



**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: 6-13-17 **ONSITE SEWAGE DISPOSAL SYSTEM**

P 5/20/18

APPROVAL DATE: 6-21-17 **PERMIT: CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 5519 Green Bridge Road

SUBDIVISION: Tall Trees

LOT: 3

TAX ID: \_\_\_\_\_

~~6008 Carroll Park~~ Bill Ingram/ Farm and

CONTRACTOR: Home Excavating

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

CONTRACTOR ADDRESS: 901 Driver Road, Marriottsville, MD 21104

PHONE: 410-984-0189

PROPERTY OWNER: Ray Backman

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

OWNER ADDRESS: 617 Peck Road, Downingtown, PA

PHONE: \_\_\_\_\_

SEPTIC TANK SIZE (GALLONS): 2000

TANK MANUFACTURER: Babylon Vault

PUMP MODEL: \_\_\_\_\_

PUMP SIZE \_\_\_\_\_

PUMP TANK CAPACITY: \_\_\_\_\_

DISTRIBUTION SYSTEM:  GRAVITY

PRESSURE DOSED

BEDROOMS: 5

APPLICATION RATE: \_\_\_\_\_

TRENCHES:	LINEAR FEET REQUIRED: <u>156</u>	INLET DEPTH: <u>4</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>8</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>5</u>
LOCATION:	<b>PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.</b>	
NOTES:	Install 3 x 52' trenches	

ISSUED BY: Hank Oswald

ISSUE DATE: 6-13-17

EXPIRATION DATE: 6-13-18

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

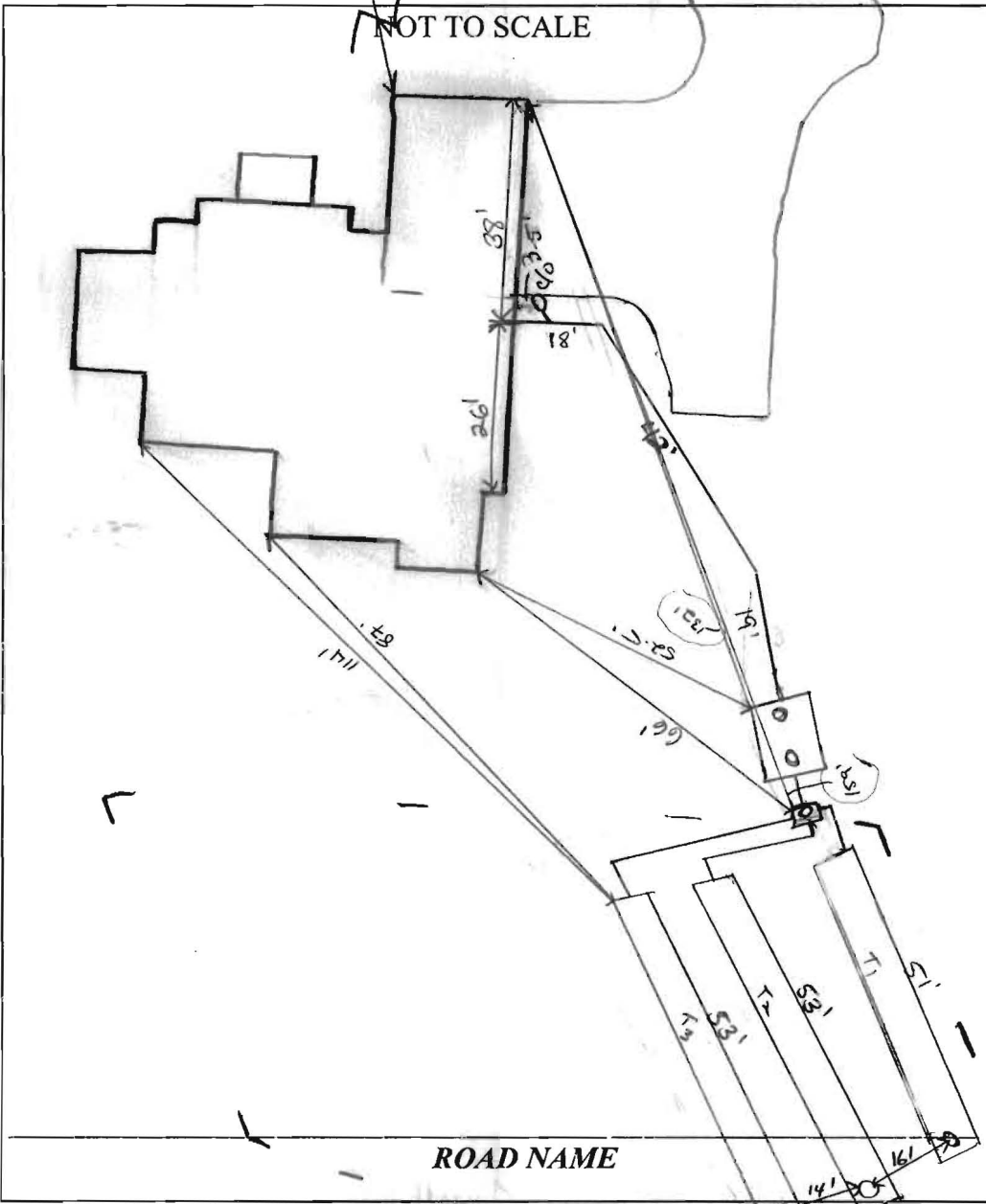
NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA

**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'



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3	4	8
NUMBER OF TRENCHES		3
TOTAL LENGTH		157'
ABSORPTION AREA		431 sqft + 51 sq wall
DISTRIBUTION BOX LEVEL		yes
DISTRIBUTION BOX BAFFLE		yes
DISTRIBUTION BOX PORT		yes

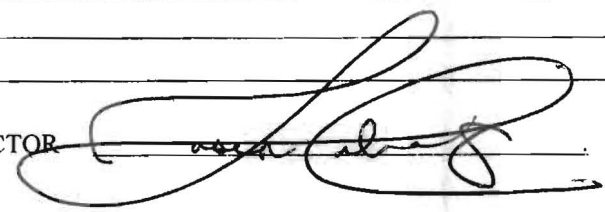
SEPTIC TANK DATA	
SEPTIC TANK 1 LEVEL	
MANUFACTURER	Babylon
CAPACITY	2000 GAL
SEAM LOC	TOP
TANK LID DEPTH	1'-2"
BAFFLES	yes
BAFFLE FILTER	no
MANHOLE LOC	Front/Back
6" PORT LOC	None
WATERTIGHT TEST	-
SLOTTED	yes
DATE ON LID	6/5/2017
PUMP/SEPTIC TANK LEVEL	
MANUFACTURER	
CAPACITY	GAL
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

PRE-CONSTRUCTION:

6/19/17 Tank location OK. SOA staked per plan. Install 3x5' trenches as indicated on plan. Call for inspection. Contractor has tank set up for Tuesday morning (6/20). (Kane)

INSTALLATION:

6/20/17 Arrived on site after setting of tank. Saw construction of T<sub>1</sub>. T<sub>1</sub> is 51' due to constraint from poplar tree at distal end of trench. Contractor to start on T<sub>2</sub> before end of day. (K) 6/21/17 On site after completion of T<sub>2</sub> + T<sub>3</sub>. Checked baffles in tank + d box. Ran a speed level check in d box. Approved installation. (K)

FINAL INSPECTOR 

DATE OF APPROVAL 06/21/2017



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

Twitter: HowardCoHealthDep

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

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April 27, 2017

Fisher, Collins & Carter, Inc.  
10272 Baltimore National Pike  
Ellicott City, MD 21042  
Attn: Stephanie Tuite

*Sent via email to: [Stephanie@fcc-eng.com](mailto:Stephanie@fcc-eng.com)*

**RE:**

**OSDS Plan  
5519 Green Bridge Road  
Dayton, MD 21036**

Hi Stephanie:

The OSDS Plan for 5519 Green Bridge Road has been reviewed with the following comments:

- 1.) Show how two systems fit within the sewage disposal area or all 3 systems if space looks limited.
- 2.) Show calculations for 1<sup>st</sup> replacement system.
- 3.) Minimum trench spacing is 10 feet for all trenches utilizing sidewall credit. Show correct trench spacing on layout.
- 4.) Delete the old 4"SHC wording on plan.
- 5.) Is this a 2000 gallon septic tank?

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

Respectfully,

*Hank Oswald*

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

# 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, MD 21046-4544</b>	Attn: <b>Jeff Williams</b> Fax: <b>(410) 313-2648</b> Phone: <b>(410) 313-2640</b>
--	--

From: <b>Stephanie Tutie</b>	CC:
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Re: <b>Tall Trees, Lot 3 Septic Plan</b>	W.O.# <b>30368-3</b>
Date: <b>April 28, 2017</b>	Pages: <b>4</b> <b>Page(s) Including this cover</b>

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:

Enclosed please find Three (3) print copies of the revised Septic Plan addressing your comments dated April 27, 2017. This plan for 5519 Green Bridge Road is being submitted for your review and signature approval. Building Permit is under review as B16003986.

If you have any questions or comments, please do not hesitate to call.

Very truly yours,  
Stephanie Tutie, RLA, PE, LEED AP BD&C  
Fisher, Collins & Carter, Inc.

## **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.

# Transmittal

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From: <b>Stephanie Tutie</b>	CC:
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Re: <b>Tall Trees, Lot 3 Septic Plan</b>	W.O.# <b>30368-3</b>
Date: <b>April 20, 2017</b>	Pages: <b>4</b> Page(s) Including this cover

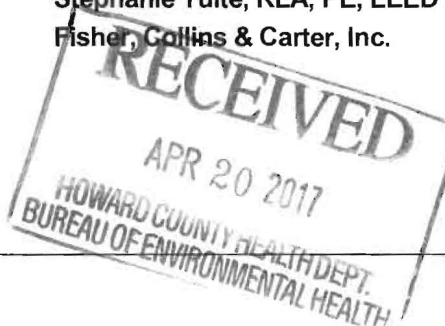
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	<input type="checkbox"/> Urgent	<input type="checkbox"/> For your use	<input type="checkbox"/> As requested	<input type="checkbox"/> For Review & Comment	

Remarks:

Enclosed please find Three (3) print copies of the Septic Plan which is intended to replace the approved BAT Site Plan for Tall Trees, Lot 3 (5519 Green Bridge Road) for your review and signature approval. Building Permit is under review as B16003986.

If you have any questions or comments, please do not hesitate to call.

Very truly yours,  
Stephanie Tutie, RLA, PE, LEED AP BD&C  
Fisher, Collins & Carter, Inc.



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Specimen Tree # 7 – 35” Tulip Poplar - Located within the septic easement – proposed to be removed.



Specimen Trees #2 (34" Black Oak) & #4 (39.5" Tulip Poplar ) – Located within the developable area – proposed to be removed

# Installation of Underground LP-Gas Systems

## SCOPE

This bulletin provides guidelines for the installation and inspection of underground LP-Gas systems and outlines some of the unique problems and conditions inherent in these installations that are not encountered when dealing with aboveground systems. It is not intended to cover all facets of every application, but is meant to be of general assistance to personnel who install and inspect underground LP-Gas systems.

## INTRODUCTION

Underground containers present problems not encountered with aboveground containers. It is extremely important therefore, that anyone responsible for installation and inspection of these systems be trained, knowledgeable and fully competent in the selection and application of the equipment required and have comprehensive skills in the handling of LP-Gas.

If surface drainage and water table level are disregarded at the time of installation, the housing dome may be flooded. This may cause corrosion and/or malfunction of the fittings, valves, pressure relief valves, gauging devices and regulators as well as the corrosion of the container itself. Water in the dome might freeze in the winter months in some parts of the country. Therefore, proper drainage must be provided for the housing dome to eliminate accumulation of water. See Figure 2.

Foreign matter, dirt and insects may also enter the housing dome to these containers, which can cause leakage or impairment of valves, gauges and regulators.

Underground LP-Gas systems must be designed and installed in accordance with the provisions of **NFPA 58 Standard for the Storage and Handling of Liquefied Petroleum Gases**, **NFPA 54 National Fuel Gas Code** and all applicable state, provincial and local codes and regulations covering these installations.

Three classes of underground systems are covered in this bulletin:

1. **FULLY UNDERGROUND SYSTEMS**, in which the container is completely buried, with its top below the surrounding grade level. Approved container assemblies of this type are manufactured for underground use as well as for combination aboveground/underground applications, and are equipped with basic valves and fittings.
2. **MOUNDED UNDERGROUNDS SYSTEMS**, in which the container is partially buried, with its top above the surrounding grade covered with a layer of earth or other noncombustible material.
3. **Partially EXPOSED UNDERGROUND SYSTEMS**, in which a portion of the container is aboveground and not covered with a layer of earth or other noncombustible material.

The information in this bulletin covers all three classes, unless otherwise specified.

See Figures 1 and 2 for illustrations of typical underground systems using tanks of 2000 US gallons water capacity or less. See Figure 3 for an illustration of a typical underground system incorporating a larger tank.

### **CONTAINER PREPARATION BEFORE INSTALLATION**

1. Only ASME containers constructed for underground service and marked accordingly shall be installed underground. DOT cylinders must be installed above ground.
2. Make certain that all fittings, including any plugged openings, are tight and free from leaks. Pressurize containers with air or LP-Gas vapor to make certain there are no leaks.
3. Purge containers in accordance with generally accepted industry practices. See **NPGA Safety Bulletin 133, *Purging LP-Gas Containers***.
4. Clean rust, dirt and other foreign matter from the surface of the container, and visually inspect for gouges, dents, pits or other defects.
5. Apply a suitable coating to the container as recommended by NFPA 58 and by the coating manufacturer, for protection against moisture and corrosive action of the soil. Allow the coating to cure properly before moving the container.
6. Protect all points of contact while the container is being loaded and transported. Tire retreading, camelback, carpet, etc., may be used at support points and between the container and holding chains to prevent damage to the protective coating.

### **EXCAVATION AND SETTING**

1. Install the container and the rest of the system in accordance with accepted standards such as NFPA 58, and/or the authority having jurisdiction. Make sure tank is located in accordance with spacing requirements. See Figure 1 and NFPA 58.
2. All underground containers and piping must be protected against corrosion in accordance with NFPA 58. See **NPGA Bulletin 152, *Corrosion Protection for Underground Propane Gas Systems***.

**WARNING!** Failure to provide proper protection can cause hidden corrosion and potential leaks as well as weakening of the tank wall over a period of time.

3. The bottom of the excavation must be level and free of rock~ If rocks are present, a 6-inch bed of sand should be used. For completely buried tanks, the excavation must be dug to a proper depth to provide for the housing dome to extend far enough above ground level to prevent entrance of surface water (1 to 3 inches is common practice), allowing for grading away from the dome. See item 7. If conditions require it, suitable precautionary measures such as shoring should be taken to prevent cave-ins during excavation.
4. ASME container assemblies listed for underground installation, including interchangeable

aboveground/underground container assemblies shall be installed underground in accordance with NFPA58.

5. For mounded systems, the same general procedure shall be followed, except that the aboveground surface area of the tank must be covered with at least 1 foot of earth, sand, or other noncombustible, noncorrosive materials such as vermiculite or perlite.
6. For partially exposed systems, the same general procedure shall be followed, except that the housing dome would be aboveground, and the portion of the container below the surface and for a vertical distance of at least 3 inches above the surface, shall be protected to resist corrosion as required for underground containers.
7. In high ground water level areas, provisions shall be made to adequately secure the container to the ground, or to a concrete slab, to prevent flotation. Remember that a properly filled container can float because the density of LP-Gas is about half that of water. Local soil conditions may require other provisions to allow proper drainage from within housing dome. See Figures 2 & 3.
8. Precaution must be taken to prevent damage to the tank coating while transporting, lowering the tank into the excavation and while backfilling. Nylon cargo strapping is suggested instead of chain to minimize scratching. Any damage to the coating must be carefully repaired.

**WARNING!** Any small, unprotected areas of a coated tank or wrapped or coated piping system may be subject to concentrated corrosive action resulting in the possibility of severe metal loss and ultimately a leak!

9. The container should be set substantially level on a firm foundation (firm earth may be used) and surrounded by earth or sand firmly tamped in place. Backfill should be free from rocks or similar abrasives.
10. Grade ground down and away from the housing dome to provide surface water drainage away from dome. See Figure 2.
11. The container should be filled immediately to minimize possible shifting due to flotation or introduction of moisture into the unpressurized tank.
12. Where underground containers are installed in locations subject to vehicular movement, such as automobiles, trucks, tractors, etc., protection shall be provided as follows:
  - a. Sufficient provision shall be provided to prevent the weight of such vehicular traffic from damaging the container or appurtenances. The container shell should be at least 18 inches below grade or be protected by a concrete slab or equivalent.
  - b. Barriers shall be provided to protect the housing dome, relief valve discharge stacks, filling risers and any appurtenances that extend above grade level. Such protection shall extend to sufficient height and be identified in areas where snow

accumulations occur.

### CONNECTING FOR USE

1. The required relief valve capacity for fully underground or mounded containers may be reduced to 30 per cent of that required for aboveground containers. Pressure relief valves used in partially exposed containers must have capacities in accordance with aboveground requirements. Refer to NFPA 58 for specific information.
2. The discharge from relief devices protecting containers over 2000 gallons water capacity shall be piped vertically and directly upward to a point at least seven feet above the covering over the tank, and be protected against physical damage. For all underground containers used in LP-Gas service stations, regardless of size, the discharge from relief devices must be piped at least 10 feet above the covering over the tank. A protective raincap must be placed over the outlet of the discharge piping, in accordance with NFPA 58.
3. All connections to containers installed underground shall be located within the housing dome.
4. For containers over 2000 gallons water capacity, inlet and outlet connections (except relief devices, liquid level gauging devices and pressure gauges) shall be labeled or designate whether they communicate with the vapor or liquid space. The labels may be on the valves.
5. Install regulators so the vent openings are vertically down and above the highest possible water level. If a vent line is used, it should extend upward to the top of the dome and then be turned down not more than 1-1/2 inches below the inside of the housing dome cover. Bug screens must be installed in the regulator vent or on the end of the vent line. See Figure 2.

**NOTE:** A two-stage regulator system is recommended with the first stage regulator installed inside the housing dome. Blockage of the vent of a single stage regulator inside the dome due to ice, flooding or other cause could result in severe over-or-under-pressurization of appliances. It is far less severe if a first stage regulator were to be subjected to the same condition, since the second stage regulator is designed to compensate for changes in first stage pressure, helping to avoid a hazardous situation.

6. It is advisable, where problem water level conditions may occur, to equip the container with extended riser pipe(s) so that appurtenances may be positioned as high as possible in the housing dome.
7. Incorporate bulkheads and emergency shutoff valves in installations over 4,000 gallons water capacity, in accordance with NFPA 58. See NPOA Safety Bulletin 128 "Protection of Transfer Areas"
8. Black iron pipe used for filling risers, distribution lines, etc., must be coated and protected against corrosion in accordance with NFPA 58. This should include use of dielectric

unions at appropriate junctions to insulate all underground piping from the tank and buildings.

9. To minimize the possibility of trespassing and tampering, the container valves, fittings and unloading facilities for containers over 2000 gallons water capacity shall be protected against unauthorized operation. Suitable devices may be employed which can be locked in place to effectively prevent operation of any of the container appurtenances, valves or equipment. Suitable fencing may be used as an alternate, as provided in NFPA 58.
10. Pressure test and leak test the system in accordance with generally accepted industry Practices. See NPGA Safety Bulletin 403 "Pressure Testing and Leak Checking [P-Gas Piping Systems".

#### **EXISTING INSTALLATIONS**

1. Each time the container is filled or the system serviced, the equipment should be checked for possible damage, and water, dirt or other foreign matter removed and corrective action taken. Any corroded or damaged piping or equipment must be replaced promptly. Continuation of use of existing installations and repairs effected must be acceptable to the authority having jurisdiction.

**WARNING!** Replace any regulator if a high water mark is left in the housing dome above the regulator. Reposition when replacing to assure the regulator is high enough to prevent recurrence.

2. Remove any dirt or other foreign material from regulator vent opening, pressure relief valve and other appurtenances.
3. If the dome is full of ice, the pressure relief valves and pressure regulator will not function properly. Melt the ice safely with hot water or other acceptable method (DO NOT USE OPEN FLAME) and remove the water before it refreezes. The container cannot be filled, evacuated or gauged until the ice is completely removed. All valves, gauges, fittings and regulators must be examined for evidence of damage and replaced where necessary.
4. If there is any indication that water has been too high in the dome housing, the container should be banked with earth to direct drainage away to a lower point to prevent recurrence. As an alternate, install a drain pipe from the bottom of the dome housing to a lower point (level) away from the container. See Figure 2. If water cannot be drained, it may be necessary to raise the tank and regrade to correct the problem.

**WARNING!** Installing a higher dome housing or an extension to the present one can create a suffocation hazard for the delivery person. (This is because oxygen in the housing may be depleted by propane vapor flowing from the fixed liquid level gauge. Leaning over into the dome to reach the gauge and breathing the atmosphere inside the housing can result in suffocation.)

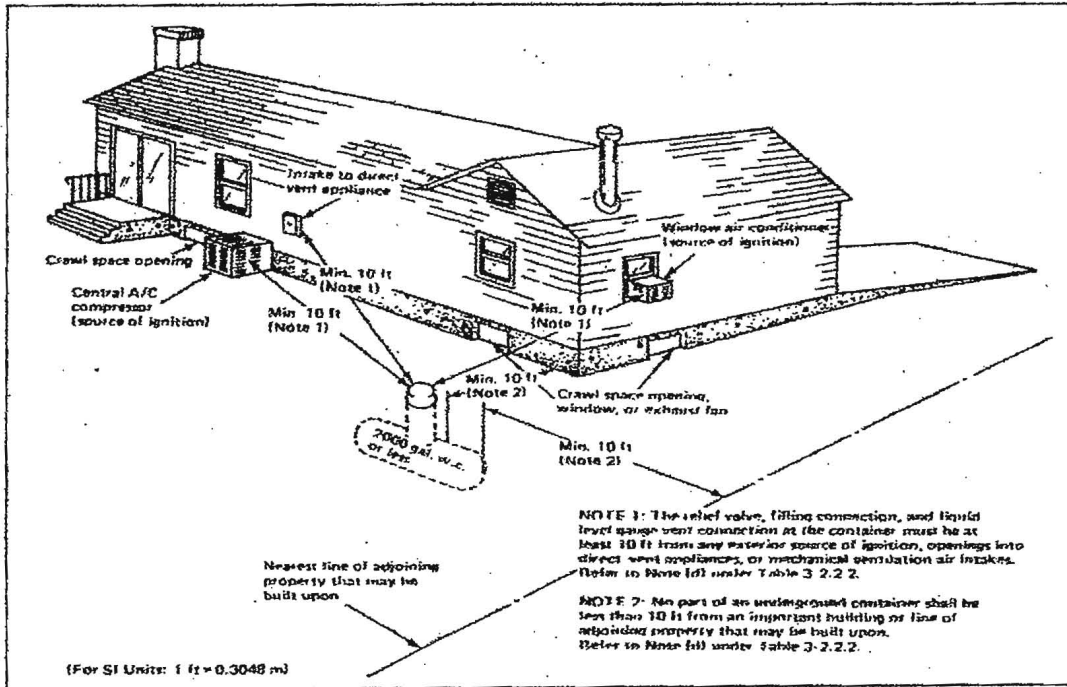
5. Leak test the system in accordance with generally accepted industry practices whenever the system has been turned off or after running out of gas. See NPGA Safety Bulletin 403 and 102 "Out of Gas Procedures".

6. If cathodic protection has not been provided, steps such as pipe-to-soil potential tests should be taken to ascertain if additional protection is required.
7. If cathodic protection has been provided, pipe-to-soil potential tests should be taken on a periodic basis to ascertain the condition of the anode. Note: If the meter reaches at least negative 0.85 volts, the steel container or pipe is still under cathodic protection and the anode does not need to be replaced.

### CONCLUSION

Underground containers present unique problems not experienced with those installed aboveground. It is important to make sure this is given careful consideration in the installation and inspection of underground systems to minimize problems and provide satisfactory service.

**FIG. 1 CONTAINER SPACING – UNDERGROUND ASME CONTAINERS**



Howard County Department of Planning and Zoning  
Division of Land Development

# ALTERNATIVE COMPLIANCE APPLICATION

[Alternative Compliance from Subdivision and Land Development Regulations]

Date Submitted/Accepted 3/27/17 DPZ File Number WP-17-101

## I. Site Description

Subdivision Name/Property Identification: Tall Trees, Lot 3  
Location of property: 5519 Green Bridge Road  
(Street Address and/or Road Name)

Residential  
(Existing Use)

Residential  
(Proposed Use)

27  
(Tax Map No.)

24  
(Grid/Block No.)

26  
(Parcel No.)

Fifth  
(Election District)

RR-DEO  
(Zoning District)

3.329 acres  
(Total Site Area)

Provide a brief site history including reference to all previously submitted or currently active plans on file with the County (subdivision plans, Board of Appeals petitions, alternative compliance petitions, etc.)

F-16-038; F-91-147; F-17-030; WP-17-006

## II. Alternative Compliance Request

In accordance with Section 16.104 of the Howard County Subdivision and Land Development Regulations, the Department of Planning and Zoning, in conjunction with the Subdivision Review Committee **may grant alternative compliances or modifications to the minimum requirements stipulated within the Regulations if it is determined that extraordinary hardships or practical difficulties may result from strict compliance with the regulations, or if it is determined that the regulations may be served to a greater extent by an alternative proposal.**

In the area below, the petitioner shall enumerate the specific numerical section(s) from the Subdivision and Land Development Regulations for which an alternative compliance is being requested and provide a brief summary of the regulation. Attach a separate sheet if additional information is appropriate.

<u>Section Reference No.</u>	<u>Summary of Regulation</u>
1. <u>16.1205(a)(7)</u>	<u>Forest Retention Priorities - Retention of Specimen Trees</u>
2. _____	_____
3. _____	_____
4. _____	_____
5. _____	_____

### III. *Justification*

All alternative compliance requests must be fully justified by the petitioner. Incomplete or inadequate justification may result in rejection of the application at the time of submission. Justification must be specific to the subject property. The justification provided by the petitioner should include all factors which rationalize or substantiate the request in accordance with the following criteria:

- a. Summarize any extraordinary hardships or practical difficulties which may result from strict compliance with the Regulations.
- b. Verify that the intent of the Regulations will be served to a greater extent through the implementation of the alternative proposal.
- c. Substantiate that approval of the alternative compliance will not be detrimental to the public interests.
- d. Confirm that approval of the alternative compliance will not nullify the intent of the Regulations.

**PLEASE ATTACH A SEPARATE LETTER OF JUSTIFICATION TO SUPPORT THE ALTERNATIVE COMPLIANCE REQUESTS.**

### IV. *Pre-Submission Meeting Requirements*

- a. **Community Meeting Requirement** - If no previous subdivision plans and/or zoning or conditional use petitions were processed, a pre-submission community meeting is required for the initial plan submittal of all new residential development and for new non-residential development located within 200 feet of a residential zoning district or an existing non-residential development which is located within 200 feet of a residential zoning district and proposed for a floor area expansion of more than 25% in accordance with Sections 16.156(a) and 16.128 of the Subdivision and Land Development Regulations for alternative compliance of the site development plan requirement. [See DPZ policy memo dated 3/22/04 for existing lots/parcels]. The property owner/developer must provide 3 weeks advance notice regarding the community meeting's date, time and location to all adjoining property owners identified in the records of the State Department of Assessments and Taxation and any community association that represents the geographic area of the subject property by first class mail; and sent electronically to any community association registered with the County for projects in a certain geographic area; the Howard County Council; and DPZ, which will place the meeting notice on the DPZ's website. The developer shall send a copy of the minutes and written responses to the meeting attendees and DPZ, either electronically or by first class mail. **A certification that meeting notices were mailed, contact information for the attendees and a copy of the minutes and a written response with a dated return mail receipt or dated email attached to all of the major comments recorded at the meeting must be submitted to DPZ along with the initial plan application. The meeting minutes, including a written response to all questions, shall be sent to all meeting attendees within 60 days of the meeting either electronically or by first class mail [Council Bill 6-2011].**
- b. **HPC Meeting Requirement** - A pre-submission advisory meeting with the Historic Preservation Commission is required for new development located within a Historic District or if the site contains a historic structure (50 years or older) in accordance with Section 16.603A of the Howard County Code. Verify this requirement by checking the Historic Sites Inventory list and maps available at the DPZ public service desk or checking with the Resource Conservation Division. The property owner/developer must contact the DPZ, Resource Conservation Division for the HPC scheduling process and procedures. **The property owner/developer must submit a copy of the minutes from the HPC Advisory Meeting to DPZ along with the initial subdivision or site development plan application.**
- c. **MAA Meeting Requirement** - For all proposed subdivisions or developments located within the BWI Airport Noise Zone or the Airport Zoning District (4 mile radius from the center of the airport), the review and approval by the Maryland Aviation Administration is required prior to signature approval of final plan road and SWM construction drawings, and/or site development plans, or alternative compliance approval of SDP. Please contact the MAA at P.O. Box 8766, BWI Airport, Maryland, 21240-0766, or (410) 859-7100. A copy of the MAA approval letter must accompany the submission of the final road/SWM construction plan original drawings, and/or site development plan original, or alternative compliance application.

- d. **Design Advisory Panel (DAP)** – A pre-submission advisory meeting with the Design Advisory Panel is required for sketch and preliminary equivalent sketch plans that are submitted on or after November 3, 2008 for new development or redevelopment projects on parcels located in the U.S. Route 1 corridor that are zoned 'CE', 'CAC' or 'TOD' or that adjoin the Route 1 right-of-way and that are subject to the Route 1 Design Manual; on parcels located within the U.S. Route 40 corridor that are zoned 'TNC' or that are subject to the Route 40 Design Manual; on parcels which age-restricted adult housing is to be constructed pursuant to a conditional use; on redevelopment parcels located in the New Town Village Centers with boundaries proposed by a property owner or established by the Zoning Board or County Council; and for revitalization and redevelopment of Downtown Columbia in accordance with Sections 16.1501 and 16.1504 of the Howard County Code. The property owner/developer must contact the DPZ, Division of Comprehensive and Community Planning to verify this requirement and for information concerning the DAP meeting scheduling process and procedures. **The property owner/developer must submit a copy of the DAP project design recommendations to DPZ along with the initial subdivision plan application.**

V. **Plan Exhibit**

A. **Number of Copies Required**

The alternative compliance application must be accompanied by copies of a detailed plot plan, subdivision plat or site development plan (**15 sets of the completed alternative compliance application and plan exhibit if the subject property adjoins a County road; 19 sets for properties adjoining a State road**).

In instances where the alternative compliance request concerns an approval extension or if an associated plan is in active processing, only **2** sets of plans are required along with **15** or **19** copies of the application form. **Plans must be folded to a size no larger than 7-1/2" x 12". The pre-packaging of plans and supplemental reports by SRC agency will be permitted by DPZ provided that each package contains a cover letter which itemizes all plans, reports and documents included in the package.**

**Please be advised that all plan application submissions are ACCEPTED BY APPOINTMENT ONLY. All plan submission appointments must be scheduled with the Division of Land Development at (410) 313-2350.**

Plan applications are available on the DPZ website at <https://howardcountymd.gov/Departments/Planning-and-Zoning/Land-Development>.

B. **Plan Requirement Checklist**

The detailed alternative compliance exhibit, plot plan, subdivision plan or site development plan must indicate the following required information relevant to the alternative compliance request to ensure acceptance of the alternative compliance application for processing.

Legend:	<input checked="" type="checkbox"/> Information Provided	<input type="checkbox"/> Information Not Provided, Justification Attached
	<input type="checkbox"/> NA Not Applicable	

- \_\_\_ 1. Vicinity map scale 1" = 2,000' indicating and identifying the total boundary of the property, exact site location, vicinity roads and north arrow.
- \_\_\_ 2. Bearings and distances of property boundary lines for the entire tract and size of tract area.
- \_\_\_ 3. North arrow and scale of plan.
- \_\_\_ 4. Location, extent, boundary lines and area of any proposed lots.
- \_\_\_ 5. Any existing or proposed building(s), structures, points of access, driveways, topography, natural features and other objects and/or uses on the subject and adjacent properties which may be relevant to the petition; i.e. historic structures, cemeteries or environmentally sensitive areas.
- \_\_\_ 6. Delineation of building setback lines.
- \_\_\_ 7. Delineation of all existing public road and/or proposed street systems.
- \_\_\_ 8. Identification and location of all easements.
- \_\_\_ 9. Approximate delineation of floodplain, streams, wetland and forested areas, if applicable, and/or

- provide a professional certification that environmental features do not exist on the property.
- \_\_\_ 10. Road profile to evaluate sight distance, if the application includes a request for direct access to a major collector or more restrictive roadway classification.
  - \_\_\_ 11. Any additional information to allow proper evaluation (e.g. for alternative compliance to wetland buffers an alternative analysis and mitigation proposal are needed; for alternative compliance to SDP requirements where there is no subdivision of land, an APFO Roads Test evaluation may be needed, for alternative compliance of final plat or SDP, a copy of property deeds to confirm legal creation or status of property is needed).
  - \_\_\_ 12. Photographs, perspective sketches or cross-sections as necessary to adequately portray the alternative compliance request.
  - \_\_\_ 13. The exhibit plans should be highlighted to accurately illustrate the requested alternative compliance(s) to allow proper evaluation (i.e. proposed grading, tree clearing or other disturbances within environmentally sensitive areas or buffers).
  - \_\_\_ 14. Submit 2 sets of photographs for all existing on-site structures.
  - \_\_\_ 15. Identify the location of any existing wells and/or private septic systems.

\_\_\_ 16. **Route 1 Manual**  
 Compliance with the Route 1 Manual is required for new development and some alterations or enlargements located in the CE, TOD and CAC zoning districts and for other zoning districts located within the Route 1 corridor. All plan submissions, beginning with the initial subdivision or site development plan, shall show all applicable streetscape, site and building designs responding to the Route 1 Manual's requirements and recommendations. All plan submissions shall provide a written summary of how the proposed design achieves the objectives of the Route 1 Manual. Also, building design and schematic architectural elevation details must be included with the initial subdivision or site development plan submission.

\_\_\_ 17. **Route 40 Design Manual**  
 Compliance with the Route 40 Design Manual is required for new development and redevelopment projects located in the Traditional Neighborhood Center (TNC) zoning districts and on parcels located within the Route 40 Corridor as defined in the Route 40 Design Manual. All plan submissions within the Route 40 corridor, beginning with the initial subdivision or site development plan, shall show all applicable streetscape, site and building designs responding to the Route 40 Design Manual's requirements and recommendations. All plan submissions within the Route 40 corridor shall provide a written summary of how the proposed design achieves the objectives of the Route 40 Design Manual. Also, building design and schematic architectural elevation details must be included with the initial subdivision or site development plan submission.

\_\_\_ 18. **Property Deeds** – Information to confirm the legal creation or status of the property to be improved. (Copy of deeds from Howard County Land Records Office or record plat name and recording reference number). **A complete chronological deed history is required for all deeded residential properties. Provide 2 copies of the recorded deeds for the subject property tracing its history back to 1960.**

\_\_\_ 19. Please complete the following:

A pre-submission meeting was held with DPZ on \_\_\_\_\_ with  
 [date]  
 \_\_\_\_\_, if applicable.  
 [DPZ, Director, DLD Division Chief or other SRC representatives]

VI. **Fees**

The Alternative Compliance application fee shall be in accordance with the adopted fee schedule. All checks shall be made payable to the *Director of Finance*. **The petition will not be accepted for processing until the fee has been paid. Incomplete, incorrect or missing information may result in the rejection of the application** and could cause additional time to be required to revise the application for resubmittal and re-review. For more information or questions, contact DPZ at (410) 313-2350.

VII. **Owner's/Petitioner's Certification**

I/WE the undersigned fee simple owner(s) hereby make application to the Howard County Department of Planning and Zoning to provide an alternative compliance request of the minimum requirements of the Howard County Subdivision and Land Development Regulations. The undersigned hereby certifies the information supplied herewith is correct and complete, confirms that the regulations and policies as referred to in the attached are understood, and authorizes periodic on-site inspections by the Howard County Subdivision Review Committee agencies. **\*If the applicant is the owner's agent, written documentation from owner granting that authority is required at the time of the submission.**

Owner's authorization attached \*

Wei Li  
(Signature of Property Owner)  
(Fee Simple Owner Only)

03/19/2017  
(Date)

Stephanie Tuite 3/19/17  
(Signature of Petitioner Preparer) \* (Date)

Lingyu (Leon) Chen & Weihong (Amy) Li

(Name of Property Owner)

6236 Welcome Home Drive

(Address)

Columbia, Maryland 21045

(City, State, Zip Code)

E-Mail chenlingyu@gmail.com

410-299-6070

(Telephone)

(Fax)

Contact Person:

Leon Chen

Fisher, Collins & Carter, Inc.

(Name of Petitioner Preparer, Surveyor/Engineering/Architect or Agent/Developer)

10272 Baltimore National Pike

(Address)

Ellicott City, Maryland 21042

(City, State, Zip Code)

E-Mail stephanie@fcc-eng.com

410-461-2855

(Telephone)

410-750 -3784

(Fax)

Contact Person:

Stephanie Tuite

**Howard County Department of Planning and Zoning  
Division of Land Development**

**INITIAL SUBMISSION  
ALTERNATIVE COMPLIANCE WORKSHEET  
(For DPZ Use Only)**

**Project Name** Tall Trees, Lot 3 **DPZ File No.** \_\_\_\_\_  
**DPZ Plan Reviewer** \_\_\_\_\_ **Submission Date** \_\_\_\_\_  
**Plan Consultant Representative** \_\_\_\_\_ **Time** \_\_\_\_\_

- I. Application Requirements** *Indicate Yes, No or N/A*
- a. Application is complete ..... \_\_\_\_\_
  - b. Required number of plans and applications are provided..... \_\_\_\_\_  
     \_\_\_ Plans (15 sets on County Road or  
     \_\_\_ Applications 19 sets on State Road)
  - c. Supplemental Information is provided ..... \_\_\_\_\_
  - d. Certification of pre-submission community meeting and summary of community  
 comments with dated responses to all meeting attendees within 60 days is provided  
 and three week notice given to DPZ and County Council, if applicable ..... \_\_\_\_\_
  - e. Certification of pre-submission HPC advisory meeting for new projects in  
 Historic District or listed in Historic Sites Inventory ..... \_\_\_\_\_
  - f. Photographs of existing structures (for Historic Preservation Review) ..... \_\_\_\_\_
  - g. MAA Approval Letter (if applicable) ..... \_\_\_\_\_
  - h. Written summary of Route 1 Manual/Route 40 Design Manual compliance (if applic) ..... \_\_\_\_\_
  - i. DAP project design recommendation for Route 1/Route 40 projects ..... \_\_\_\_\_

- II. Fee Computation** **Fee**
- Number of alternative compliance sections requested ..... \_\_\_\_\_
  - \* Base Fee for first two alternative compliance sections (**\$450**)..... \_\_\_\_\_
  - Fee for each additional alternative compliance section (\_\_\_ additional alternative compliances x **\$50** each)  
 ..... \_\_\_\_\_
  - \* (Maximum fee of **\$350** for Agricultural Preservation parcels)

**TOTAL** \_\_\_\_\_

**III. Certification**

Cash Receipt No. \_\_\_\_\_ Amount \_\_\_\_\_  
**SAP Acct 1000000000-3000-3000000000-PWPW000000000000-432530**

Check issued by \_\_\_\_\_

\_\_\_ Alternative Compliance application is accepted for processing.

\_\_\_ Scheduled SRC meeting date.

\_\_\_ Alternative Compliance application is rejected.

Reason: \_\_\_\_\_

\_\_\_ Resubmission is accepted.      Date \_\_\_\_\_      Staff initials \_\_\_\_\_

Comments/Notes \_\_\_\_\_  
 \_\_\_\_\_

**Tall Trees, Lot 3**  
**Alternative Compliance Justification**

On behalf of our client, Leon & Amy Chen, owners of the property known as Tall Trees, Lot 3at 5519 Green Bridge Road, Dayton, Maryland, 21036, we are requesting Alternative Compliance from the following Section of the Howard County Subdivision and Land Development Regulations (Regulations):

**Section 16.1205(a)(7) Forest Retention Priorities.**

- (a) **On-site Forest Retention:** The following vegetation and specific areas are considered priority for on-site retention and protection in the County. Subdivision, site development and grading shall leave this vegetation and specific area in an undisturbed condition unless demonstrated, to the satisfaction of the Department, that reasonable efforts have been made to protect them and the plan cannot be reasonably altered or that forest planting in an alternate location would have greater environmental benefit:
- (7) State champion trees, trees 75% of the diameter of state champion trees, and trees 30" in diameter or larger.

Tall Trees is an existing subdivision of four (4) lots located on the east side of Green Bridge Road, a local road. There were eight (8) specimen trees on-site, two (2) of which were previously approved to be removed. Three (3) of the remaining six (6) specimen trees are proposed to be removed. See locations shown on the Grading, Sediment & Erosion Control Plan.

Specimen Tree Descriptions are as follows:

Key	Species, Size (dBH)	Comments	Status
1	White Oak, 33"		To Remain
2	Black Oak, 34"		To Be Removed
3	Tulip Poplar., 32"		To Remain
4	Tulip Poplar, 39.5"		To Be Removed
5	Black Oak, 33"	Poor, Trunk Rot Noted	Removed previously
6	White Oak, 31"		Removed previously
7	Tulip Poplar, 35"		To Be Removed
8	Tulip Poplar, 42"	Multi-stem above breast height	To Remain

Specimen Trees #2, #4, and #7 are proposed to be removed. The existing specimen trees are spread throughout the site and #2 and #4 are located in an area of the lot where the owner realized during construction of the house and rough grading of the lot that he would like to grade to lessen the steepness of the yard behind the house. Tree #7 was inadvertently not shown correctly on the previous plan. Tree #7 is located within the septic area of the lot where the first replacement system would go, should it need to be utilized and while the lot is under construction it is more appropriate to remove at this time. Refer to the Grading, Sediment & Erosion Control Plan for their locations.

Tall Trees, Lot 3 Alternative Compliance Justification (continued)

Justification for the alternative compliance to Section 16.1205 Forest Retention Priorities is as follows:

a. “Summarize any extraordinary hardships or practical difficulties which may result from strict compliance with the Regulations.”

As stated above, there were eight (8) specimen trees on-site. Two (2) specimen trees were previously removed. Three (3) of the remaining six (6) specimen trees are proposed to be removed. See locations shown on the Grading, Sediment & Erosion Control Plan.

As stated above, specimen trees #2 and #4 are located in an area of the lot where the owner realized during construction of the house and rough grading of the lot that he would like to grade to lessen the steepness of the yard behind the house. Tree #7 was inadvertently not shown correctly on the previous plan. Tree #7 is located within the septic area of the lot where the first replacement system would go, should it need to be utilized and while the lot is under construction it is more appropriate to remove at this time.

Should the Regulations be strictly enforced, it would create a hardship and practical difficulty for the Owners should these trees remain, especially the tree that is located in the septic area set aside for future trench replacement.

b. “Verify that the intent of the Regulations will be served to a greater extent through the implementation of the alternative proposal.”

The intent of these Forest Retention Priorities is that large good quality native trees be a priority to be retained, but gives leeway for them to be removed. In the case of this site, three of the eight existing specimen trees will remain along with 1.24 acres of forest that was placed in a public forest conservation easement. Since, mature forested area is already retained on-site, it is felt the removal of these individual trees within the buildable area of the site is mitigated..

c. “Substantiate that approval of the waiver will not be detrimental to the public interests.”

Eight (8) specimen trees initially existed on this site, three (3) of which will remain. The trees proposed to be removed are internal to the site while the remain three are among or at the edge of the existing forest. Two of the trees proposed to be removed are not individually visible to the neighboring properties due to the other existing site trees which are proposed to remain and located within the existing forest conservation easement. The forest conservation easement met the site's break-even point for forest conservation requirements. For these reasons mentioned above, it would not be detrimental to the public interest to remove the trees. The Grading, Sediment & Erosion Control Plan has been provided to aid in the review of this Alternative Compliance Application. By making reasonable effort to retain other site forest and trees as well as the three (3) remaining specimen trees, it is felt the removal of these specimen trees on-site will be mitigated. As such, approval of this alternative compliance should not be seen as detrimental to the public interests.

d. “Confirm that approval of the waiver will not nullify the intent of the Regulations.”

The removal of the referenced Specimen Trees on this site is particular to the development on this property which is limited by its site conditions, so it should not be seen as a nullification of the intent of the Regulations.

**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. 24027C0110-DEFFECTIVE NOV 6, 2013.
- THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
- 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-95-2583 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 10/04/2018.

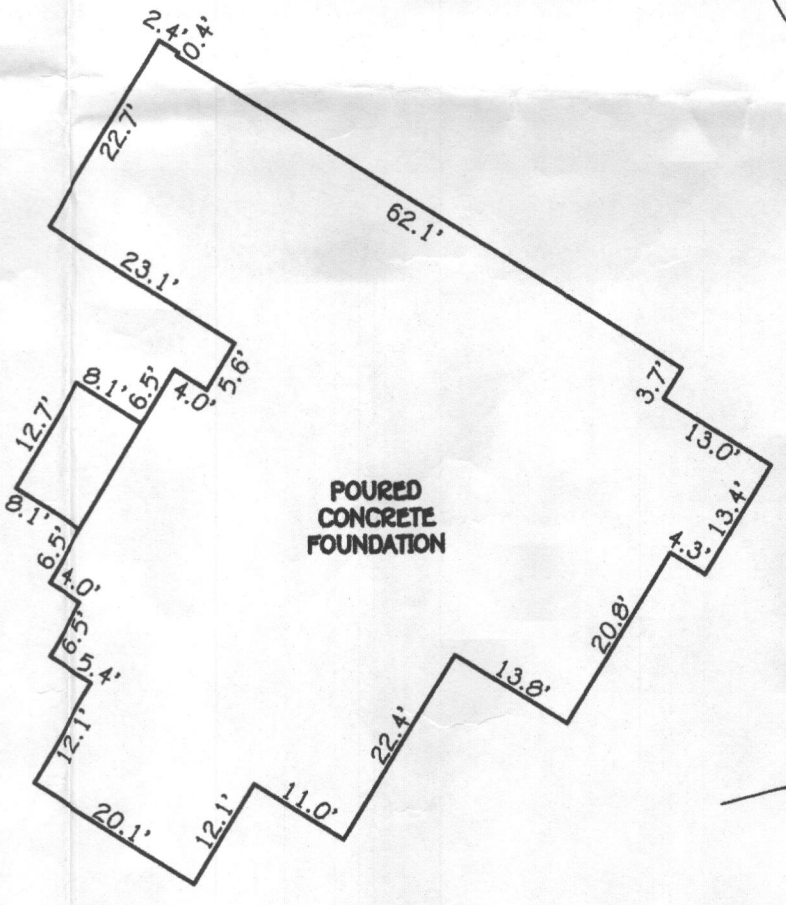
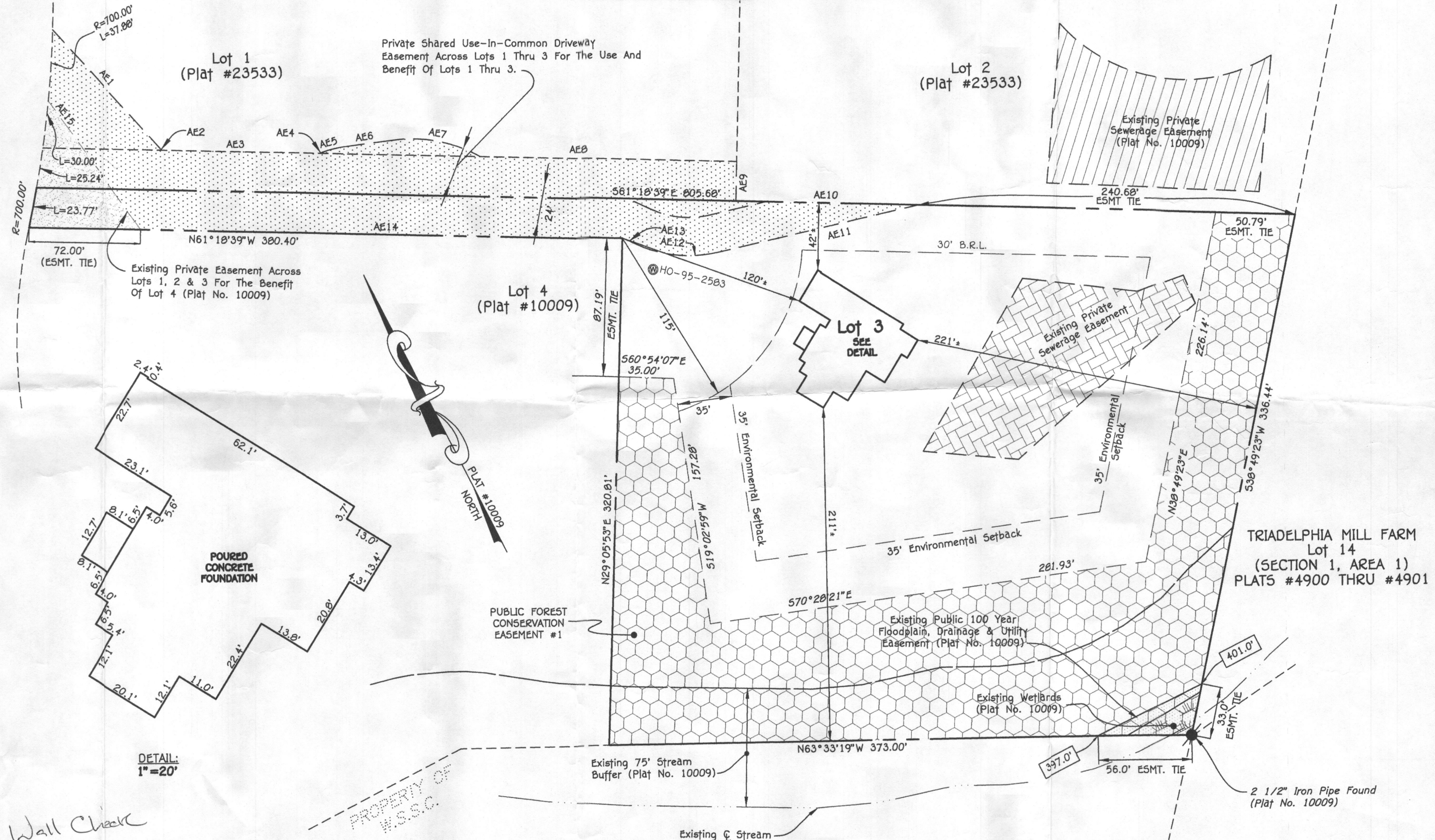
**Private Shared Use-In-Common Driveway Easement Line Table**

Line	Bearing	Length
AE1	S15°12'20"E	102.73'
AE2	R=60.61'	L=1.10'
AE3	S61°18'39"E	101.19'
AE4	S83°38'10"E	1.28'
AE5	R=65.00'	L=15.27'
AE6	S70°10'40"E	31.13'
AE7	R=90.00'	L=57.74'
AE8	S61°18'39"E	164.07'
AE9	S28°43'08"W	25.00'
AE10	S61°18'39"E	116.96'
AE11	N75°36'40"W	131.66'
AE12	R=83.20'	L=53.80'
AE13	N38°33'36"W	9.36'
AE14	N61°18'39"W	308.40'
AE15	N08°50'24"W	100.70'

**Legend**

- Existing Private Easement Across Lots 1, 2 & 3 For The Benefit Of Lot 4 (Plat No. 10009)
- Existing Public 100 Year Floodplain, Drainage & Utility Easement (Plat No. 10009)
- Existing Wetlands (Plat No. 10009)
- 197.0' 100 Year Floodplain Elevation

**Green Bridge Road**  
Publicly Maintained Roadway  
Existing 50' R/W Width  
(Minor Collector)



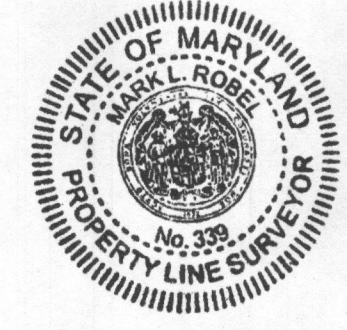
DETAIL:  
1"=20'

Wall Check  
OK  
RJC 6/13/17

**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21142  
(410) 461-2895

ADDRESS: #5519 GREEN BRIDGE ROAD  
TOP OF FOUNDATION ELEVATION= 440.7'

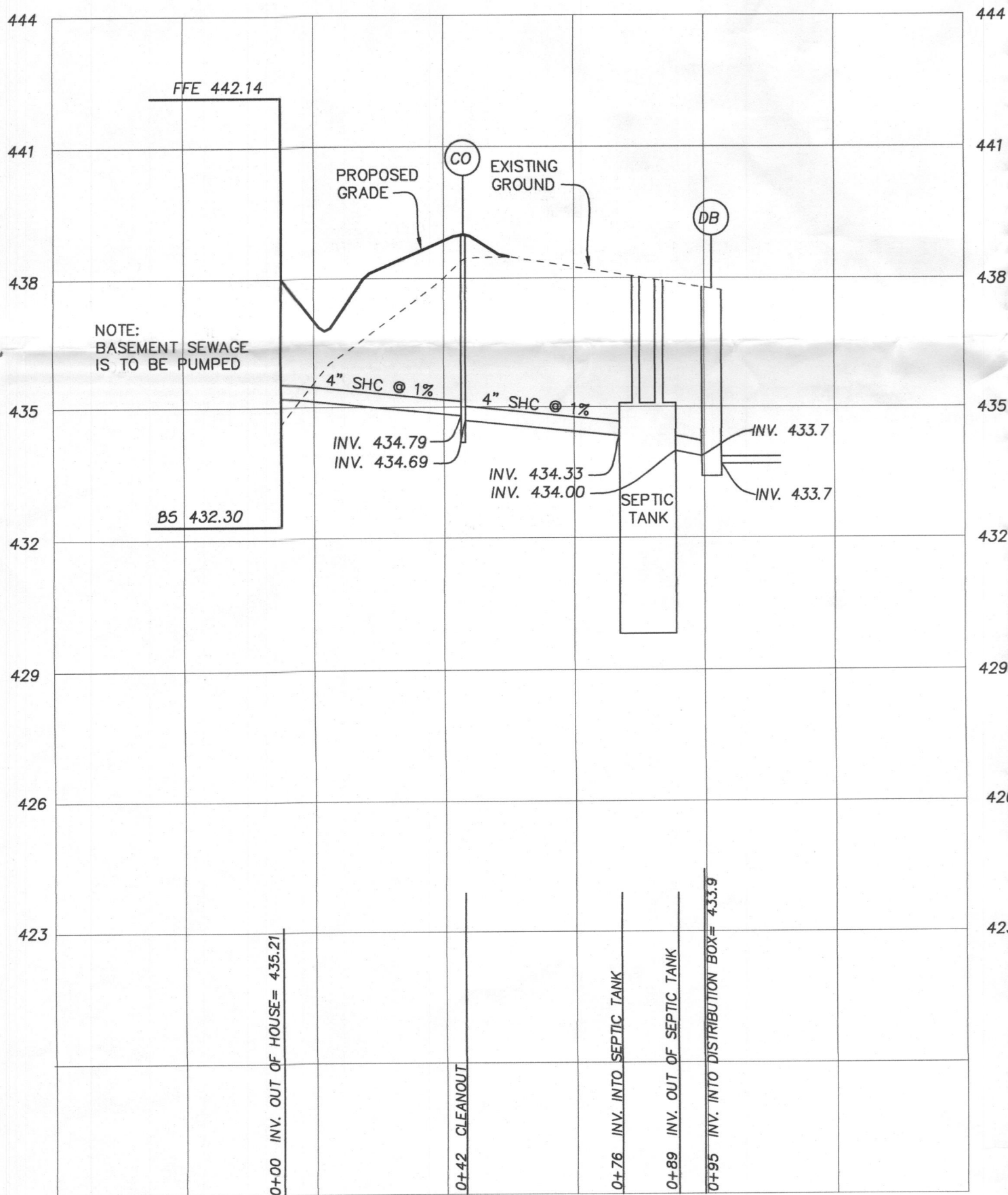
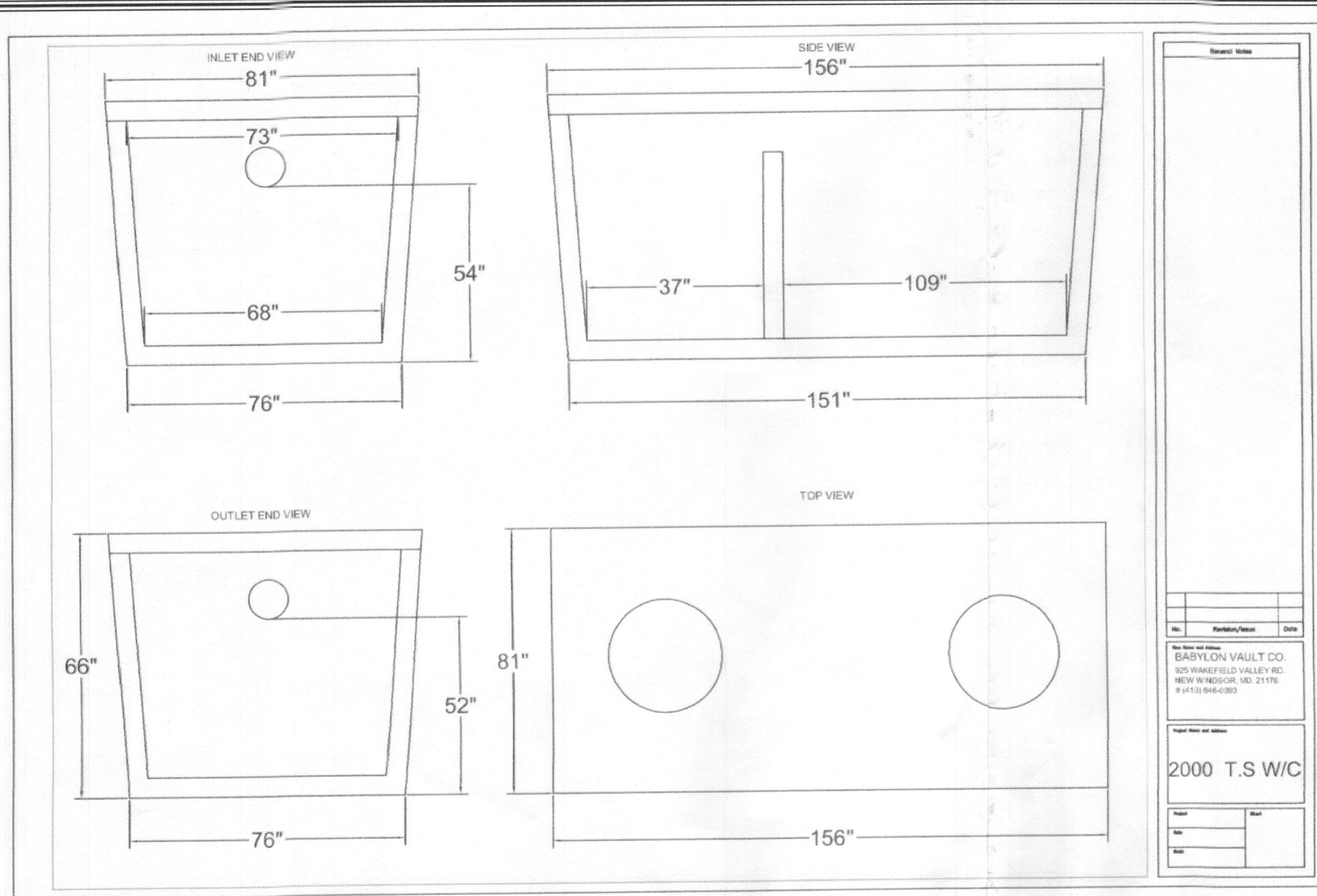
*Mark L. Rose*  
PROFESSIONAL LAND SURVEYOR  
REG. # 339  
DATE 3/02/17



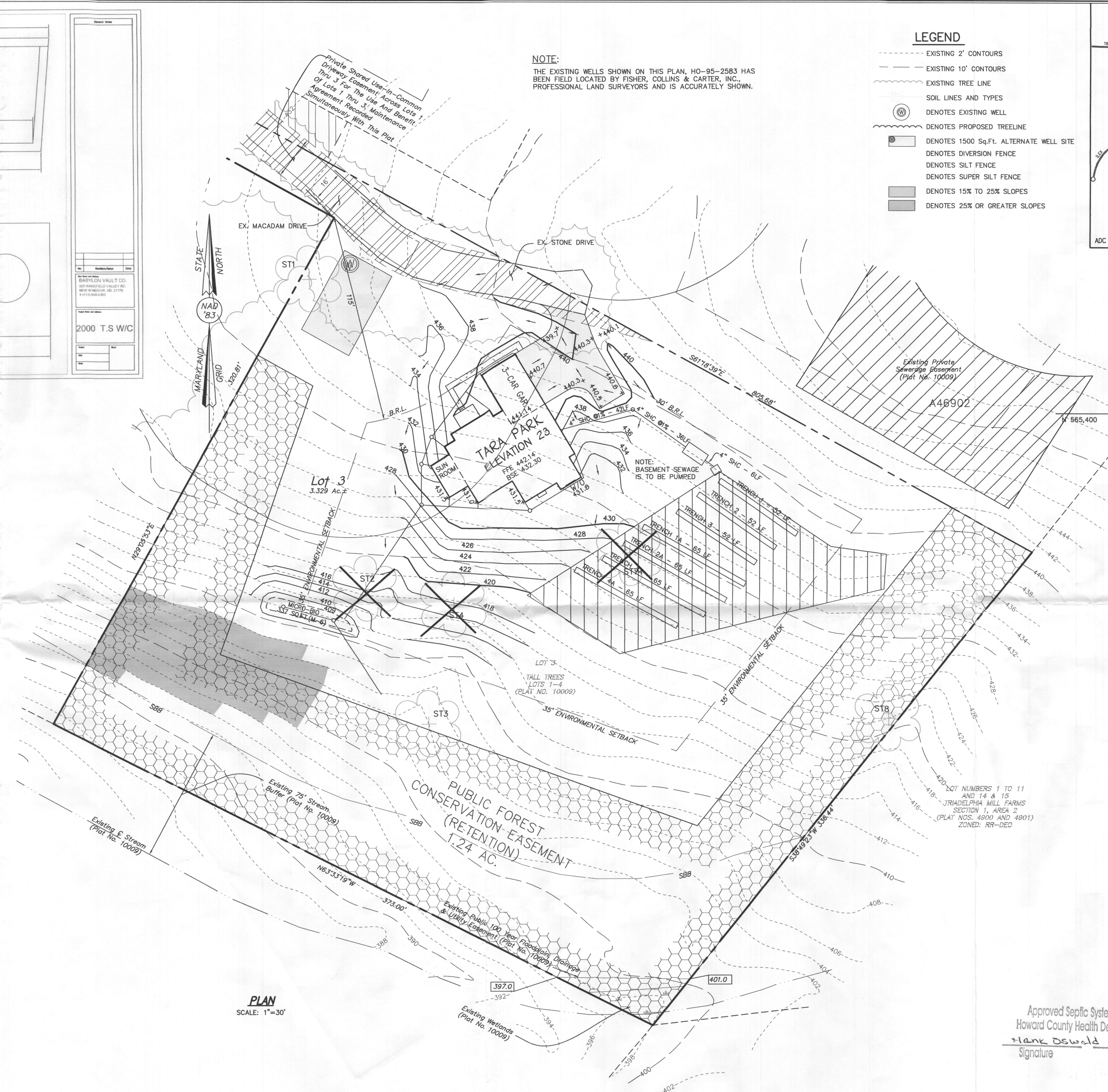
**Lot 3 (REVISION PLAT)**  
**Tall Trees**  
Lots 1 Thru 3  
(Plat Reference: #23944)  
Zoned: RR-DEO  
Tax Map: 27, Parcel: 26, Grid: 24  
Fifth Election District - Howard County, Maryland  
Deed Reference: Liber 16763, Folio 057

**HOUSE LOCATION DRAWING**

FOUNDATION LOCATION: 2/28/17  
FINAL LOCATION:  
BOUNDARY SURVEY:  
SCALE: 1"=50'  
DATE: 3/2/17  
DRAWN BY: JMC  
CHECKED BY: HLR  
PROJECT No. 30366-3003



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

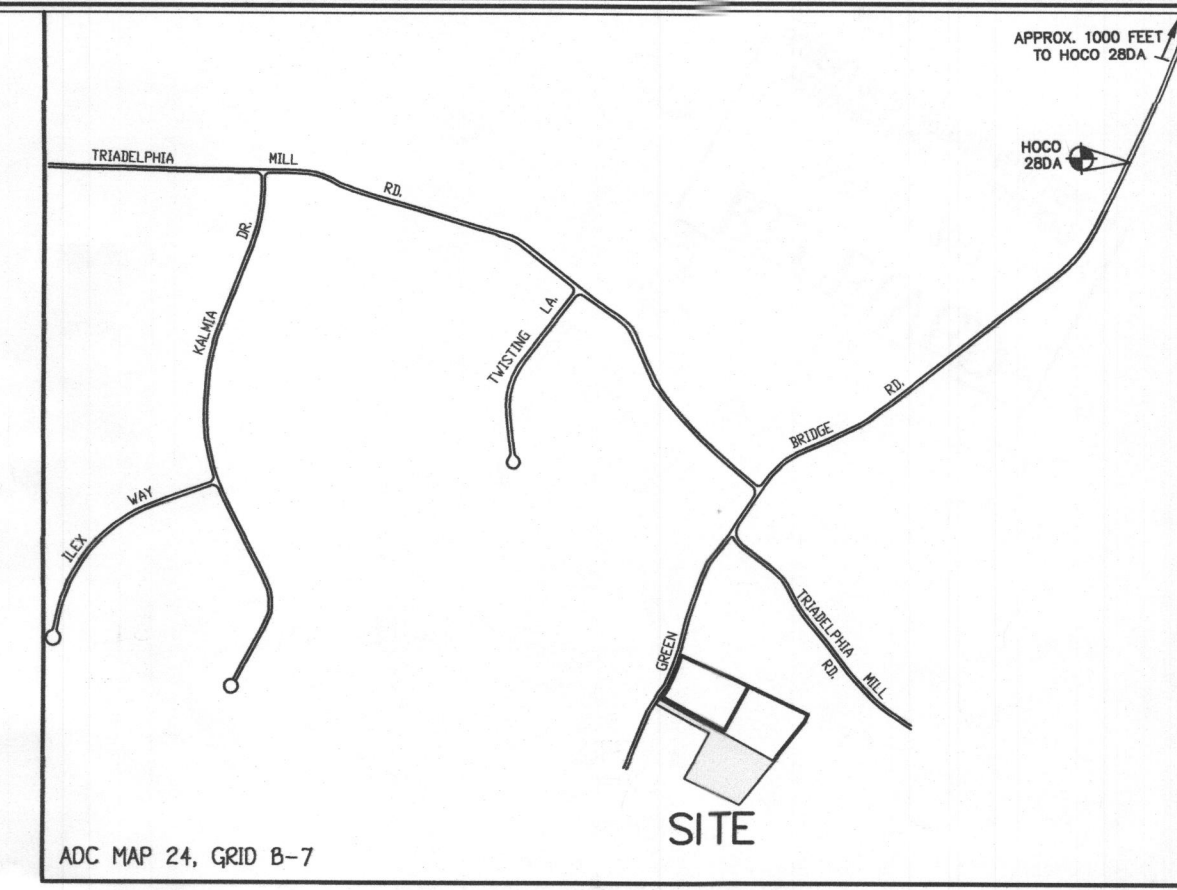


**PLAN**  
SCALE: 1"=30'

TRENCH DESIGN										
TRENCH	GROUND ELEV.	TOP OF STONE ELEV.	PIPE INVERT ELEV.	DEPTH TO STONE FROM GROUND	DEPTH OF STONE (FT)	BOTTOM OF TRENCH ELEV.	EFFECTIVE DEPTH STARTS AT	EFFECTIVE DEPTH (D)	WIDTH OF TRENCHES (W)	TRENCH SPACING
1	437.5	434.0	433.5	3.5'	4.5'	429.0	5.0'	3.0'	3.0'	10'
2	435.6	432.1	431.6	3.5'	4.5'	427.6	5.0'	3.0'	3.0'	10'
3	433.4	429.9	429.4	3.5'	4.5'	425.4	5.0'	3.0'	3.0'	10'

**LEGEND**

- - - - - EXISTING 2' CONTOURS
- - - - - EXISTING 10' CONTOURS
- - - - - EXISTING TREE LINE
- SOIL LINES AND TYPES
- (W) DENOTES EXISTING WELL
- (DB) DENOTES PROPOSED TRENCHLINE
- (S) DENOTES 1500 Sq.Ft. ALTERNATE WELL SITE
- (F) DENOTES DIVERSION FENCE
- (SIL) DENOTES SILT FENCE
- (SIF) DENOTES SUPER SILT FENCE
- (SLO) DENOTES 15% TO 25% SLOPES
- (SLO) DENOTES 25% OR GREATER SLOPES

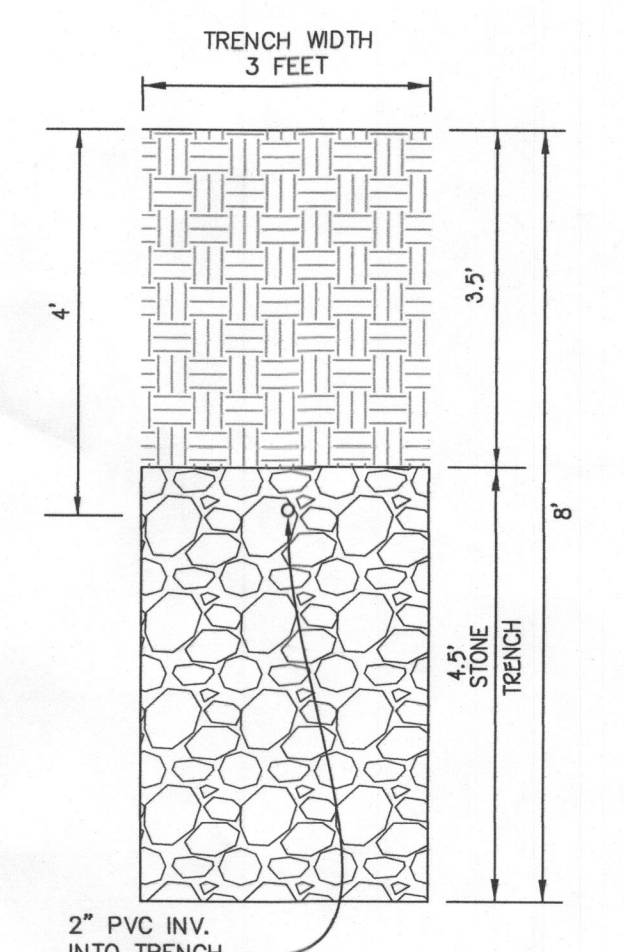


**VICINITY MAP**  
SCALE: 1" = 1200'

FFE 442.14  
BSE 432.30  
INV. OUT OF HOUSE = 435.21  
PROP. GROUND AT CLEANOUT = 439.0  
INV. INTO CLEANOUT = 434.79  
INV. OUT OF CLEANOUT = 434.69  
EX. GROUND AT SEPTIC TANK = 438.0  
TOP OF SEPTIC TANK = 435.08  
INV. INTO SEPTIC TANK = 434.33  
INV. OUT OF SEPTIC TANK = 434.00  
EX. GROUND AT DISTRIBUTION BOX = 438.0  
INV. INTO DISTRIBUTION BOX = 433.9  
INV. OUT OF DISTRIBUTION BOX = 433.7

**SEWAGE DISPOSAL SYSTEM DATA**  
5 BEDROOMS  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 5 FEET  
TRENCH DEPTH = 8 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 3 FEET  
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x3)) = 0.500  
TRENCH LENGTH = 937.5 SF x 0.500 / 3 = 156.25 FEET  
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9 USE 10'

**1ST REPLACEMENT SYSTEM**  
LOADING RATE = 5 BEDROOMS X 150 GPD/BEDROOM = 750 GPD  
APPLICATION RATE = 0.8  
EFFECTIVE SIDEWALL BEGINS AT 5 FEET  
TRENCH DEPTH = 6 FEET  
TRENCH WIDTH (W) = 3 FEET  
EFFECTIVE DEPTH (D) = 1 FEET  
SF OF DRAINFIELD = 750 GPD / 0.8 = 937.5 SF  
COEFFICIENT OF REDUCTION OF TRENCH LENGTH = (W+2)/(W+1+2D) = (3+2)/(3+1+(2x1)) = 0.833  
TRENCH LENGTH = 937.5 SF x 0.833 / 3 = 260.41 FEET  
TRENCH SPACING = 2D+W = ((2x3) + 3) = 9 USE 10'

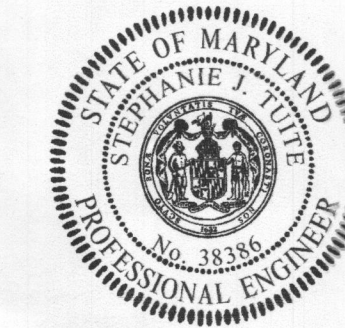


**INITIAL TRENCH DETAIL**  
SCALE: 1"=2'

Approved Septic System Plan  
Howard County Health Department  
Hank Oswald 5/8/17  
Signature Date

**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. 38396, EXPIRATION DATE: 01/12/2018.



Signature of Professional Engineer: Hank Oswald  
Date: 4/28/17

**SEPTIC PLAN TALL TREES**

LOT 3  
5519 GREEN BRIDGE ROAD

ZONING: RR-DEO  
TAX MAP No. 27 GRID No. 24 PARCEL No. 26  
FIFTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
DATE: APRIL, 2017  
SHEET 1 OF 1