

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

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

RECEIPT DATE: 10-20-14 **ONSITE SEWAGE DISPOSAL SYSTEM** P 555284-A
 INSTALLATION **PERMIT**
 APPROVAL DATE: _____ A _____
CONSTRUCTION

PROPERTY ADDRESS: 13710 Barberry Way
 SUBDIVISION: Barrow Property LOT: _____ TAX ID: _____
 CONTRACTOR: South Carroll Backhoe EMAIL: ken@skbackhoe.com
 CONTRACTOR ADDRESS: 4410 Salem Bottom Road PHONE: 410-596-3618
 PROPERTY OWNER: M & O Properties EMAIL: _____
 OWNER ADDRESS: 12545 Indian Hill Road, Sykesville, MD 21784 PHONE: 410-489-4596

BAT UNIT MODEL: Advantex AX20 BAT UNIT SIZE: 600 GPD

PUMP CHAMBER CAPACITY (GALLONS): _____ PUMP SIZE: _____

NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. _____ APPLICATION RATE: 1.2? 7, 3

DISTRIBUTION SYSTEM: GRAVITY FED LOW PRESSURE DOSED

TRENCHES:	LINEAR FEET REQUIRED: <u>130'</u>	INLET DEPTH: <u>5'</u>
	TRENCH WIDTH: <u>2</u>	MAXIMUM BOTTOM DEPTH: <u>5 8'</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>8'</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>4.5'</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>2x65' Trenches</u>	

ISSUED BY: Jeff Williams ISSUE DATE: _____ EXPIRATION DATE: 10-22-15

- 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

**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
2'	5'	8'
NUMBER OF TRENCHES 2		
TOTAL LENGTH 127'		
ABSORPTION AREA 445		
DISTRIBUTION BOX LEVEL Yes		
DISTRIBUTION BOX BAFFLE Yes		
DISTRIBUTION BOX PORT Yes		

SEPTIC TANK DATA

SEPTIC TANK I LEVEL Yes

MANUFACTURER Oranco AX20

CAPACITY 1,500 GAL

SEAM LOC Top

TANK LID DEPTH 1'-2'

BAFFLES No - Told to Delete By BAT Rep.

~~BAFFLE~~ FILTER Biotube

MANHOLE LOC Front + 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:

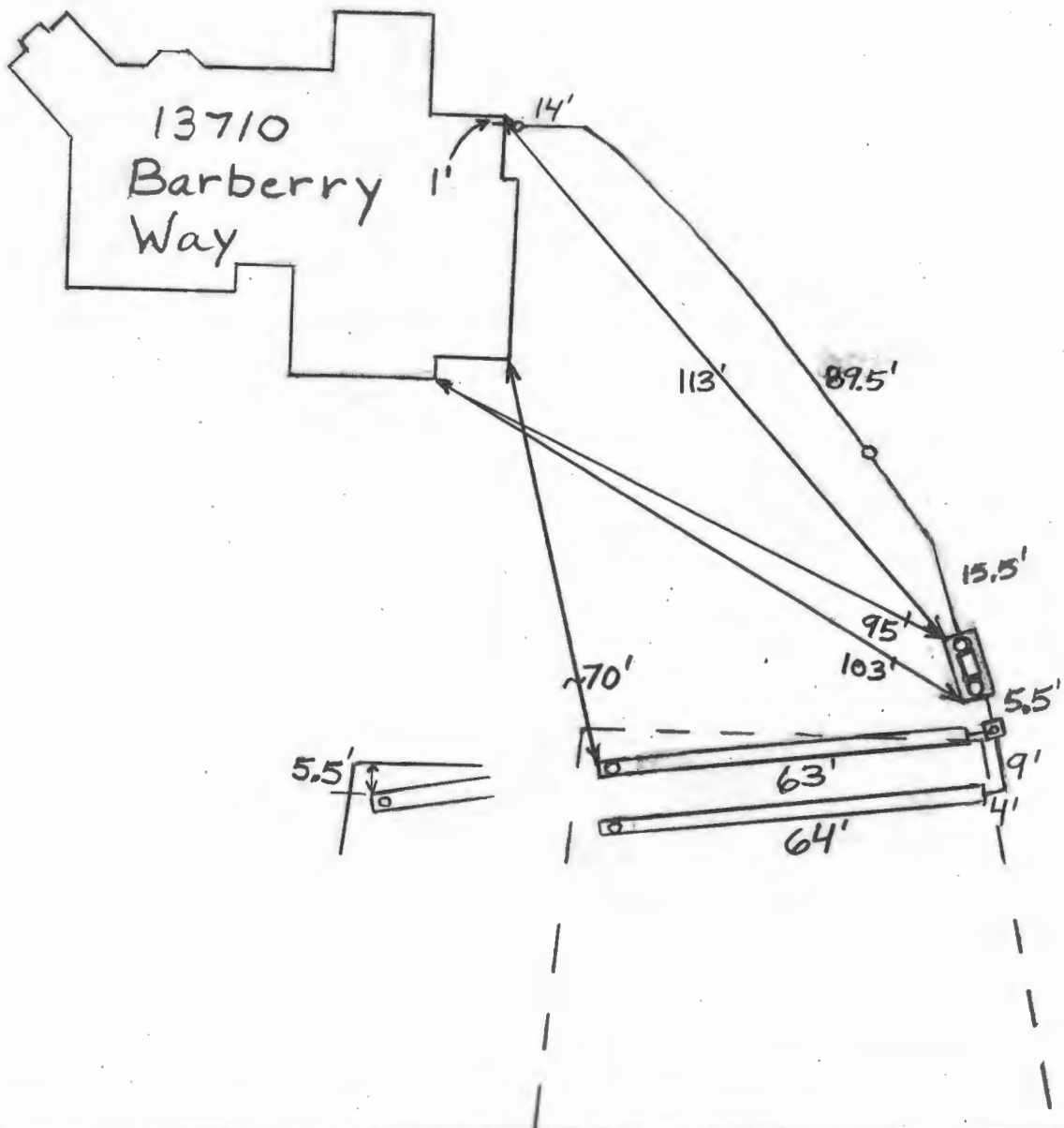
10/31/2014 Install two 65' trenches on contour across the top of the septic easement. Set tank just above easement corner. (BB)

INSTALLATION:

11/5/2014 System finished except for start-up and BAT approval from Advantex rep. (BB)

FINAL INSPECTOR _____ DATE OF APPROVAL _____

• HO-95-2572



Clerk of the Circuit Court for
Howard County
Land Records/Licensing

The Thomas Dorsey Building
9250 Bendix Road
Columbia, MD 21045
410-313-5850

LR - Agreement Recording Fee
1x 20.00 20.00

Grantor/Grantee Name: SK Homes
Reference/Control #: 153

LR - Agreement Surcharge
1x 40.00 40.00

LR - Additional Recording Fee - linked
1x 0.00 0.00

LR - Agreement Recording Fee
1x 20.00 20.00

Grantor/Grantee Name: Sk Homes
Reference/Control #: 154

LR - Agreement Surcharge
1x 40.00 40.00

LR - Additional Recording Fee - linked
1x 0.00 0.00

SubTotal: 120.00

Total: 120.00

REV-Check-BOA 120.00
Number : 3209

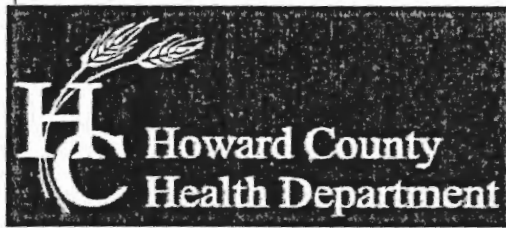
07/09/2013 09:13 CC13-VB

#1767262 /497/109

***** DUPLICATE #001 *****

07/09/2013 09:14 CC13-VB

Thank you for visiting us today



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
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
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 14th day of June, among Michael and Erin Payne, 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 Barberry Way, in the 5th 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 14636 Folio 00383.

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



AdvanTex® Field Maintenance Report

Start-Up Summary Report

Atlantic Solutions, MD
(877) 814-8426

Property Owner/Tracking #		Operator		Installed Date	
Site Address 13710 Barberry Way, Sykesville MD 21784					Start-Up Date
Phone Number 4108754197	Permit #	Mode Mode 3A	Bedrooms	Occupants	Occupancy Date
Designer/Engineer Atlantic Solutions		Phone (401) 293-0176	Authorized Installer		Phone
AdvanTex Dealer Atlantic Solutions, LTD		Phone (401) 293-0176	Electrician		Phone

Primary Treatment

If using a single Processing Tank, complete the following:

Processing Tank

Septic Volume (_____ gal.) Recirc Volume (_____ gal.)

Construction Concrete Fiberglass Other

Manufacturer: _____

If using a separate Septic Tank and Recirc Tank, complete the following:

Septic Tank (_____ gal.)

Construction Concrete Fiberglass Other

Manufacturer: _____

Recirc Tank (_____ gal.)

Construction Concrete Fiberglass Other

Manufacturer: _____

Pump Model: 1215 300 511

Floats set properly at 11 -in. 13 -in. 24 -in.

Secondary Treatment

RSV setting: _____ -in.

Residual head measurement:

Pod #1 _____ -in. Pod #2 _____ -in. Pod #3 _____ -in.

Discharge Tank/Basin (_____ gal.)

Construction Concrete Fiberglass PVC (Basin)

Manufacturer: _____

Pump Model: _____

Floats set properly at _____ -in. _____ -in. _____ -in.

Discharge pump flow rate (drawdown test): (_____ gpm)

Discharge pump dose volume: (_____ gal./dose)

Comments Start up

Control Panel

Panel ID (RTU or UL #)	"On" Timer Setting	"Off" Timer Setting
TCOM - MVP		

Filter Pods

Pod #1 Serial No.	Pod #2 Serial No.	Pod #3 Serial No.
419910		

Other System Components

Disinfection equipment (manufacturer): _____

Dispersal system (type of): _____

Declarations (Initial)

Orenco's Start-Up Procedure was followed.

All lids are secured.

Circuit breakers are on and control panel is latched.

"For Service Call" label with phone # was affixed to panel.

Homeowner Package was reviewed with:

Builder on (date) _____

Resident on (date) _____

The system is ready for use Yes No (explain)

Signature [Signature] Date 11/14/14

SEPTIC SPECIFICATIONS WORKSHEET

Subdivision Barrow Property

A 537345

Street Name 13710 Barberry Way

Lot Number Parcel 359

Average Percolation Rate (min./in.) 5 min./inch

Application Rate (GPD/sq. ft.) 1.2

Number of Bedrooms 4

Design Flow (#BRx150) = 4 x 150 = 600

Square Footage (of House) ± 3900

Septic Tank Capacity (gal.) 2000

Sidewall Credit / % Reduction 2 feet / .62% **Total Length of Trench (ft.)** 103.33

***All Septic/Pump tanks must be top seamed unless otherwise approved by this agency.**

***All Septic tanks must be compartmented unless otherwise approved by this agency.**

Baffle Filter Required? Yes No

TRENCH DIMENSIONS: Trench to 3 feet wide. Inlet is at 3 feet below original grade with 2 feet of stone below the distribution pipe. Bottom maximum depth is 5 feet below original grade. Effective sidewall begins at 3 feet below original grade. Maintain at least 9 feet spacing between trenches.

$$\frac{4 \times 150}{1.2 \times 3} = 500 = 166.66 \times 0.62 = 103.33$$

BAT System used is the AdvanTex – Model – AX20- Mode 3A

PUMP SYSTEM PROPOSED? YES NO

Pump system details: _____ gallon pump chamber

Note 1: Septic pump detail to be provided by installer prior to issuance of septic permit.

Note 2: Pump performance test required prior to Health Department approval of pumped septic system.

LOCATION:

1. Set septic tank per layout inspection.
2. Set distribution box per layout inspection.
3. Install 103.33 feet of trench on contour.

ADDITIONAL NOTES **Do not** order the septic tank until after layout inspection and Sanitarian approval.

Stake septic easement corners. Call for layout inspection. Mark utilities. Gravel tickets must be available for Environmental Sanitarians. Stone must be approved by the Howard County Health Department. A written variance request is required for tanks deeper than 3 feet. A traffic bearing lid is required for tanks deeper than 4 feet.

Reviewed by: Dana Bernard

Date: 12/5/13



HOWARD COUNTY HEALTH DEPARTMENT

55284-A

DATE
10 12 14

B5

Received From

South Carroll Backhoe PHONE #

For

Septic Permit / 13710 Barberly Way
13805 Forsyth Rd / Walnut Creek
lot 11

CASH

CHECK

NO. 004

\$730

Nine hundred fifty-seven Dollars

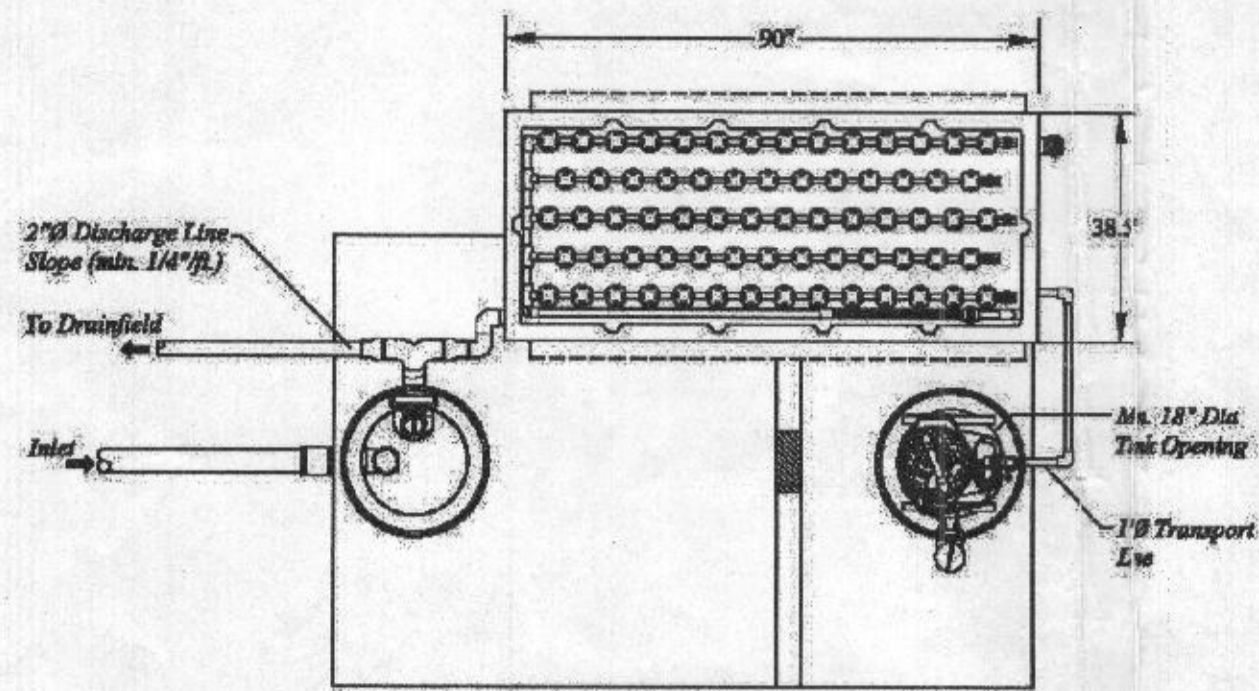
\$

957.00

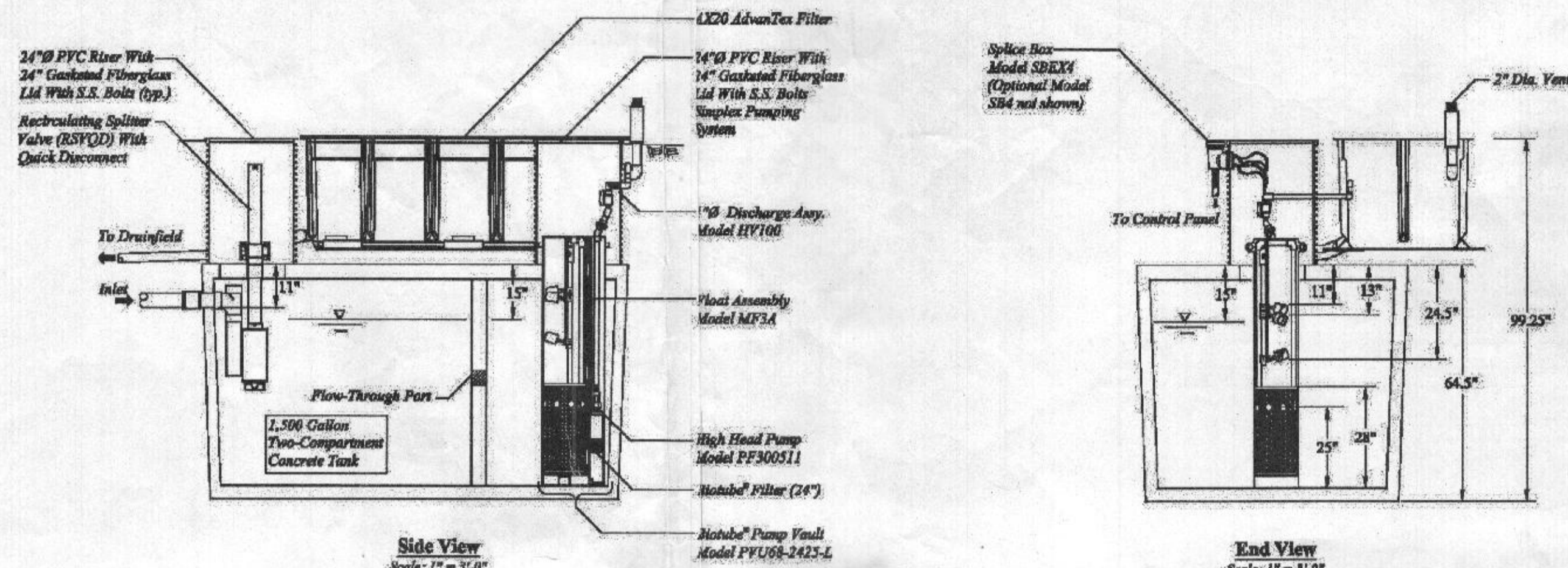
Received By

A. Kiff

AdvanTex® AX20 Mode 3A



Top View
Scale: 1" = 3'-0"



Side View
Scale: 1" = 3'-0"

End View
Scale: 1" = 3'-0"

Design Notes

For residential strength waste up to 4 bedrooms.
Installation to be performed by an AdvanTex Authorized Installer only.
Start-up and service to be performed by an AdvanTex Authorized Service Provider only.

SEPTIC SYSTEM ELEVATIONS

FFE = 614.33
BSE = 604.68
INV. OUT OF HOUSE = 603.85
EX/PROP GRADE AT BAT TANK (TOP OF FILTER CHAMBER) = 606.2
TOP OF TANK = 603.3
INVERT INTO TANK = 602.38
INVERT OUT OF TANK = 603.58
HIGH LEVEL ALARM (Y) = 602.38
OVERRIDE TIMER ON/OFF (G) = 602.21
LOW LEVEL ALARM - LLA/RO (W) = 601.25
GRADE AT DISTRIBUTION BOX = 606.2
INV. INTO DISTRIBUTION BOX = 603.45

SEPTIC SYSTEM DESIGN

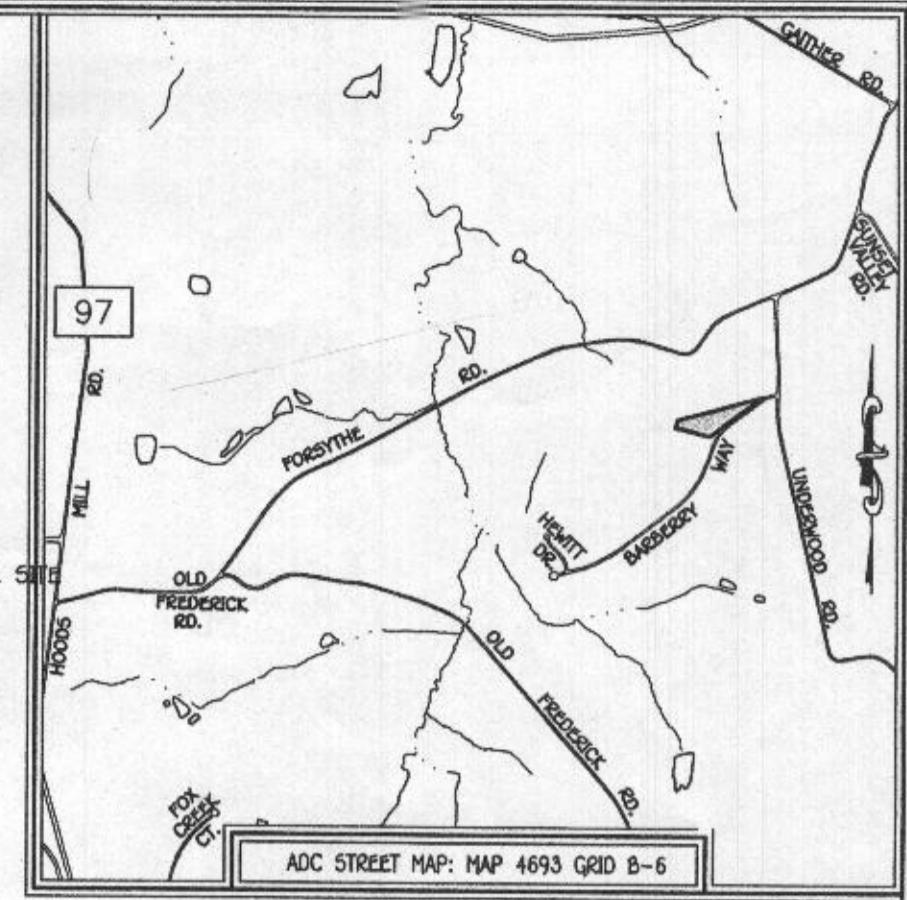
4 BEDROOM HOUSE
TRENCH LENGTH = 104 FEET
TRENCH INVERT = 3 FEET
TRENCH T1 INVERT = 603.2
TRENCH T2 INVERT = 602.5
TRENCH DEPTH = 5 FEET

BAT NOTES

- 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.
- THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
- THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
- 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.
- ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
- AN AGREEMENT AND EASEMENT HAS BEEN COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY, LIBER 15049, FOLIO 437.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.
- SURFACE RUNOFF SHALL BE DIRECTED AROUND THE BAT TANK.
- AT HIGH WATER ALARM PROBE, PUMP WILL HAVE CONTINUOUS OPERATION UNTIL LEVEL GOES BELOW PROBE.
- IF WATER LEVEL RISES ABOVE THE ALARM PROBE, AN AUDIBLE AND VISUAL ALARM WILL SOUND. SEE MANUFACTURER SPECS FOR ADDITIONAL INFORMATION.
- ALARM TO BE WIRED TO A CIRCUIT SEPARATE FROM THE PUMP CIRCUIT.

LEGEND

- EXISTING 2' CONTOURS
- - - EXISTING 10' CONTOURS
- EXISTING TREE LINE
- GgB SOIL LINES AND TYPES
- DENOTES PROPOSED WELL
- 2A DENOTES PASSED PERC HOLE
- 3A DENOTES FAILED PERC HOLE
- 1 DENOTES A PERC HOLE NOT DUG
- DENOTES 1500 SQ.FT. ALTERNATE WELL SITE
- - - SF SILT FENCE
- - - SSF SUPER SILT FENCE
- - - LOD LIMIT OF DISTURBANCE



VICINITY MAP
SCALE: 1" = 200'

GENERAL NOTES

- SUBJECT PROPERTY ZONED: RC-DEO
- TOTAL AREA OF PROPERTY: 3.064 AC.
- LIMIT OF DISTURBANCE: 45,347 SQ.FT. OR 1.04 ACRES.
- SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT REVIEW.
- LENGTH OF TRENCH TO BE DETERMINED AT TIME OF SEPTIC PERMIT ISSUANCE.
- CONTRACTOR/BUILDER TO VERIFY ELEVATION IN THE FIELD BEFORE BEGINNING ANY CONSTRUCTION.
- BOUNDARY BASED ON A FIELD RUN MONUMENTED BOUNDARY SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN MAY 2013.
- TOPOGRAPHY SHOWN HEREON IS BASED ON A FIELD RUN SURVEY CONDUCTED BY FISHER, COLLINS & CARTER, INC. IN MAY 2013.
- OFF-SITE AND AREAS OUTSIDE THE LIMITS OF FIELD TOPOGRAPHY ARE BASED ON HOWARD COUNTY GIS TOPOGRAPHY AT 2' CONTOUR INTERVAL.
- NO WETLANDS EXIST ON THIS PARCEL.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THESE EASEMENTS SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWERAGE EASEMENT. RECORDATION OF A MODIFIED SEWERAGE EASEMENT SHALL NOT BE NECESSARY.
- PROPERTY DEED REFERENCE: LIBER 14636, FOLIO 383.

UNAUTHORIZED CHANGES & USES
Owner has prepared these drawings for use by the design engineer. Owner will not be responsible or liable for unauthorized changes in or use of these drawings. All changes to these drawings must be made in writing and must be approved by the design engineer.

PRODUCT CONFIGURATION DRAWINGS

Oranco Systems® Incorporated
Changing the Way the World Does Wastewater®

Drawn By: REN SMITH	Project: AX20 Mode 3A	Scale: 1" = 3'-0"
Drawn For:	Title: NDW-ATX-BNDR-5	Sheet: 1 OF 1
	Rev: 03	Date: 4/26/2013

Copyright © 2013
Oranco Systems®, Inc.

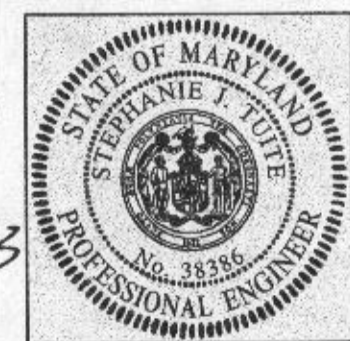
SOILS LEGEND		
SOIL	NAME	CLASS
GgB	Glencol loam, 3 to 8 percent slopes	B

*Best Plan OK
DB
12-10-13*

PROFESSIONAL CERTIFICATION

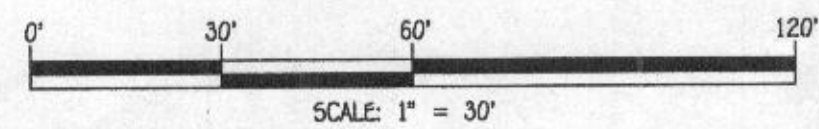
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 38386, EXPIRATION DATE: 01/12/2014.

Stephanie Tate 12/9/13
Signature of Professional Engineer DATE

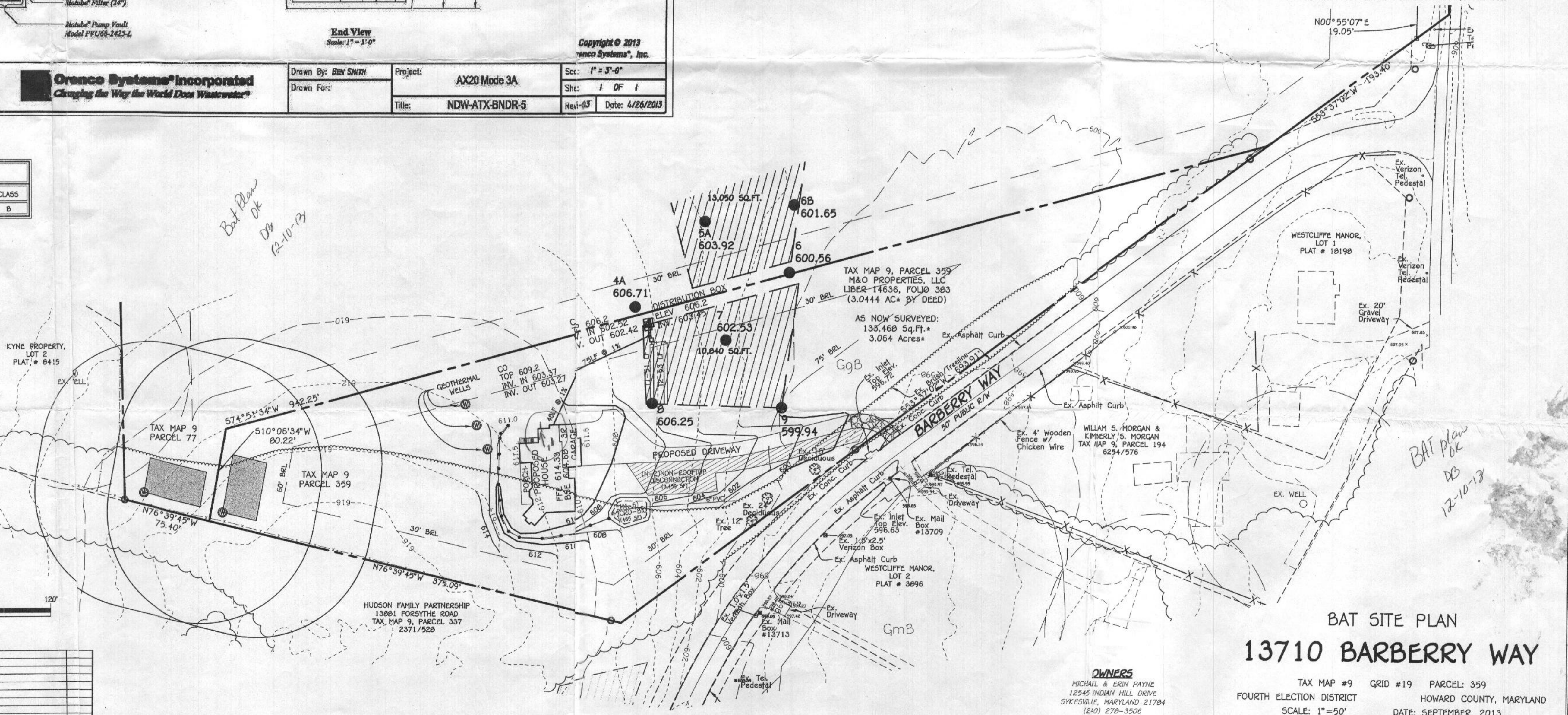


BUILDER/DEVELOPER

WILLIAMSBURG GROUP, LLC
5485 HARRIS FARM ROAD, SUITE 200
COLUMBIA, MARYLAND 21044
410-997-8800



FISHER, COLLINS & CARTER, INC.
CIVIL ENGINEERING CONSULTANTS & LAND SURVEYORS
CONTINENTAL SQUARE OFFICE PARK - 10712 BALTIMORE NATIONAL PIKE
ELLSWORTH CITY, MARYLAND 21042
(410) 461-2899



BAT SITE PLAN
13710 BARBERRY WAY

OWNERS
MICHAEL & ERIN PAYNE
12545 INDIAN HILL DRIVE
SYKESVILLE, MARYLAND 21784
(210) 278-3506

TAX MAP #9 GRID #19 PARCEL 359
FOURTH ELECTION DISTRICT HOWARD COUNTY, MARYLAND
SCALE: 1" = 50' DATE: SEPTEMBER, 2013