



**Bureau of Environmental Health**  
8930 Stanford Boulevard, Columbia, MD 21045  
Main: 410-313-2640 | Fax: 410-313-2648  
TDD 410-313-2323 | Toll Free 1-866-313-6300  
[www.hchealth.org](http://www.hchealth.org)  
Facebook: [www.facebook.com/hocohealth](http://www.facebook.com/hocohealth)

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

RECEIPT DATE: 9/30/14

**ONSITE SEWAGE DISPOSAL SYSTEM**

P 554650

INSTALLATION  
APPROVAL DATE: \_\_\_\_\_

**PERMIT  
CONSTRUCTION**

A \_\_\_\_\_

PROPERTY ADDRESS: 15416 Rivercrest Court

SUBDIVISION: Rivercrest

LOT: 9 TAX ID: 04-370643

CONTRACTOR: Hatfield's Equipment

EMAIL: ken@hatfieldsequipment.com

CONTRACTOR ADDRESS: P.O. Box 519

PHONE: 301-490-4289

PROPERTY OWNER: Columbia Builders Inc.

EMAIL: rtash@columbiabuilder

OWNER ADDRESS: \_\_\_\_\_

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

BAT UNIT MODEL: Norweco TNTLP

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

PUMP TANK CAPACITY: 500GPD

DISTRIBUTION SYSTEM: GRAVITY ☒ LOW PRESSURE DOSED ☐

NUMBER OF BEDROOMS: 5

TRENCHES:	LINEAR FEET REQUIRED: <u>SEE BAT PLAN 140'</u>	INLET DEPTH: <u>SEE BAT PLAN 3'</u>
	TRENCH WIDTH: <u>SEE BAT PLAN 2'</u>	MAXIMUM BOTTOM DEPTH: <u>SEE BAT PLAN 7'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>SEE BAT PLAN</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>SEE BAT PLAN 405-7'</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND BAT UNIT LOCATION MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:	Set BAT unit per plan. <u>2x70'</u>	

ISSUED BY: Dana Bernard

ISSUE DATE: 9/30/14

EXPIRATION DATE: 9/30/15

**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 DOWNGRADE 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.**

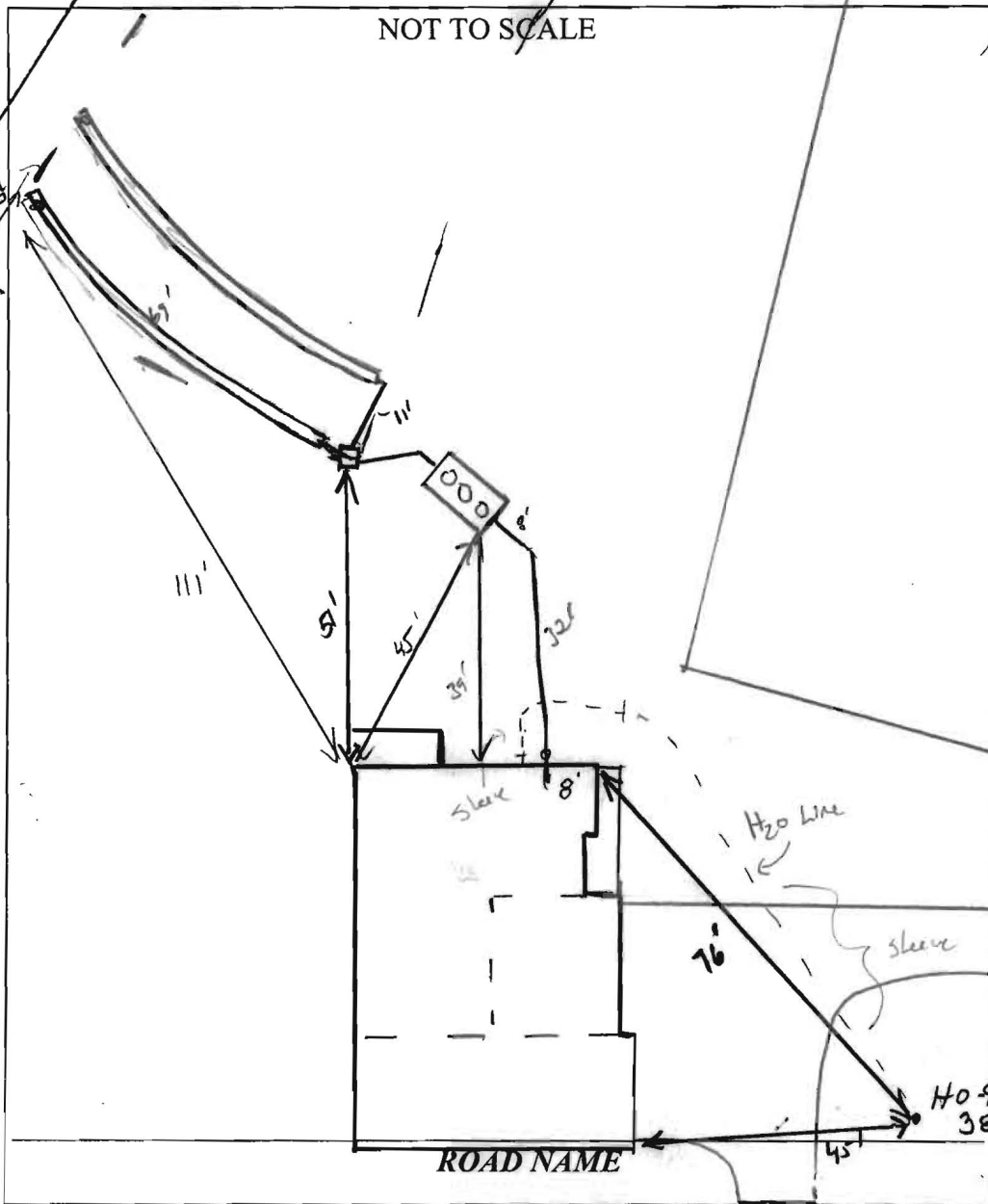
**NOTE: MDE RECOMMENDS SEPTIC TANKS, BAT, AND OTHER PRETREATMENT UNITS BE PUMPED AT A FREQUENCY ADEQUATE TO ENSURE THAT SOLIDS ARE NOT DISCHARGED TO THE DISPOSAL AREA**

**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



#### TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2	3	7
NUMBER OF TRENCHES		2
TOTAL LENGTH		140'
ABSORPTION AREA		280' ± W
DISTRIBUTION BOX LEVEL		Level's
DISTRIBUTION BOX BAFFLE		Yes
DISTRIBUTION BOX PORT		Yes

#### SEPTIC TANK DATA

SEPTIC TANK I LEVEL	Yes
MANUFACTURER	Back River Pre-Cast
CAPACITY	Norwood GAL
SEAM LOC	Top
TANK LID DEPTH	3'
BAFFLES	no
BAFFLE FILTER	Yes
MANHOLE LOC	Front/Center/Rear
6" PORT LOC	none
WATERTIGHT TEST	—
SLOTTED	Yes
DATE ON LID	9-15-14

#### PUMP/SEPTIC TANK LEVEL

MANUFACTURER	
CAPACITY	GAL
SEAM LOC	
TANK LID DEPTH	
BAFFLES	
BAFFLE FILTER	
MANHOLE LOC	
6" PORT LOC	
WATERTIGHT TEST	
SLOTTED	
DATE ON LID	

#### PRE-CONSTRUCTION:

10/8/14 Specs on permit plan not correct. App rate used was 1.978 Adjusted spec correctly. (See Permit) shot elevations for tanks. Install 2 x 70' trenches per BAT alt plan. BAT unit stalked. Well line must be cleared over sewer line 10' passed and 12" above. Call for imp (sw)

INSTALLATION: 10/9/14 BAT unit set. Dbox st. Digging lower trench - Contractor did not have laser level out. Ask to set laser high up and use when installing trenches @ all times (Kw) 10/10/14 Trenches complete. Well line runs 12" above sewer w/ sleeve. OK to comm. Need BAT start-up for final approval (Kw) from Back River Pre-Cast. Received letters of certification for septic tank. (H.O.)

FINAL INSPECTOR Hank Oswald DATE OF APPROVAL 12/19/14

# 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 Singlair TNT 600 GPD Septic Tank installed at  
15416 Rivercrest Ct., Brookeville, MD 20833 October 9, 2014 was installed according to  
the manufacture's specifications.

Installer: Todd Tracey



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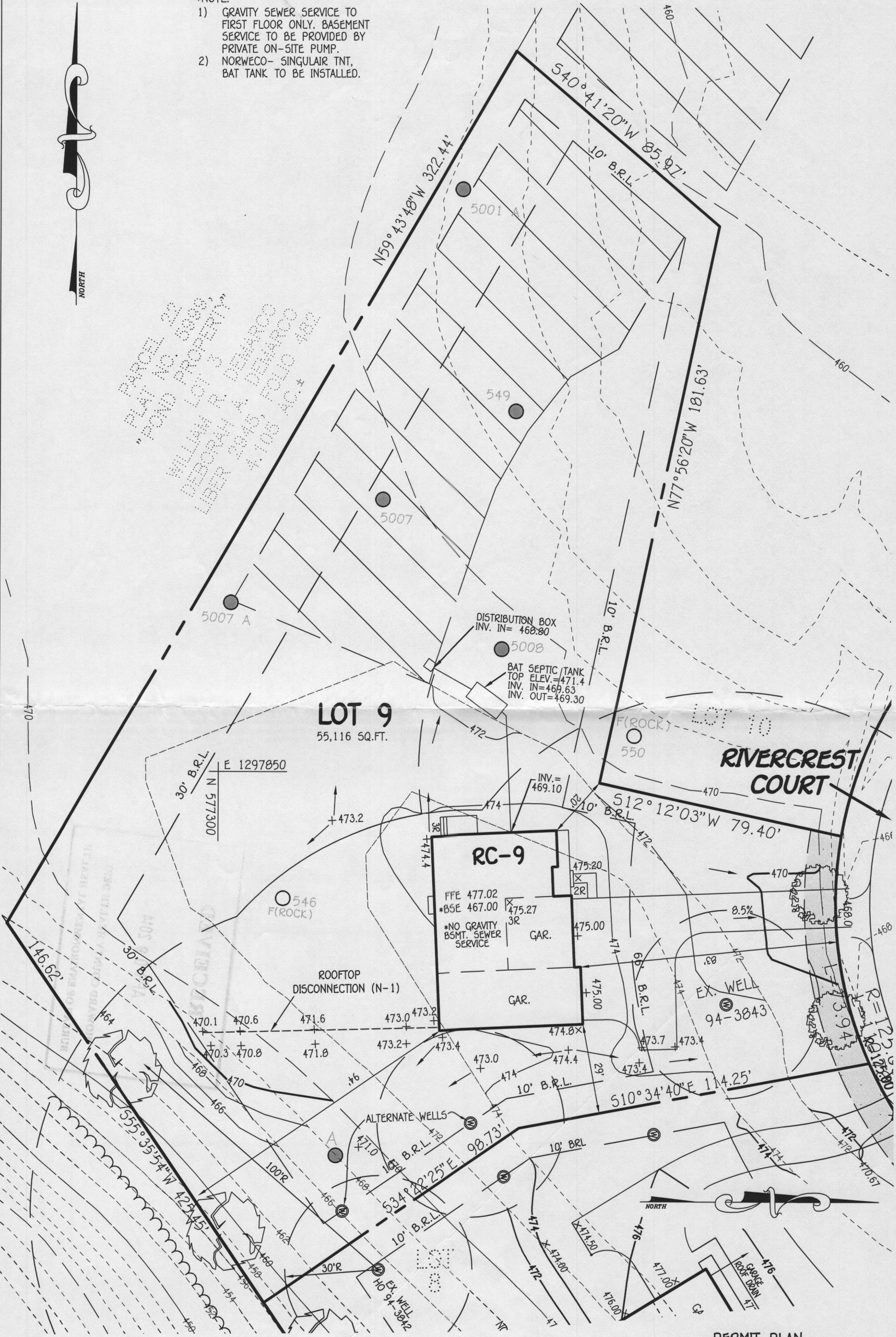
MATTHEW GECKLE

Vice-President





- \*NOTE:
- 1) GRAVITY SEWER SERVICE TO FIRST FLOOR ONLY. BASEMENT SERVICE TO BE PROVIDED BY PRIVATE ON-SITE PUMP.
  - 2) NORWECO- SINGULAIR TNT, BAT TANK TO BE INSTALLED.



PERMIT PLAN  
**RIVERCREST**  
LOT 9

ZONED: RC-DEO      PLAT NO.: 18208 THRU 18210  
TAX MAP NO.: 21      GRID NO.: 20      PARCEL NO.: 84  
4TH ELECTION DISTRICT      HOWARD COUNTY, MARYLAND  
SCALE: 1" = 50'      DATE: MARCH, 2014  
SHEET 1 OF 1

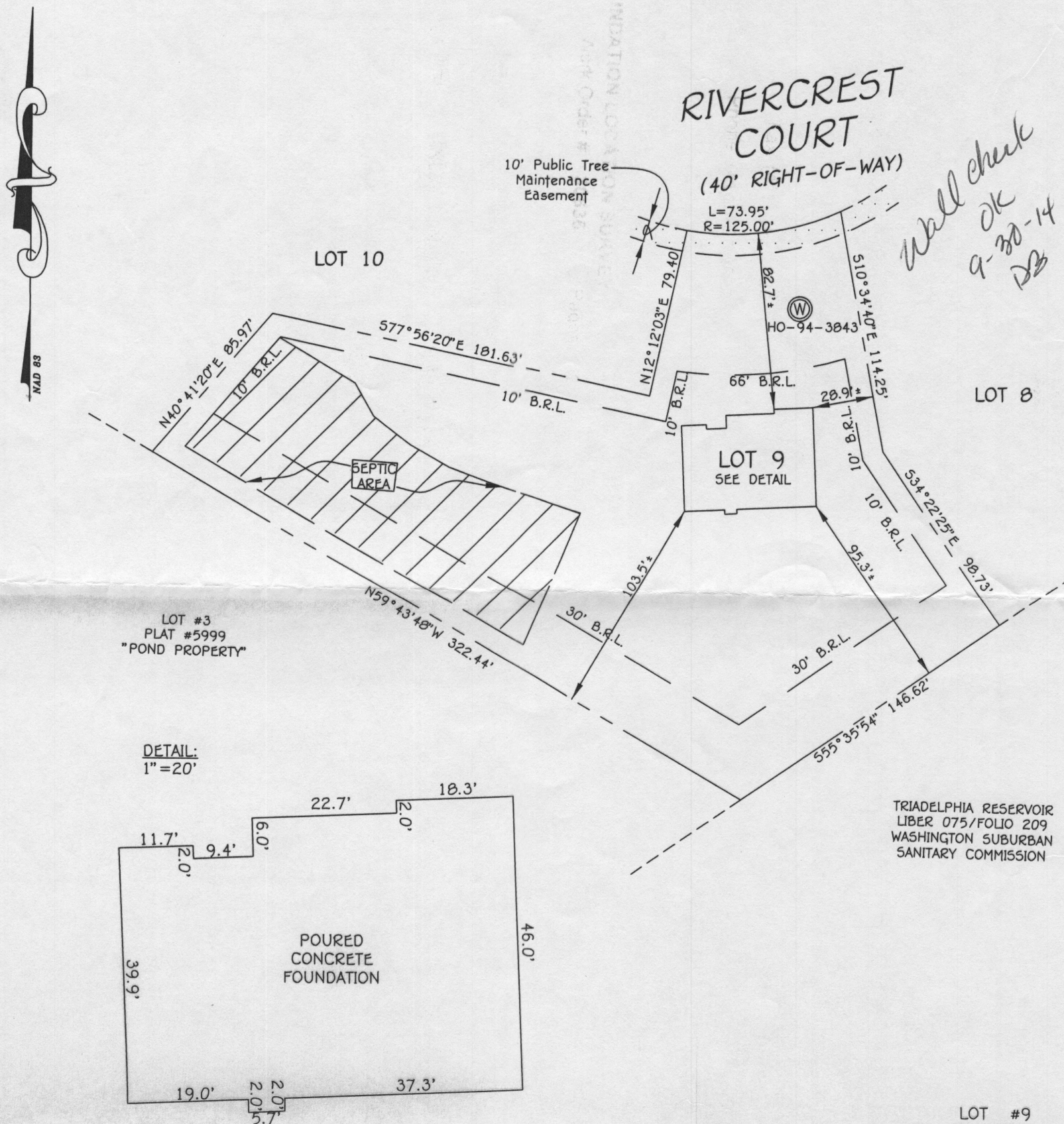
**FISHER, COLLINS & CARTER, INC.**  
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS  
CENTENNIAL SQUARE OFFICE PARK - 10272 BALTIMORE NATIONAL PIKE  
ELLCOTT CITY, MARYLAND 21042  
(410) 461 - 2855

K:\SDSKPKPJ\30636 BUICE NAD 83\dwg\Permit Plans\30636-1 Lot 9 Permit Plan.dwg, Layout1, 4/2/2014 9:04:49 AM, 1:1



## 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 C ON THE NATIONAL FLOOD INSURANCE PROGRAM FLOOD INSURANCE RATE MAP OF HOWARD COUNTY, MARYLAND, COMMUNITY PANEL No. 2400440020-B EFFECTIVE DEC. 4, 1986.
- 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) THE EXISTING WELL(S) SHOWN ON THIS PLAN (IDENTIFIED WITH THE ATTACHED WELL TAG NUMBER HO-94-3843 HAS BEEN FIELD LOCATED BY FISHER, COLLINS AND CARTER, INC. PROPERTY LINE SURVEYORS AND IS ACCURATELY SHOWN.
- 6) PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 339, EXPIRATION DATE 10/4/2014.
- 7) BUILDING PERMIT #(B-14001007)



#15416 RIVERCREST COURT  
B.R.L. = BUILDING RESTRICTION LINE  
TOP OF FOUNDATION ELEVATION = 475.7'±

LOT #9  
RIVERCREST  
LOTS 1-10, BUILDABLE  
PRESERVATION PARCEL 'A',  
NON-BUILDABLE PRESERVATION  
PARCEL 'B' & 'C' AND  
NON-BUILDABLE BULK PARCEL 'D'  
PLATS #18208 THRU 18210  
FOURTH ELECTION DISTRICT  
HOWARD COUNTY, MD

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



*Mark L. Robel*  
PROPERTY LINE SURVEYOR  
REG. # 339

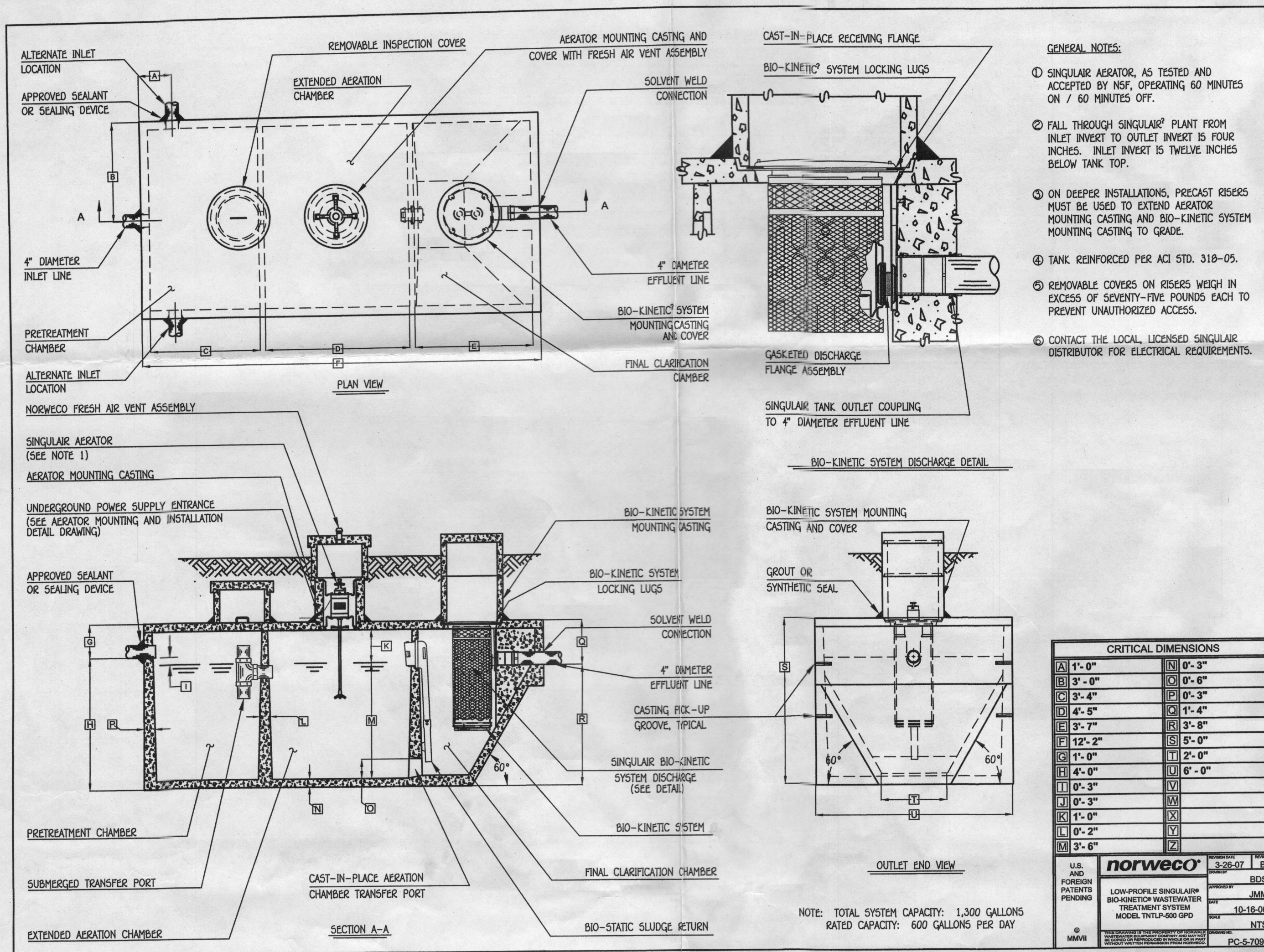
8/6/14  
DATE

## HOUSE LOCATION DRAWING

FOUNDATION LOCATION: 7/31/14  
FINAL LOCATION: \_\_\_\_\_  
BOUNDARY SURVEY: \_\_\_\_\_

SCALE: 1"=60'  
DATE: 8/1/14  
DRAWN BY: GAD  
CHECKED BY: MLR  
PROJECT No.: 30636-2001





- GENERAL NOTES:**
1. SINGULAR AERATOR, AS TESTED AND ACCEPTED BY NSF, OPERATING 60 MINUTES ON / 60 MINUTES OFF.
  2. FALL THROUGH SINGULAR<sup>®</sup> 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 SINGULAR 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"	R	1'-4"
E	3'-7"	S	3'-8"
F	12'-2"	T	5'-0"
G	1'-0"	U	2'-0"
H	4'-0"	V	6'-0"
I	0'-3"	W	
J	0'-3"	X	
K	1'-0"	Y	
L	0'-2"	Z	
M	3'-6"		

**norweco** 3-26-07 L.B.  
U.S. AND FOREIGN PATENTS PENDING  
LOW-PROFILE SINGULAR<sup>®</sup> BIO-KINETIC WASTEWATER TREATMENT SYSTEM  
MODEL: TINTLP-600 GPD  
10-16-08  
NTS  
PC-6-7091

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

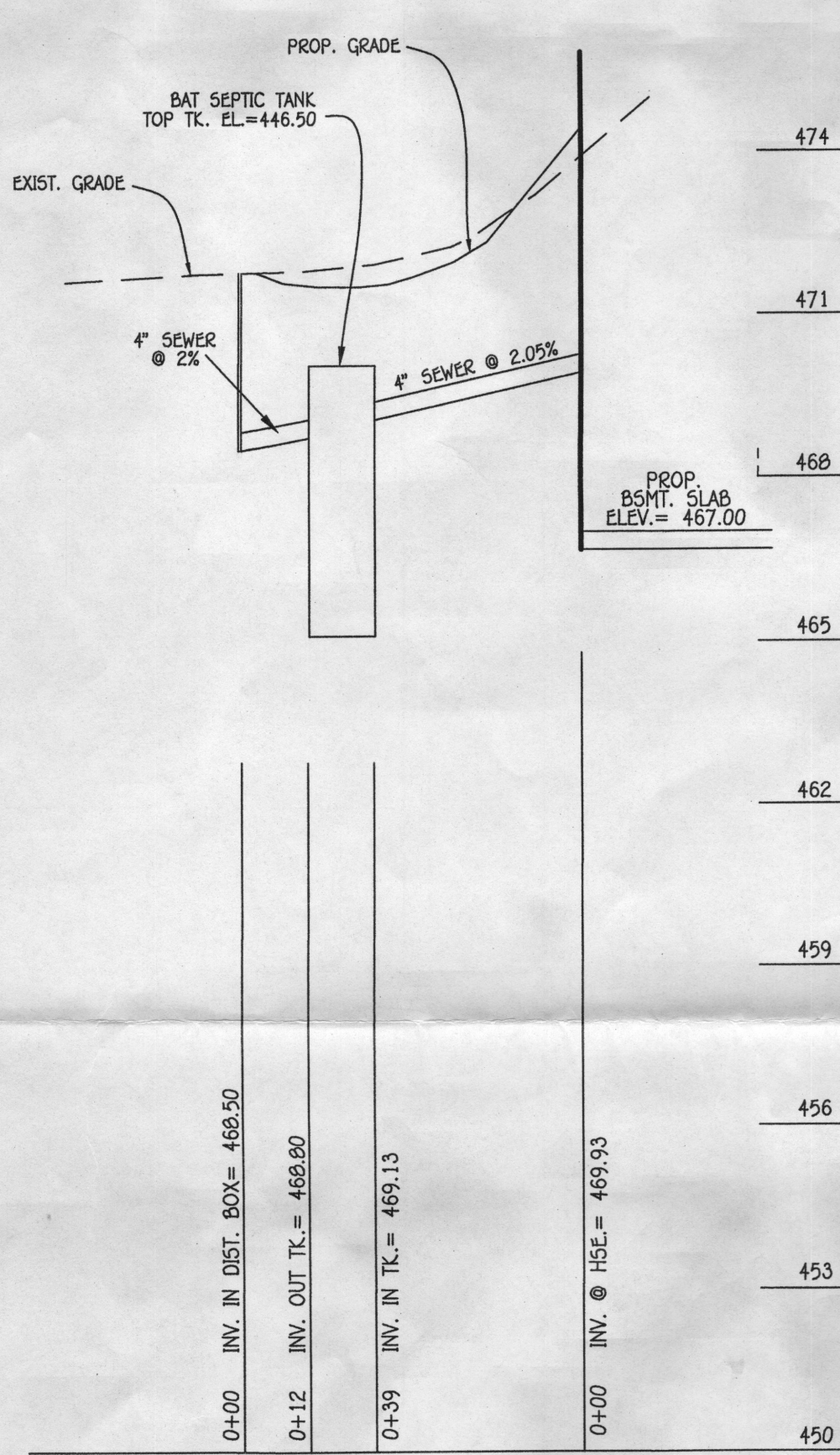
**BAT SYSTEM DETAIL**  
NOT TO SCALE

**SEWAGE DISPOSAL SYSTEM DATA (PERMIT FOR 3 BEDROOMS, DESIGN FOR 4 BEDROOMS)**

- PROP. INVERT AT FOUNDATION WALL: 469.93
1. NORWECO TINTLP-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:  
(4 BDRM X 150 GPD/BDRM= 6000 GPD)  
600 / 1.8 APP. RATE = 333.33 SF  
USE 3' WIDE TRENCH AND 9' MIN. SPACING BETWEEN TRENCH EDGES.  
333.33 SF / 3' WIDTH = 111.11 L.F. X 0.625 = 69.44 L.F. MIN. TRENCH  
USE 1- 69.5' LONG TRENCH = 69.5 L.F.

**TRENCH DATA:**

- TRENCH 1:  
EX. GROUND ABOVE = 486.80  
INV. IN = 482.80  
BOTTOM TRENCH = 479.80
- TRENCH 2:  
EX. GROUND ABOVE = 485.90  
INV. IN = 481.90  
BOTTOM TRENCH = 478.90



**BAT SYSTEM PROFILE**

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

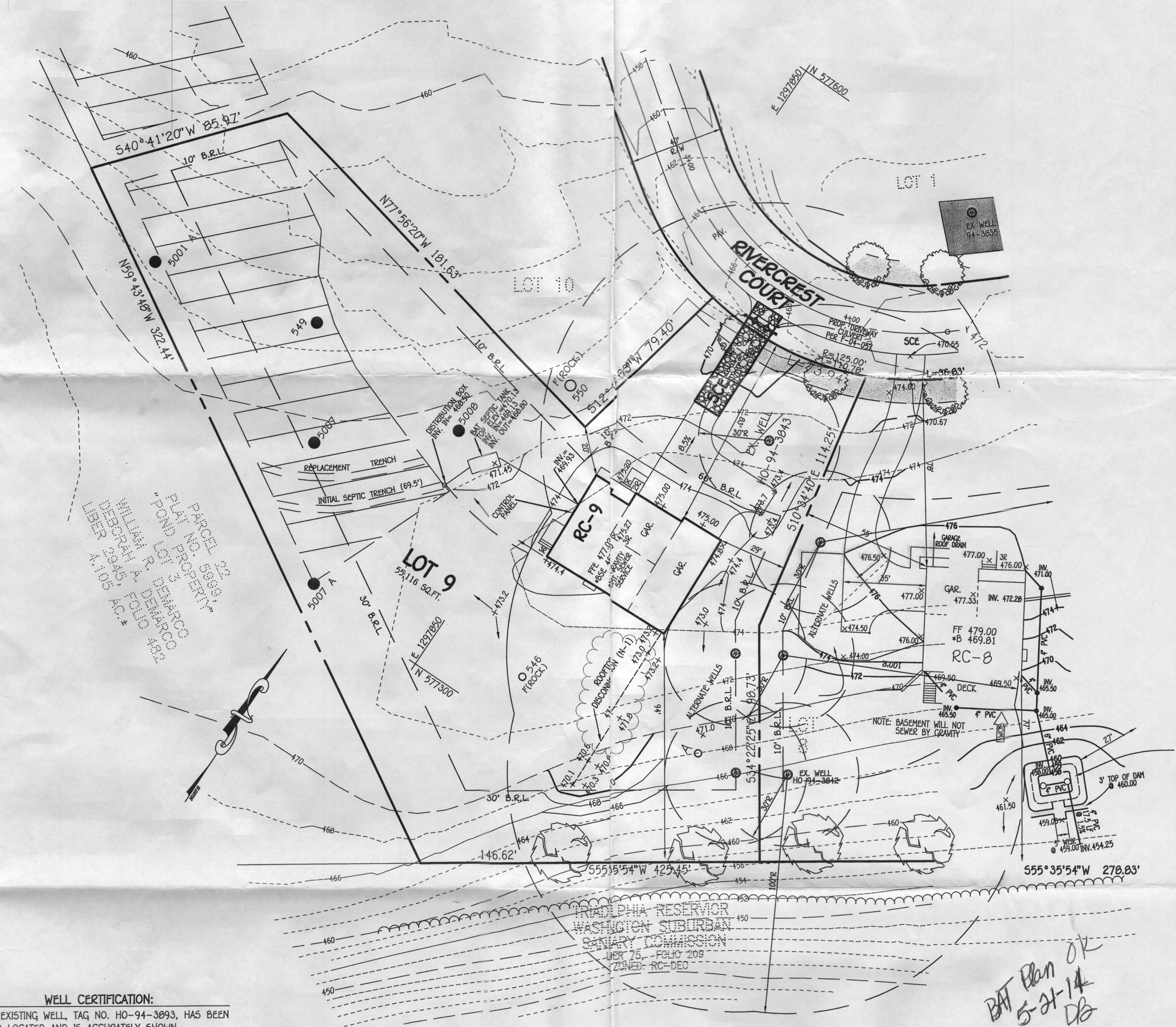
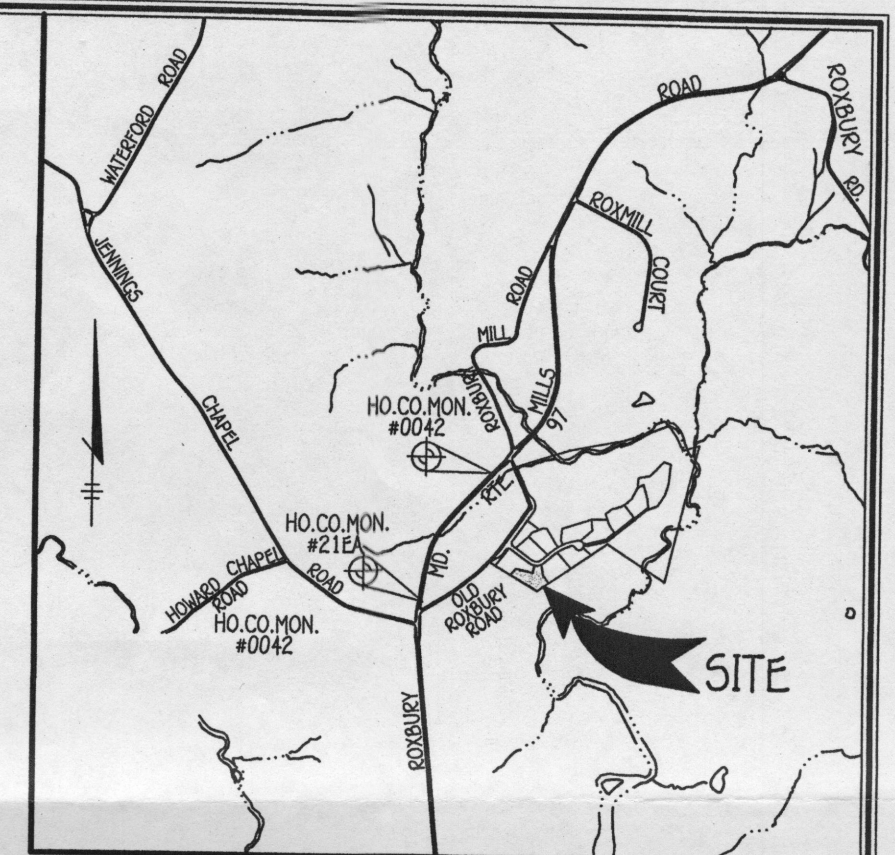
**BAT NOTES**

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.

**BENCH MARKS**

T.P. 0042 ELEV. 506.686  
N. 582.213.359  
E. 1.298.954.882  
LOC. NEAR INTERSECTION OF  
MD. RTE. 97 & ROXBURY ROAD

T.P. 215A ELEV. 451.650  
N. 582.715.133  
E. 1.300.495.984  
LOC. NEAR INTERSECTION OF  
MD. RTE. 97 & OLD ROXBURY RD.

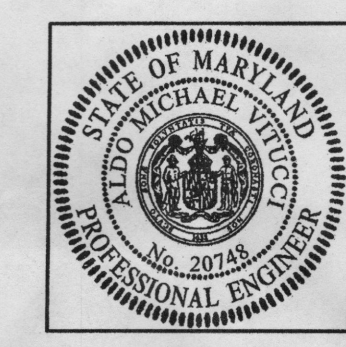


**WELL CERTIFICATION:**  
THE EXISTING WELL, TAG NO. HO-94-3893, HAS BEEN FIELD LOCATED AND IS ACCURATELY SHOWN.

**PROFESSIONAL CERTIFICATION**

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 20748, EXPIRATION DATE: 02/22/15.

*ALDO M. VITUCCI* 5/16/14  
ALDO M. VITUCCI DATE



**OWNER**

GREG C. MARINI & HEIDI A. BOES  
1308 COLLEGE SQUARE  
COLUMBIA, MARYLAND 21044

**BUILDER/DEVELOPER**

COLUMBIA BUILDERS  
P.O. BOX 999  
COLUMBIA, MARYLAND 21044  
410-730-3940

**BAT INSTALLATION SITE PLAN RIVERCREST LOT 9**

ZONED: RC-DEO PLAT NO.: 18208 THRU 18210  
TAX MAP NO.: 21 GRID NO.: 20 PARCEL NO.: 84  
4TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND  
SCALE: 1" = 30' DATE: MAY, 2014