
INV. INTO CLEANOUT = 432.16  
INV. OUT OF CLEANOUT = 428.0  
PROP. GROUND AT CLEANOUT #2 = 429.8  
INV. INTO CLEANOUT = 428.58  
INV. OUT OF CLEANOUT = 426.65  
EX. GROUND AT SEPTIC TANK = 429.0  
PROP. GRADE ABOVE SEPTIC TANK = 430.0  
TOP OF SEPTIC TANK = 427.50  
INV. INTO SEPTIC TANK = 426.50  
INV. OUT OF SEPTIC TANK = 426.25  
GROUND AT CLEANOUT #3 = 428.7  
INV. INTO CLEANOUT = 426.10  
INV. OUT OF CLEANOUT = 424.18  
EX. GROUND AT DISTRIBUTION BOX = 428.0  
INV. INTO DISTRIBUTION BOX = 424.1  
INV. OUT OF DISTRIBUTION BOX = 424.0

**TRENCH DATA:**  
TRENCH 1:  
EX. GROUND ABOVE = 574.5  
INV. IN = 571.5  
BOTTOM TRENCH = 567.5



**INITIAL TRENCH DETAIL**  
SCALE: 1" = 2'

**INITIAL SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
APPLICATION RATE = 1.2  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 0 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 0 FEET  
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x0)) = 0.417  
TRENCH LENGTH = 291.67 SF x 0.417 = 121.63 FEET  
(2 TRENCH'S AT 60.81 EACH)  
TRENCH SPACING = 2D+W = ((2x0) + 3) = 11' USE 11'

**1ST REPLACEMENT SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
APPLICATION RATE = 1.2  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 0 FEET  
TRENCH WIDTH (W) = 3 FEET  
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TRENCH LENGTH = 291.67 SF x 0.417 = 121.63 FEET  
(2 TRENCH'S AT 60.81 EACH)  
TRENCH SPACING = 2D+W = ((2x0) + 3) = 11' USE 11'

**2ND REPLACEMENT SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
APPLICATION RATE = 1.2  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 0 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 0 FEET  
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x0)) = 0.417  
TRENCH LENGTH = 291.67 SF x 0.417 = 121.63 FEET  
(3 TRENCH'S AT 30.41 EACH)  
TRENCH SPACING = 2D+W = ((2x0) + 3) = 11' USE 11'

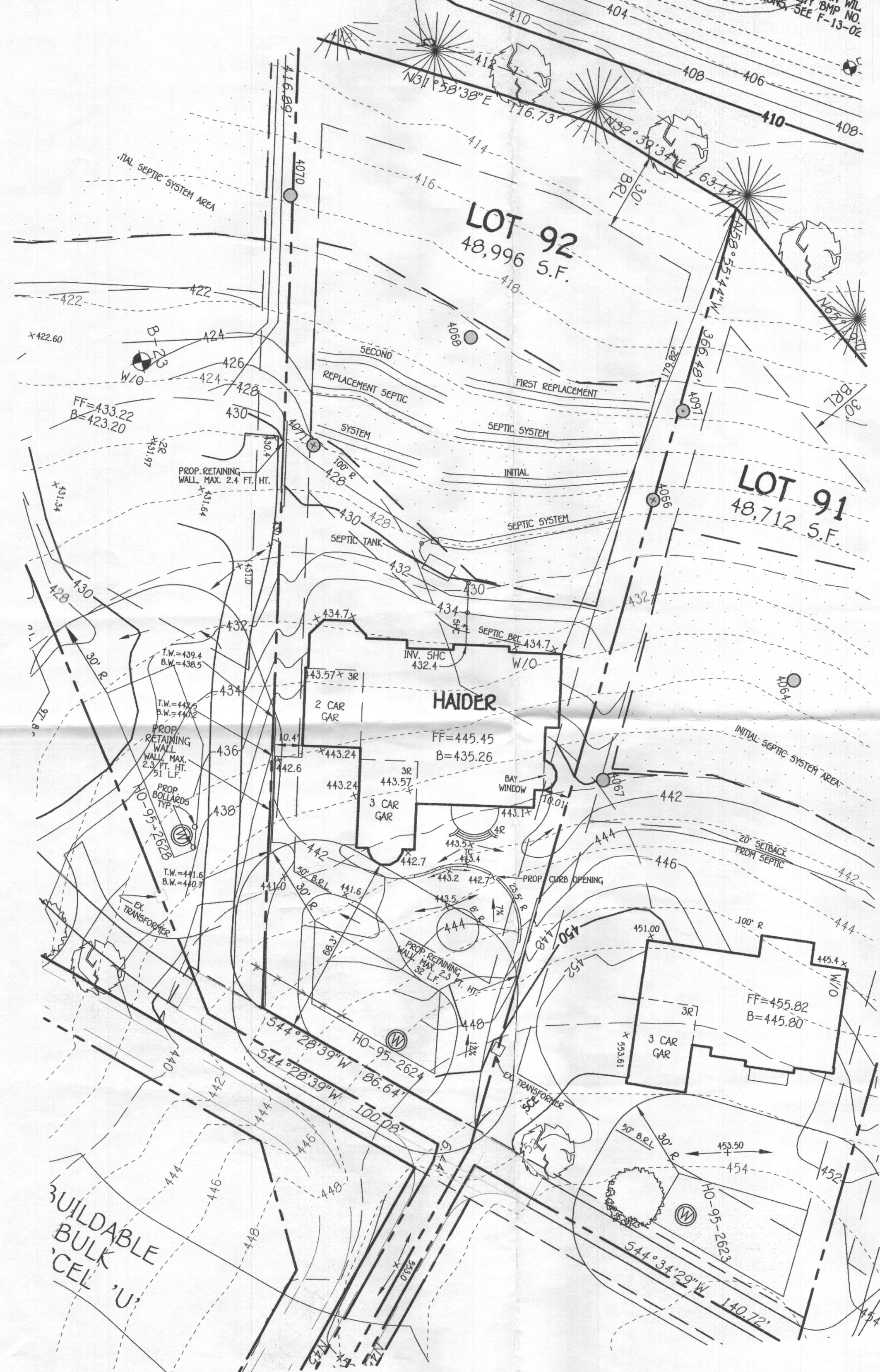
Approved Septic System Plan  
Howard County Health Department  
*Mark Oswald* 5/31/18  
Signature Date

**SEPTIC SYSTEM  
INSTALLATION SITE PLAN  
WALNUT CREEK  
PHASE THREE  
Lot 92**

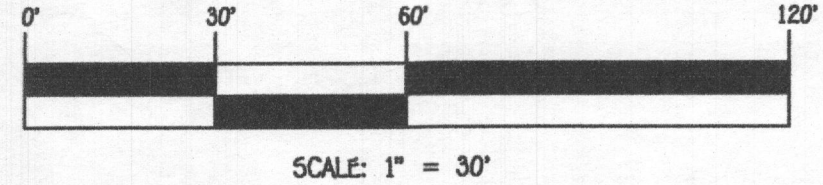
(A Re-subdivision of Buildable Bulk Parcel 11 - Walnut Creek, Phase Two) & (A Revision to Non-Buildable Preservation Parcels 11 and 11 - Walnut Creek, Phase Two)  
ZONED: RC-DEO & RS-DEO  
TAX MAP No. 29 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL 23, 2018  
SHEET 1 OF 1

ADDRESS CHART	
LOT NUMBER	STREET ADDRESS
109	5328 CATALPA COURT

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-95-2624 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.
6. Install bollards around future replacement well located less than 10' of driveway.



**PLAN**  
SCALE: 1" = 30'

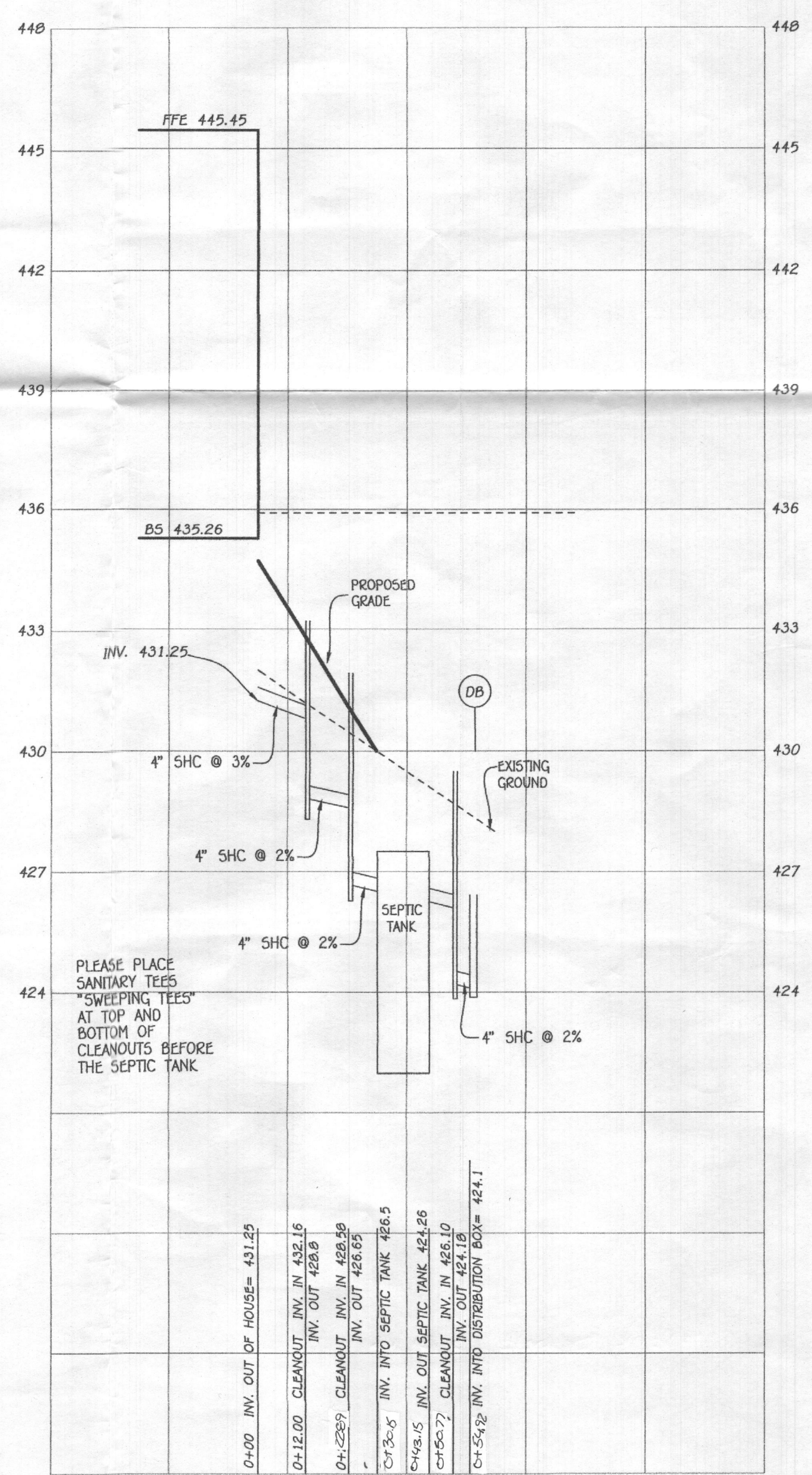
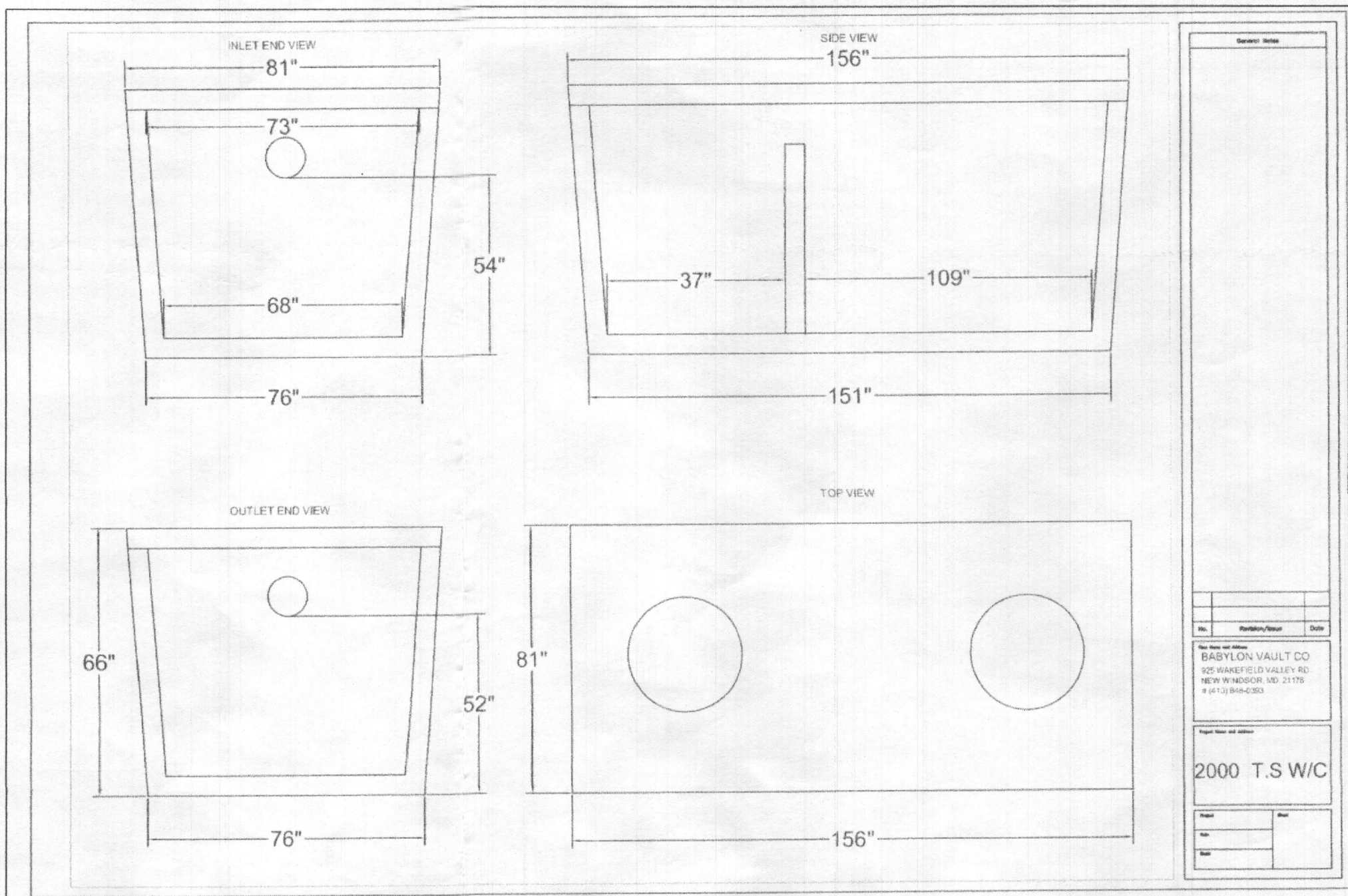


**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTRAL SQUARE OFFICE PARK - 10272 BALDWIN NATIONAL PIKE  
ELICOTT CITY, MARYLAND 21042  
(410) 461-1299

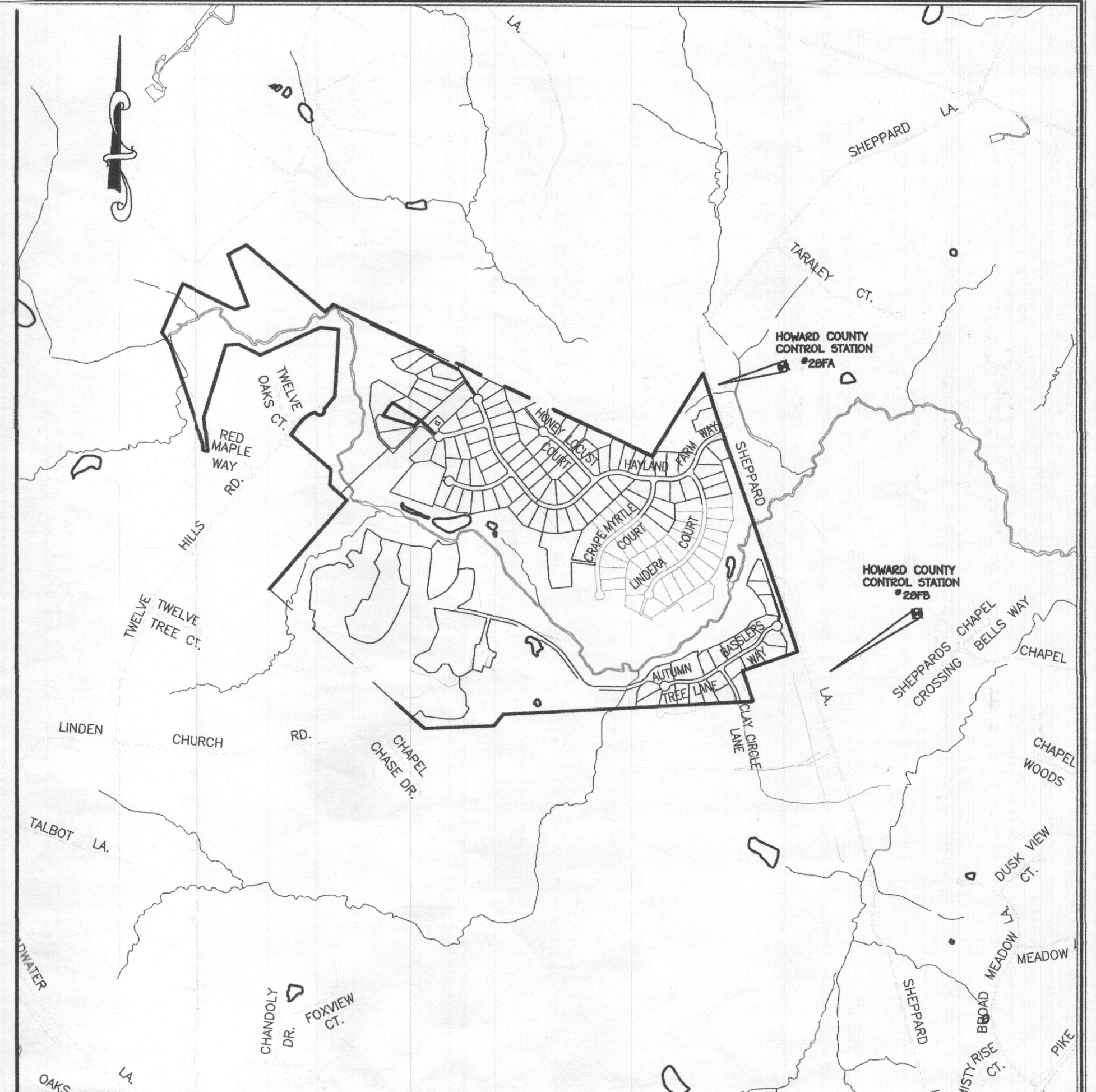
**OWNER/DEVELOPER**  
CARRON CUSTOM HOMES  
10548 GORHAM ROAD  
LAUREL, MARYLAND 20723  
410-818-7382



**PROFESSIONAL CERTIFICATION**  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2019.  
*Michael J. Vitucci*  
Signature of Professional Engineer  
5/30/19  
DATE



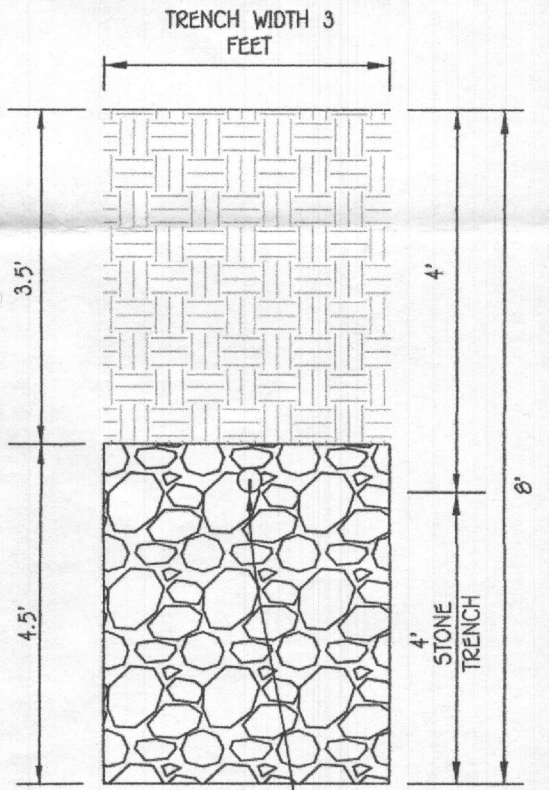
**SEPTIC PROFILE**  
SCALE: 1" = 30'



**VICINITY MAP**  
SCALE: 1" = 1200'

- FFE 445.45  
BSE 435.26  
INV. OUT OF HOUSE = 431.25  
PROP. GROUND AT CLEANOUT #1 = 434.0  
INV. INTO CLEANOUT = 432.16  
INV. OUT OF CLEANOUT = 428.0  
PROP. GROUND AT CLEANOUT #2 = 429.0  
INV. INTO CLEANOUT = 428.50  
INV. OUT OF CLEANOUT = 426.65  
EX. GROUND AT SEPTIC TANK = 429.0  
PROP. GRADE ABOVE SEPTIC TANK = 430.0  
TOP OF SEPTIC TANK = 427.50  
INV. INTO SEPTIC TANK = 426.50  
INV. OUT OF SEPTIC TANK = 426.25  
GROUND AT CLEANOUT #3 = 428.7  
INV. INTO CLEANOUT = 426.10  
INV. OUT OF CLEANOUT = 424.10  
EX. GROUND AT DISTRIBUTION BOX = 428.0  
INV. INTO DISTRIBUTION BOX = 424.1  
INV. OUT OF DISTRIBUTION BOX = 424.0

**TRENCH DATA:**  
TRENCH 1:  
EX. GROUND ABOVE = 574.5  
INV. IN = 574.5  
BOTTOM TRENCH = 567.5



**INITIAL TRENCH DETAIL**  
SCALE: 1" = 2'

**INITIAL SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
APPLICATION RATE = 1.2  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
TRENCH DEPTH = 0 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 0 FEET  
SF OF DRAINFIELD = 1050 GPD / 1.2 = 875 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x0)) = 0.417  
TRENCH LENGTH = 291.67 SF x 0.417 = 121.63 FEET  
(2 TRENCH'S AT 60.81 EACH)  
TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

**1ST REPLACEMENT SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
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(2 TRENCH'S AT 60.81 EACH)  
TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

**2ND REPLACEMENT SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
LOADING RATE = 7 BEDROOMS X 150 GPD/BEDROOM = 1050 GPD  
APPLICATION RATE = 1.2  
EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
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TRENCH WIDTH (W) = 3 FEET  
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TRENCH SPACING = 2D+W = ((2x4) + 3) = 11' USE 11'

Approved Septic System Plan  
Howard County Health Department  
*Mark Dewitt*  
Signature  
5/31/19  
Date

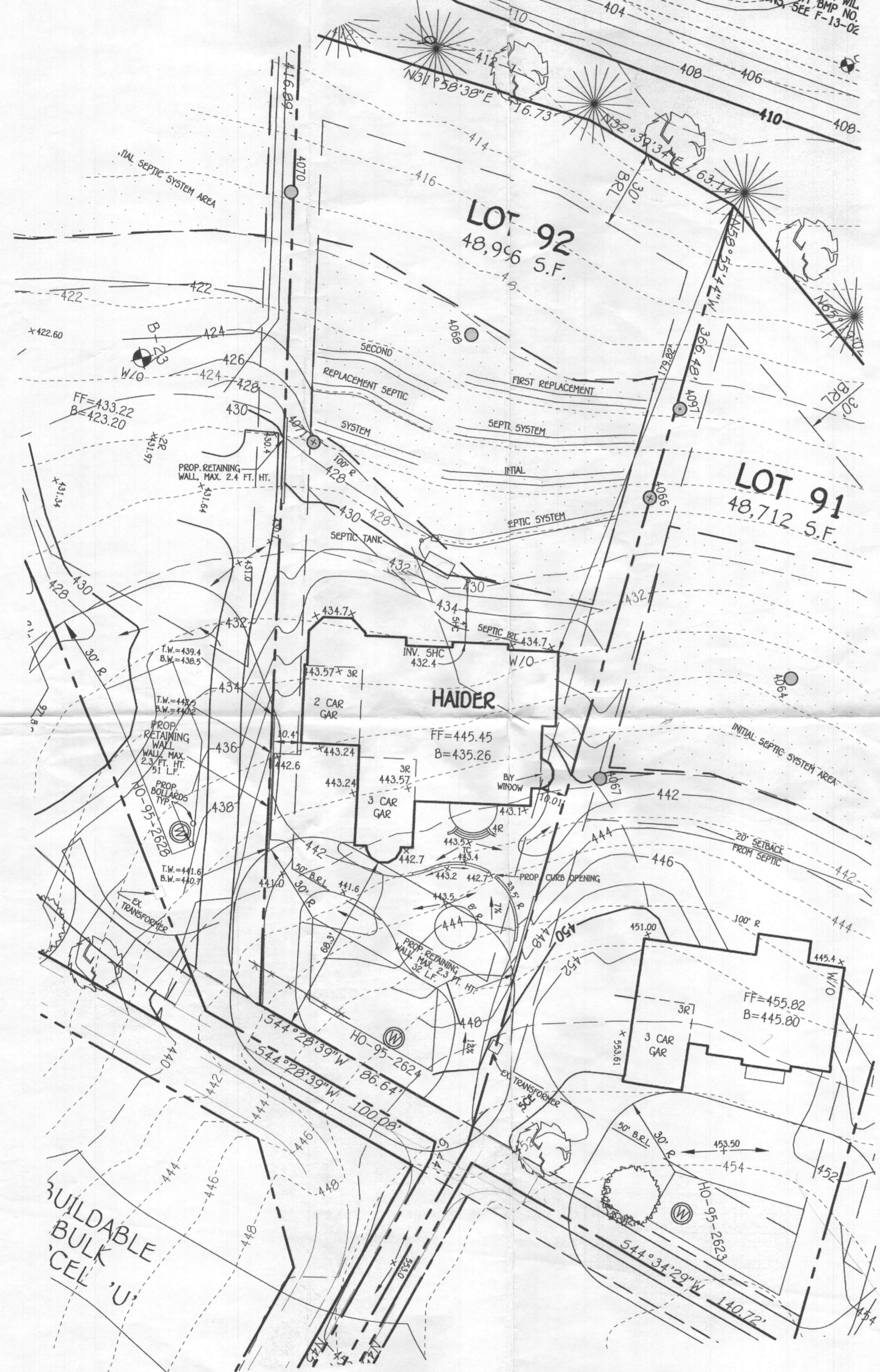
**SEPTIC SYSTEM  
INSTALLATION SITE PLAN  
WALNUT CREEK  
PHASE THREE  
Lot 92**

**ADDRESS CHART**

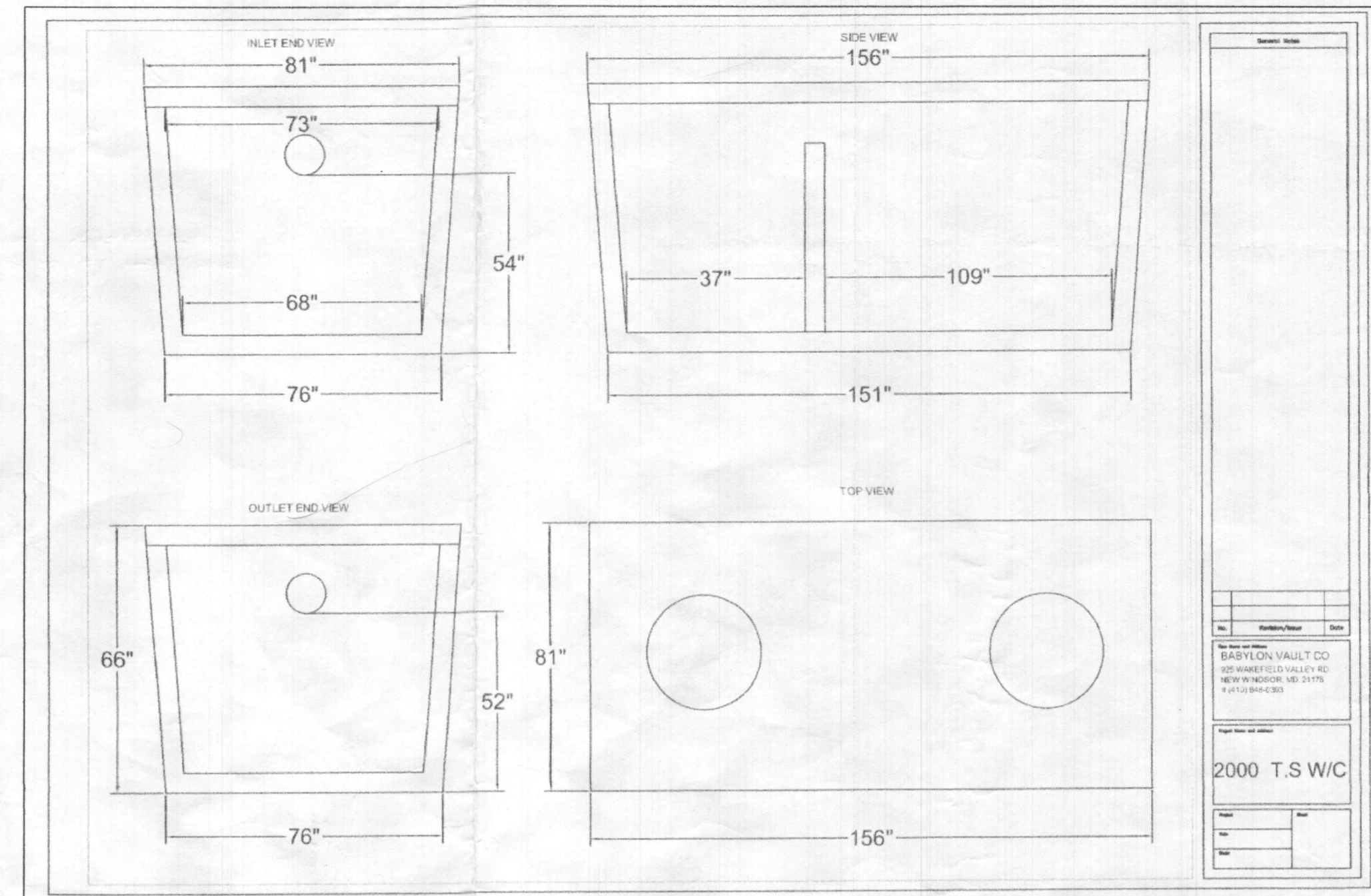
LOT NUMBER	STREET ADDRESS
109	5328 CATALPA COURT

(A Resubdivision of Buildable Bulk Parcel 'U' - Walnut Creek, Phase Two) & (A Subdivision to Non-Buildable Preservation Parcels '1' and '2' - Walnut Creek, Phase Two)  
ZONED: RC-DEO & R2-DEO  
TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL 23, 2018  
SHEET 1 OF 1

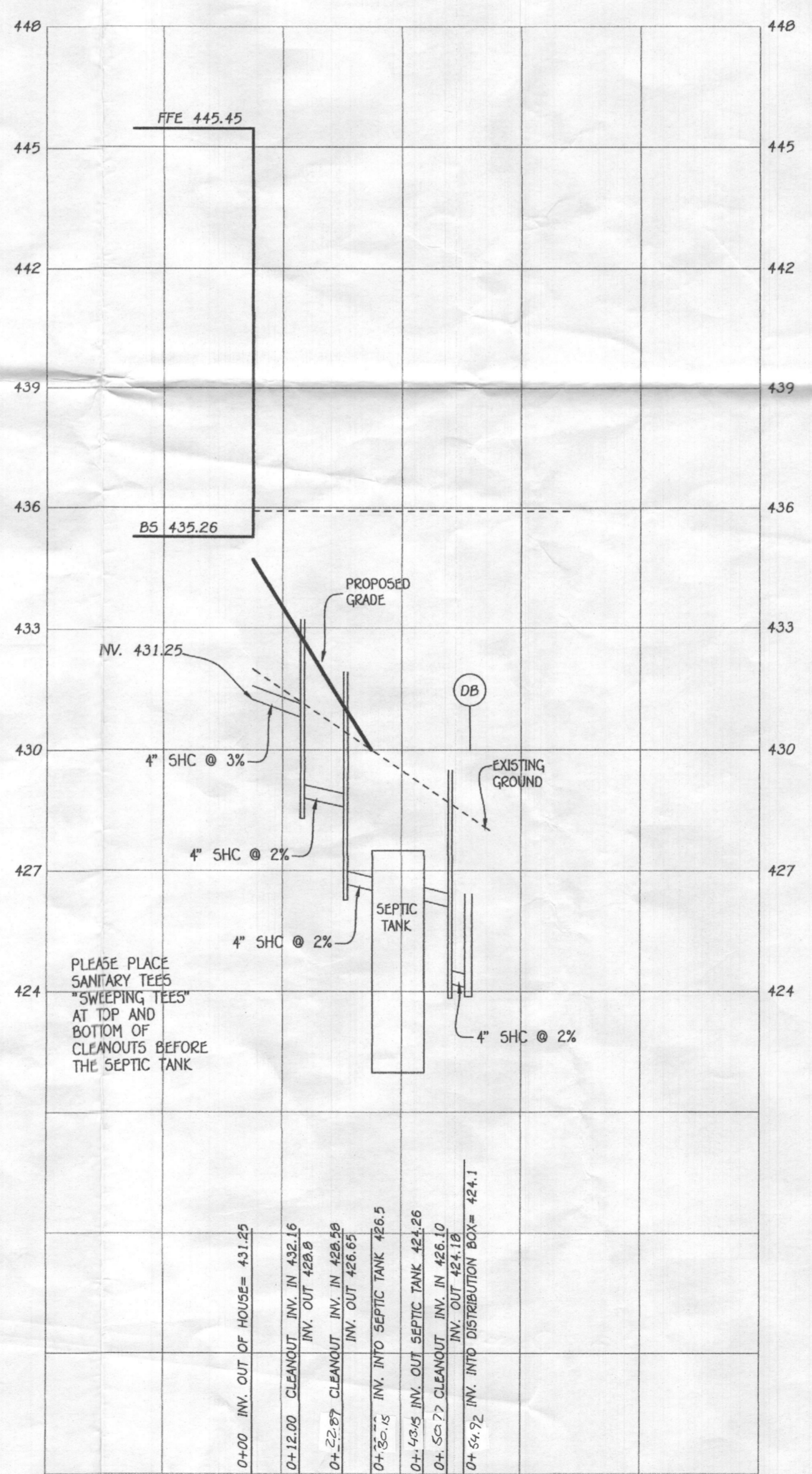
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
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4. THE WELL HO-95-2624 HAS BEEN FIELD LOCATED AND IS ACCURATELY 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.
6. Install boulders around future replacement well located less than 10' of driveway.



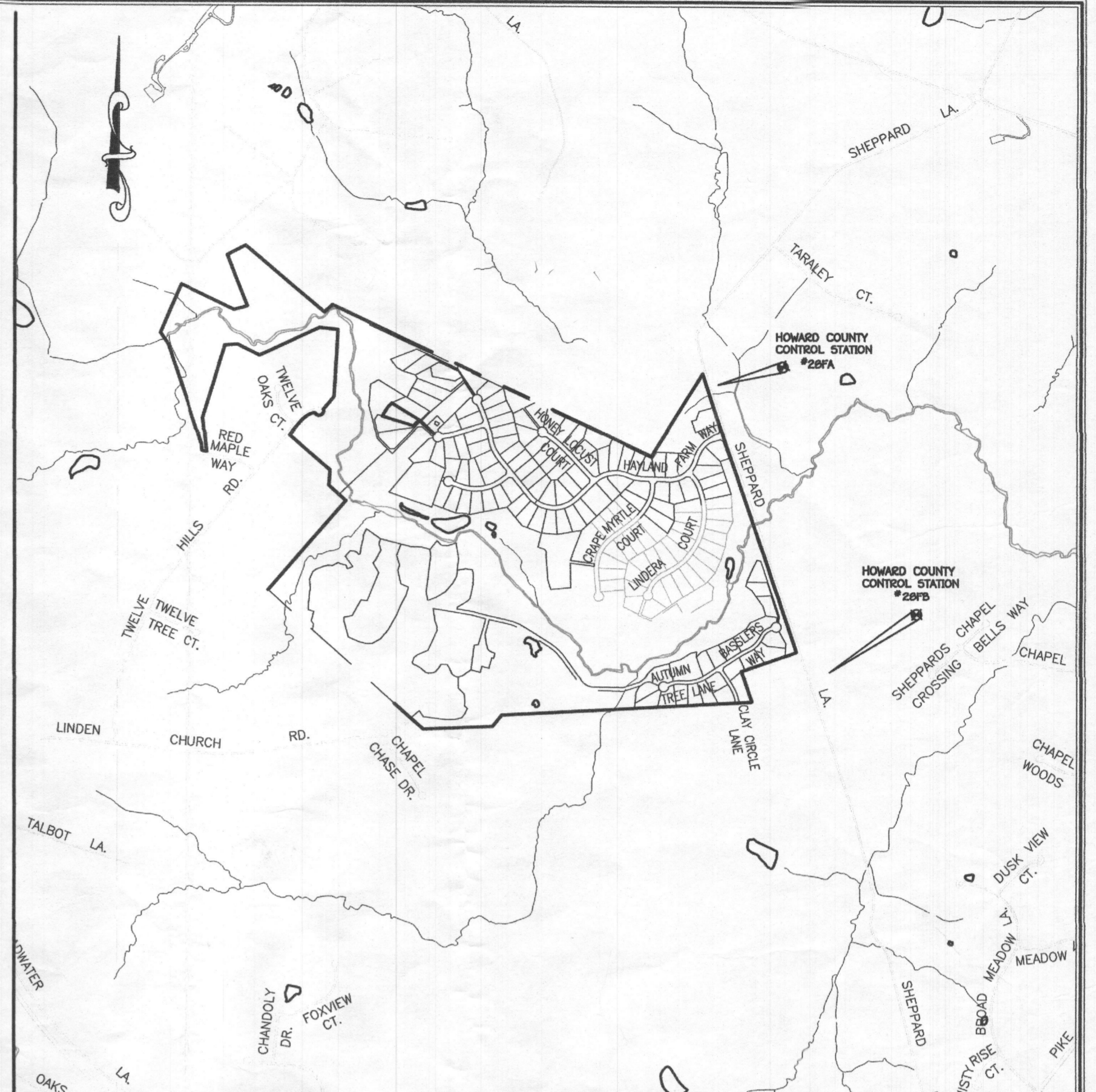
**PLAN**  
SCALE: 1" = 30'



2000 T.S W/C



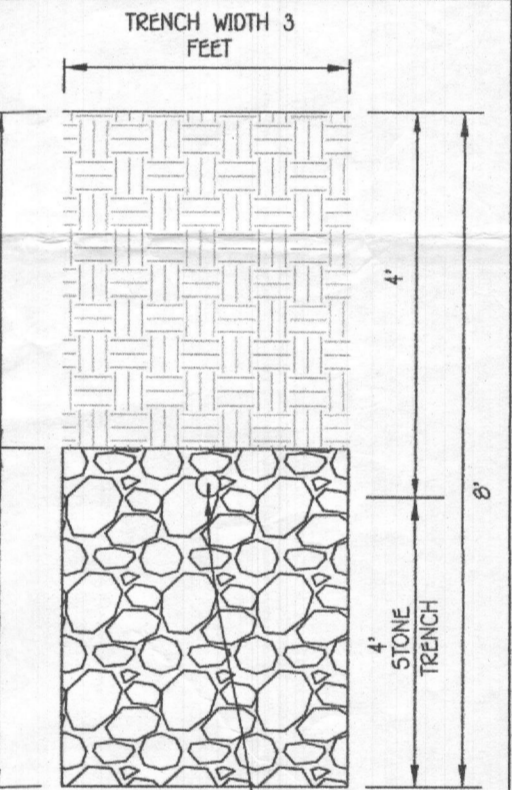
**SEPTIC PROFILE**  
SCALE: 1" = 30'



**VICINITY MAP**  
SCALE: 1" = 1200'

FFE 445.45  
 BSE 435.26  
 INV. OUT OF HOUSE = 431.25  
 PROP. GROUND AT CLEANOUT #1 = 434.0  
 INV. INTO CLEANOUT = 432.16  
 INV. OUT OF CLEANOUT = 428.8  
 PROP. GROUND AT CLEANOUT #2 = 429.8  
 INV. INTO CLEANOUT = 428.58  
 INV. OUT OF CLEANOUT = 426.65  
 EX. GROUND AT SEPTIC TANK = 429.0  
 PROP. GRADE ABOVE SEPTIC TANK = 430.0  
 TOP OF SEPTIC TANK = 427.50  
 INV. INTO SEPTIC TANK = 426.50  
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 GROUND AT CLEANOUT #3 = 428.7  
 INV. INTO CLEANOUT = 425.10  
 INV. OUT OF CLEANOUT = 424.18  
 EX. GROUND AT DISTRIBUTION BOX = 428.0  
 INV. INTO DISTRIBUTION BOX = 424.1  
 INV. OUT OF DISTRIBUTION BOX = 424.0

TRENCH DATA:  
 TRENCH 1:  
 EX. GROUND ABOVE = 574.5  
 INV. IN = 571.5  
 BOTTOM TRENCH = 567.5



**INITIAL TRENCH DETAIL**  
SCALE: 1" = 2'

**INITIAL SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
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 EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
 TRENCH DEPTH = 8 FEET  
 TRENCH WIDTH (W) = 3 FEET  
 EFFECTIVE DEPTH (D) = 8 FEET  
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 COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x8)) = 0.417  
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 TRENCH SPACING = 20+W = ((2x4) + 3) = 11' USE 11'

**1ST REPLACEMENT SYSTEM**

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 EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
 TRENCH DEPTH = 8 FEET  
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**2ND REPLACEMENT SYSTEM**

SEWAGE DISPOSAL SYSTEM DATA, DESIGN FOR 7 BEDROOMS  
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 APPLICATION RATE = 1.2  
 EFFECTIVE SIDEWALL BEGINS AT 4 FEET  
 TRENCH DEPTH = 8 FEET  
 TRENCH WIDTH (W) = 3 FEET  
 EFFECTIVE DEPTH (D) = 8 FEET  
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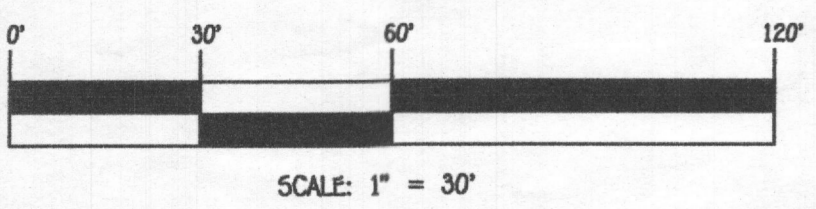
Approved Septic System Plan  
 Howard County Health Department  
*Howe Conard* 3/13/18  
 Signature Date

**SEPTIC SYSTEM  
 INSTALLATION SITE PLAN  
 WALNUT CREEK  
 PHASE THREE  
 Lot 92**

(A Re-division of Buildable Bulk Parcel 17 - Walnut Creek, Phase Two) A  
 (A Revision to Non-Buildable Preservation Parcels 12 and 15 - Walnut Creek, Phase Two)  
 ZONES: RC-D20 & RC-D20  
 TAX MAP No. 28 GRID Nos. 4, 5, 10-12, 17, AND 18 PARCEL No. 49  
 FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
 DATE: APRIL 23, 2018  
 SHEET 1 OF 1

**ADDRESS CHART**

LOT NUMBER	STREET ADDRESS
109	5328 CATALPA COURT

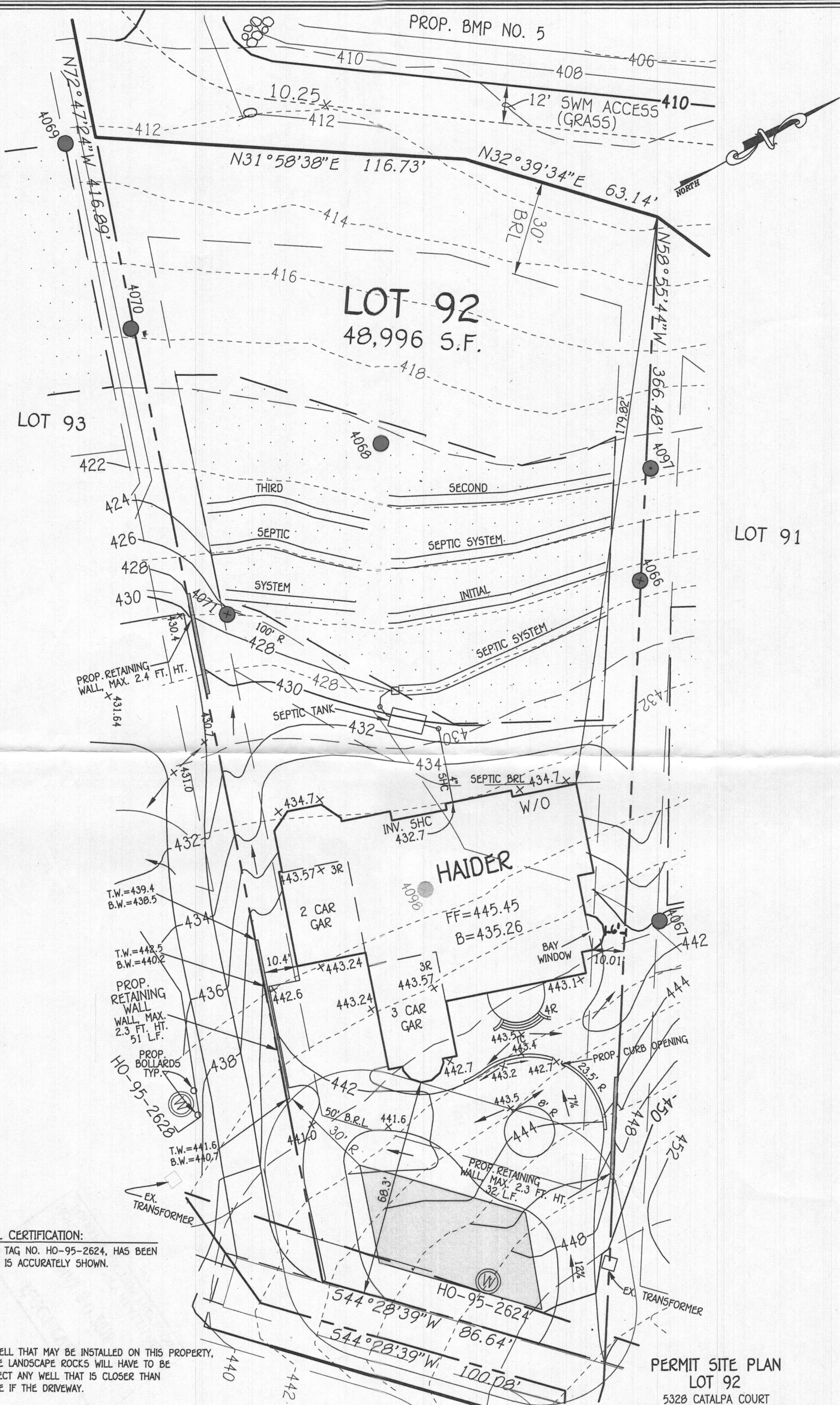


**FISHER, COLLINS & CARTER, INC.**  
 CIVIL, ENGINEERING CONSULTANTS & LAND SURVEYORS  
 CENTRAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PARK  
 ELLETTT CITY, MARYLAND 21042  
 (410) 461-2995

**OWNER/DEVELOPER**  
 CARMON CUSTOM HOMES  
 10548 GOSHAWK ROAD  
 LAUREL, MARYLAND 20723  
 410-818-7382



**PROFESSIONAL CERTIFICATION**  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/2019.  
*Michael J. Vitucci*  
 Signature of Professional Engineer  
 5/30/18  
 DATE



**LOT 92**  
48,996 S.F.

**HAIDER**

**WELL CERTIFICATION:**  
THE EXISTING WELL, TAG NO. HO-95-2624, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

**NOTE:**  
FOR ANY FUTURE WELL THAT MAY BE INSTALLED ON THIS PROPERTY, BOLLARDS OR LARGE LANDSCAPE ROCKS WILL HAVE TO BE INSTALLED TO PROTECT ANY WELL THAT IS CLOSER THAN 10 FT. TO THE EDGE OF THE DRIVEWAY.

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

**PLAN**  
SCALE: 1" = 30'

**PERMIT SITE PLAN**  
**LOT 92**  
5328 CATALPA COURT  
**WALNUT CREEK**

ZONED: RC-DEO  
TAX MAP NO.: 28 PARCEL NO. 49 GRID NO.: 17 & 18  
SIXTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30' DATE: APRIL 23, 2018