Howard County Health Department

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
Facebook: www.facebook.com/hocohealth

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

RECEIPT DATE: 8/26/14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 554601

INSTALLATION APPROVAL DATE: 2/26/15 (KMW)

PERMIT

CONSTRUCTION

A

PROPERTY ADDRESS: **12279 Carroll Mill Road**

SUBDIVISION: **Woodmark** LOT: **14** TAX ID:

CONTRACTOR: **Hatfield's Equipment** EMAIL: **ken@hatfieldsequipment.com**

CONTRACTOR ADDRESS: **P.O. Box 519, Annapolis Junction, MD 20701** PHONE: **301-490-4289**

PROPERTY OWNER: **Scott Buckner** EMAIL: **sbuckner@veinclinics.net**

OWNER ADDRESS: **1500 Wheat Stone Way** PHONE: **240-506-0088**

BAT UNIT MODEL: **Norweco Singulair TNTLP** PUMP SIZE: **500GPD** PUMP TANK CAPACITY:

DISTRIBUTION SYSTEM: GRAVITY ☒ LOW PRESSURE DOSED ☐ NUMBER OF BEDROOMS:

TRENCHES:	LINEAR FEET REQUIRED:	118	INLET DEPTH:	4
	TRENCH WIDTH:	3'	MAXIMUM BOTTOM DEPTH:	8
	MINIMUM SPACE BETWEEN TRENCHES:	9	EFFECTIVE AREA BEGINNING DEPTH:	6
LOCATION:	**PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.**			
NOTES:	Install 2 x 59 trenches on contour. 2x59' Trenches			

ISSUED BY: **Jeff Williams** ISSUE DATE: 8/26/14 EXPIRATION DATE: 8/26/15

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 SEPTIC 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
NOTE: AN INDIVIDUAL CERTIFIED BY MDE AND THE MANUFACTURER FOR BAT INSTALLATION MUST BE PRESENT AT ALL TIMES DURING BAT INSTALLATION.
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.

NOT TO SCALE

See As-Built Drawing On Separate Sheet

ROAD NAME

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3	4'-5'	8'

NUMBER OF TRENCHES 2
TOTAL LENGTH 120'
ABSORPTION AREA 360+ Sidewall
DISTRIBUTION BOX LEVEL Levelers
DISTRIBUTION BOX BAFFLE Yes
DISTRIBUTION BOX PORT Yes

SEPTIC TANK DATA

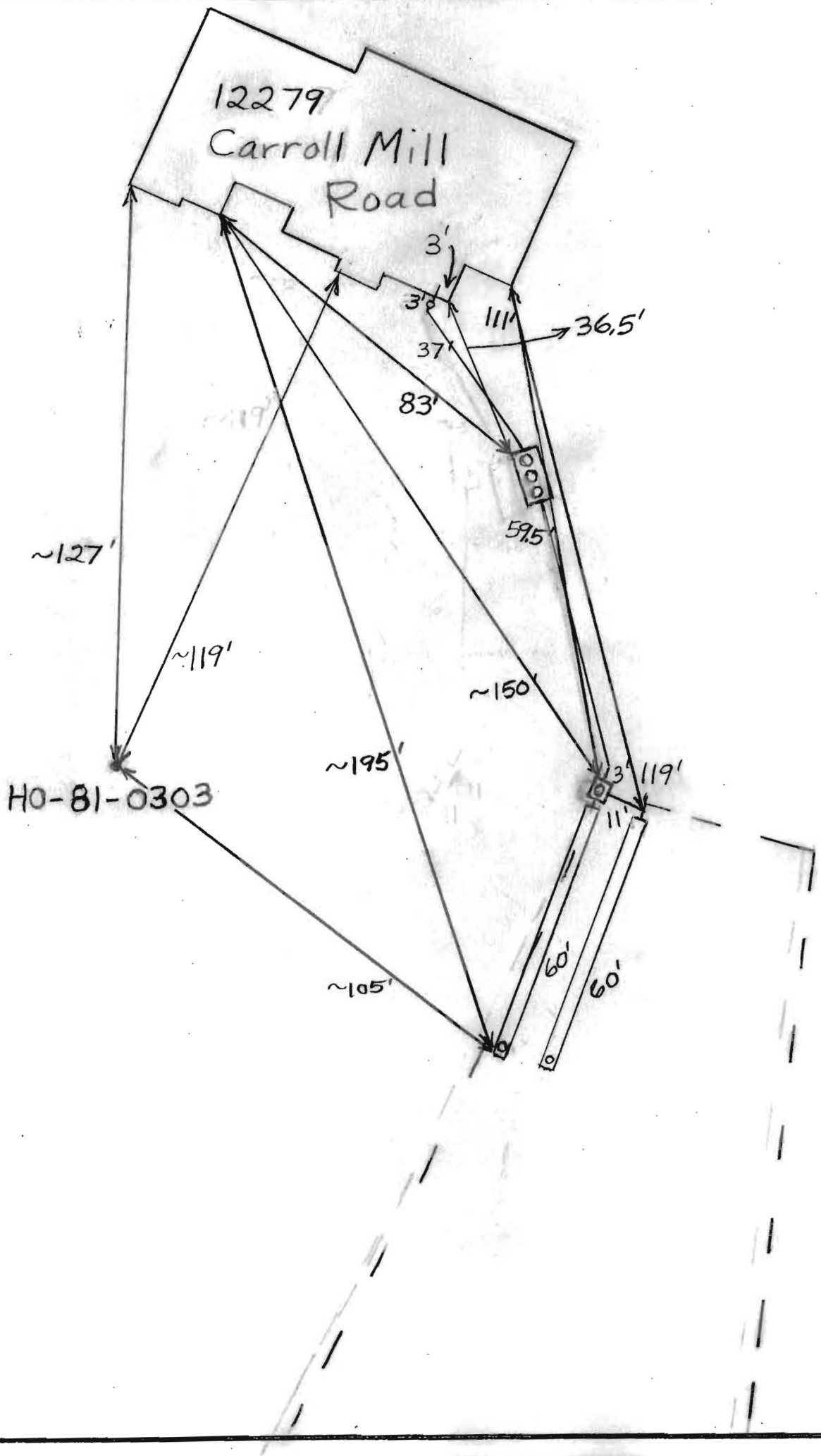
SEPTIC TANK 1 LEVEL Yes
MANUFACTURER Norweco
CAPACITY 1300 GAL
SEAM LOC Top
TANK LID DEPTH 0.5'-2.5'
BAFFLES None
BAFFLE FILTER N/A
MANHOLE LOC Front, Middle + Rear
6" PORT LOC None
WATERTIGHT TEST No
SLOTTED N/A
DATE ON LID Dry

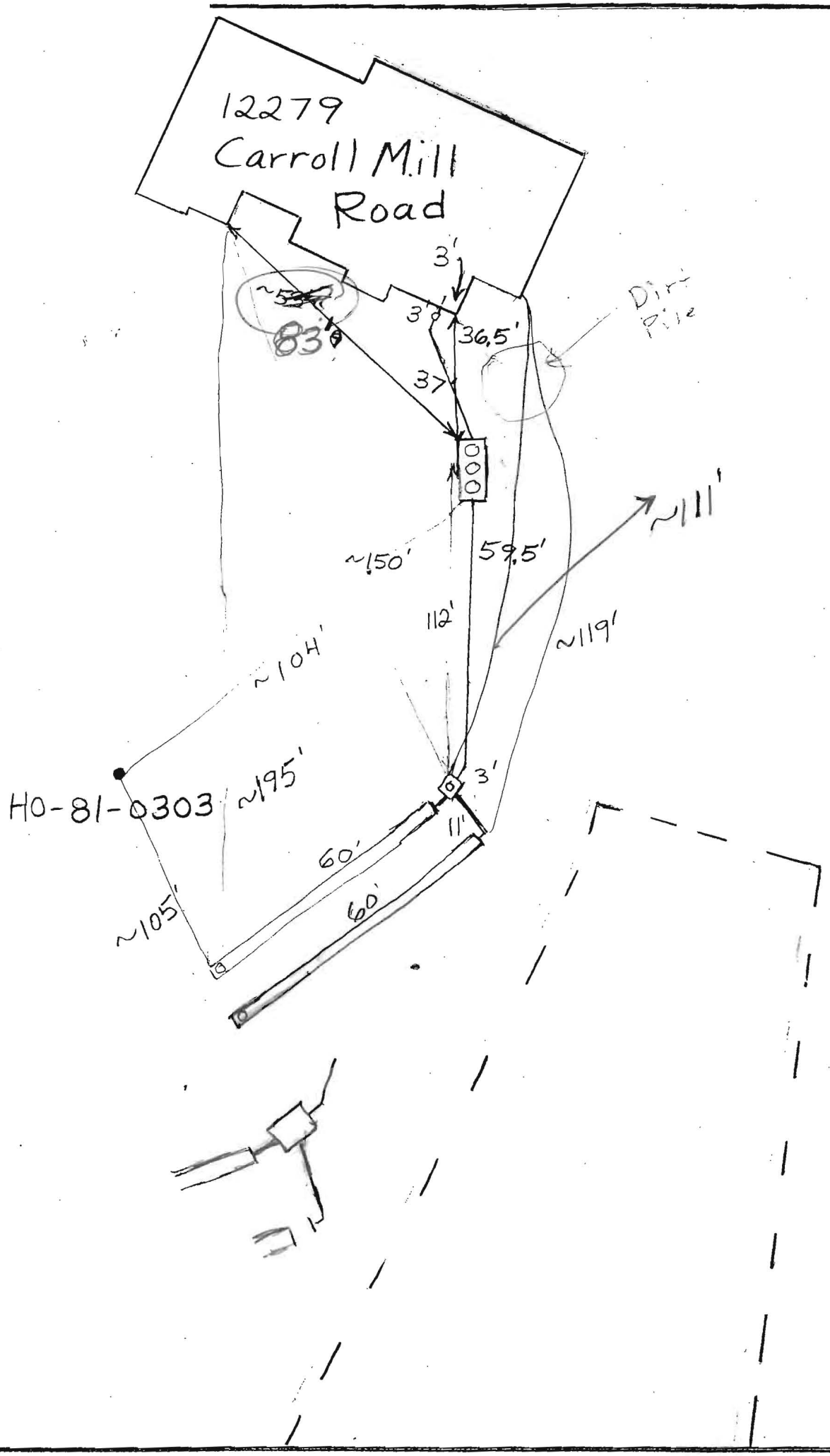
PUMP/SEPTIC TANK LEVEL N/A
MANUFACTURER
CAPACITY GAL
SEAM LOC
TANK LID DEPTH
BAFFLES
BAFFLE FILTER
MANHOLE LOC
6" PORT LOC
WATERTIGHT TEST
SLOTTED
DATE ON LID

PRE-CONSTRUCTION:
12/5/2014 Tank location staked. Trenches laid out similar to plan. BB

INSTALLATION: 12/19/2014 Tank set. Top trench done. Plumbing installed. BB 12/22/2014 System finished. Need BAT unit certification from Norweco inspector. BB

FINAL INSPECTOR K. Kalk DATE OF APPROVAL 2/26/15


12279
Carroll Mill
Road
3'
3'
111'
36.5'
37'
83'
59.5'
~127'
~119'
~150'
~195'
~105'
H0-81-0303
3'
119'
11'
60'
60'


12279
Carroll Mill
Road
3'
~5
83'
3'
36.5'
37'
Dirt
Pile
~111'
~150'
59.5'
112'
~119'
~104'
~195'
HO-81-0303
3'
11'
60'
60'
~105'

Back River Pre-Cast, LLC

PO BOX 329
Glyndon, MD 21071
Phone # 410-833-3394
Fax # 410-833-4116

Letter of Certification

This is to certify that the Norweco Singulair TNT 600 GPD Septic Tank installed at 12279 Carroll Mill Rd., Ellicott City, MD 21042 installed on December 19, 2014 was installed according to the manufacture's specifications.

Installer: Jeff Reiter

MATTHEW GECKLE

Vice-President

Howard County Health Department

Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
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Twitter: HowardCoHealthDep

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

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

THIS AGREEMENT is made this 10th day of April, among Scott and Carey Buckner, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 12279 CARROLL MILL RD, in the 3 Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 8440 Folio 48.

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

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as

long as the property is in existence and after installation of the system. Owner further agrees that they shall inform in writing any subsequent purchaser or lessee of the Lot that the system shall require maintenance or other attention. Upon taking title to the Lot, the Owner agrees to cause this agreement to be recorded in the Land Records of Howard County and assure that it becomes part of the Deed for the subject property in order that prospective buyers may be aware of the special conditions affecting this property.

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

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

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

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

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

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

4/10/14

Owner Date

Scott Buckner

Carey Buckner 4/10/14

Owner Date

Carey Buckner

4/11/2014

Howard County Health Department

d Coun
ds/Lin

9250 Bend
Columbia MD 21045
410-313-5850

Recording Fee
1x 20.00 20.00

Name: Buckner

ge
1x 40.00 40.00

60.00
60.00

60.00

neck-BOA
er : 3633

/14/2014 08:40 CC13-CH
.788250 /495/109
********** DUPLICATE #001 **********

05/14/2014 08:41 CC13-CH
Thank you for visiting us today

Howard County Health Department

Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-2640 | Fax: 410-313-2648
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Maura J. Rossman, M.D., Health Officer

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

THIS AGREEMENT is made this 10th day of April, among Scott and Carey Buckner, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 12279 Carroll Mill Road, Ellicott City, Md. 21042, in the 3 Election District of Howard County, Maryland, and the deed to same is recorded or shall be recorded among the Land Records of Howard County, Maryland in Liber 15582 Folio 291.

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

NOW, THEREFORE, the parties hereto agree as follows:

A. Owner hereby grants to the County the right to enter upon the Lot at any reasonable time for access to the system to make periodic inspections and the Owner agrees to provide any information and data in Owner's possession reasonably requested and needed by the County to develop accurate and thorough test results.

B. Owner acknowledges and agrees that neither the County nor any of its agents or employees, either officially or individually, underwrites the operation of any system approved by them.

C. The Owner will devote reasonable care and effort to the operation and maintenance of the system in perpetuity or until a public sewer connection is made so that a system malfunction is not the result of poor maintenance, faulty operation, or neglect.

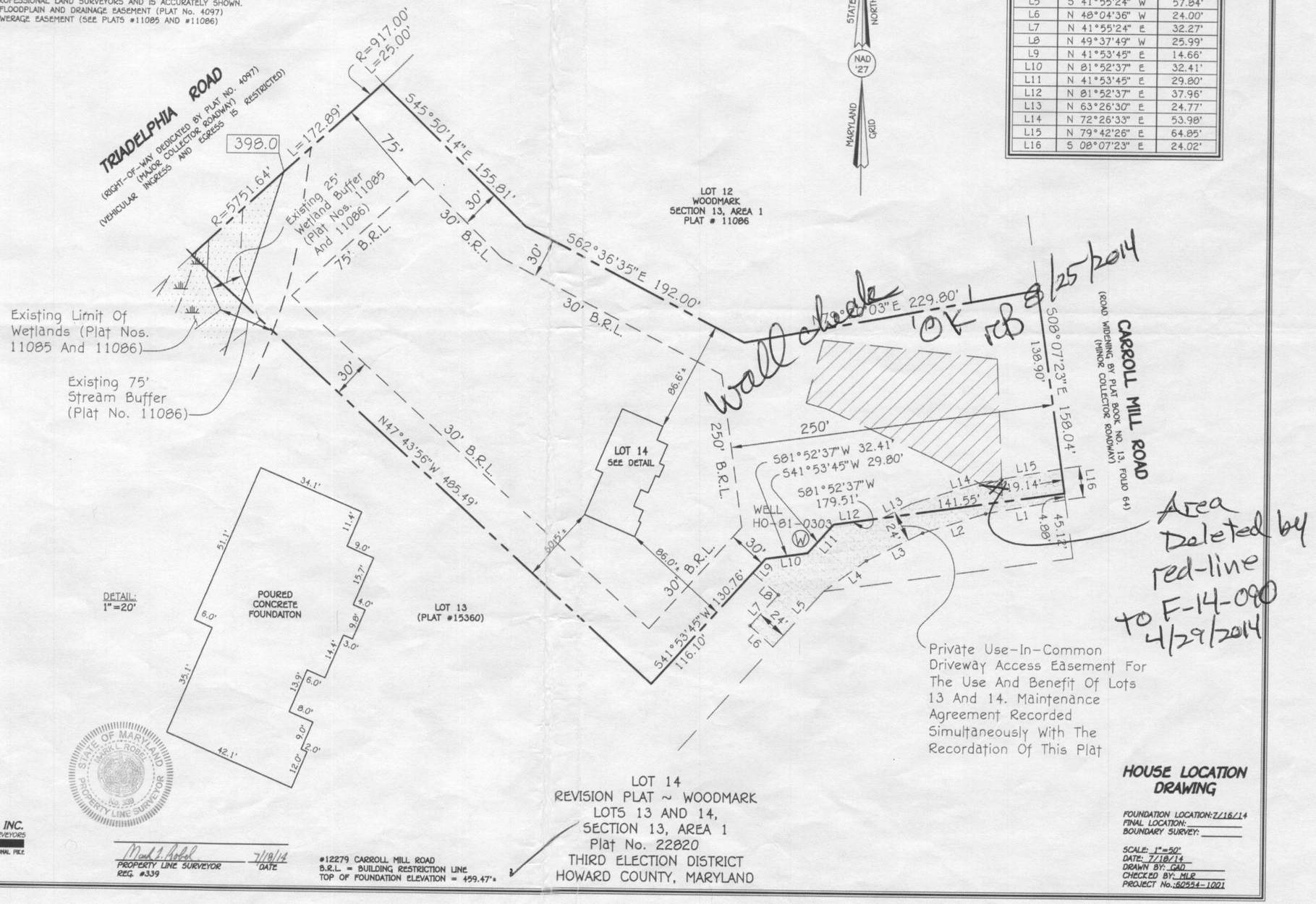
D. The Owner agrees to enter into a contract reasonably acceptable to the Owner and the County with a private entity to operate and maintain on a regularly scheduled basis an approved advanced pre-treatment system. The owner shall supply a copy of the contract to the County when it is renewed or altered.

E. This agreement shall run with the land and upon Owner's taking title to the Lot shall bind the Owner, their heirs, successors, and assigns to the provisions of the agreement as

GENERAL NOTES:

1) THIS LOCATION DRAWING IS PREPARED FOR THE BENEFIT OF THE CLIENT SIGNING THE HOUSE LOCATION SURVEY APPROVAL FORM INSOFAR AS IT IS REQUIRED BY A LENDER OR TITLE INSURANCE COMPANY OR ITS AGENTS IN CONNECTION WITH THE CONTEMPLATED TRANSFER, FINANCING OR REFINANCING OF THE PROPERTY SHOWN HEREON. UNLESS INDICATED AS BEING A BOUNDARY SURVEY, THIS LOCATION DRAWING IS NOT INTENDED FOR USE IN THE ESTABLISHMENT OF PROPERTY LINES AND IS NOT TO BE RELIED UPON FOR THE ESTABLISHMENT OR LOCATIONS OF FENCES, GARAGES, BUILDINGS OR OTHER EXISTING OR FUTURE IMPROVEMENTS. AS A RESULT,THIS LOCATION DRAWING DOES NOT PROVIDE FOR ACCURATE IDENTIFICATION OF PROPERTY LINES, BUT SUCH IDENTIFICATION MAY NOT BE REQUIRED FOR THE TRANSFER OF TITLE OR SECURING FINANCING FOR RE-FINANCING.
2) SUBJECT PROPERTY IS SHOWN IN ZONE X ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 24027C0065D EFFECTIVE NOV. 6, 2013.
3) THE OFFSETS FROM BUILDING LINE TO PROPERTY LINE AS SHOWN ON THE PLAT HEREON ARE TO AN ACCURACY OF PLUS OR MINUS 1'.
4) NO TITLE REPORT FURNISHED. SUBJECT TO ALL EASEMENTS, RIGHTS OF WAY AND CONDITIONS OF RECORD.
5) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE OCTOBER 4, 2014.
6) BUILDING PERMIT NUMBER: B-14001340
7) 398.0 DENOTES ELEVATION OF 100 YEAR FLOODPLAIN
8) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-81-0303 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROFESSIONAL LAND SURVEYORS AND IS ACCURATELY SHOWN.
9) DENOTES EXISTING 100 YEAR FLOODPLAIN AND DRAINAGE EASEMENT (PLAT No. 4097)
10) DENOTES EXISTING PRIVATE SEWERAGE EASEMENT (SEE PLATS #11085 AND #11086)

Private Use-In-Common Access Driveway Easement Line Table		
Line	Bearing	Length
L1	S 79°42'26" W	62.41'
L2	S 72°26'33" W	50.57'
L3	S 63°26'30" W	48.29'
L4	S 53°35'40" W	40.52'
L5	S 41°55'24" W	57.84'
L6	N 48°04'36" W	24.00'
L7	N 41°55'24" E	32.27'
L8	N 49°37'49" W	25.99'
L9	N 41°53'45" E	14.66'
L10	N 81°52'37" E	32.41'
L11	N 41°53'45" E	29.80'
L12	N 81°52'37" E	37.96'
L13	N 63°26'30" E	24.77'
L14	N 72°26'33" E	53.98'
L15	N 79°42'26" E	64.85'
L16	S 08°07'23" E	24.02'



Wall check OK RCB 8/25/2014

Area Deleted by red-line to F-14-090 to 4/29/2014

STATE OF MARYLAND MARK L. ROBEL PROPERTY LINE SURVEYOR No. 339

Mark L. Robel
PROPERTY LINE SURVEYOR
REG. #339

7/18/14
DATE

#12279 CARROLL MILL ROAD
B.R.L. = BUILDING RESTRICTION LINE
TOP OF FOUNDATION ELEVATION = 459.47'±

LOT 14
REVISION PLAT ~ WOODMARK
LOTS 13 AND 14,
SECTION 13, AREA 1
Plat No. 22820
THIRD ELECTION DISTRICT
HOWARD COUNTY, MARYLAND

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

HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 7/16/14
FINAL LOCATION: _____
BOUNDARY SURVEY: _____

SCALE: 1"=50'
DATE: 7/18/14
DRAWN BY: GAD
CHECKED BY: MLR
PROJECT No.: 62554-1001

P-1 DRIVEWAY PAVING SECTION
NOT TO SCALE

SOILS LEGEND

SOIL	NAME	CLASS
*GnB	*GLENVILLE-BAILE SILT LOAMS, 0 TO 8 PERCENT SLOPES	*C
MgD	MANOR-BANNERTOWN SANDY LOAMS, 15 TO 25 PERCENT SLOPES, ROCKY	B
GbC	GLADSTONE LOAM, 8 TO 15 PERCENT SLOPES	B
GbB	GLADSTONE LOAM, 3 TO 8 PERCENT SLOPES	B

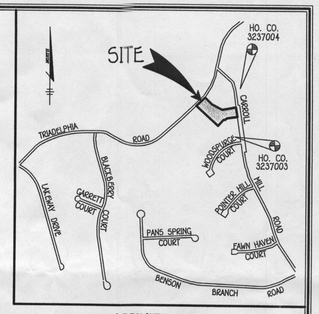
NOTES:
* HYDRIC SOILS AND/OR CONTAINS HYDRIC INCLUSIONS
** MAY CONTAIN HYDRIC INCLUSIONS
† GENERALLY ONLY WITHIN 100-YEAR FLOODPLAIN AREAS



BENCH MARKS

HO. CO. STA. 3237003
N526208.368 E817035.048
CONCRETE MONUMENT SET NEAR THE INTERSECTION OF CARROLL MILL ROAD & WOODSPURGE COURT

HO. CO. STA. 3237004
N528949.344 E818824.527
CONCRETE MONUMENT SET NEAR THE INTERSECTION OF CARROLL MILL ROAD & TRIDELPHIA ROAD



VICINITY MAP
SCALE: 1" = 1200'

GENERAL NOTES

1. SUBJECT PROPERTY ZONED RR-DEO PER THE 2/02/04 COMPREHENSIVE ZONING PLAN AND THE COMP LITE ZONING AMENDMENTS DATED 7/28/06.
2. TOTAL AREA OF PROPERTY: 3.030 AC.
3. THIS SITE WILL BE SERVED BY PRIVATE WELL AND SEPTIC. A BAT SEPTIC SYSTEM IS REQUIRED FOR SEWER SERVICE.
4. THIS LOT COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
5. FIELD RUN TOPOGRAPHIC SURVEY WAS PREPARED BY, FISHER, COLLINS & CARTER, INC. JUNE, 1992.
6. EXISTING TREELINES SHOWN ARE PER SURVEY BY FISHER, COLLINS & CARTER, INC. DECEMBER, 2013. TREE CLEARING PROPOSED BY THIS PLAN IS 17010 SQ. FT. IN ACCORDANCE WITH THE PROVISIONS OF HOWARD COUNTY CODE, SECTION 16.1202. SECTION 16.1202 (B)(2)(i). IT IS THE INTENT OF THE DEVELOPER TO FILE FOR A DECLARATION OF INTENT (DOI) FOR A "SINGLE RESIDENTIAL LOT EXEMPTION, CLEARING 20,000 SQUARE FEET OF FOREST" TO SATISFY THE REQUIREMENTS OF THE FOREST CONSERVATION PROGRAM.
7. 173 SQUARE FEET OF WETLANDS EXIST ON THE PROPERTY, AT THE LEFT REAR CORNER (WEST) OF THE SITE (OVER 300 FT. FROM AREA OF DISTURBANCE).
8. PRIOR HOWARD COUNTY FILE NO.'S ARE: F-02-124, F-93-002, F-02-124. A DESIGN MANUAL WAS GRANTED ON 9/13/12 FOR A 12 FT. WIDE USE-IN COMMON DRIVEWAY TO SERVE LOTS 13 & 14.
9. STORMWATER MANAGEMENT IS BEING PROVIDED WITH NON-ROOFTOP DISCONNECTS AND AND A BIO-RETENTION FACILITY FOR THE ROOFTOP RUN-OFF.
10. RECORD PLAT REFERENCE NO.S ARE: 15360, 11085, & 11086.
11. THE USE-IN-COMMON DRIVEWAY EASEMENT IS BEING ESTABLISHED BY RECORD PLAT. RECORDATION OF THIS PLAT WILL BE COMPLETED PRIOR TO BUILDING PERMIT ISSUANCE.
12. APPROVAL OF THIS SIMPLIFIED ECP DOES NOT CONSTITUTE AN APPROVAL OF ANY SUBSEQUENT AND ASSOCIATED SUBDIVISION PLAN OR GRADING PERMIT.

BAT NOTES

1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM COVER OVER THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET. IF COVER EXCEEDS 3 FEET, THEN A TRAFFIC BEARING TANK IS REQUIRED.
3. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
4. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
5. WITHIN ONE MONTH OF INSTALLATION, A PERSON INSTALLING THE BAT SYSTEM SHALL REPORT TO THE MARYLAND DEPARTMENT OF THE ENVIRONMENT (MDE) IN A MANNER ACCEPTABLE TO MDE, THE ADDRESS AND DATE OF COMPLETION OF THE BAT INSTALLATION AND THE TYPE OF BAT INSTALLED.
6. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
7. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
8. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
9. SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.
10. SEWAGE FLOWS TO THE TANK BY GRAVITY AND WATER EXITING THE TANK TO THE SEPTIC AREA WILL FLOW BY GRAVITY.
11. IF THERE IS EXCESSIVE RESISTANCE TO THE AERATOR MOTOR, AN ALARM WILL BE VISIBLE AND AUDIBLE. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
12. THE EXISTING WELL, TAG NO. HO-81-0303, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

SEWAGE DISPOSAL SYSTEM DATA (PERMIT FOR 4 BEDROOMS, DESIGN FOR 5 BEDROOMS)

PROP. INVERT AT FOUNDATION WALL: 506.67
1. NORWECO TNTLP-500 GPD (MAX. NO. BDRMS.=5)
   EX. GRADE OVER TANK: 448.00
   PROP. GRADE OVER TANK: 448.00
   INVERT IN: 445.50 INVERT OUT: 445.17
2. DISTRIBUTION BOX:
   EX. GRADE: 441.60
   PROP. GRADE: 441.60
   INVERT IN: 438.00
3. TRENCH DESIGN:
   (3 BDRM X 150 GPD/BDRM= 450 GPD)
   450 / 0.8 APP. RATE = 562.5 SF
   USE 3' WIDE TRENCH AND 9' MIN. SPACING BETWEEN TRENCH EDGES.
   562.5 SF / 3' WIDTH = 187.5 L.F. X 0.62 = 116.25 L.F. MIN. TRENCH
   USE 2- 59' LONG TRENCHES = 118 L.F.

TRENCH DATA:

TRENCH 1:
EX. GROUND ABOVE= 441.80
INV. IN = 437.80
BOTTOM TRENCH = ~~434.80~~ 433.8

TRENCH 2:
EX. GROUND ABOVE= 440.20
INV. IN = 436.20
BOTTOM TRENCH = ~~433.20~~ 432.2

PLAN
SCALE: 1" = 30'

0' 30' 60' 120'
SCALE: 1" = 30'

Approved Septic System Plan
Howard County Health Department
Signature 5/13/14 Date

W.I.L. CERTIFICATION:
THE EXISTING WELL, TAG NO. HO-81-0303, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

STATE OF MARYLAND
ALDO MICHAEL VITUCCI
No. 20748
PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE
"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

ALDO M. VITUCCI 5/7/14 DATE

PROFESSIONAL STATEMENT
I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 20748, EXPIRATION DATE IS 2/22/15.

ALDO M. VITUCCI 5/7/14 DATE

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

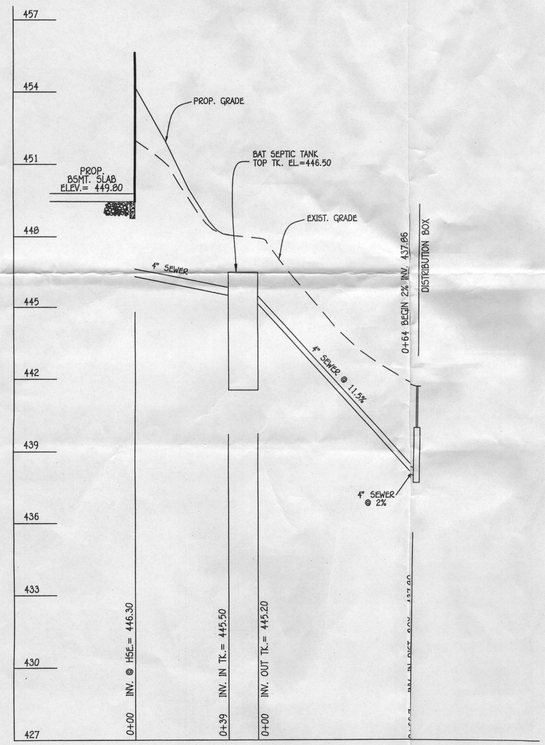
OWNER
SCOTT C. & CAREY A. BUCKNER
1500 WHETSTONE WAY, SUITE 104
BALTIMORE, MARYLAND 1230
410-244-811

DEVELOPER
DOUGLAS HOMES
5034 DORSEY HALL ROAD
ELLICOTT CITY, MARYLAND 21042
410-984-2484

BAT INSTALLATION SITE PLAN
WOODMARK
SECTION 13, AREA 1
LOT 14
12279 CARROLL MILL ROAD

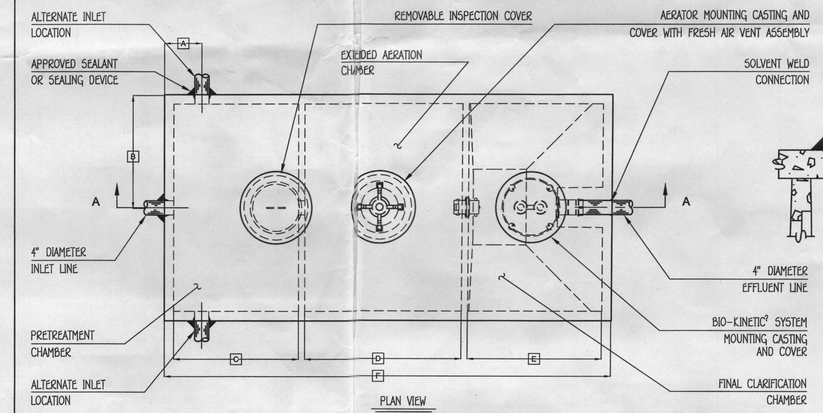
ZONED: RR-DEO PLAT NO'S.: 15360, 11085, 11086
TAX MAP NO.: 22 PARCEL NO.: 521 GRID NO.: 6
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: APRIL, 2014

SHEET 1 OF 2

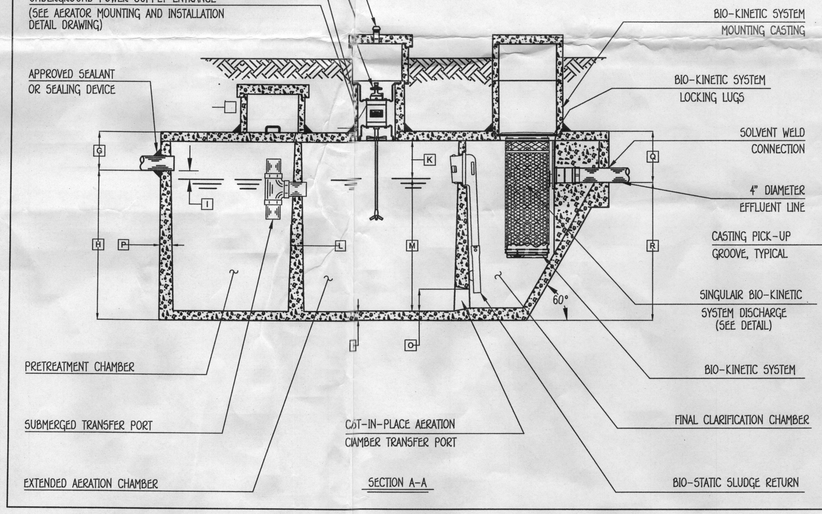


BAT SYSTEM PROFILE

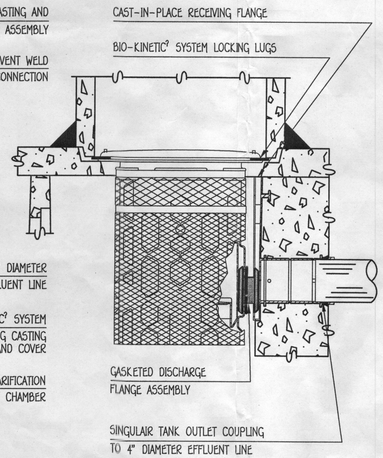
SCALE: HORIZ.: 1"=30'
VERT.: 1=3'



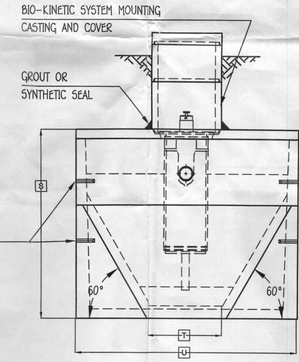
PLAN VIEW



SECTION A-A



BIO-KINETIC SYSTEM DISCHARGE DETAIL



OUTLET END VIEW

NOTE: TOTAL SYSTEM CAPACITY: 1,300 GALLONS
RATED CAPACITY: 600 GALLONS PER DAY

BAT SYSTEM DETAIL

NOT TO SCALE

GENERAL NOTES:

① SINGULAIR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.

② FALL THROUGH SINGULAIR® PLANT FROM INLET INVERT TO OUTLET INVERT IS FOUR INCHES. INLET INVERT IS TWELVE INCHES BELOW TANK TOP.

③ ON DEEPER INSTALLATIONS, PRECAST RISERS MUST BE USED TO EXTEND AERATOR MOUNTING CASTING AND BIO-KINETIC SYSTEM MOUNTING CASTING TO GRADE.

④ TANK REINFORCED PER ACI STD. 318-05.

⑤ REMOVABLE COVERS ON RISERS WEIGH IN EXCESS OF SEVENTY-FIVE POUNDS EACH TO PREVENT UNAUTHORIZED ACCESS.

⑥ CONTACT THE LOCAL, LICENSED SINGULAIR DISTRIBUTOR FOR ELECTRICAL REQUIREMENTS.

CRITICAL DIMENSIONS			
A	1'- 0"	N	0'- 3"
B	3'- 0"	O	0'- 6"
C	3'- 4"	P	0'- 3"
D	4'- 5"	Q	1'- 4"
E	3'- 7"	R	3'- 8"
F	12'- 2"	S	5'- 0"
G	1'- 0"	T	2'- 0"
H	4'- 0"	U	6'- 0"
I	0'- 3"	V	
J	0'- 3"	W	
K	1'- 0"	X	
L	0'- 2"	Y	
M	3'- 6"	Z	

U.S. AND FOREIGN PATENTS PENDING

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norweco®

LOW-PROFILE SINGULAIR® BIO-KINETIC® WASTEWATER TREATMENT SYSTEM MODEL TNTLP-500 GPD

RELEASE DATE	3-26-07
REVISION	B
DRAWN BY	BDS
APPROVED BY	JMM
DATE	10-16-06
SCALE	NTS
DRAWING NO.	PC-5-7091

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STATE OF MARYLAND
ALDO MICHAEL VITUCCI
No. 20749
PROFESSIONAL ENGINEER

ENGINEER'S CERTIFICATE

"I HEREBY CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITION AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT."

ALDO M. VITUCCI — 5/1/14 DATE

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

NO.	REVISION	DATE

OWNER

SCOTT C. & CAREY A. BUCKNER
1500 WHETSTONE WAY, SUITE 104
BALTIMORE, MARYLAND 21230
410-244-8110

DEVELOPER

DOUGLAS HOMES
5034 DORSEY HALL ROAD
ELLICOTT CITY, MARYLAND 21042
410-904-2484

BAT INSTALLATION DETAILS

WOODMARK

LOT 14
SECTION 13, AREA 1

ZONED: RR-DEO PLAT NO'S.: 15360, 11085, 11086
TAX MAP NO.: 22 PARCEL NO.: 521 GRID NO.: 6
3RD ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 30' DATE: APRIL, 2014

K:\SJO\DWG\LOT\0425\DWG\0425A BAT DETAIL SHT LOT 14.dwg, Model, 5/7/2014 11:05:55 AM, 1:30