

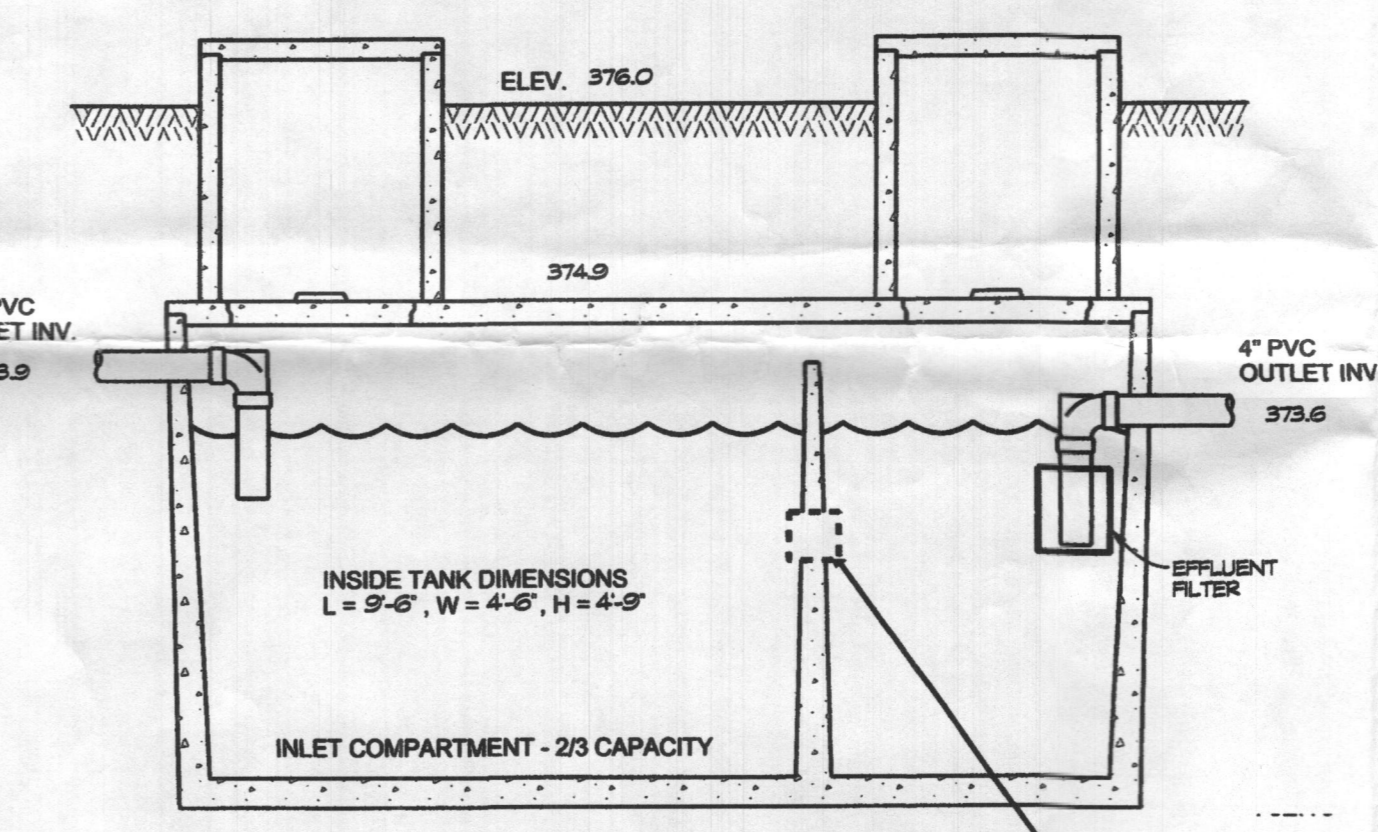
SEPTIC SYSTEM TRENCH DESIGN:

EXISTING HOUSE - 4 BEDROOMS
 PROPOSED ADDITION - 1 BEDROOM
 TOTAL BEDROOMS - 5
INITIAL SYSTEM:
 ASSUME APPLICATION RATE = 0.8 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 5'
 TRENCH WIDTH = 2'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 0.8 GAL./DAY/SQ. FT. = 937.5 USE 938 SQ. FT.
 938 SQ. FT. / 2 = 469 L.F.
 469 L.F. x .31 = 145.39 USE 146 L.F. OF DEEP TRENCH
 98 L.F. = 98' OF EXISTING TRENCH
 ADDITIONAL TRENCH = 48 L.F.
REPLACEMENT SYSTEM #1 & #2:
 ASSUME APPLICATION RATE = 1.2 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 6'
 TRENCH WIDTH = 3'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 1.2 GAL./DAY/SQ. FT. = 625 USE 625 SQ. FT.
 625 SQ. FT. / 3 = 208.33 USE 209 L.F.
 209 L.F. x .31 = 64.79 USE 65 L.F. OF DEEP TRENCH

GENERAL NOTES

- CURRENT TITLE REFERENCE:
OWNER: PRESTON J. TALKULIS
DEED REFERENCE: L 13652, F. 245
DATE: DECEMBER 14, 2011
GRANTOR: PRESTON J. TALKULIS
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT. THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY 200' SCALE TOPO MAPS AND VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. TOPOGRAPHY OF THE SEWAGE DISPOSAL AREA WAS FIELD VERIFIED BY CLSI.
- EXISTING WELLS AND/OR SEWER DISPOSAL AREA WITHIN 100' OF THE LOT LINES HAVE BEEN SHOWN. THERE ARE NO WELLS 200' DOWN GRADIENT OF THE SEPTIC DISPOSAL AREA SHOWN. ANY CHANGES TO THE PRIVATE SEWER DISPOSAL AREA AND/OR ALTERNATIVE WELL LOCATION SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- ALL STORM-WATER MANAGEMENT DEVICES WILL MEET HOWARD COUNTY SETBACKS TO ALL WELL SITES AND ON-SITE DISPOSAL SYSTEMS.
- THE BOUNDARY SHOWN HEREON IS FROM PLAT TITLED MAP OF RESUBDIVISION OF LOT NO. 7 OF ALBIN F. AND SARAH E. PAYNE PROPERTY AND RECORDED IN PLAT BOOK: 6 PAGE: 69 NO BOUNDARY SURVEYS WERE PERFORMED NOR CERTIFIED BY CLSI.
- EX. WELL ON SITE HAS NO TAG NUMBER. THE WELL HAS BEEN FIELD LOCATED BY CLSI FEBRUARY 2021 AND IS ACCURATELY LOCATED.
- THIS PLAN IS A BENEFIT TO THE CUSTOMER ONLY INsofar AS IT IS REQUIRED BY HOWARD COUNTY FOR THE PURPOSE OF THE APPROVAL OF THE PERCOLATION TEST. IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF BOUNDARY, EASEMENT OR RIGHT-OF-WAY LINES FOR ANY REASON, SUCH AS THE LOCATION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDING OR OTHER EXISTING OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS TO PROPERTY LINE ARE TO THE NEAREST FOOT (1) UNLESS OTHERWISE NOTED AND HAS AN ACCURACY OF ±1 FOOT.
- THE CAPACITY OF THE EXISTING SEPTIC SYSTEM COMPONENTS MUST BE UPGRADED AND APPROVED PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE CURRENT BUILDING PERMIT PROPOSAL (B2003859). AN ON-SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN FOR THE UPGRADE MUST BE APPROVED BY THE HEALTH DEPARTMENT PRIOR TO RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT FOR THE UPGRADE.
- ANY CHANGE TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.

Approved Septic System Plan
 Howard County Health Department
 Replace existing Septic Tank w/1500-gal Septic Tank
 Install Distribution Box at existing trench
 Add 48 feet of new trench
 Signature: [Signature] Date: 3/18/2022



**TOP SEAM
 1500 GAL SEPTIC TANK**
 (NOT TO SCALE)

NOTE:
 SLOT IS 2" HIGH BY 4" LONG
 IN CENTER OF LIQUID DEPTH

NOTE:
 THE SEPTIC TANK RISERS TO
 TERMINATE AT LEAST 6" ABOVE
 FINAL GRADE.

DATA TABULATIONS

- ZONING DISTRICT: RR-DEO
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF LOT: 1.742 ACRES

OWNER
 PRESTON TALKULIS
 8425 MURPHY ROAD
 LAUREL, MD 20723

DEVELOPER
 THE GROUND UP CONTRACTORS
 6036 DUCKEYS RUN ROAD
 ELKRIDGE, MD 21075

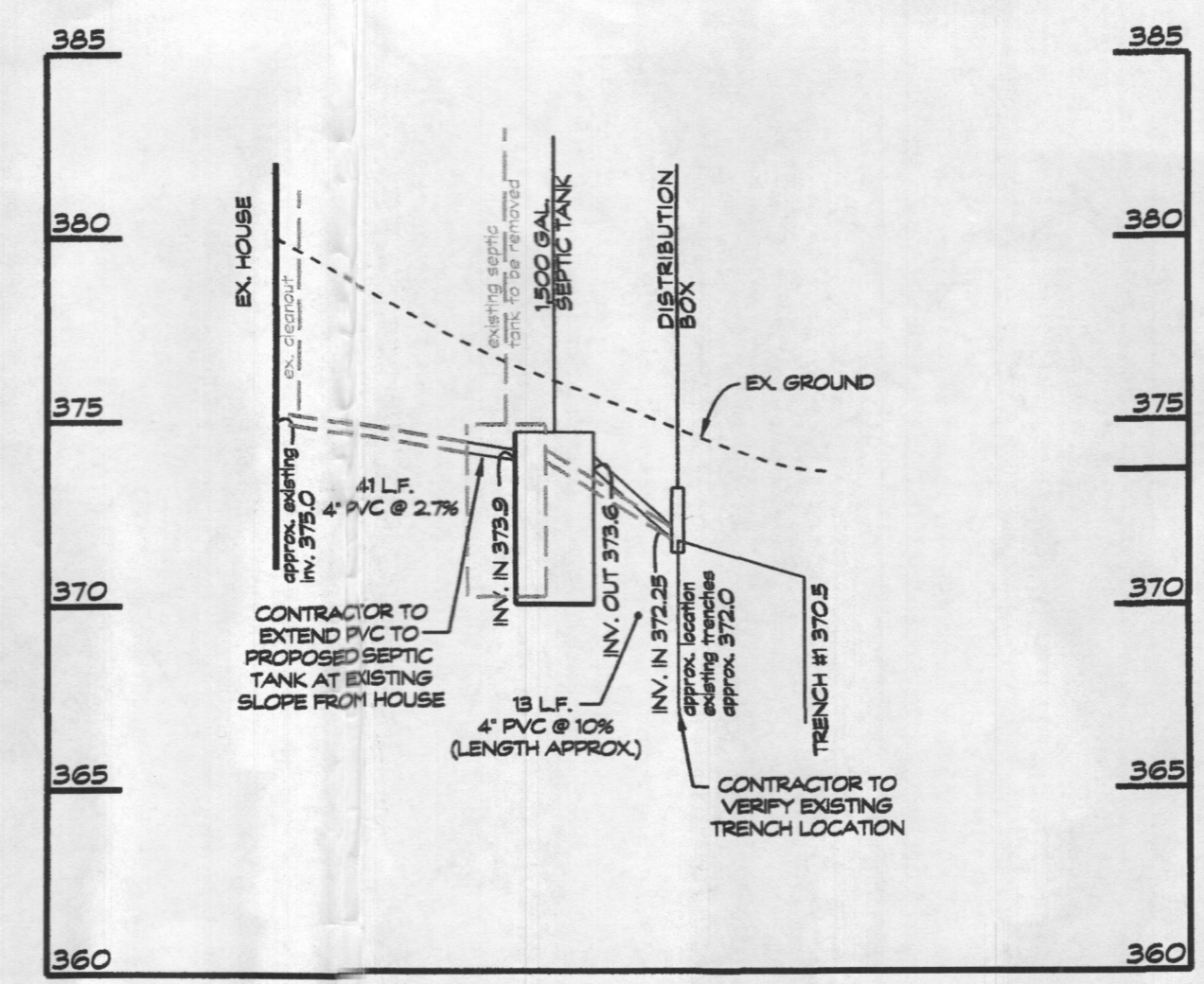
**ONSITE SEWAGE DISPOSAL
 SYSTEM DESIGN PLAN**
8425 MURPHY ROAD
 PLAT BOOK: 6 PAGE: 69
 LIBER 13652, FOLIO 245
 TAX MAP: 46 * BLOCK: 8 * PARCEL: 19
 5th ELECTION DISTRICT * HOWARD COUNTY, MD



439 East Main Street Westminster, MD 21157-5539
 (410) 848-1790 FAX (410) 848-1791

[Signature]
 Linda Alexander
 Licensed Professional

Date	Revisions	Drawn By: BH
3/10/22	REV'D PER COMMENTS IN EMAILED DATED MARCH 8, 2022	Designed By: LDA, BH
		Reviewed By:
		Date: MARCH 2022
		Scale: 1" = 30'
		Job No.: 2020321
		Sheet: 1 OF 1



SEPTIC LINE PROFILE
 SCALE: HORIZ. 1" = 30'
 VERT. 1" = 5'

TRENCH CHART

TRENCH	EXISTING GROUND	INVERT ELEV.	BOTTOM TRENCH
existing trenches	375.0	372.0	367.0
1	373.5	370.5	365.5

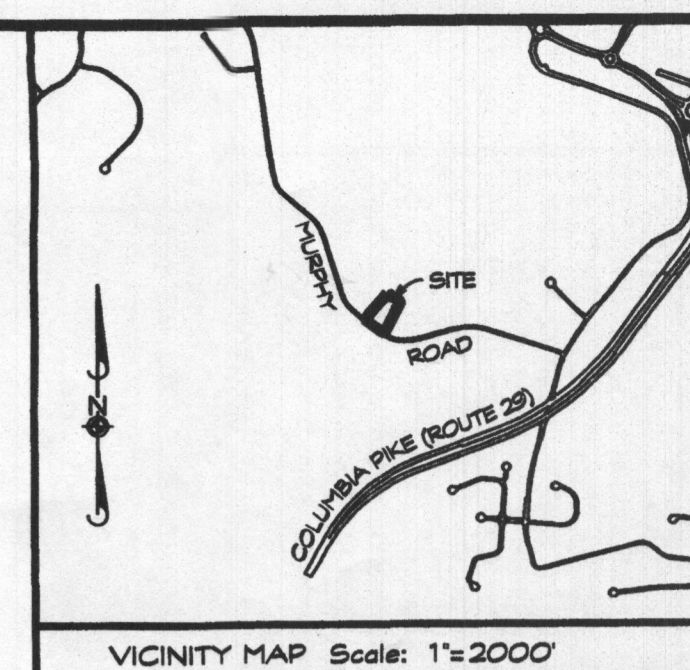
NOTE:
 A WATER SAMPLE OBTAINED AT THE SUBJECT PROPERTY ON APRIL 6, 2021 BY A PRIVATE LABORATORY HAD AN ELEVATED NITRATE ANALYSIS. POINT OF USE TREATMENT (I. E. REVERSE OSMOSIS) WILL BE REQUIRED IN BOTH THE RESIDENCE AND IN THE PROPOSED ACCESSORY APARTMENT. THE TREATMENT SYSTEM FOR THE RESIDENCE MUST BE INSTALLED PRIOR TO BUILDING PERMIT APPROVAL AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L. THE REVERSE OSMOSIS TREATMENT FOR THE ACCESSORY APARTMENT MUST BE INSTALLED PRIOR TO FINAL INSPECTION AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L.

SOILS LEGEND

SOL SYMBOL	SOL SERIES	SOL HSG	ERODIBLE (K-FACTOR <35)	HYDRIC
Mac	MANOR LOAM	B	-	-

LEGEND

- EX 10' CONTOUR
- EX 2' CONTOUR
- SWALE
- EXISTING FENCE
- FAILED PERC TEST
- PASSED PERC TEST
- EXISTING WELL LOCATION
- SOIL LINES
- SLOPES > 2.5%



SEPTIC SYSTEM TRENCH DESIGN:

EXISTING HOUSE - 4 BEDROOMS
 PROPOSED ADDITION - 1 BEDROOM
 TOTAL BEDROOMS - 5
INITIAL SYSTEM:
 ASSUME APPLICATION RATE = 0.8 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 5'
 TRENCH WIDTH = 2'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 0.8 GAL./DAY/SQ. FT. = 937.5 USE 938 SQ. FT.
 938 SQ. FT. / 2 = 469 L.F.
 469 L.F. x .31 = 145.39 USE 146 L.F. OF DEEP TRENCH
 98 L.F. = 98' OF EXISTING TRENCH
 ADDITIONAL TRENCH = 48 L.F.
REPLACEMENT SYSTEM #1 & #2:
 ASSUME APPLICATION RATE = 1.2 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 6'
 TRENCH WIDTH = 3'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 1.2 GAL./DAY/SQ. FT. = 625 USE 625 SQ. FT.
 625 SQ. FT. / 3 = 208.33 USE 209 L.F.
 209 L.F. x .31 = 64.79 USE 65 L.F. OF DEEP TRENCH

Approved Septic System Plan
 Howard County Health Department
 Replace existing septic tank w/ 1500-gal septic tank
 Install Distribution Box at existing trench
 Add 48 feet of new trench
 [Signature] 3/18/2022
 Date

GENERAL NOTES

- CURRENT TITLE REFERENCE:
 OWNER: PRESTON J. TALKULIS
 DEED REFERENCE: L 13652, F. 245
 DATE: DECEMBER 14, 2011
 GRANTOR: PRESTON J. TALKULIS
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY 200' SCALE TOPO MAPS AND VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. TOPOGRAPHY OF THE SEWAGE DISPOSAL AREA WAS FIELD VERIFIED BY CLSI.
- EXISTING WELLS AND/OR SEWER DISPOSAL AREA WITHIN 100' OF THE LOT LINES HAVE BEEN SHOWN. THERE ARE NO WELLS 200' DOWN GRADIENT OF THE SEPTIC DISPOSAL AREA SHOWN. ANY CHANGES TO THE PRIVATE SEWER DISPOSAL AREA AND/OR ALTERNATIVE WELL LOCATION SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- ALL STORMWATER MANAGEMENT DEVICES WILL MEET HOWARD COUNTY SETBACKS TO ALL WELL SITES AND ON-SITE DISPOSAL SYSTEMS.
- THE BOUNDARY SHOWN HEREON IS FROM PLAT TITLED MAP OF RESUBDIVISION OF LOT NO. 7 OF ALBIN F. AND SARAH E. PAYNE PROPERTY AND RECORDED IN PLAT BOOK: 6 PAGE: 69. NO BOUNDARY SURVEYS WERE PERFORMED NOR CERTIFIED BY CLSI.
- EX WELL ON SITE HAS NO TAG NUMBER. THE WELL HAS BEEN FIELD LOCATED BY CLSI FEBRUARY 2021 AND IS ACCURATELY LOCATED.
- THIS PLAN IS A BENEFIT TO THE CUSTOMER ONLY INsofar AS IT IS REQUIRED BY HOWARD COUNTY FOR THE PURPOSE OF THE APPROVAL OF THE PERCOLATION TEST. IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF BOUNDARY, EASEMENT OR RIGHT-OF-WAY LINES FOR ANY REASON, SUCH AS THE LOCATION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDING OR OTHER EXISTING OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS TO PROPERTY LINE ARE TO THE NEAREST FOOT (1) UNLESS OTHERWISE NOTED AND HAS AN ACCURACY OF ± 1 FOOT.
- THE CAPACITY OF THE EXISTING SEPTIC SYSTEM COMPONENTS MUST BE UPGRADED AND APPROVED PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE CURRENT BUILDING PERMIT PROPOSAL (B 20003859). AN ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN FOR THE UPGRADE MUST BE APPROVED BY THE HEALTH DEPARTMENT PRIOR TO RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT FOR THE UPGRADE.
- ANY CHANGE TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.

DATA TABULATIONS

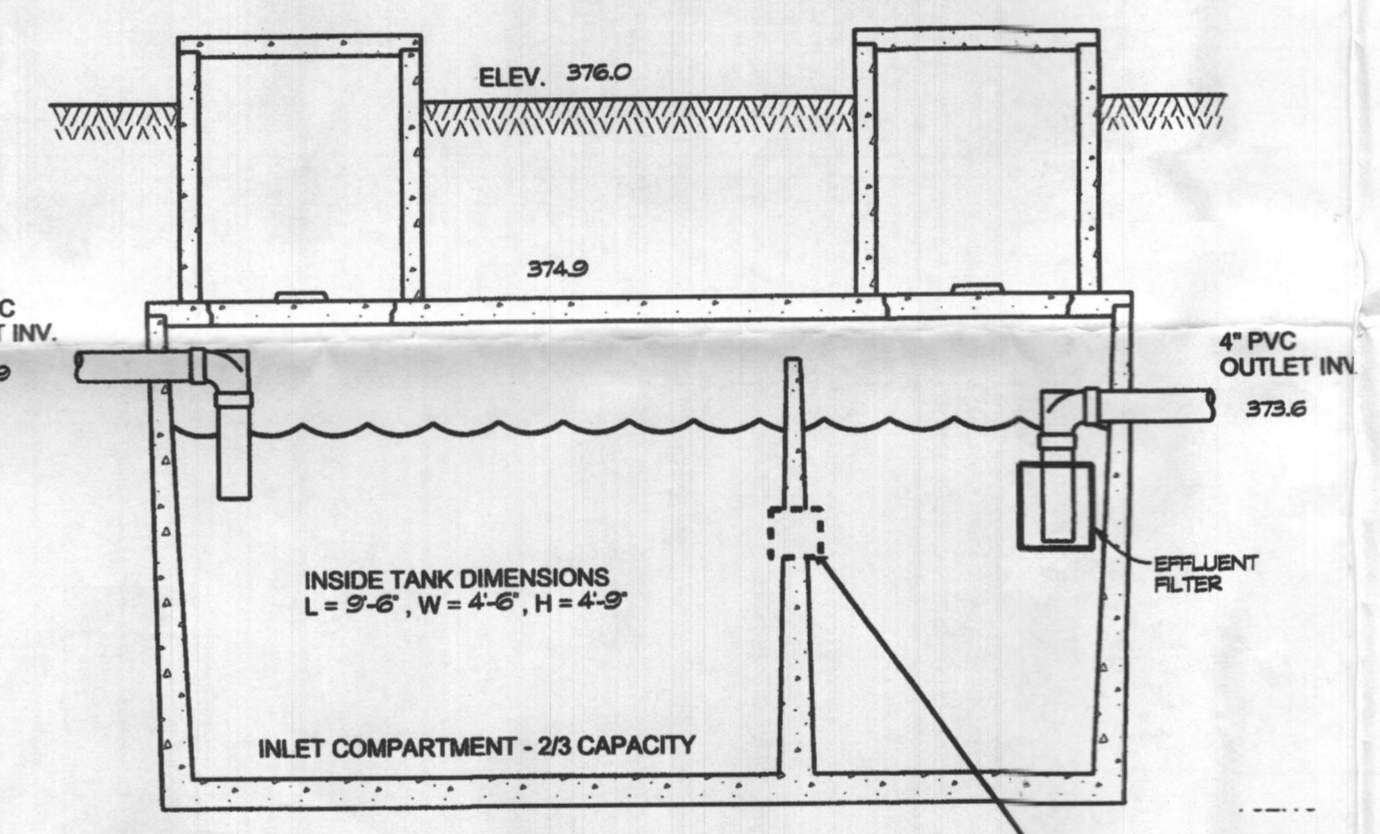
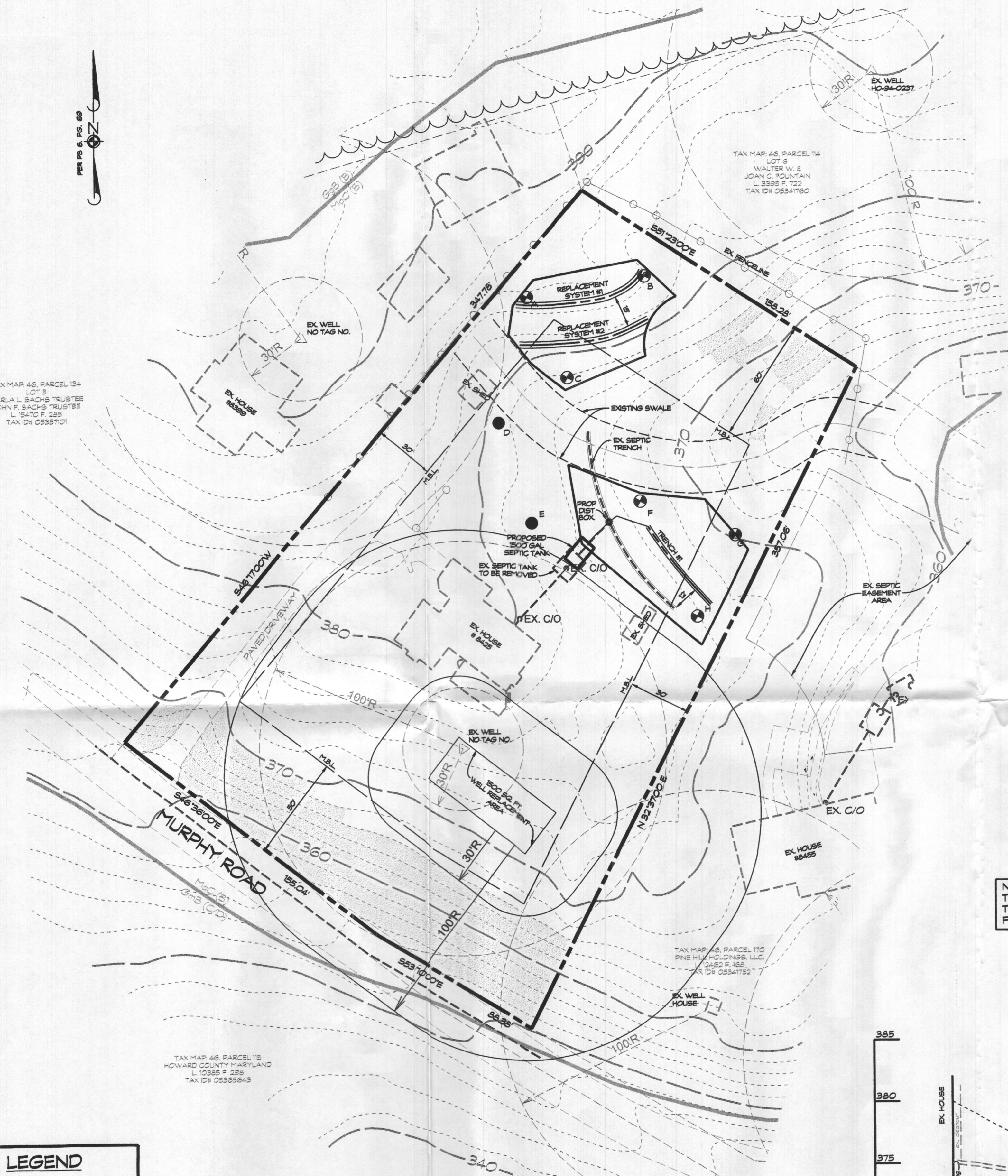
- ZONING DISTRICT: RR-DEO
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF LOT: 1.74 ± ACRES

TAX MAP 46, PARCEL 134
 LOT 3
 MARLA L. BACHS TRUSTEE
 JOHN F. BACHS TRUSTEE
 L 15470 F. 285
 TAX ID# 0535701

TAX MAP 46, PARCEL 115
 HOWARD COUNTY MARYLAND
 L 13652 F. 245
 TAX ID# 0535543

TAX MAP 46, PARCEL 114
 LOT 6
 WALTER W. &
 JOANIC MOUNTAIN
 L 3598 F. 723
 TAX ID# 0534780

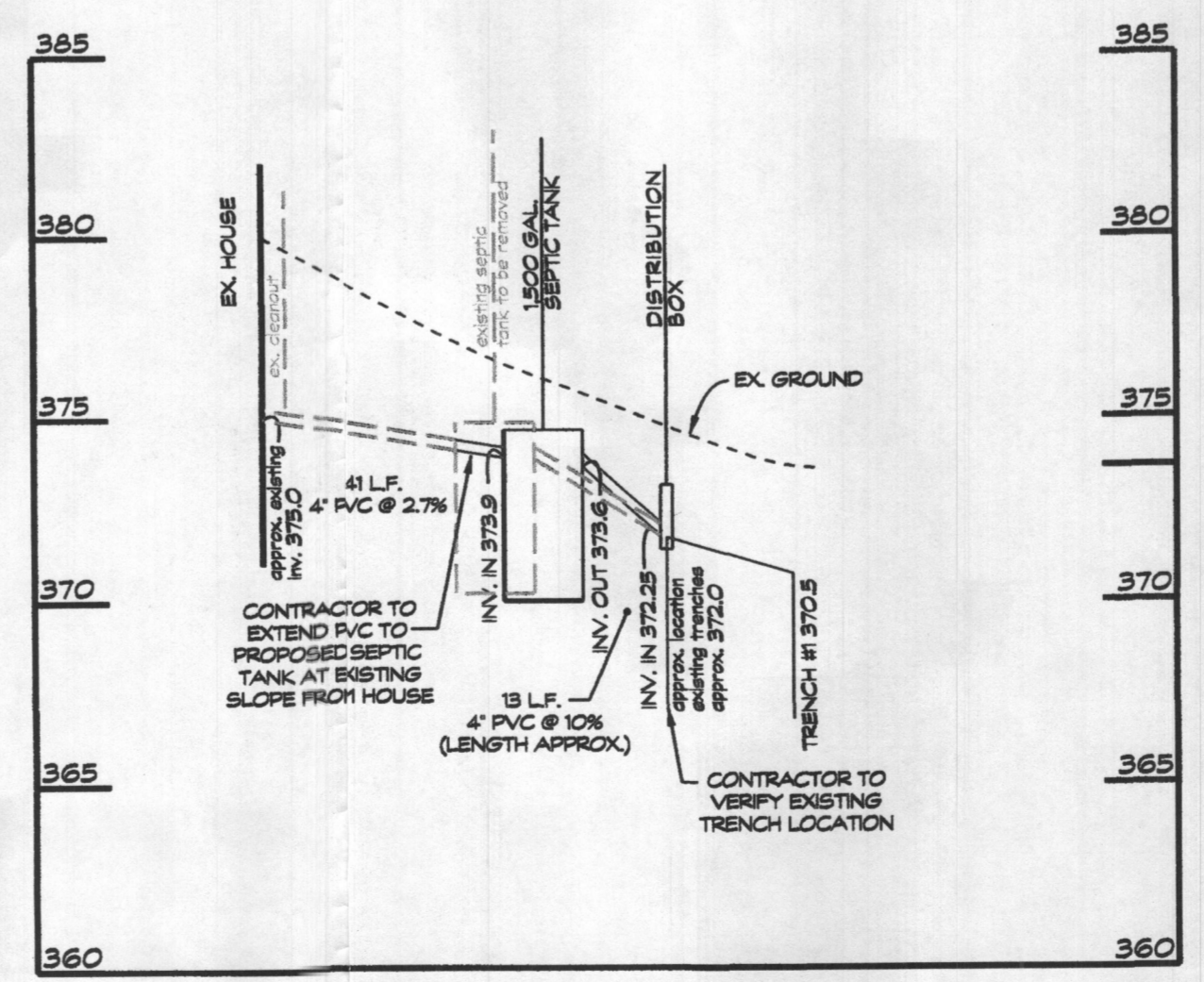
TAX MAP 46, PARCEL 170
 PINE HILL HOLDINGS, LLC
 L 13652 F. 245
 TAX ID# 0534782



**TOP SEAM
 1500 GAL SEPTIC TANK**
 (NOT TO SCALE)

NOTE:
 THE SEPTIC TANK RISERS TO
 TERMINATE AT LEAST 6" ABOVE
 FINAL GRADE.

NOTE:
 SLOT IS 2" HIGH BY 4" LONG
 IN CENTER OF LIQUID DEPTH



SEPTIC LINE PROFILE
 SCALE: HORIZ. 1" = 30'
 VERT. 1" = 5'

TRENCH CHART

TRENCH	EXISTING GROUND	INVERT ELEV.	BOTTOM TRENCH
existing trenches	375.0	372.0	367.0
1	373.5	370.5	365.5

NOTE:
 A WATER SAMPLE OBTAINED AT THE SUBJECT PROPERTY ON APRIL 6, 2021 BY A PRIVATE LABORATORY HAD AN ELEVATED NITRATE ANALYSIS. POINT OF USE TREATMENT (I. E., REVERSE OSMOSIS) WILL BE REQUIRED IN BOTH THE RESIDENCE AND IN THE PROPOSED ACCESSORY APARTMENT. THE TREATMENT SYSTEM FOR THE RESIDENCE MUST BE INSTALLED PRIOR TO BUILDING PERMIT APPROVAL AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L. THE REVERSE OSMOSIS TREATMENT FOR THE ACCESSORY APARTMENT MUST BE INSTALLED PRIOR TO FINAL INSPECTION AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L.

SOILS LEGEND

SOL SYMBOL	SOIL SERIES	SOIL HSG	PERCOLATION (K-FACTOR) (3)	HYDRIC
Mac	MANOR LOAM	B	-	-

LEGEND

- 560 EX 10 CONTOUR
- 570 EX 2 CONTOUR
- SWALE
- EXISTING FENCE
- FAILED PERC TEST
- PASSED PERC TEST
- EXISTING WELL LOCATION
- SOIL LINES
- SLOPES > 25%

OWNER
 PRESTON TALKULIS
 8425 MURPHY ROAD
 LAUREL, MD 20723

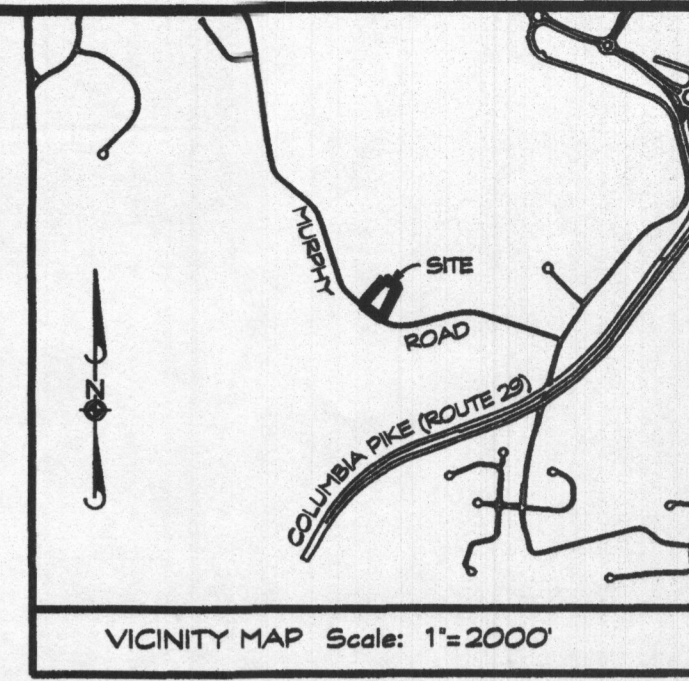
DEVELOPER
 THE GROUND UP CONTRACTORS
 6036 DUCKEYS RUN ROAD
 ELKRIDGE, MD 21075

**ONSITE SEWAGE DISPOSAL
 SYSTEM DESIGN PLAN**
8425 MURPHY ROAD
 PLAT BOOK: 6 PAGE: 69
 LIBER 13652, FOLIO 245
 TAX MAP: 46 • BLOCK: 8 • PARCEL: 19
 5th ELECTION DISTRICT • HOWARD COUNTY, MD

CLSI
 Engineers - Surveyors
 Land Planning & Environmental Consultants
 www.clsi-challeng.com

439 East Main Street Westminster, MD 21157-5539
 (410) 848-1790 FAX (410) 848-1791

Date	Revisions	Drawn By: BH
3/10/22	REV'D PER COMMENTS IN EMAILED DATED MARCH 8, 2022	Designed By: LDA, BH
		Reviewed By:
		Date: MARCH 2022
		Scale: 1" = 30'
		Job No.: 2020321
		Sheet: 1 OF 1



SEPTIC SYSTEM TRENCH DESIGN:

EXISTING HOUSE - 4 BEDROOMS
 PROPOSED ADDITION - 1 BEDROOM
 TOTAL BEDROOMS - 5

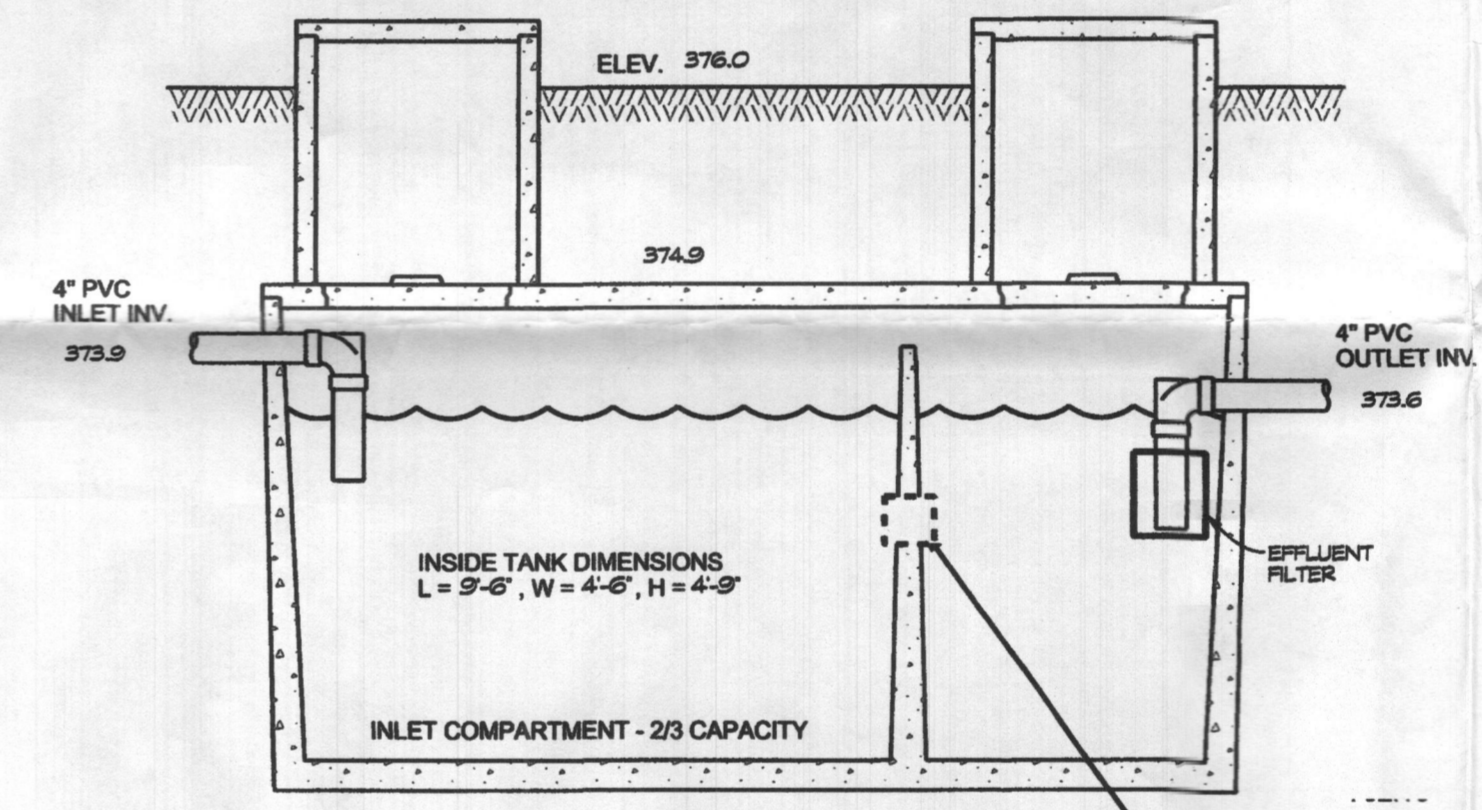
INITIAL SYSTEM:
 ASSUME APPLICATION RATE = 0.8 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 5'
 TRENCH WIDTH = 2'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 0.8 GAL / DAY/SQ. FT. = 937.5 USE 936 SQ. FT.
 936 SQ. FT. / 2 = 469 L.F.
 469 L.F. x .31 = 145.39 USE 146 L.F. OF DEEP TRENCH
 98 L.F. = 98' OF EXISTING TRENCH
 ADDITIONAL TRENCH = 48 L.F.

REPLACEMENT SYSTEM #1 & #2:
 ASSUME APPLICATION RATE = 1.2 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 6'
 TRENCH WIDTH = 3'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 1.2 GAL / DAY/SQ. FT. = 625 USE 625 SQ. FT.
 625 SQ. FT. / 3 = 208.33 USE 209 L.F.
 209 L.F. x .31 = 64.79 USE 65 L.F. OF DEEP TRENCH

Approved Septic System Plan
 Howard County Health Department
 Replace existing Septic Tank of 1500 gal, two-chamber tank
 Install Distribution Box & 48 feet new trench
 [Signature] 3/18/2022
 [Signature] Date

GENERAL NOTES

- CURRENT TITLE REFERENCE:
 OWNER: PRESTON J. TALKULIS
 DEED REFERENCE: L 19652, F. 245
 DATE: DECEMBER 14, 2011
 GRANTOR: PRESTON J. TALKULIS
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY 200' SCALE TOPO MAPS AND VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. TOPOGRAPHY OF THE SEWAGE DISPOSAL AREA WAS FIELD VERIFIED BY CLSI.
- EXISTING WELLS AND/OR SEWER DISPOSAL AREA WITHIN 100' OF THE LOT LINES HAVE BEEN SHOWN. THERE ARE NO WELLS 200' DOWN GRADIENT OF THE SEPTIC DISPOSAL AREA SHOWN.
- ANY CHANGES TO THE PRIVATE SEWER DISPOSAL AREA AND/OR ALTERNATIVE WELL LOCATION SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- ALL STORMWATER MANAGEMENT DEVICES WILL MEET HOWARD COUNTY SETBACKS TO ALL WELL SITES AND ON-SITE DISPOSAL SYSTEMS.
- THE BOUNDARY SHOWN HEREON IS FROM PLAT TITLED MAP OF RESUBDIVISION OF LOT NO. 7 OF ALBIN F. AND SARAH E. PAYNE PROPERTY AND RECORDED IN PLAT BOOK: PAGE 69. NO BOUNDARY SURVEYS WERE PERFORMED NOR CERTIFIED BY CLSI.
- EX. WELL ON SITE HAS NO TAG NUMBER. THE WELL HAS BEEN FIELD LOCATED BY CLSI FEBRUARY 2021 AND IS ACCURATELY LOCATED.
- THIS PLAN IS A BENEFIT TO THE CUSTOMER ONLY INsofar AS IT IS REQUIRED BY HOWARD COUNTY FOR THE PURPOSE OF THE APPROVAL OF THE PERCOLATION TEST. IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF BOUNDARY, EASEMENT OR RIGHT-OF-WAY LINES FOR ANY REASON, SUCH AS THE LOCATION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDING OR OTHER EXISTING OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS TO PROPERTY LINE ARE TO THE NEAREST FOOT (1) UNLESS OTHERWISE NOTED AND HAS AN ACCURACY OF ± 1 FOOT.
- THE CAPACITY OF THE EXISTING SEPTIC SYSTEM COMPONENTS MUST BE UPGRADED AND APPROVED PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE CURRENT BUILDING PERMIT PROPOSAL (B200038559). AN ONSITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN FOR THE UPGRADE MUST BE APPROVED BY THE HEALTH DEPARTMENT PRIOR TO RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT FOR THE UPGRADE.
- ANY CHANGE TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.



NOTE:
 THE SEPTIC TANK RISERS TO TERMINATE AT LEAST 6" ABOVE FINAL GRADE.

**TOP SEAM
 1500 GAL SEPTIC TANK**
 (NOT TO SCALE)

NOTE:
 SLOT IS 2" HIGH BY 4" LONG IN CENTER OF LIQUID DEPTH

DATA TABULATIONS

- ZONING DISTRICT: RR-DEO
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF LOT: 1.74± ACRES

OWNER
 PRESTON TALKULIS
 8425 MURPHY ROAD
 LAUREL, MD 20723

DEVELOPER
 THE GROUND UP CONTRACTORS
 6036 DUCKEYS RUN ROAD
 ELK RIDGE, MD 21075

**ONSITE SEWAGE DISPOSAL
 SYSTEM DESIGN PLAN**
 8425 MURPHY ROAD
 PLAT BOOK: 6 PAGE: 69
 LIBER 19652, FOLIO 245
 TAX MAP: 46 * BLOCK: 8 * PARCEL: 19
 5th ELECTION DISTRICT * HOWARD COUNTY, MD



439 East Main Street Westminster, MD 21157-5539
 (410) 848-1790 FAX (410) 848-1791

[Signature]
 Linda Alexander
 Licensed Professional

Date	Revisions	Drawn By: BH
3/10/22	REV'D PER COMMENTS IN E-MAILED DATED MARCH 8, 2022	Designed By: LDA, BH
		Reviewed By:
		Date: MARCH 2022
		Scale: 1" = 30'
		Job No.: 2020321
		Sheet: 1 OF 1

TAX MAP 46, PARCEL 194
 LOT 3
 MARLA L. BACHS TRUSTEE
 JOHN F. BACHS TRUSTEE
 L 19470 F. 255
 TAX ID# 0353701

TAX MAP 46, PARCEL 14
 LOT 6
 WALTER W. E.
 JOAN C. FOUNTAIN
 L 3385 F. 722
 TAX ID# 03541780

TAX MAP 46, PARCEL 170
 PINE W. HOLDINGS, LLC
 L 2452 F. 156
 TAX ID# 03541782

TAX MAP 46, PARCEL 15
 HOWARD COUNTY LAND
 L 10355 F. 238
 TAX ID# 03536645

LEGEND

- EX 10' CONTOUR
- EX 2' CONTOUR
- SWALE
- EXISTING FENCE
- FAILED PERC TEST
- PASSED PERC TEST
- EXISTING WELL LOCATION
- SOL LINES
- SLOPES > 25%

NOTE:

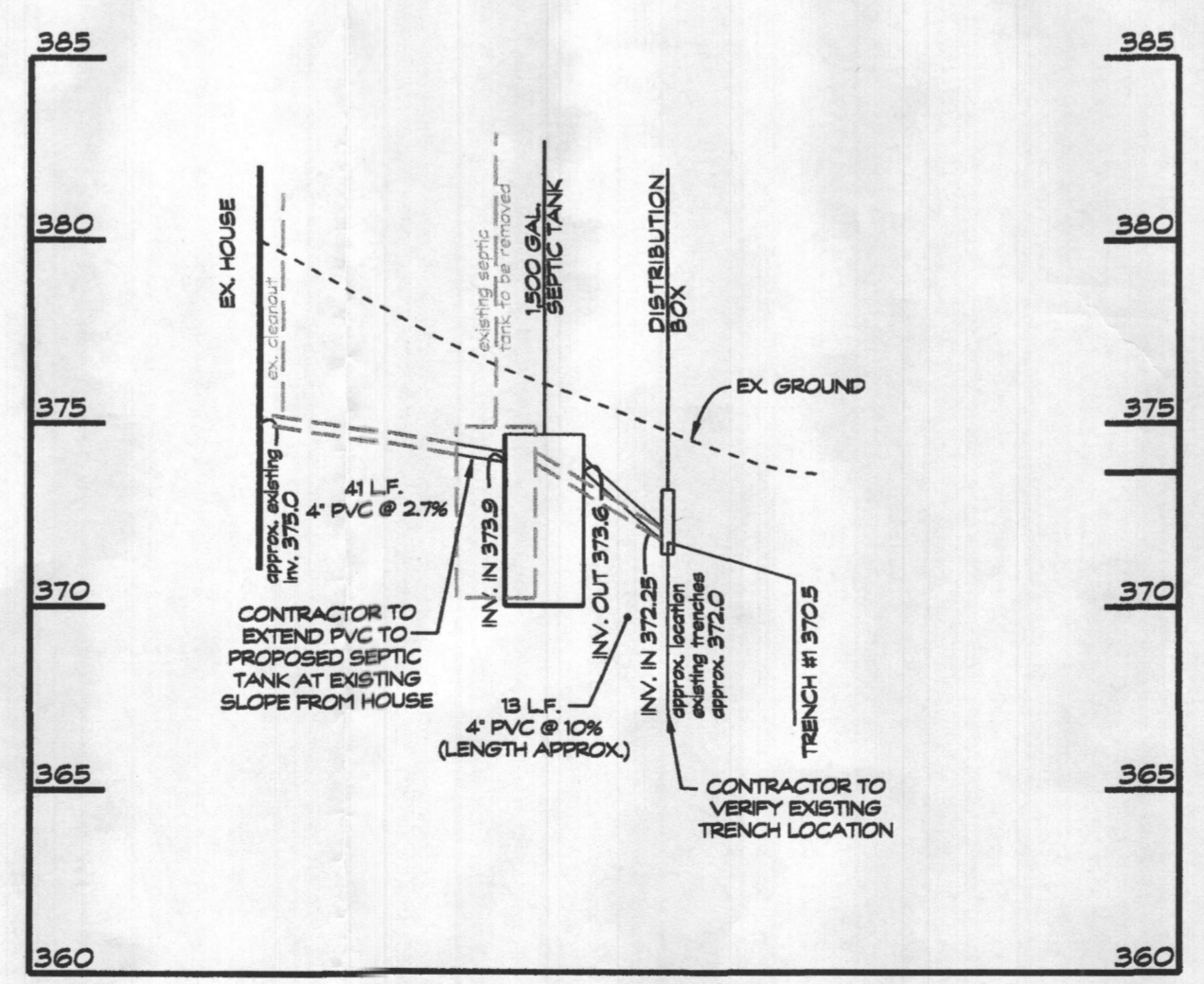
A WATER SAMPLE OBTAINED AT THE SUBJECT PROPERTY ON APRIL 6, 2021 BY A PRIVATE LABORATORY HAD AN ELEVATED NITRATE ANALYSIS. POINT OF USE TREATMENT (I. E., REVERSE OSMOSIS) WILL BE REQUIRED IN BOTH THE RESIDENCE AND IN THE PROPOSED ACCESSORY APARTMENT. THE TREATMENT SYSTEM FOR THE RESIDENCE MUST BE INSTALLED PRIOR TO BUILDING PERMIT APPROVAL AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L. THE REVERSE OSMOSIS TREATMENT FOR THE ACCESSORY APARTMENT MUST BE INSTALLED PRIOR TO FINAL INSPECTION AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L.

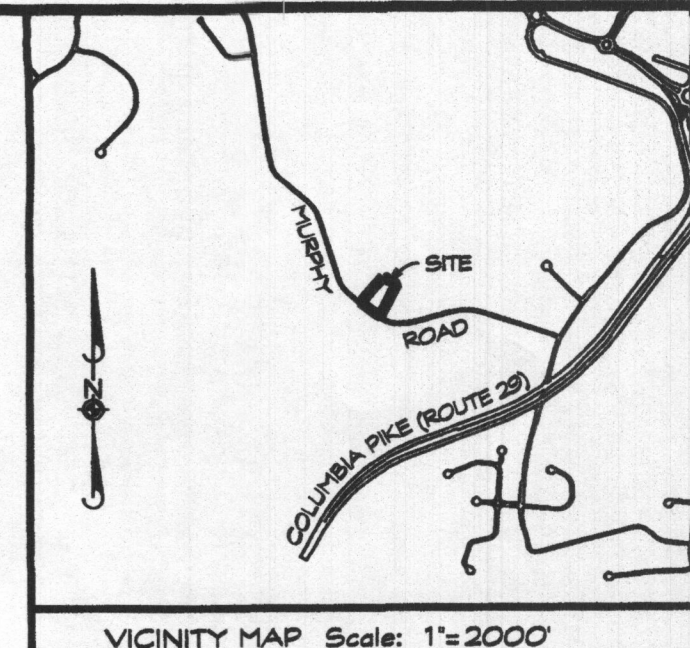
SOILS LEGEND

SOIL SYMBOL	SOIL SERIES	SOIL HSG	ERODIBLE (C-FACTOR %)	HYDRC
Mac	MANOR LOAM	B	-	-

TRENCH CHART

TRENCH	EXISTING GROUND	INVERT ELEV.	BOTTOM TRENCH
existing trenches	375.0	372.0	367.0
1	373.5	370.5	365.5





SEPTIC SYSTEM TRENCH DESIGN:

EXISTING HOUSE - 4 BEDROOMS
 PROPOSED ADDITION - 1 BEDROOM
 TOTAL BEDROOMS - 5

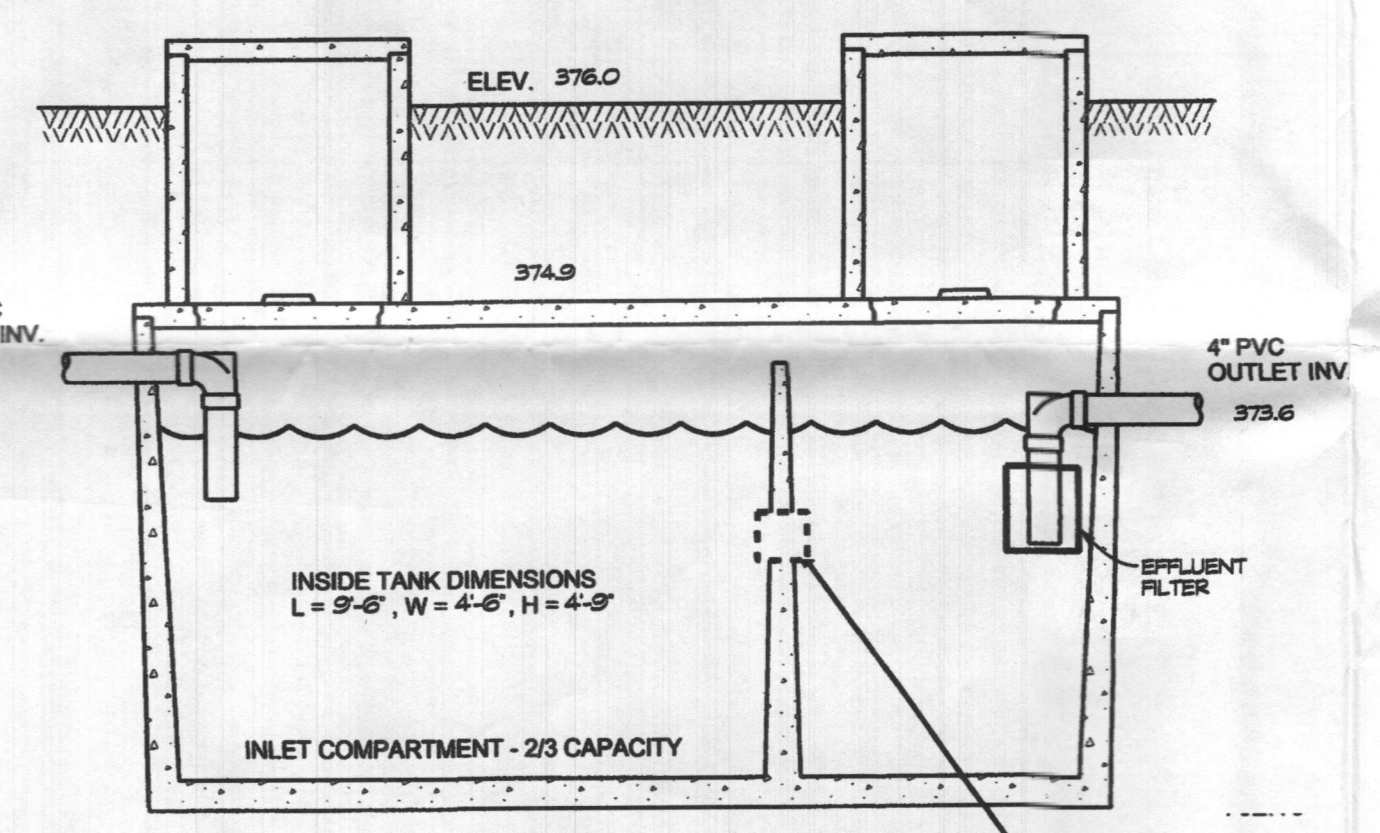
INITIAL SYSTEM:
 ASSUME APPLICATION RATE = 0.8 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 5'
 TRENCH WIDTH = 2'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 0.8 GAL/DAY/SQ. FT. = 937.5 USE 938 SQ. FT.
 938 SQ. FT. / 2 = 469 L.F.
 469 L.F. x .31 = 145.39 USE 146 L.F. OF DEEP TRENCH
 98 L.F. = 98' OF EXISTING TRENCH
 ADDITIONAL TRENCH = 48 L.F.

REPLACEMENT SYSTEM #1 & #2:
 ASSUME APPLICATION RATE = 1.2 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 6'
 TRENCH WIDTH = 3'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 1.2 GAL/DAY/SQ. FT. = 625 USE 625 SQ. FT.
 625 SQ. FT. / 3 = 208.33 USE 209 L.F.
 209 L.F. x .31 = 64.79 USE 65 L.F. OF DEEP TRENCH

GENERAL NOTES

- CURRENT TITLE REFERENCE:
OWNER: PRESTON J. TAUUKULIS
DEED REFERENCE: L. 13652, F. 245
DATE: DECEMBER 14, 2011
GRANTOR: PRESTON J. TAUUKULIS
- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY 200' SCALE TOPO MAPS AND VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. TOPOGRAPHY OF THE SEWAGE DISPOSAL AREA WAS FIELD VERIFIED BY CLSI.
- EXISTING WELLS AND/OR SEWER DISPOSAL AREA WITHIN 100' OF THE LOT LINES HAVE BEEN SHOWN. THERE ARE NO WELLS 200' DOWN GRADIENT OF THE SEPTIC DISPOSAL AREA SHOWN.
- ANY CHANGES TO THE PRIVATE SEWER DISPOSAL AREA AND/OR ALTERNATIVE WELL LOCATION SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
- ALL STORM-WATER MANAGEMENT DEVICES WILL MEET HOWARD COUNTY SETBACKS TO ALL WELL SITES AND ON-SITE DISPOSAL SYSTEMS.
- THE BOUNDARY SHOWN HEREON IS FROM PLAT TITLED MAP OF RESUBDIVISION OF LOT NO. 7 OF ALBIN F. AND SARAH E. PAYNE PROPERTY AND RECORDED IN PLAT BOOK: 6 PAGE: 69 NO BOUNDARY SURVEYS WERE PERFORMED NOR CERTIFIED BY CLSI.
- EX. WELL ON SITE HAS NO TAG NUMBER. THE WELL HAS BEEN FIELD LOCATED BY CLSI FEBRUARY 2021 AND IS ACCURATELY LOCATED.
- THIS PLAN IS A BENEFIT TO THE CUSTOMER ONLY INsofar AS IT IS REQUIRED BY HOWARD COUNTY FOR THE PURPOSE OF THE APPROVAL OF THE PERCOLATION TEST. IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF BOUNDARY, EASEMENT OR RIGHT-OF-WAY LINES FOR ANY REASON, SUCH AS THE LOCATION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS TO PROPERTY LINE ARE TO THE NEAREST FOOT (1) UNLESS OTHERWISE NOTED AND HAS AN ACCURACY OF ±1 FOOT.
- THE CAPACITY OF THE EXISTING SEPTIC SYSTEM COMPONENTS MUST BE UPGRADED AND APPROVED PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE CURRENT BUILDING PERMIT PROPOSAL (B20003859). AN ON-SITE SEWAGE DISPOSAL SYSTEM DESIGN PLAN FOR THE UPGRADE MUST BE APPROVED BY THE HEALTH DEPARTMENT PRIOR TO RELEASE OF THE SEPTIC SYSTEM INSTALLATION PERMIT FOR THE UPGRADE.
- ANY CHANGE TO THE LOCATION OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
- THE MAXIMUM EARTH COVER OVER THE TANK IS 3 FEET. GREATER EARTH COVER WILL REQUIRE A HEAVY LOAD BEARING TANK.

Approved Septic System Plan
 Howard County Health Department
 Replace existing Septic Tank w/ 1500 gal Septic Tank
 Install Dist. Box at existing trench
 add 48 feet of new trench
 Signature: [Signature] Date: 3/10/2022



NOTE:
 THE SEPTIC TANK RISERS TO TERMINATE AT LEAST 6" ABOVE FINAL GRADE.

**TOP SEAM
 1500 GAL SEPTIC TANK**
 (NOT TO SCALE)

NOTE:
 SLOT IS 2" HIGH BY 4" LONG IN CENTER OF LIQUID DEPTH

DATA TABULATIONS

- ZONING DISTRICT: RR-DEO
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF LOT: 1.74± ACRES

OWNER
 PRESTON TAUUKULIS
 8425 MURPHY ROAD
 LAUREL, MD 20723

DEVELOPER
 THE GROUND UP CONTRACTORS
 6036 DUCKEYS RUN ROAD
 ELK RIDGE, MD 21075

**ONSITE SEWAGE DISPOSAL
 SYSTEM DESIGN PLAN**
8425 MURPHY ROAD
 PLAT BOOK: 6 PAGE: 69
 LIBER 13652, FOLIO 245
 TAX MAP: 46 * BLOCK: 8 * PARCEL: 19
 5th ELECTION DISTRICT * HOWARD COUNTY, MD

Engineers - Surveyors
CLSI
 Civil Planning & Environmental Consultants
 www.clsi-civileng.com
 439 East Main Street Westminster, MD 21157-5539
 (410) 848-1790 FAX (410) 848-1791

Date	Revisions	Drawn By:
3/10/22	REV'D PER COMMENTS IN EMAILED DATED MARCH 8, 2022	Designed By: LDA, BH
		Reviewed By:
		Date: MARCH 2022
		Scale: 1" = 30'
		Job No.: 2020321
		Sheet: 1 OF 1

TAX MAP 46, PARCEL 134
 LOT 3
 MARLA L. SACHS TRUSTEE
 JOHN F. SACHS TRUSTEE
 L. 5470 F. 253
 TAX ID# 0383701

TAX MAP 46, PARCEL 14
 LOT 6
 WALTER W. E.
 JOAN G. MOUNTAIN
 L. 3385 F. 722
 TAX ID# 0384780

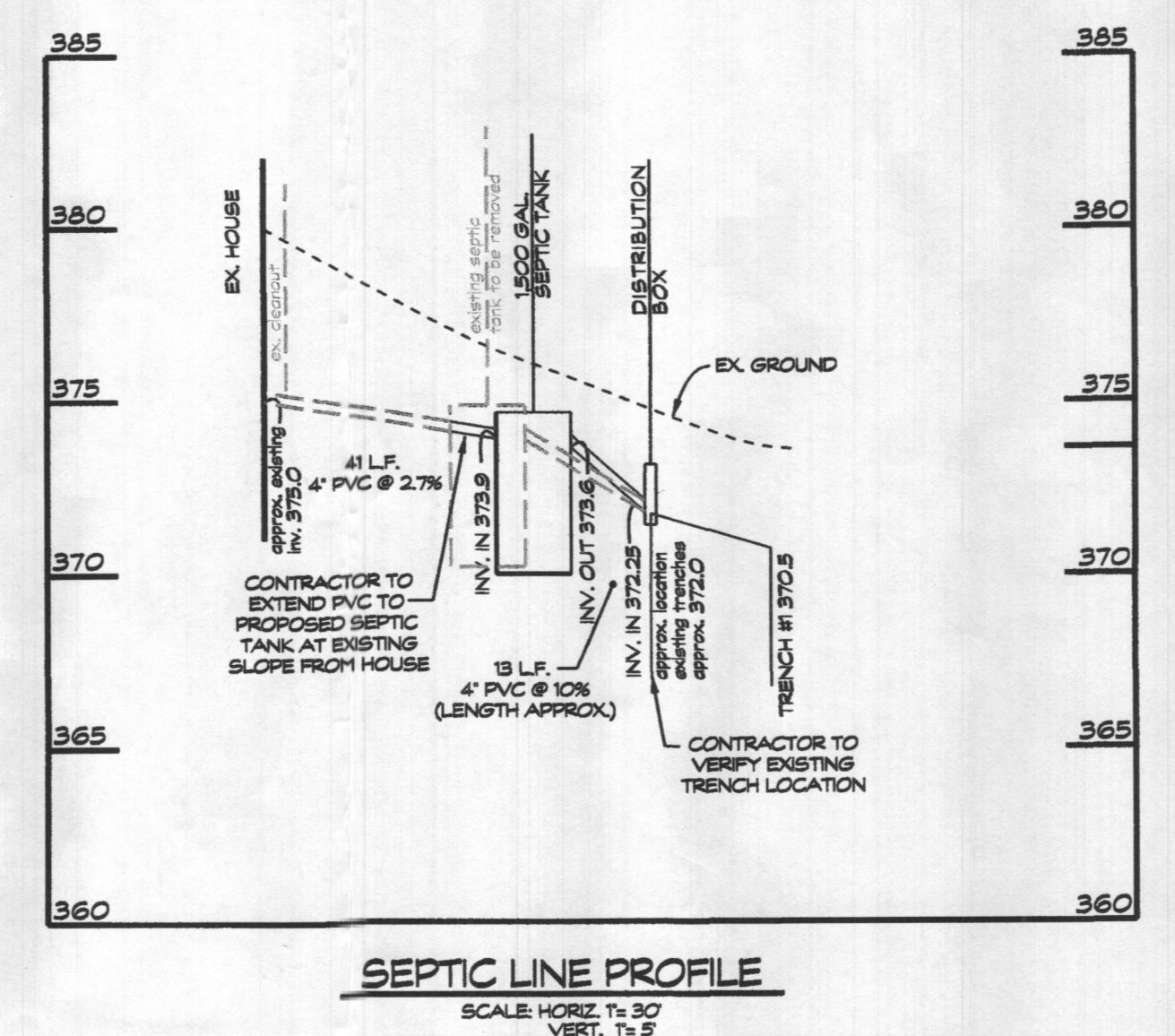
TAX MAP 46, PARCEL 170
 PINE HILL CONDOS, LLC.
 L. 2821 F. 166
 TAX ID# 0384122

TAX MAP 46, PARCEL 15
 HOWARD COUNTY MARYLAND
 L. 0388 F. 238
 TAX ID# 0386643

NOTE:
 A WATER SAMPLE OBTAINED AT THE SUBJECT PROPERTY ON APRIL 6, 2021 BY A PRIVATE LABORATORY HAD AN ELEVATED NITRATE ANALYSIS. POINT OF USE TREATMENT (I. E., REVERSE OSMOSIS) WILL BE REQUIRED IN BOTH THE RESIDENCE AND IN THE PROPOSED ACCESSORY APARTMENT. THE TREATMENT SYSTEM FOR THE RESIDENCE MUST BE INSTALLED PRIOR TO BUILDING PERMIT APPROVAL AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L. THE REVERSE OSMOSIS TREATMENT FOR THE ACCESSORY APARTMENT MUST BE INSTALLED PRIOR TO FINAL INSPECTION AND A FOLLOW-UP TEST ANALYSIS FOR NITRATE MUST SHOW THAT WATER FROM THE TREATMENT UNIT IS BELOW THE REGULATORY MCL OF 10 mg/L.

TRENCH CHART

TRENCH	EXISTING GROUND	INVERT ELEV.	BOTTOM TRENCH
existing trenches	375.0	372.0	367.0
1	373.5	370.5	365.5



SEPTIC LINE PROFILE
 SCALE: HORIZ. 1" = 30'
 VERT. 1" = 5'

LEGEND

- 560 — EX 10' CONTOUR
- - - EX 2' CONTOUR
- SWALE
- EXISTING FENCE
- FAILED PERC TEST
- ⊙ PASSED PERC TEST
- △ EXISTING WELL LOCATION
- SOIL LINES
- SLOPES > 25%

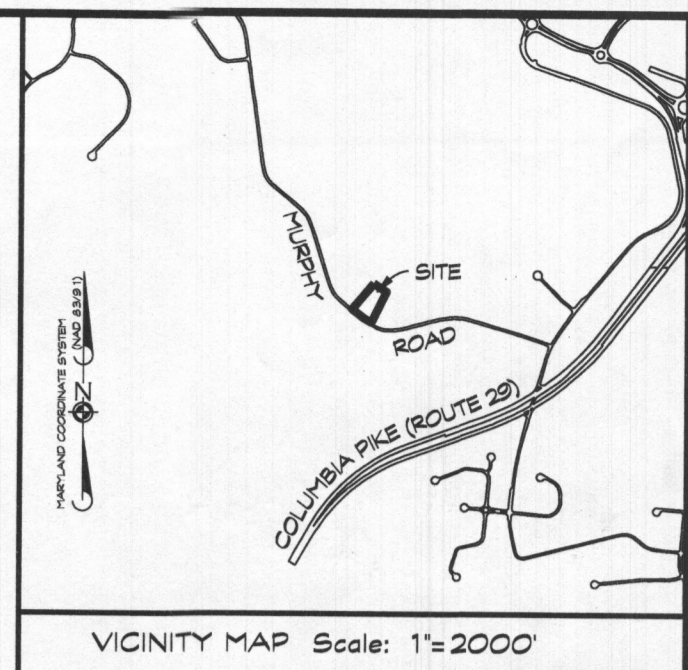
SOILS LEGEND

SOIL SYMBOL	SOIL SERIES	SOIL HSG	ERODIBLE (K-FACTOR) (B)	HYDRIC
Mac	MANOR LOAM	B	-	-



LEGEND

- 560 — EX 10 CONTOUR
- 560 — EX 2 CONTOUR
- — STREAM BUFFER
- FAILED PERC TEST
- ⊙ PASSED PERC TEST
- △ EXISTING WELL LOCATION
- 6-6 — SOL LINES
- 6-9 — SLOPES > 25%



SEPTIC SYSTEM TRENCH DESIGN:

EXISTING HOUSE - 4 BEDROOMS
 PROPOSED ADDITION - 1 BEDROOM
 TOTAL BEDROOMS - 5

INITIAL SYSTEM AND TWO REPLACEMENTS:
 ASSUME APPLICATION RATE = 0.8 GPD/SQ. FT.
 ASSUME EFFECTIVE DEPTH IS 5'
 TRENCH WIDTH = 3'
 150 GAL x 5 BEDROOMS = 750 GAL/DAY
 750 GAL/DAY / 0.8 GAL/DAY/SQ. FT. = 937.5 USE 938 SQ. FT.
 938 SQ. FT. / 3' = 312.7 USE 313 L.F.
 313 L.F. x .36 = 112.7 USE 113 L.F. OF DEEP TRENCH
 USE 2 - 57 L.F. OF TRENCH FOR EACH SYSTEM

THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT AREA AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL FOR LOTS CREATED PRIOR TO MARCH OF 1972 IT PROVIDES AT LEAST ENOUGH AREA TO ACCOMMODATE AN INITIAL AND TWO REPLACEMENT SEPTIC SYSTEMS AS REQUIRED BY THE HOWARD COUNTY HEALTH DEPARTMENT. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF THE MODIFIED SEWAGE EASEMENT AREA SHALL NOT BE NECESSARY.

SOILS LEGEND

SOIL SYMBOL	SOIL SERIES	SOIL HSG	ERODIBLE (K-FACTOR x35)	HYDRIC
Mac	MANOR LOAM	B	-	-

- GENERAL NOTES**
- CURRENT TITLE REFERENCE:
 OWNER: PRESTON J. TAUKULIS
 DEED REFERENCE: L. 13652, F. 245
 DATE: DECEMBER 14, 2011
 GRANTOR: PRESTON J. TAUKULIS
 - THE LOT SHOWN HEREON COMPLEIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
 - THE TOPOGRAPHY SHOWN HEREON IS BASED ON HOWARD COUNTY 200 SCALE TOPO MAPS AND VERIFIED TO ACCURATELY REPRESENT THE RELATIVE CHANGES ON THE SUBJECT PROPERTY. TOPOGRAPHY OF THE SEWAGE DISPOSAL AREA WAS FIELD VERIFIED BY CLSI.
 - EXISTING WELLS AND/OR SEWER EASEMENTS WITHIN 100' OF THE LOT LINES HAVE BEEN SHOWN. THERE ARE NO WELLS 200' DOWN GRADIENT OF THE SEPTIC EASEMENT AREA SHOWN.
 - ANY CHANGES TO THE PRIVATE SEWER EASEMENT AND/OR ALTERNATIVE WELL LOCATION SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
 - ALL STORMWATER MANAGEMENT DEVICES WILL MEET HOWARD COUNTY SETBACKS TO ALL WELL SITES AND ON-SITE DISPOSAL SYSTEMS.
 - THE BOUNDARY SHOWN HEREON IS FROM PLAT TITLED MAP OF RESUBDIVISION OF LOT NO. 7 OF ALBIN F. AND SARAH E. PAYNE PROPERTY AND RECORDED IN PLAT BOOK: 4 PAGE: 69 NO BOUNDARY SURVEYS WERE PERFORMED NOR CERTIFIED BY CLSI.
 - EX. WELL ON SITE NO TAG NUMBER AVAILABLE
 - OSDS PLAN MUST BE SUBMITTED AND APPROVED PRIOR TO HEALTH DEPARTMENT BUILDING PERMIT APPROVAL. THE NEW SEPTIC SYSTEM MUST BE INSTALLED AND THE OLD SEPTIC SYSTEM MUST BE ABANDONED PRIOR TO HEALTH DEPARTMENT APPROVAL.
 - THIS PLAN IS A BENEFIT TO THE CUSTOMER ONLY INsofar AS IT IS REQUIRED BY HOWARD COUNTY FOR THE PURPOSE OF THE APPROVAL OF THE PERCOLATION TEST. IT IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OF BOUNDARY, EASEMENT OR RIGHT-OF-WAY LINES FOR ANY REASON, SUCH AS THE LOCATION OF FENCES, GARAGES, BUILDINGS OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDING OR OTHER EXISTING OR FUTURE IMPROVEMENTS, OFFSETS OF BUILDINGS TO PROPERTY LINE ARE TO THE NEAREST FOOT (1) UNLESS OTHERWISE NOTED AND HAS AN ACCURACY OF ± 1 FOOT.

DATA TABULATIONS

- ZONING DISTRICT: RR-DEO
- NUMBER OF BUILDING SITES: 1
- TOTAL AREA OF LOT: 1.74± ACRES

PURPOSE NOTE:
 THE PURPOSE OF THIS PERCOLATION CERTIFICATION PLAN IS TO A REVISED SEPTIC EASEMENT FOR PROPOSED IMPROVEMENTS FOR A TOTAL OF 5 BEDROOMS.

OWNER
 PRESTON TAUKULIS
 8425 MURPHY ROAD
 LAUREL, MD 20723

DEVELOPER
 THE GROUND UP CONTRACTORS
 6036 DUCKEYS RUN ROAD
 ELKBRIDGE, MD 21075

PERCOLATION CERTIFICATION PLAN
8425 MURPHY ROAD
 PLAT BOOK: 4 PAGE: 69
 LIBER 13652, FOLIO 245
 TAX MAP: 46 * BLOCK: 3 * PARCEL: 19
 5th ELECTION DISTRICT * HOWARD COUNTY, MD



Javier Morales Roldan
 Prof. Land Surveyor Reg No. 21885
 My License Expires August 09, 2021

439 East Main Street Westminster, MD 21157-5539
 (410) 848-1790 FAX (410) 848-1791

APPROVED FOR PRIVATE WATER AND SEWERAGE SYSTEM
 HOWARD COUNTY HEALTH DEPARTMENT

HEALTH OFFICER, HOWARD COUNTY HEALTH DEPT.

I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON IS BASED ON FIELD WORK PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION, AND IS CORRECT, TO THE BEST OF MY KNOWLEDGE AND BELIEF.

JAVIER MORALES ROLDAN, PROFESSIONAL LAND SURVEYOR
 NO. 21885 LICENSE EXPIRES 8/9/21

Date	Revisions	Drawn By:
5/4/21	REV'D STEEP SLOPES AND SEPTIC AREAS	Designed By: LDA, BH
		Reviewed By:
		Date: MARCH, 2021
		Scale: 1" = 30'
		Job No.: 2020321
		Sheet: 1 OF 1