



Building Permit Application

Howard County Maryland
 Department of Inspections, Licenses and Permits
 3430 Court House Drive
 Permits: 410-313-2455
 www.howardcountymd.gov

Date Received: _____

Permit No.: PSZ 445

Building Address: 18035 PENN STOR RD
 City: WHEELER State: MD Zip Code: 21171
 Suite/Apt. # _____ SDP/WP/BA #: _____
 Census Tract: _____ Subdivision: _____
 Section: _____ Area: _____ Lot: _____
 Tax Map: _____ Parcel: _____ Grid: _____
 Zoning: _____ Map Coordinates: _____ Lot Size: _____

Existing Use: _____
 Proposed Use: 5-22-2015
 Estimated Construction Cost: \$ 10000
 Description of Work: Voluntary 2015-2016
32x40 (1700sq)
 Occupant/Tenant Name: _____
 Was tenant space previously occupied? Yes No
 Contact Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Property Owner's Name: WILLIAM H. HARRIS
 Address: 102 W. 11th St, Wheelersville, OH 43084
 City: WHEELERSVILLE State: OH Zip Code: 43084
 Phone: _____ Fax: _____
 Email: _____

Applicant's Name & Mailing Address, (if other than stated herein)
 Applicant's Name: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Contractor Company: DAVE C. C.
 Contact Person: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 License No.: _____
 Phone: _____ Fax: _____
 Email: _____

Engineer/Architect Company: _____
 Responsible Design Prof.: _____
 Address: _____
 City: _____ State: _____ Zip Code: _____
 Phone: _____ Fax: _____
 Email: _____

Commercial Building Characteristics	Residential Building Characteristics	
Height: _____	<input type="checkbox"/> SF Dwelling <input type="checkbox"/> SF Townhouse	
No. of stories: <u>1</u>	Depth Width	
Gross area, sq. ft./floor: _____	1 st floor: _____	_____
Area of construction (sq. ft.): _____	2 nd floor: _____	_____
Use group: _____	Basement: _____	_____
Construction type:	<input type="checkbox"/> Finished Basement	
<input type="checkbox"/> Reinforced Concrete	<input type="checkbox"/> Unfinished Basement	
<input type="checkbox"/> Structural Steel	<input type="checkbox"/> Crawl Space	
<input type="checkbox"/> Masonry	<input type="checkbox"/> Slab on Grade	
<input type="checkbox"/> Wood Frame	No. of Bedrooms: _____	
<input type="checkbox"/> State Certified Modular	Multi-family Dwelling	
<input checked="" type="checkbox"/> Roadside Tree Project Permit	No. of efficiency units: _____	
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	No. of 1 BR units: _____	
Roadside Tree Project Permit #	No. of 2 BR units: _____	
_____	No. of 3 BR units: _____	
_____	Other Structure: _____	
_____	Dimensions: _____	
_____	Footings: _____	
_____	Roof: _____	
_____	<input type="checkbox"/> State Certified Modular	
_____	<input type="checkbox"/> Manufactured Home	

Utilities	
Electric:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Gas:	<input type="checkbox"/> Yes <input type="checkbox"/> No
Water Supply	
<input type="checkbox"/> Public	_____
<input type="checkbox"/> Private	_____
Sewage Disposal	
<input type="checkbox"/> Public	_____
<input checked="" type="checkbox"/> Private	_____
Heating System	
<input type="checkbox"/> Electric	<input type="checkbox"/> Oil
<input type="checkbox"/> Natural Gas	<input type="checkbox"/> Propane Gas
<input type="checkbox"/> Other: _____	
Sprinkler System:	
<input type="checkbox"/> Yes	<input type="checkbox"/> No
Grading Permit Number: _____	
Building Shell Permit Number: _____	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

Applicant's Signature: _____
 Email Address: _____
 Title/Company: _____

Print Name: _____
 Date: _____

Checks Payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
 PLEASE WRITE NEATLY & LEGIBLY
 -FOR OFFICE USE ONLY-

AGENCY	DATE	SIGNATURE OF APPROVAL
State Highways		
Building Officials		
PSZA (Zoning)		
PSZA (Engineering)		
Health		<u>8-1-18 Bernard</u>

Is Sediment Control approval required for issuance? Yes No
 CONTINGENCY CONSTRUCTION START

DPZ SETBACK INFORMATION
Front: _____
Rear: _____
Side: _____
Side St.: _____
All minimum setbacks met? <input type="checkbox"/> Yes <input type="checkbox"/> No
Is Entrance Permit Required? <input type="checkbox"/> Yes <input type="checkbox"/> No
Historic District? <input type="checkbox"/> Yes <input type="checkbox"/> No
Lot Coverage for New Town Zone: _____
SDP/Red-line approval date: _____

Filing Fee	\$
Permit Fee	\$
Tech Fee	\$
Excise Tax	\$
PSFS	\$
Guaranty Fund	\$
Add'l per Fee	\$
Total Fees	\$
Sub- Total Paid	\$
Balance Due	\$
Check	#

Waiver Letter

DATE: July 8, 2018

FROM: Mr. Russell McCampbell

RE: General Waiver Request
Russell McCampbell
18235 Penn Shop Rd.
Mount Airy, MD 21771

8/1/18
Approved
Michael J. Davis

TO: Dana Bernard, REHS/RS and/or Approving Authority

As the owner of 18235 Penn Shop Rd. Mount Airy, MD 21771, I am requesting a waiver to Howard County Code Regulations which state the requirements for a Percolation Certification Plan for revised plans.

Accordingly, I am requesting a waiver for a Percolation Certification Plan to support a building permit to allow the construction of a 30x40 detached garage. The detached garage does not infringe on any required setbacks for the well and the well has a steel casing raised 24 inches above grade and is equipped with a pitless adapter. The detached garage is 15 feet away from the actual septic tank and 145 ± feet from the intended future sand mound system. My intent is to install the future sand mound system prior to the request of permit for any improvements to the existing house. I would like to note that the permit I have requested is for a detached garage alone. This garage will simply be a storage structure and will have no running water, plumbing, or septic installed, and will have no impact to the existing septic system. A site plan exhibit is attached showing the placement of the detached garage. My permit submittal package has a site plan, architectural plans, and the approved future sand mound plan is on file currently with the Howard County Health Department.

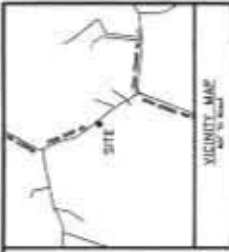
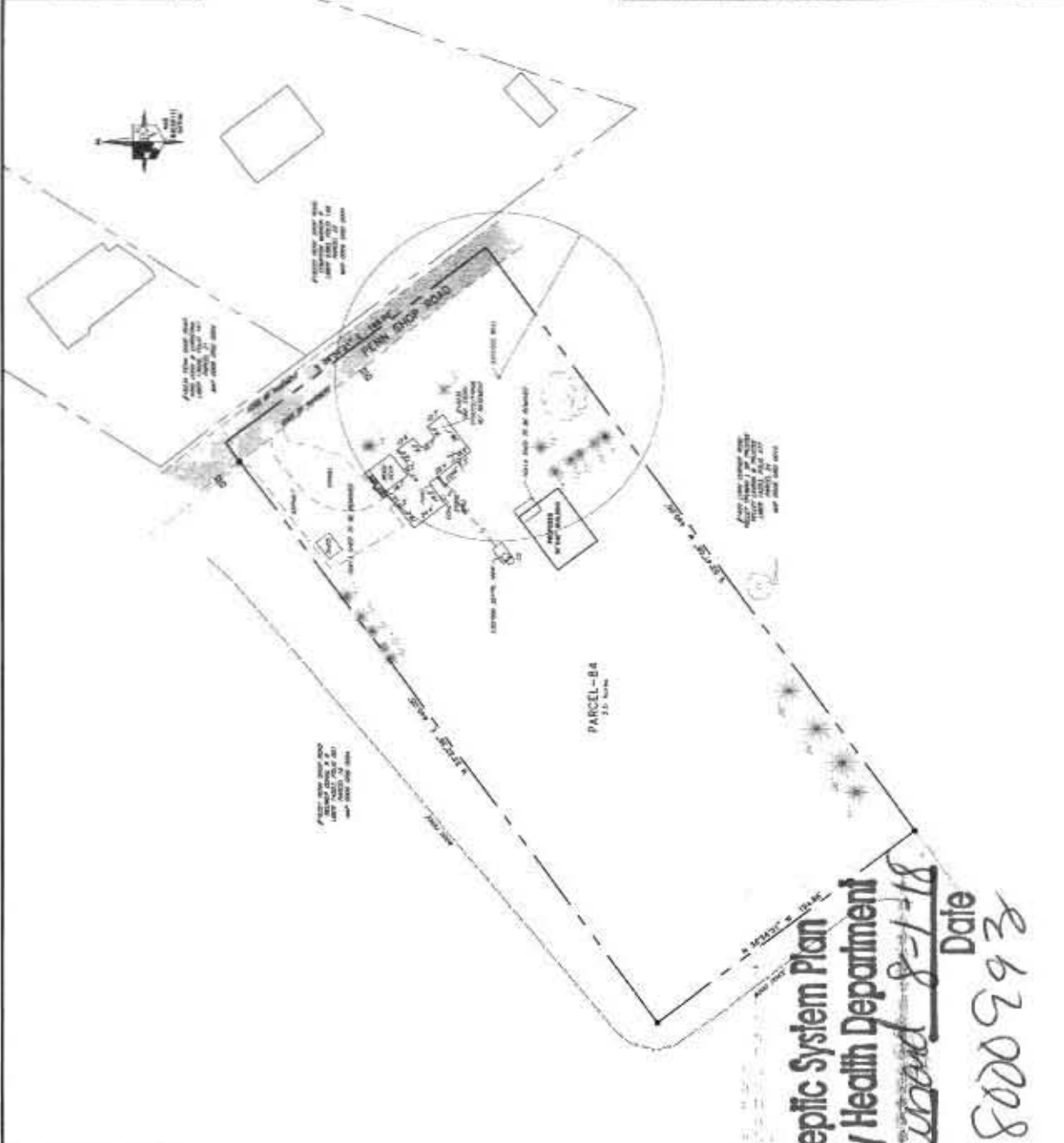
Sincerely,

Mr. Russell McCampbell
18235 Penn Shop Rd.
Mount Airy, MD 21771

GENERAL NOTICE

CONCEPT PLAN BASED ON HOWARD COUNTY PLAZ FITTING REQUIREMENTS AND TO BE APPROVED FOR THE PROPOSED SEPTIC SYSTEM. THE SURVEY SHOULD BE PERFORMED TO INSURE ENCROACHMENTS INTO THE ADJACENT PROPERTY ARE NOTED AND CORRECTED. NO TITLE REPORT WAS PROVIDED FOR THIS PLAN.

NOTICE: THE USE OF THIS PLAN AS A BASIS FOR ANY OTHER SURVEY OR CONSTRUCTION SHALL BE AT THE USER'S RISK. THE SURVEYOR MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON ACCURATELY REPRESENT THE ACTUAL UTILITIES IN THE AREA. OTHER THAN IN SERVICE OF AN ADJACENT PROPERTY.



VICINITY MAP
10/15/2018

TOPCON'S CERTIFICATION
I, the undersigned, being duly sworn, depose and say that I am a duly Licensed Professional Engineer in the State of Maryland, and that I am the author of the above described plan, and that the same is a true and correct copy of the original plan as shown to me by the client.

DR. P. J. [Signature]
DR. P. J. [Signature]
PROFESSIONAL ENGINEER
MAY 1988, LICENSE # 11111

DATE: 10/15/2018
JOB NO.: 18-000993
SHEET NO.: 001
SHEET TOTAL: 001

CONCEPT PLAN
18225 PINE SHOP ROAD
PARCEL BA MAP 8, ORD 4
LUBER BIRK FOLIO 339
MIDDLEBURY, MARYLAND

POTOMAC VALLEY SURVEYS
18040 FERRIS AVENUE, SUITE F
POTOMAC, MARYLAND
1-800-344-3500

Approved Septic System Plan
Howard County Health Department
Dana Beard 8-1-18
Signature Date
18000993



D. H. S. N. J. BEHRENS

MOH. TEST

SPECIFICATIONS

1. THE TANK SHALL BE CONSTRUCTED OF 1/2" THICK GALVANIZED IRON SHEET PILING WITH 1/4" THICK RIBS.

2. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

3. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

4. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

5. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

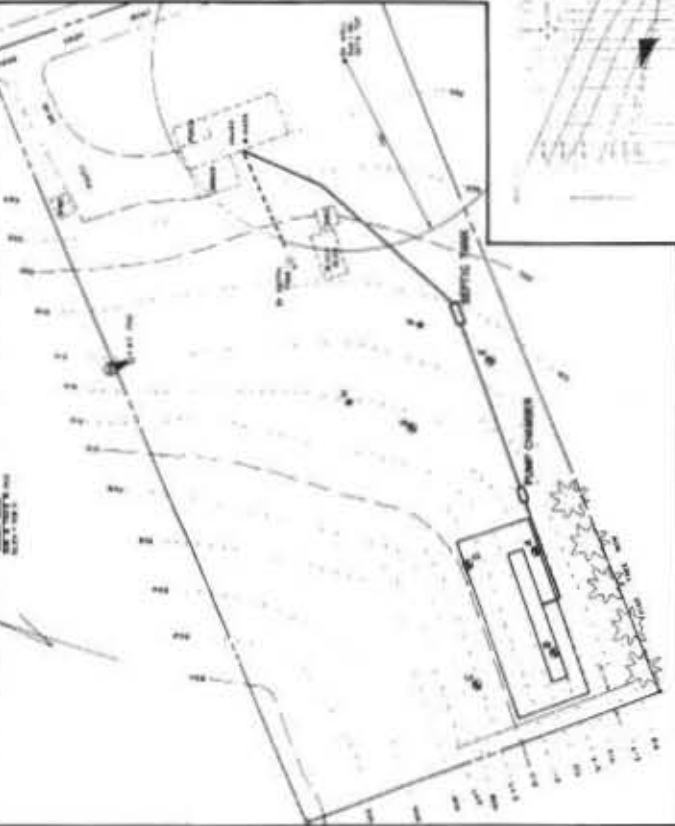
6. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

7. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

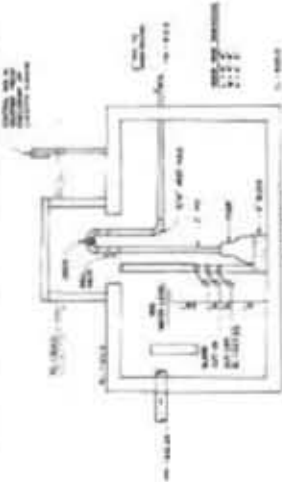
8. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

9. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.

10. THE TANK SHALL BE PROVIDED WITH A 1/2" THICK RUBBER GASKET AT THE JOINTS BETWEEN THE SHEET PILING.



SITE PLAN
SCALE 1/4" = 1'-0"



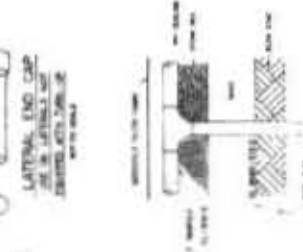
TOP BEAM TANK CHAMBER
SCALE 1/4" = 1'-0"



TOP BEAM TANK WITH ADJACENT UNIT
SCALE 1/4" = 1'-0"



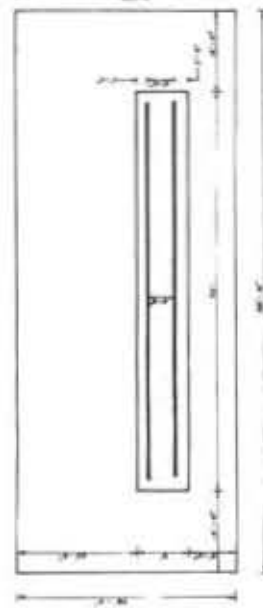
LATERAL END CAP
SCALE 1/4" = 1'-0"



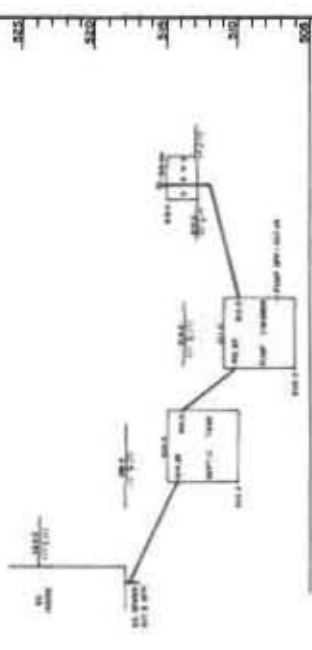
SUPPLY LINE - MANHOLE DETAIL
SCALE 1/4" = 1'-0"



LATERAL DETAIL
SCALE 1/4" = 1'-0"



MOUND LAYOUT
SCALE 1/4" = 1'-0"



HYDRAULIC PROFILE
SCALE 1/4" = 1'-0"



Professional Consulting
S/E ENGINEERING, INC.
1000 WEST 10TH AVENUE, SUITE 100
DENVER, COLORADO 80202

S/E ENGINEERING, INC.	
REGISTERED PROFESSIONAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL SURVEYOR	NO. 1000
REGISTERED PROFESSIONAL CIVIL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL MECHANICAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL ELECTRICAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL CHEMICAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL METALLURGICAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL AERONAUTICAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL NUCLEAR ENGINEER	NO. 1000
REGISTERED PROFESSIONAL INDUSTRIAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL AGRICULTURAL ENGINEER	NO. 1000
REGISTERED PROFESSIONAL MARINE ENGINEER	NO. 1000
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REGISTERED PROFESSIONAL MARINE ENGINEER	NO. 1000
REGISTERED PROFESSIONAL MINING ENGINEER	NO. 1000

Bernard, Dana

From: Bernard, Dana
Sent: Thursday, July 26, 2018 9:29 AM
To: 'Russell McCampbell'
Subject: RE: Waiver application

Good Moring Mr. McCampbell ,

I have an update on your request. The reviewer of the application is requesting a plot plan. He needs to see the location of the proposed garage and the proposed area of the sandmound system if you were to install it in the future. Also, place the house , well, and the existing septic system on the plan. If you have any questions don't hesitate to send me an email. It sounds as if it is going to get approved. However, the plan will be required to make the final decision.

Thanks
Dana

From: Russell McCampbell [<mailto:RMcCampbell@sandyspringbuilders.com>]
Sent: Thursday, July 19, 2018 1:30 PM
To: Bernard, Dana
Subject: Re: Waiver application

Thanks , just checking to make sure it was in line .

Thanks Russell

Get [Outlook for Android](#)

From: Bernard, Dana <dbernard@howardcountymd.gov>
Sent: Tuesday, July 17, 2018 3:27:30 PM
To: Russell McCampbell
Subject: RE: Waiver application

Hello Mr. McCampbell,

I submitted your request for a waiver last week on the 11th of July and I am still waiting on a response. The wavier process takes about 3 weeks, however I will check with the reviewer today and get back to you tomorrow with a response.

Thanks
Dana

From: Russell McCampbell [<mailto:RMcCampbell@sandyspringbuilders.com>]
Sent: Tuesday, July 10, 2018 8:13 PM
To: Bernard, Dana
Subject: Waiver application

Hello Dana ,
Just checking in to see if you got my previous email and attachments ? Want to make sure that you received it and I have given you what is needed . Please let me know at your earliest convenience .

Thanks Russell

301-252-0470

Bernard, Dana

From: Russell McCampbell <RMcCampbell@sandyspringbuilders.com>
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To: Bernard, Dana
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Get [Outlook for Android](#)

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To: Russell McCampbell
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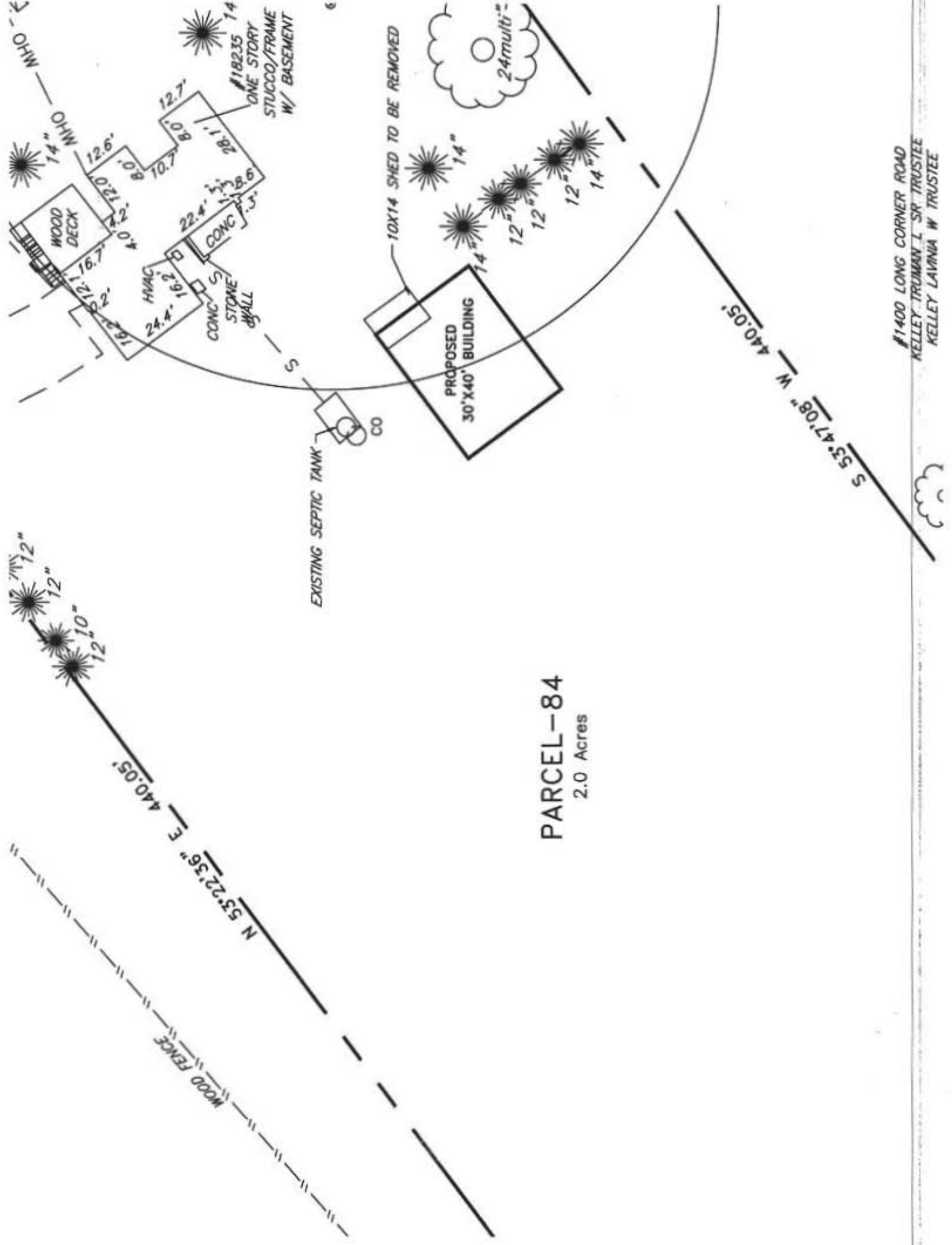
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Sent: Tuesday, July 10, 2018 8:13 PM
To: Bernard, Dana
Subject: Waiver application

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Thanks Russell

301-252-0470

Get [Outlook for Android](#)



PARCEL-84
2.0 Acres

#1400 LONG CORNER ROAD
KELLEY TRUMAN I SR TRUSTEE
KELLEY LAVINIA W TRUSTEE

Bernard, Dana

From: Bernard, Dana
Sent: Thursday, June 28, 2018 3:36 PM
To: Russell McCampbell
Subject: RE: Invoice 294299 from Fogle's Septic Clean, Inc.
Attachments: Variance letter HC permit.docx

Per our Conversation June 28, 2018:

As of today June 28, 2018 I have not heard from you since our last correspondence on June 19, 2018. I wanted to let you know that I have received the invoice for the tank service; however, I have not received your request for a waiver and I am still anticipating its arrival. I have attached an example of a waiver that you may use as a guide. If you have any questions don't hesitate to give me a call.

Thanks
Dana

From: Russell McCampbell [<mailto:RMcCampbell@sandyspringbuilders.com>]
Sent: Tuesday, June 19, 2018 4:33 PM
To: Bernard, Dana
Subject: Fwd: Invoice 294299 from Fogle's Septic Clean, Inc.

Recent tank Pump receipt

Get [Outlook for Android](#)

From: John Hieatzman <john@foglesinc.com>
Sent: Tuesday, June 19, 2018 4:06:22 PM
To: Russell McCampbell
Subject: Invoice 294299 from Fogle's Septic Clean, Inc.

Fogle's Septic Clean, Inc.

Invoice Due: 06/11/2018
294299

Amount Due: **\$0.00**

Dear RUSSELL MCCAMBELL :

Your paid invoice is attached.

Thank you for your business - we appreciate it very much.

Sincerely,

Fogle's Septic Clean, Inc.
410-795-5670

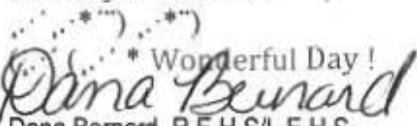
Bernard, Dana

From: Bernard, Dana
Sent: Wednesday, June 20, 2018 9:54 AM
To: 'rmccampbell@sandyspringbuilders.com'
Subject: 18235 Penn Shop Road

Per our phone conversation on June 19, 2018:

After my review of your building permit, it has been determined that you will need to complete a few tasks to move forward with your building permit proposal (As stated originally in correspondence on April 18, 2018). On Thursday, June 14th 2018 a site visit was conducted at 18235 Penn Shop Road and during the site visit I took notice of the septic tank that was full with wet spongy soil around the tank and drywell which are indications of failure. Therefore, a percolation certification plan and the installation of a new septic system will be required to complete your request as originally agreed in 2009. The septic will have to be installed prior to the release of the building permit. However, you may apply for a waiver for the percolation certification plan and installation of the septic system. When submitting your waiver request please submit a clear, to scale building plan show the house location, the existing septic system and all of its components along with the well. Also submit the receipt from your septic installer stating that the system has been pumped out. Submit your waiver to Michael Davis, Deputy Director of the Howard County Health Department. You can email the request along with all supporting documents to my email address. Waiver reviews are subject to a three week review period however, every effort will be made to review the request as soon as possible.

Thank you & Have a*~*)


Dana Bernard, R.E.H.S./L.E.H.S.
Environmental Specialist II
Bureau of Environmental Health
Well and Septic Program
Phone (410) 313-2775
E-mail: DBernard@howardcountymd.gov

Fogle's Septic Clean, Inc.

580 Obrecht Road
Sykesville, MD 21784

Invoice Date
6/11/2018

Invoice #
294299

INVOICE

PAID
06/12/2018

PLEASE PAY THIS AMOUNT \$0.00

Checks payable to: Fogle's Septic Clean, Inc.

Bill To:

RUSSELL MCCAMBELL
18235 PENN SHOP RD
MT AIRY, MD 21771

Service Address

RUSSELL MCCAMBELL
18235 PENN SHOP RD
MT AIRY, MD 21771

Phone # 410-795-5670

Fogle's Septic Clean, Inc.
580 Obrecht Road
Sykesville, MD 21784

PLEASE DETACH AND RETURN TOP PORTION WITH PAYMENT

P.O. No.	Due Date	Rep	Ship Date
	6/11/2018	HLK	6/8/2018

Description	Qty	Rate	Amount
PUMP SEPTIC TANK HAS FLOATS AND FLOAT POLE, APPEARED TO BE PUMP CHAMBER NOT SEPTIC TANK.		215.00	215.00

Thank you for your business.	Total	\$215.00
1.5% interest will be charged monthly on all unpaid balances after 30 days. \$30 CHARGE FOR RETURNED CHECK. RECEIPT DATE STAMPS ARE STRICTLY ENFORCED for ALL DISCOUNTS. Billing Questions - call 410-795-5670	Payments/Credits	-\$215.00
	Customer Total Balance	\$0.00

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

April 18, 2018

Russell McCampbell
18235 Penn Shop Road
Mount Airy, MD 21771

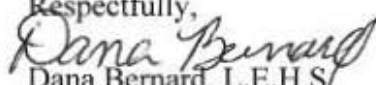
Sent via email to: RMCCAMPBELL@SANDYSPRINGBUILDING.COM

RE: B18000993: 18235 Penn Shop Road, Mount Airy, MD 21771

Mr. McCampbell in order to move forward with building permit B18000993, we must complete every task requested originally for this building permit. On April 10, 2009 percolation testing was conducted on the subject property. The property was approved for sand mound instillation; however, before installation can occur a percolation certification plan must be submitted and approved by our office. Since a percolation certification plan does not exist for this property, it will have to be created prior to building permit approval (Howard County Code Sec 3.805). To get started, please submit a percolation certification plan to the Howard County Health Department. There are a few tasks that must be completed before instillation can occur.

1. You will be responsible for hiring and scheduling a septic contractor for septic installation. Please make sure the sand mound bed and septic area is staked by your engineer prior to instillation and one week before the day of your instillation is scheduled. Also call Miss Utility before the scheduled date to mark any areas that will need to be avoided.
2. If the onsite well does not meet current regulations, it will have to be brought up to code prior to approval of a building permit. For example, if the well does not have casing extending above grade, the well casing must be extended by a licensed well driller with a pit less adaptor installed. Furthermore, if the well doesn't meet the required 20 foot setback to the house with basement, then the owner will have to ask for a Variance from the Maryland Department of the Environment (MDE) and receive approval prior to making any changes to the well.
3. You will also have to submit the paperwork from your septic contractor showing that the existing dry well and tank is been pumped out and abandoned. And these tasks must be performed by a licensed installer.

Building permit approval has been placed on hold until all requirements are met. Should you have any questions, please don't hesitate to contact our office.

Respectfully,

Dana Bernard, L.E.H.S.
Bureau of Environmental Health
Well & Septic Program



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

April 17, 2009

To: Edgard and Juan Uzcategui, Chief Septic

RE: Percolation Test Report, McCampbell Property, 18235 Penn Shop Road,
A530347

Dear Mr Uzcategui,

Percolation testing was conducted on the subject property on April 10, 2009. Soil profiles were described and infiltrometer test results were recorded for 8 locations. Soil descriptions and the test data collected are shown on Mound Test Data Sheets. These data are maintained in a Health Department file for the subject property.

Infiltrometer tests were conducted at locations A thru H. Locations A, B, C, D, E and G all had measured infiltration rates greater than 1 inch per hour and suitable soil materials to depths of at least 24 inches. Water seeps are notable at depths specified in the recorded descriptions for the respective locations.

A restrictive layer of shale underlies the site and is the cause of the water seeps. The depth of the restriction at location D is about 32 inches, and at A, B, C, E, F and G the restrictive layer ranges from 42 inches to 48 inches depth. This shallow depth to restrictive layer is significant in that the loading rate will be adjusted to the lowest possible infiltration value of 1 inch per hour.

At location H the depth to restrictive later is 20 inches making the location unsuitable for a sand mound. Location F is also unsuitable for a sand mound as the measured infiltration rate is much less than 1 inch per hour.

The slope between areas represented by A, B, C and D, and the area represented by E and G, has a concave shape. Concave slopes are unsuitable locations for sand mounds. Due to the restrictions in potential length and shallow soil, there is likely only enough suitable area to accommodate one system for a 4-bedroom residence.

The existing well meets code requirements. It is located about 100 feet up-gradient of the existing septic tank. The well is about 30 feet east of the house foundation.

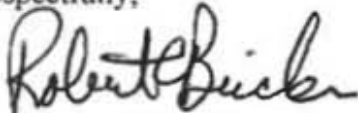
The existing septic tank is fitted with a float, assumed to be an alarm float intended to indicate when the tank is full and needing to be pumped. The tank appeared to be full at the time it was observed, the float barely visible in the scum layer.

A linear depression in the soil surface indicates the likely presence of the effluent line, leading from the septic tank downhill about 75 feet. The line ends at a mounded area where lush, dark green grass grows on and about the raised area.

Seeps were not observed, however it is also likely that a dry well is present and that it is receiving 'overflow' from the septic tank. It appears that soil has been mounded over and around a specific area to prevent surface seeps. After connection of a new sewerage treatment system, this area is to be explored. Should a dry well be discovered, it is to be properly abandoned (pumped and filled) prior to approval of the septic system installation permit.

I submitted copies the Sand Mound Data Sheets and location drawing to you on April 14. If you have any questions regarding the results, this report, Percolation Certification Plan requirements or associated procedures, please contact me at the above address or by calling (410) 313-2691.

Respectfully,

A handwritten signature in cursive script that reads "Robert Bricker".

Robert Bricker, RS, CPSS
Well and Septic Program
Development Coordination Section

Copy: file

SANITARY/ENVIRONMENTAL ENG, INC

Consulting Engineers
1414 Washington Road
WESTMINSTER, MARYLAND 21157
(410) 876-7740
FAX (410) 840-9924

JOB MCCAMPBELL PROPERTY

SHEET NO. 18235 PEUUSHP OF ROAD

CALCULATED BY _____ DATE 5/23/09

CHECKED BY SANDMUNDD DATE _____

SCALE _____

4 BED ROOMS X 150 = 600 GPD 10% SLOPE
 SAND LOADING RATE - 1 GPD / sq. ft = 600 sq. ft.
 BED - 9' X 70' = 630 sq. ft.
 $\sqrt{9 \times 66.67 = 600}$
 UP SIDE SAND DEPTH - 24"
 DOWN SIDE SAND DEPTH - 24" + (0.1 X 108") = 34.8" (35")
 UP SLOPE SETBACK - 24" + 22" (3) (0.77) = 106" = 8'-10"
 DOWN SLOPE SETBACK - 35" + 22" (3) (1.44) = 246" = 20'-6"
 SIDE SLOPE SETBACK - $\frac{24 + 35 + 28"}{2} (3) = 172" = 14'-4"$
 BASAL AREA REQUIRED @ 1" / 60mm = 1200 sq. ft.
 BASAL AREA PROVIDED = 70' (9' + 20.5') = 2,065 sq. ft. OK
 POUND WIDTH - 9' + 5'-10" + 20'-6" = 38'-4"
 POUND LENGTH = 70' + 14'-4" + 14'-4" = 98'-8" 75.4'
 Latera = 66.67
 PUMP RATE - 40 PERFORMANCES @ 1.63 = 65 GPM
 Pump Dose - 5 X 4 X 33.25 = 665' - 2" PVC
 PLUS - 65' - 2" FORCE MAIN = 730' @ 17.4 GAL / 100' = 73 X 17.4 = 127 GAL.
 127 / 7.48 = 17 cu ft / 40 sq. ft = 0.42' = 5"
 EMERGENCY STORAGE = 40 sq. ft. X 2.08' = 83.2 cu ft = 622 GAL. OK
 TDH = ELEVATION DIFFERENCE = 515.66 - 507.25 = 8.41'
 DISTAL HEAD 2.00'
 F = 2" PVC @ 65 GPM = 0.0984 $\frac{65}{2.067} \times 4.85 = 0.0984 \frac{2258}{34.33} = 6.5' / 130'$
 F = 6' + VALVE + L + UNION + L + L + 55' + L + 10' + T
 6' + 50' + 7' + 2' + 7' + 7' + 55' + 7' + 10' + 10' = 161'
 F = 6.5' X 1.61' = 10.46' TDH = 8.41' + 2.00' + 10.46' = 20.87' (21')
 Pump to Remove 65 GPM @ 21' - GOULDS
 TANK BUOYANCY - 13.25' X 5.25' X 8' X 62.4 lbs = 34,725 lbs
 ANTI BUOYANCY - 16,740 lbs + 13.25' X 5.25' X 3' X 135 lbs = 44,913 lbs
 Pump BUOYANCY - 8.85' X 5.25' X 8' X 62.4 lbs = 23,194 lbs
 ANTI BUOYANCY - 11,250 lbs - 8.85' X 5.25' X 3' X 135 lbs = 30,067 lbs

MOUND TEST DATA SHEETS

Property I.D. 18235 Penn Shop Lot # _____ Date 4-10-09

Sanitarian RB/HS Landscape Position Side Slope

% Slope 9-10 Soil Type Brinklow Contractor Chert Septic

HOLE # A DEPTH OF TEST 19" START TIME 12:23

moderate
brn v sbk gr cl
yellow brn cl
1msbk 15% gravel
7msbk 30%
yellow brn gr cl
3" cl / red 1" t. grey
2.5" x 4" 2.5" x 1/2"
30% structureless
seepage @ 3' to 3.5'
4" restriction **
var brown - brown
45% dense
bottom

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	12:23	Begin	—	
9 12/16	12:29	4/16		
9 8/16	12:35	4/16		
9 4/16	12:41	4/16		
8 15/16	12:47	5/16		
8 11/16	12:53	4/16	4 1/16 / 6min	
8 7/16	12:59	4/16		
8 3/16	1:05	4/16		
			~2.5 in/hr	

$$\frac{4}{16} \times \frac{60}{6}$$

infiltrator
11 3/4"

Begin equilibration
11:50

HOLE # B DEPTH OF TEST 19" START TIME _____

7.5YR4/5
brn grl
2.5" sbk & 2" gr
7.5YR5/6
brn gr cl
7msbk
7.5YR4/6
somewhat dense
" structureless
brn v grl
8" m dense
40" seep
2" 2.5Y 7/2

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	12:29	Begin		
9 10/16	12:39	6/16		
9 4/16	12:49	6/16		
8 15/16	12:59	5/16		
8 10/16	1:09	5/16	5 1/16 / 10min	
8 5/16	1:19	5/16		
8 —	1:29	5/16		
			~1.87 in/hr	

restrictive at ~4 1/2"

$$\frac{5}{16} \times \frac{60}{10}$$

11 1/4"

Begin equilibration
11:52

MOUND TEST DATA SHEETS

Property I.D. 18235 Penn Shop Rd Lot # _____ Date 4-10-09

Sanitarian FB/HIS Landscape Position Side Slope

% Slope 9-10 Soil Type Brinklow Contractor Chief Septic (Juan)

HOLE # C DEPTH OF TEST 18" START TIME 12:23

brn fsbk
gr l

yellow grcl
brn
lmsbk

yellow brn cl
dense

vgr yellowbrn
cl

bluish yellow
10% vgr lmsbk
illuvial faint
mottles

65% shale
red & gray
sil

28% shale
Mn+Fe

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	12:32	Begin		
9 14/16	12:38	2/16		
9 12/16	12:44	2/16		
9 9/16	12:50	3/16		
9 6/16	12:56	3/16		
9 3/16	1:02	3/16	3/16 / 6min	
9 -	1:08	3/16		
8 13/16	1:14	3/16		

↑ regular boundary 27 3/8"

← Restrictive at 4 1/2"
 $\frac{3}{16} \times \frac{60}{6}$

~ 1.87 in/hr

Infiltrometer 1 1/4" diameter

Begin equilibration 11:55

HOLE # D DEPTH OF TEST 20" START TIME _____

brn v fsbk
2 gr l

yellow brn
lmsbk
vgr cl

faint mottles
common / few yellow
brn
jaunel 10% - 15%
scaps @ 20" cl

scapage
vgr (coarse)
dense

dense gr l
Mn+Fe red
contings et
gray cl

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 16/16	1:07	Begin		
9 4/16	1:12	12/16		
8 10/16	1:18	10/16		
7 2/16	1:33	1: 8/16		
6 8/16	1:41	10/16		
5 5/16	1:49	9/16		
5 4/16	1:57	11/16		
4 12/16	2:05	8/16		
4 4/16	2:13	8/16		
3 14/16	2:21	6/16		
9 16/16	2:23	Reset		
9 7/16	2:29	9/16		
8 14/16	2:35	9/16		
8 7/16	2:41	7/16		
7 16/16	2:47	7/16		

restrictive horizon begins at 32" *

Infiltrometer diameter 1 3/4"

Begin equilibration 12:18
~ 5" / hr
1/2" / 6min

MOUND TEST DATA SHEETS

Property I.D. 18235 Penn Shop Rd Lot # Date 4/10/09
 Sanitarian RB/HS Landscape Position Side Slope
 % Slope 6 Soil Type Brinklow Contractor Chief Septic
 HOLE # E DEPTH OF TEST 16" START TIME 2:56

4" dk gray brn loamy 2f sbk & fg
 10" brn loam 10% gravel, 2f sbk
 15" yel-brn cl 2f sbk
 20" yel-brn cl 2f sbk slightly sticky
 24" dk brown loam 2f sbk
 30" dk brown loam 2f sbk
 36" 10% gravel water seeps
 40" red & pale yellow-brn loam c2d 4R 7/2 30% clanners
 48" Mn coatings
 52" Mn to shale

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	Begin	—		
9 5/16	3:02	8/16		
9 3/16	3:08	5/16		
8 12/16	3:14	7/16		
8 8/16	3:20	4/16		
7 10/16	3:26	8/16		
7 11/16	3:32	5/16		
7 4/16	3:38	7/16		
6 15/16	3:44	5/16		
6 10/16	3:50	5/16		

} 5/16 / 6min = 2.5 in/hr

Begin equilibration 2:29

* restrictive at 48" 5/16 6/16

HOLE # F DEPTH OF TEST 15" START TIME 3:19

5" brn & 2f sbk gr
 10" brn cl gr 4f sbk
 15" yellow brn cl
 20" Fc thin coatings
 25" Fc thin coatings dense cl yellow brn
 30" H2O seeps
 35" brn & 2f sbk shell

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate(ET/MD)	% Change
9 16/16	Begin	—		
9 10/16	3:25	0		
9 10/16	3:31	0		
9 14/16	3:37	2/16		
9 14/16	3:43	0		
9 13/16	3:49	1/16		

restrictive at 40" to 48"

FAIL

Begin equilibration 2:52

MOUND TEST DATA SHEETS

Property I.D. B235 Penn Shop Rd Lot # _____ Date 4-10-09

Sanitarian RB/HS Landscape Position Sideslope

% Slope 6 Soil Type Brinklow Contractor Chief Septic

HOLE # G DEPTH OF TEST _____ START TIME 3:40

grey-brn loam
2 1/2 sbk to 2 3/4
brn grcl
to yel-brn grcl
1 1/2 sbk
yel brn grcl
slightly sticky
1/2 sbk
brn vgr
1 1/2 d grey
25-50% rock
water seeps
red & lt grey loam
in 60% rock
dk brn xgr loam
75-80% rock

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change
9 1/16	Begin	—		
9 6/16	3:58	10/16	5 1/16 / 10 min	
8 14/16	4:08	8/16		
8 4/16	4:18	10/16		
7 10/16	4:28	10/16		

* restrictive at 48"
5/16 60/10

1.87 in/hr

Began equilibration at 3:18

HOLE # H DEPTH OF TEST 20" Fail START TIME N/A

dk brn loam
2 1/2 sbk & 2 3/4
brn grl, 2 1/2 sbk
gradual boundary
dense, structureless
yel-brn loam
& lt grey silt loam
30-35% channers
many Mn coatings
few Fe enrichments
" abrupt, wavy boundary
dense vel loam
50-55% channers
dk brn & lt grey

Hook Gauge Reading	Elapsed Time (min)	Measured Drop	Estimated Rate	% Change

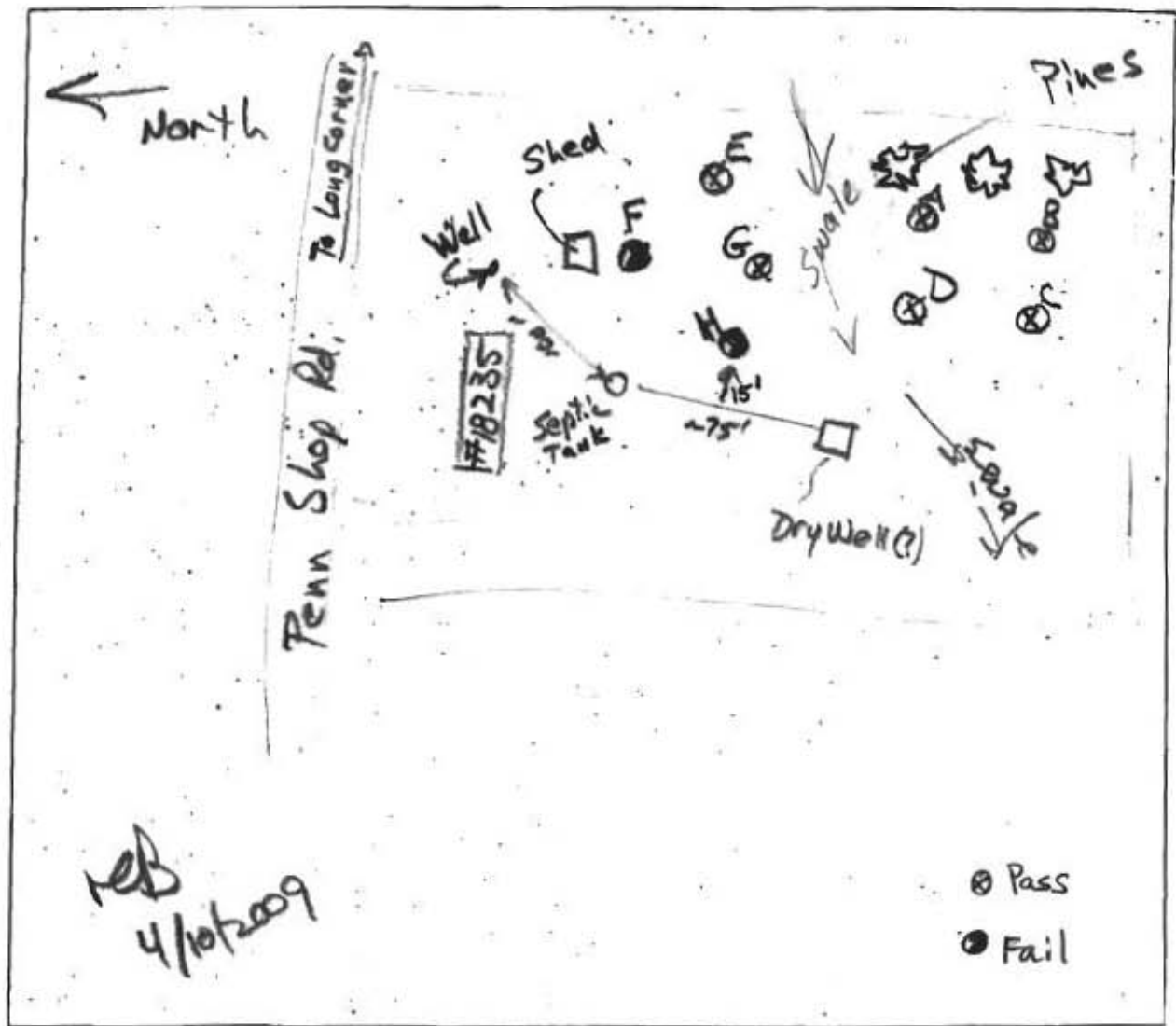
Fail
restrictive at 20"

42"
yel red & pale yel & black
dense 65-70% channers
few grey depletions

SITE INSPECTION SHEET

OWNER: McC Campbell PHONE #: _____
ADDRESS: 18235 Penn Shop Rd CONTRACTOR: Chief Septic
WELL TAG #: _____
SUBDIVISION: _____ LOT: _____ COUNTY #: Howard
PROPOSAL: Sand Mound (Infiltrometer) Perc Test Sketch

LOCATION DIAGRAM



COMMENTS: A, B, C, D, E & G 'Pass'; F & H 'Fail'
Use lowest permeability rate (~1"/hr) due to
restrictive rock layers within 3 feet of surface

SANITARY/ENVIRONMENTAL ENG., INC.

Consulting Engineers

1414 Washington Road

WESTMINSTER, MARYLAND 21157

(410) 876-7740

FAX (410) 840-9924

LETTER OF TRANSMITTAL

DATE	SEPT 1	JOB NO.
ATTENTION	ROBERT BRICKER	
RE:	18235 PENN SHOP ROAD	
	SANDMOUND	

TO HOWARD CO. HEALTH DEPT.
BUREAU OF ENV. HEALTH
COLUMBIA, MD 21046

WE ARE SENDING YOU Attached Under separate cover via _____ the following items:

- Shop drawings Prints Plans Samples Specifications
 Copy of letter Change order _____

COPIES	DATE	NO.	DESCRIPTION
2			PRINTS - PLANS + SPECIFICATIONS

THESE ARE TRANSMITTED as checked below:

- For approval Approved as submitted Resubmit _____ copies for approval
 For your use Approved as noted Submit _____ copies for distribution
 As requested Returned for corrections Return _____ corrected prints
 For review and comment _____
 FOR BIDS DUE _____ PRINTS RETURNED AFTER LOAN TO US

REMARKS _____

AS PER 8/6/09 COMMENTS

COPY TO FILE

SIGNED: Jim Clise

If enclosures are not as noted, kindly notify us at once.

**SANITARY/ENVIRONMENTAL ENGINEERING, INC.
1414 WASHINGTON ROAD
WESTMINSTER, MARYLAND 21157**

James D. Clise, PE

(410) 876-7740
Fax (410) 840-9924

August 31, 2009

To: Robert Bricker, RS, CPSS

Re: Campbell Property
18235 Penn Shop Road
Sandmound Design

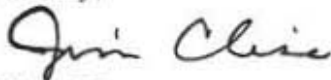
Dear Mr. Bricker,

This is in response to your August 6 memo concerning the Campbell Property plans.

1. I totally misread a note on the field sheet concerning the test results. The correct test results are now shown on the revised drawings.
2. In the past Howard County has requested diagonal location of lateral end turn-ups as we showed on our plan. They are now shown on all 4 laterals.
3. Protective sleeves have been shown on the lateral turn-ups in place of the alternate choice of design shown in figure 4.3 of the design manual.
4. Observation pipes have been shown on the mound design and on the mound layout drawings. These were left off our drawing because several counties, including Howard County, have experienced problems from mowing due to above grade pipes. However, we have now shown them and will continue to do so on any Howard County plans we may prepare.
5. Field run 1-foot contours are shown and identified. Elevations requested on low corners of the mound and sandbed are shown.

I hope this satisfies your concerns. Upon approval of the plans, our surveyor will stake out the mound and bed.

Respectfully,



Jim Clise, PE



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(410) 313-2640 Fax (410) 313-2648
TDD (410) 313-2323 Toll Free 1-866-313-6300
website: www.hchealth.org

Peter L. Beilenson, M.D., M.P.H., Health Officer

August 6, 2009

To: Jim Clise, P.E.
S/E Engineering, Inc

RE: Russell Campbell Property, 18235 Penn Shop Road, A530347

Dear Mr. Clise,

I have reviewed the plan for the replacement system sand mound on the subject property. The prepared plan and associated calculations are thorough and organized. The content is primarily correct with few exceptions. The following corrections or additions are required:

1. SOIL TEST. The correct times (min.) by respective test locations: A, 24; B, 32; C, 32; D, 12; E, 24; F, failed; G, 32; H, failed.
2. Lateral End Turn-Ups need to be on all 4 laterals.
3. The turn-ups need to be protected by sleeves as shown in Figure 4.5 of the Sand Mound Design Manual.
4. Observation pipes should be in the mound as indicated in Figure 3.1 of the Sand Mound Design Manual.
5. Concerning the site plan drawing:
 - a. Presentation of field-run elevation contours at 1-foot intervals is required.
 - b. The elevations of the 2 low corners of the sand mound should be presented (and be the same).
 - c. The elevations of the 2 low corners of the gravel bed should be shown.

The corners of the sand mound and the corners of the gravel bed need to be staked for inspection by an Environmental Sanitarian. The septic permit cannot be released until this inspection is conducted with a satisfactory result.

Please contact me at the above address or by calling (410) 313-2691.

Respectfully,

A handwritten signature in black ink, appearing to read 'Robert Bricker', written in a cursive style.

Robert Bricker, RS, CPSS
Well and Septic Program
Development Coordination Section

Copy: Edgard and Juan Uzcategui, Chief Septic
file

39°20'30"



77°9'20"

Disclaimer: Howard County, Maryland assumes no responsibility for the accuracy of this report or the information contained herein or derived therefrom. The user assumes all risks and liabilities whatsoever resulting from or arising out of the use of this information. There are no oral agreements or warranties relating to the use of this report.

77°9'20"

39°20'30"

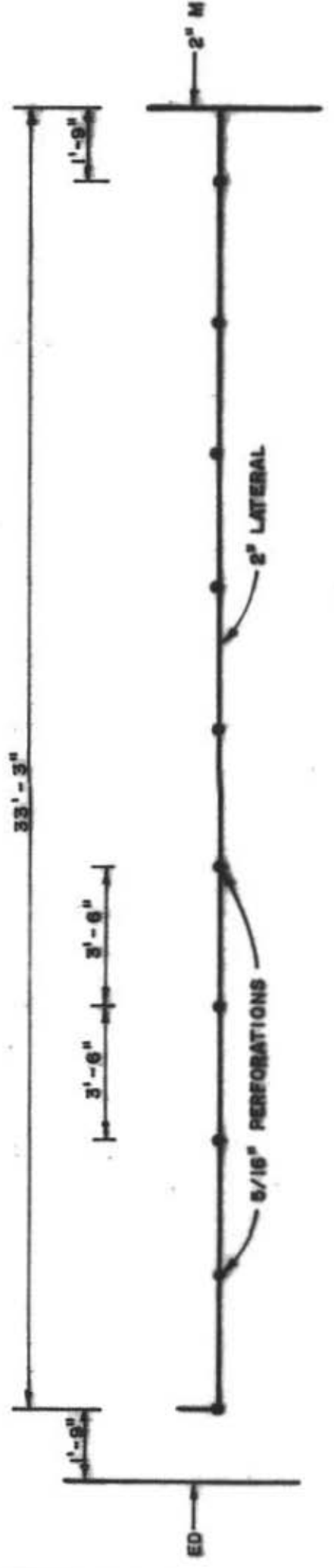
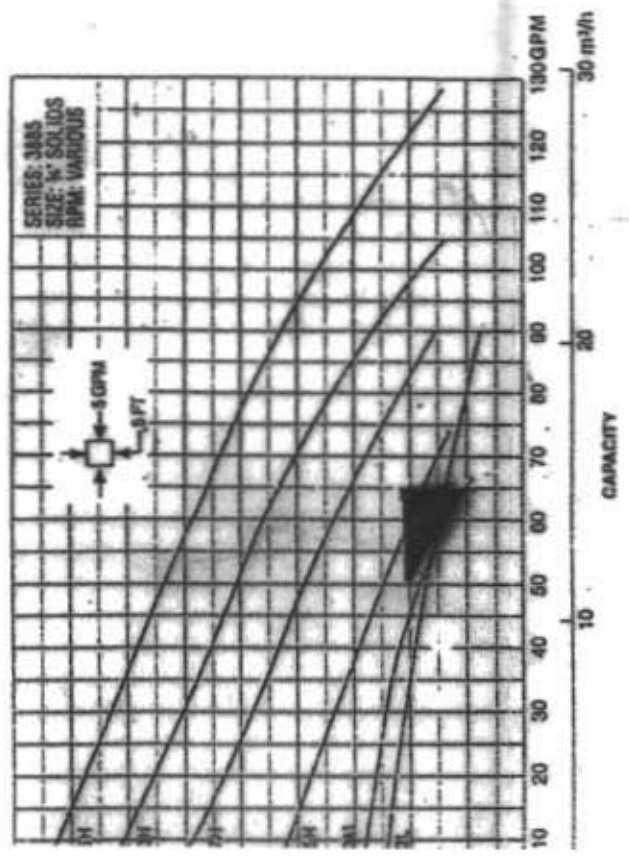
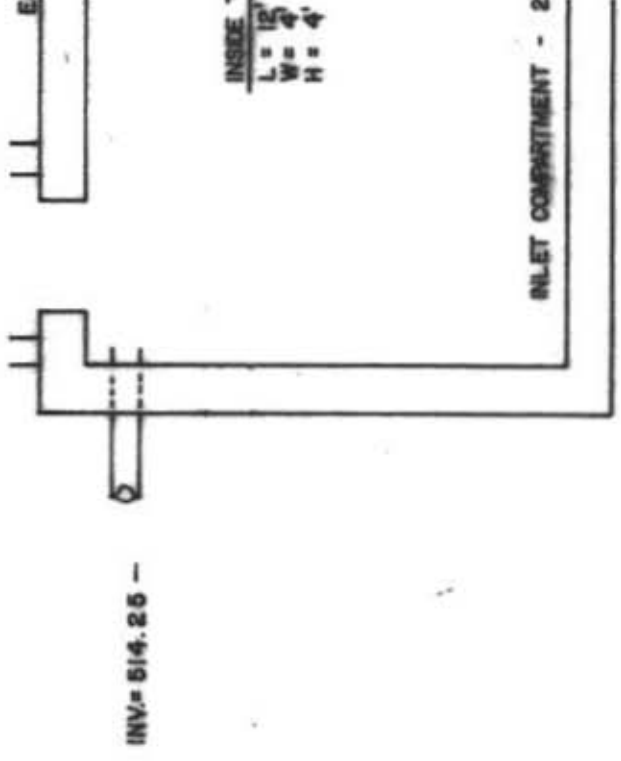


Howard County

M A R Y L A N D

By:
Office:
Map Width: 910.00 ft.
Print Date: 1/16/2009
Scale: 1 in. = 100 ft.

Stone bed to be 1/2" to 2 1/2" clean gravel. Crushed lime stone is not acceptable.
 Septic tank to be altered for installation of a Model AX-20 Oranco Systems Unit, installed as per manufactures directions.



LATERAL DETAIL

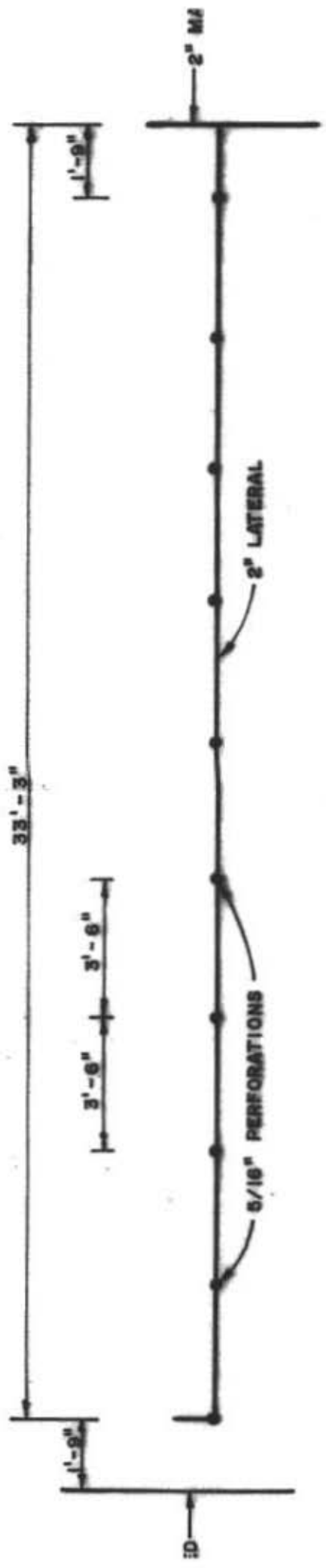
Stone bed to be 1/2" to 2 1/2" clean gravel. Crushed lime stone is not acceptable.
 Septic tank to be altered for installation of a Model AX-20 Onco Systems Unit, installed as per manufactures directions.



INSIDE T
 L = 12'
 W = 4'
 H = 4'

INLET COMPARTMENT - 2/

INV. = 514.25 -



LATERAL DETAIL