



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: 3-21-16 **ONSITE SEWAGE DISPOSAL SYSTEM** P 558042

APPROVAL DATE: 5/2/16 **PERMIT: CONSTRUCTION** A _____

PROPERTY ADDRESS: 1890 Florence Road

SUBDIVISION: Chelsea Knolls LOT: Par D TAX ID: _____

CONTRACTOR: Freedom Septic EMAIL: Kristin@freedomseptic.com

CONTRACTOR ADDRESS: 2809 Liberty Road, Sykesville, MD 21784 PHONE: 410-984-6863

CONTRACTOR CERTIFIED FOR BAT INSTALLATION: MDE MANUFACTURER:

PROPERTY OWNER: Donna Lynn Shapiro EMAIL: _____

OWNER ADDRESS: 2082 Florence Road PHONE: _____

BAT UNIT MODEL: Singulair TNT 500 PUMP SIZE: _____ PUMP TANK CAPACITY: _____

OPERATION & MAINTENANCE AGREEMENT DATE SIGNED: _____ DATE RECORDED: _____

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 5 APPLICATION RATE: 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>130</u>	INLET DEPTH: <u>3</u>
	TRENCH WIDTH: <u>3</u>	MAXIMUM BOTTOM DEPTH: <u>5</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>2</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: Use 2 x 65' trenches

ISSUED BY: Robert Bricker ISSUE DATE: 3-21-16 EXPIRATION DATE: 3-21-17

- 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
 ELECTRICAL PERMIT ISSUED E 15004518
- 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

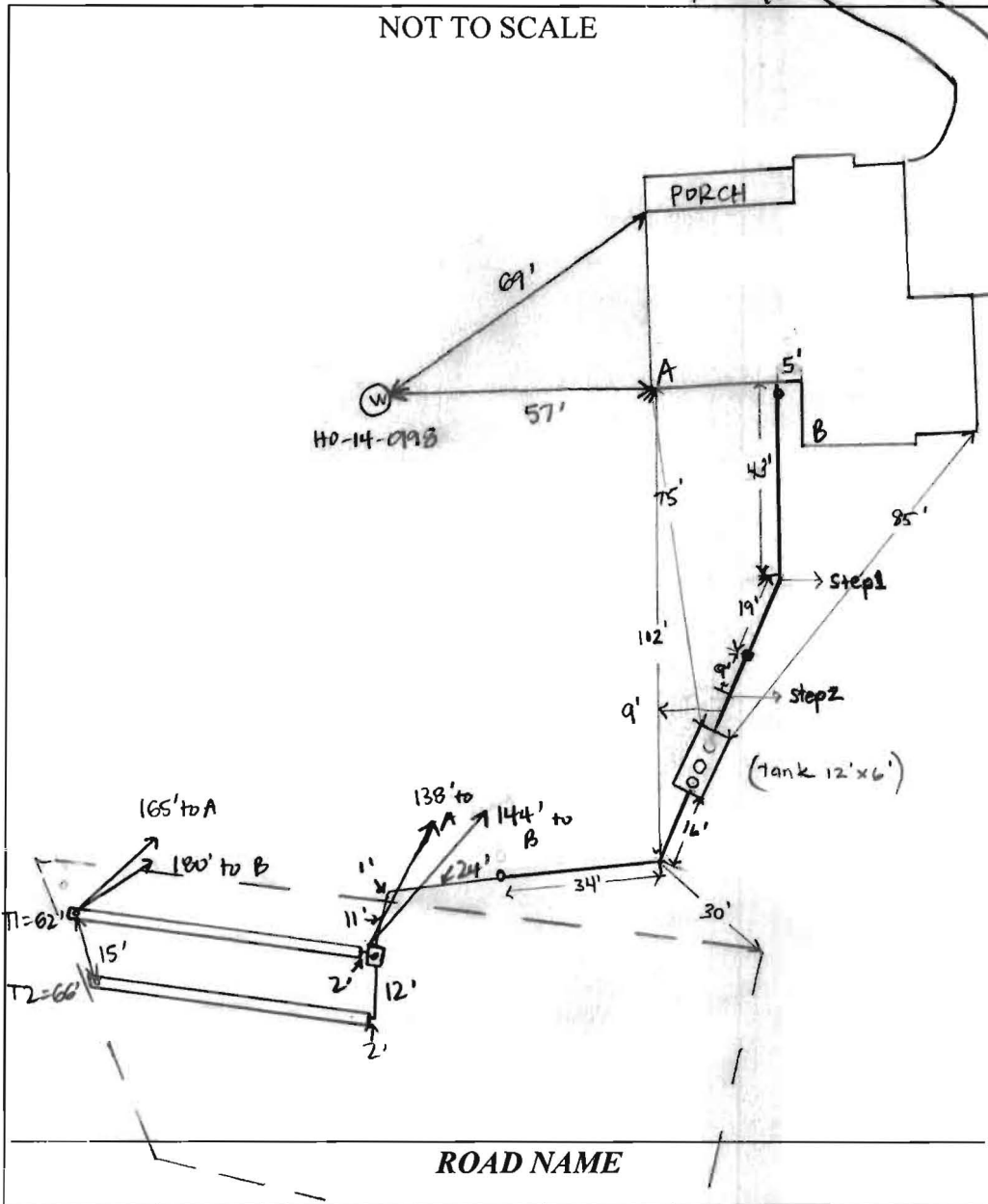
NEITHER THE HOWARD COUNTY COUNCIL NOR THE HEALTH DEPARTMENT IS RESPONSIBLE FOR THE SUCCESSFUL OPERATION OF ANY SYSTEM.

PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.

CALL 410-313-1771 TO SCHEDULE INSPECTIONS.

NOT TO SCALE

1" = 40'



TRENCH/DRAINFIELD DATA		
WIDTH	INLET	BOTTOM
3'	3'	5'
NUMBER OF TRENCHES		2
TOTAL LENGTH		128'
ABSORPTION AREA		384' + SIDEWALL
DISTRIBUTION BOX LEVEL		YES
DISTRIBUTION BOX BAFFLE		YES
DISTRIBUTION BOX PORT		YES

SEPTIC TANK DATA	
SEPTIC TANK I LEVEL	YES
MANUFACTURER	NORWECO TMT
CAPACITY	1300 GAL
SEAM LOC	TOP
TANK LID DEPTH	1.5' - 2'
BAFFLES	NO
BAFFLE FILTER	NONE
MANHOLE LOC	FRONT, MIDDLE, BACK
6" PORT LOC	NONE
WATERTIGHT TEST	NO
SLOTTED	NO
DATE ON LID	

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

PRE-CONSTRUCTION:

4/20/16 Met Freedom on site for layout. Tank staked and trenches staked - no SDA stakes. Checked contour + length of trenches - 66', on contour. Must stake SDA corners before trench install. Pulled 100' off well - tank and trenches will be 100' feet away. (SC)

INSTALLATION:

4/27/16 site inspection contractor onsite, tank in place, upon arrival observed that the solids line from the house to the tank was installed at a much greater slope than 2%. I requested that 2 steps be added to the line to decrease the percentage of slope. The contractor completed the work while I was onsite and bedded the line w/ stone. SHC has been made. Line from the tank to the Dbox only partially completed. SDA has been staked and trenches rebot w/ transit, still good, ok to backfill solids line, tank, and 50' of line to the Dbox at which point the contractor stated he was installing a cleanout, ok to continue. (SC) 4/26/16 Both trenches complete, T1 left open and T2 ends open. 2' to stone. D-box installed + connected. Need BAT startup certification. (SC) 5/2/16 BAT startup received. (SC)

Levelled speed levelers.

FINAL INSPECTOR Sarah Collins DATE OF APPROVAL 5/2/16

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 1890 Florence Rd., Mt. Airy, MD 21771 on April 27, 2016 was installed according to the manufacture's specifications.

Installer: Daniel Farrow

Property Owner: Donna Shapiro

Permit #

THIS CERTIFICATION IS FOR INSTALLATION ONLY. THE 5-YEAR OPERATIONS & MAINTENANCE AGREEMENT FROM DATE OF INSTALLATION WILL ONLY GO INTO EFFECT AFTER BACK RIVER PRE-CAST, LLC RECEIVES FINAL AND FULL PAYMENT FOR THE SYSTEM.



MATTHEW GECKLE

Vice-President

Oswald, Hank

From: Oswald, Hank
Sent: Monday, June 01, 2015 12:34 PM
To: 'Todd Hill'
Cc: 'Maya Mildenberg'
Subject: RE: Chelsea knolls - parcel D

Hi Todd:

Yes sorry. I was waiting for the perc cert to be signed. The BAT Plan requires a couples of changes.

- 1.) Change label on plan to Parcel C (Not D) to match the Perc Cert Plan. Or is it Parcel D in which case the Perc Cert could be "red lined"?
- 2.) Show last 5 feet of sewer line before tank at 2% on sewer profile. Also, I believe the sewer profile scale should be 50 not 30.
- 3.) Show pump runtime on plan = 2 minutes
- 4.) Plot Head Loss on pump curve and designate pump model on plan.

Should you have any questions, please let me know.

Thanks,

Hank

From: Todd Hill [<mailto:thill@mba-eng.com>]
Sent: Monday, June 01, 2015 9:36 AM
To: Oswald, Hank
Cc: 'Maya Mildenberg'
Subject: Chelsea knolls - parcel D

Good Morning Hank;

I was hoping to get an update on the status of the BAT plan for Chelsea Knolls, Parcel D

Thank you,
Todd M. Hill
Prof. Land Surveyor, Project Manager
Mildenberg, Boender & Assoc., Inc.
7350-B Grace Drive, Columbia, MD 21044
(410) 997-0296

Oswald, Hank

From: Oswald, Hank
Sent: Friday, February 06, 2015 1:41 PM
To: 'thill@mba-eng.com'
Subject: Chelsea Knolls Parcel D_BAT Plan Review Comments
Attachments: Chelsea Knolls Parcel D_Sewage Disposal Spec Sheet.pdf

Mr. Hill:

The following comments apply to the BAT Plan submitted for Chelsea Knolls - Parcel D.

- Revise percolation certification plan to reflect new well box location on BAT Plan.
- Include static head, runtime and dose figures on BAT Plan
- Using the sewage disposal system spec worksheet (attached), change septic design calculations and trench data on BAT Plan
- Change trench spacing to 10 feet on BAT Plan.
- Move trenches closer to holes 2 and 6 on BAT Plan or design a LPD system

Should you have any questions, please don't hesitate to ask.

Respectfully,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
410.313.1786

5.11.15

Reviewed BAT Plan. Response pending perc cert signature.

• show last 5' @ 2'.

• Show Run Time = 2 min on plan
• Δ scale on sewer profile to 50

$$\frac{w+2}{w+1+2d} = \frac{3+2}{3+1+2(\cancel{2})} = 0.62$$

$$\frac{5}{5}$$

Oswald, Hank

From: Oswald, Hank
Sent: Tuesday, June 23, 2015 9:38 AM
To: 'Todd Hill'
Subject: 1890 Florence Road_BAT Plan

Hi Todd:

The building permit for this project is in review. It was received and initially given to my coworker on or around June 19th. The building permit was accompanied with (2) sets of grading plans although it was labeled with a sticky note, BAT Plan. For whatever reason, there is now only one copy of the approved BAT plan in the file. Would you forward another copy of the BAT Plan to the Health Department for the file.

Thanks,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
410.313.1786

Oswald, Hank

From: Oswald, Hank
Sent: Thursday, June 25, 2015 8:06 AM
To: 'Todd Hill'
Subject: RE: 1890 Florence Road_BAT Plan

I will need a paper copy for the septic contractor at time of septic permit.

Thanks,

Hank

From: Todd Hill [<mailto:thill@mba-eng.com>]
Sent: Tuesday, June 23, 2015 1:26 PM
To: Oswald, Hank
Subject: RE: 1890 Florence Road_BAT Plan

Good Afternoon Hank;

Here is a .pdf copy of the BAT Plan, let me know if you need a paper copy.

Todd

From: Oswald, Hank [<mailto:hoswald@howardcountymd.gov>]
Sent: Tuesday, June 23, 2015 9:38 AM
To: Todd Hill
Subject: 1890 Florence Road_BAT Plan

Hi Todd:

The building permit for this project is in review. It was received and initially given to my coworker on or around June 19th. The building permit was accompanied with (2) sets of grading plans although it was labeled with a sticky note, BAT Plan. For whatever reason, there is now only one copy of the approved BAT plan in the file. Would you forward another copy of the BAT Plan to the Health Department for the file.

Thanks,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
410.313.1786

Oswald, Hank

From: Jacob Hikmat <jhikmat@hotmail.com>
Sent: Friday, March 11, 2016 12:53 PM
To: 124hratm@comcast.net
Cc: Maya Mildenberg; Oswald, Hank; dlshap1@mindspring.com
Subject: RE: Shapiro Revised Plan

Matt

Good afternoon.

We received a call from the Health Department (Hank Oswald). he has some comments on your desig.

Please give him a call.

Hank,;

MBA gave Matt permission to revise the plans. MBA did not design this system.

Thanks

R. Jacob Hikmat, P.E.
President
Mildenberg, Boender and Associates, Inc.
7350 Grace Drive, Suite B
Columbia, MD 21044
(410) 997-0296
(443) 538-9547 (Cell)

Date: Tue, 8 Mar 2016 21:36:52 +0000
From: 124hratm@comcast.net
To: jhikmat@hotmail.com
Subject: Fwd:Shapiro Revised Plan

Jacob,
Attached is a copy of the changes we made to your drawing.

I have also attached a PDF & CADD drawing of the Norweco 600 GPD which is good for a 1 -5 bedroom house if you ever need it.
We also have bigger systems if you need something bigger.
If I could ever be of assist to you in designing a BAT system just give me a call or send me an email.

Thanks,

MATT GECKLE
BACK RIVER PRE-CAST,LLC
410-833-3394

COURAGE IS BEING SCARED TO DEATH-
BUT SADDLING UP ANYWAY

From: "Tony Geckle" <dagbrp@gmail.com>
To: 124hratm@comcast.net
Sent: Tuesday, March 8, 2016 4:23:01 PM
Subject: Revised Plan

Attached is the revised plan per coments.

Tony Geckle
Back River Pre-Cast, LLC.
P.O. Box 329
Glyndon, MD 21071
Phone 410-833-3394
Fax 410-833-4116

N/F
STATE OF MARYLAND
DEPT OF FORESTS &
PARKS
622,7484
PARCEL 8
RC-DEO

N/F
LOT 13
KOGAN TRUST
PROPERTY LOTS 8-13
PLATS 10010-10012
RC-DEO

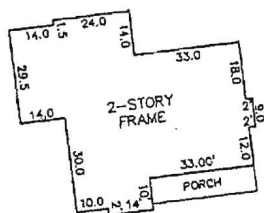
NON-BUILDABLE BULK PARCEL "D"
29.37 AC± TOTAL
PLAT 23138

NON-BUILDABLE
PRESERVATION PARCEL "B"
PLAT 22019
RC-DEO

N/F
LOT 8
KOGAN TRUST
PROPERTY LOTS 8-13
PLATS 10010-10012
RC-DEO

N/F
LOT 9
KOGAN TRUST
PROPERTY LOTS 8-13
PLATS 10010-10012
RC-DEO

DONNA N/F
LYNN SHAPIRO
L1084/F138
PLATE 16508



DETAIL
1"=30'

SEE
DETAIL

FLORENCE ROAD
50' R/W

LOCATION DRAWING
CHELSEA KNOLLS
REVISION PLAT AND DENSITY
EXCHANGE PLAT
BUILDABLE PRESERVATION PARCEL "D"

TAX MAP 12
PARCEL 78
GRID 5

4TH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
EX. ZONING RC-DEO
PLAT NO. 23138

SCALE: 1"=150'
DATE: MARCH 3, 2016
FF.ELEV= 668.42

**MILDENBERG,
BOENDER & ASSOC., INC.**
Engineers Planners Surveyors

I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A BULLY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 574, EXPIRATION DATE: 02/21/17

ADDRESS: FLORENCE ROAD
FIRST FLOOR ELEV. = 868.42

THE INFORMATION SHOWN HAS BEEN ESTABLISHED BY CURRENT ACCEPTABLE SURVEY PROCEDURES AND FROM AVAILABLE RECORD INFORMATION. THIS DRAWING IS TO BE USED FOR TITLE TRANSFER, FINANCING, OR RETAINANCE ONLY AND IS NOT TO BE USED FOR THE ESTABLISHMENT OF PROPERTY LINES, LOCATION OF FENCES, GARAGES, BUILDINGS, OR OTHER EXISTING OR FUTURE IMPROVEMENTS.



1"=200'
MB

Modified Copy of approved Wall Check submitted to DIAP and plotted at 'Actual Size' from Accela.

SOILS TABLE (WITHIN LOD)

SYMBOL	RATING	NAME	K FACTOR	SOIL MAP #
BrD	(B)	BRINKLOW CHANNERY LOAM, 15-20% SLPS.	.20	
GcB	(B)	GLENELG LOAM, 3-8% SLOPES.	.20	
GcC	(B)	GLENELG LOAM, 8-15% SLOPES.	.20	

SEPTIC TRENCH SIZING

SYSTEM	APPLICATION RATE (GPD / SF)	MAXIMUM FLOW RATE (GPD)	AREA OF REQUIRED TRENCH (SF)	TRENCH WIDTH (FT)	LENGTH OF REQUIRED TRENCH (LF)	EFFECTIVE DEPTH (FT)	TRENCH REDUCTION FACTOR**	ADJUSTED LENGTH OF REQUIRED TRENCH (LF)	MINIMUM TRENCH SPACING (FT)	PROVIDED TRENCH LENGTH (FT)
PRIMARY	1.2	750	625	3	208.3	2	0.62	129.2	10.0'	130
SECONDARY	0.8	750	937.5	3	312.5	2	0.62	193.8	10.0'	195
TERTIARY	0.8	750	937.5	3	312.5	1	0.XX	XXX.X	10.0'	228

LEGEND

- PRIMARY SEPTIC TRENCH
- SECONDARY SEPTIC TRENCH
- TERTIARY SEPTIC TRENCH
- DB DISTRIBUTION BOX
- M-6 MICRO-BIOTENTION
- PROPOSED CONTOURS
- PROPOSED SPOT ELEVATION
- ROOF LEADER
- EXISTING TREELINE
- PROPOSED WELL ZONE

GENERAL NOTES:

- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE OCTOBER 6, 2013 COMPREHENSIVE ZONING PLAN.
- PARCEL BACKGROUND:**
TAX MAP : 12
PARCEL : 78, BUILDABLE PRESERVATION PAR. D, PLAT #23138
DEED REFERENCE: LIBER 14774 FOLIO 467
ELECTION DISTRICT : 4th
ZONING : RC-DEO
AREA : 29.37 ACRES ±
DPZ FILES: F-07-072, F-14-056, GP-15-041
- 2' TOPOGRAPHY FOR THE DEVELOPED AREAS IS BASED ON A FIELD RUN SURVEY BY MILDBERG BOENDER & ASSOC. ON OR ABOUT SEP. 2001. 2' TOPOGRAPHY FOR THE NON-DEVELOPED AREAS IS BASED ON HOWARD COUNTY 200 SCALE MAPS.
- PRIVATE WELL AND SEPTIC WILL BE UTILIZED.
- SOILS DATA BASED ON THE USDA SOIL SURVEY OF HOWARD COUNTY, MD, DATED MAY, 2008.
- THIS AREA DESIGNATES A PRIVATE SEWERAGE EASEMENT OF AT LEAST 10,000 SQ. FT. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF ENVIRONMENT FOR INDIVIDUAL SEWERAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWERAGE IS AVAILABLE. THIS EASEMENT 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 EASEMENT SHALL NOT BE NECESSARY.
- ANY CHANGES TO A PRIVATE SEWERAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
- EXISTING WELLS, SEPTIC SYSTEMS, AND SEWERAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWERAGE DISPOSAL AREAS HAVE BEEN SHOWN.
- THE WELL SHALL BE DRILLED PRIOR TO HEALTH DEPARTMENT APPROVAL OF THE BUILDING PERMIT. IT IS THE DEVELOPER'S RESPONSIBILITY TO SCHEDULE THE WELL DRILLING PRIOR TO APPLYING FOR A BUILDING PERMIT. IT WILL NOT BE CONSIDERED "GOVERNMENT DELAY" IF THE WELL DRILLING HOLDS UP HEALTH DEPARTMENT APPROVAL OF THE BUILDING PERMIT.

BEST AVAILABLE TECHNOLOGY (BAT) SITE PLAN 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 REQUIRED.
- THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3.0' FEET. NOT USED.
- 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 (1) 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 MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN THE LAND RECORDS OF HOWARD COUNTY.
- THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.

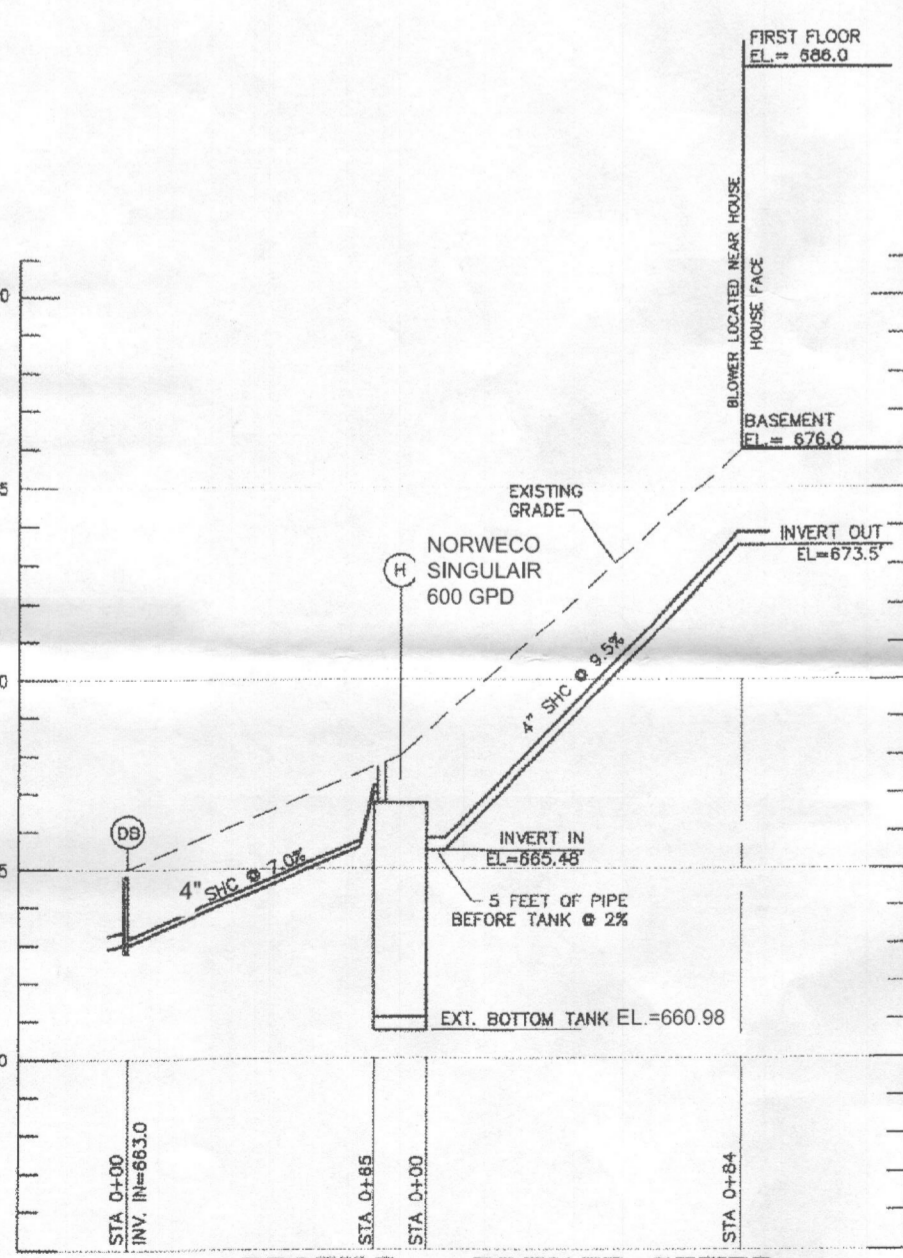
ON-SITE SEWAGE DISPOSAL SYSTEM:

RESIDENTIAL SYSTEM DESIGN: NORWECO SINGULAR 600 GPD
4 BEDROOM HOUSE (LIVING AREA = 2,260 SQ.FT.)
[DESIGNED FOR 5 BEDROOM]
150 GALLONS X # OF BEDROOMS = VOLUME OF WASTEWATER /DAY
150 X 5 = 750 GPD
PERC RATE = 6-15 MINUTES/INCH
APPLICATION RATE = 1.2 GPD/SQ.FT.
DESIGN FLOW X APPLICATION RATE = SQ.FT. OF TRENCH REQUIRED
750 X 1.2 = 625 SQ.FT. [USE 625]
SQ.FT. REQUIRED X WIDTH OF TRENCH = LENGTH OF TRENCH
625 X 3.0' = 208.33 FT
USE 24" OF GRAVEL BELOW DRAIN PIPE
208.33 X 0.62 = 129.16 [USE 130]
USE TWO (2) 65.0' TRENCHES
A MINIMUM OF 10' BETWEEN TRENCHES UTILIZING SIDEWALL REDUCTION CREDIT.
MINIMUM TANK CAPACITY = 1,500 GALLONS

NON-BUILDABLE BULK PARCEL "B" PLAT # 22019

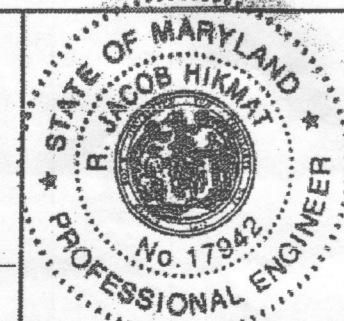
PARCEL 8 STATE OF MARYLAND DEPT. OF FOREST & PARKS L.622, F.484 ZONED: RC DEO

PARCEL 9 TOTAL AGRICULTURAL LAND PRESERVATION EASEMENT S1.85 AC.±



PROFILE - PRIVATE SEWER

APPROVED FOR PRIVATE WATER AND PRIVATE SEWERAGE SYSTEMS

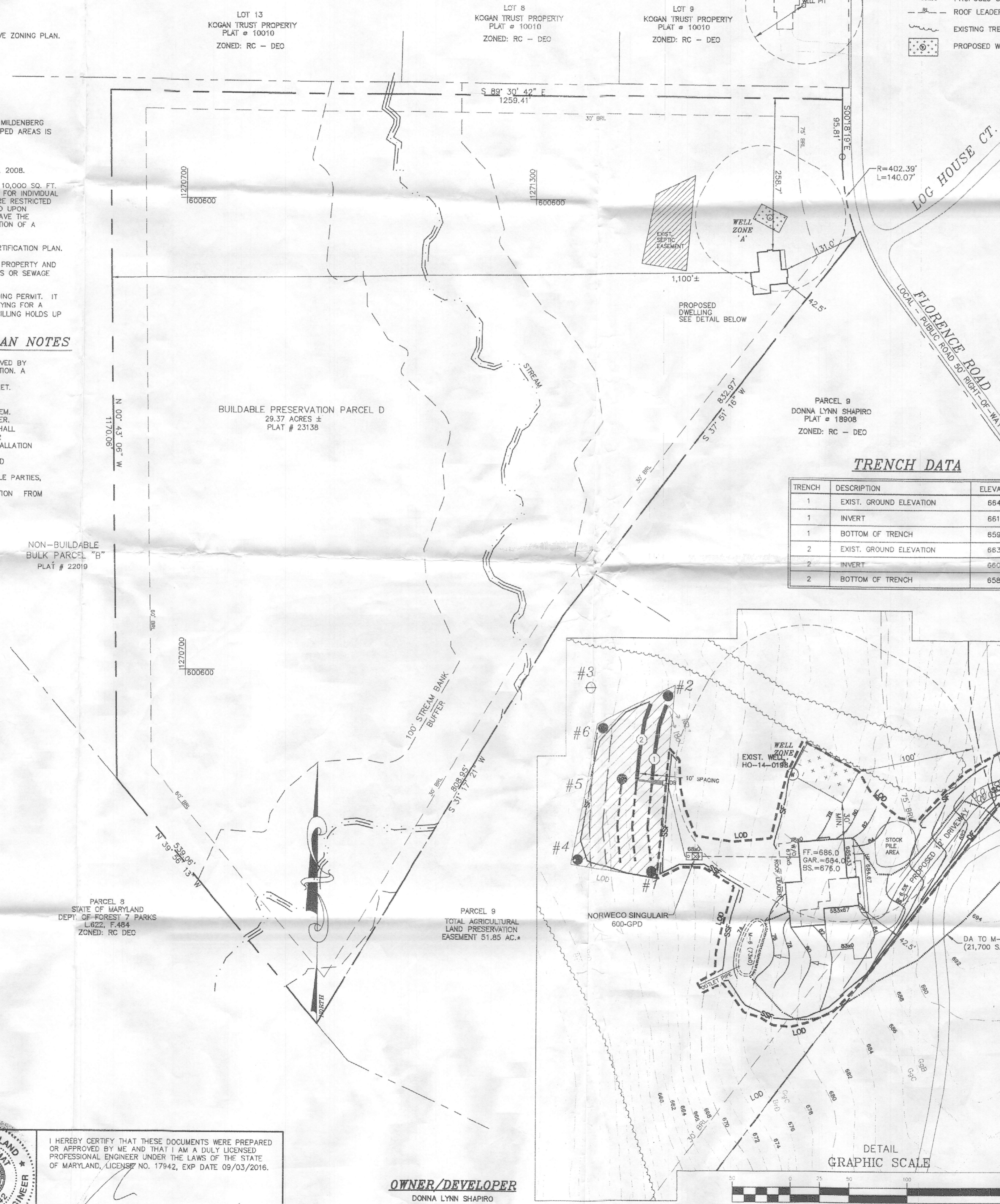


I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 17942, EXP DATE 09/03/2016.

R. JACOB HIKWAT, P.E. DATE: 4/08/2015

OWNER/DEVELOPER

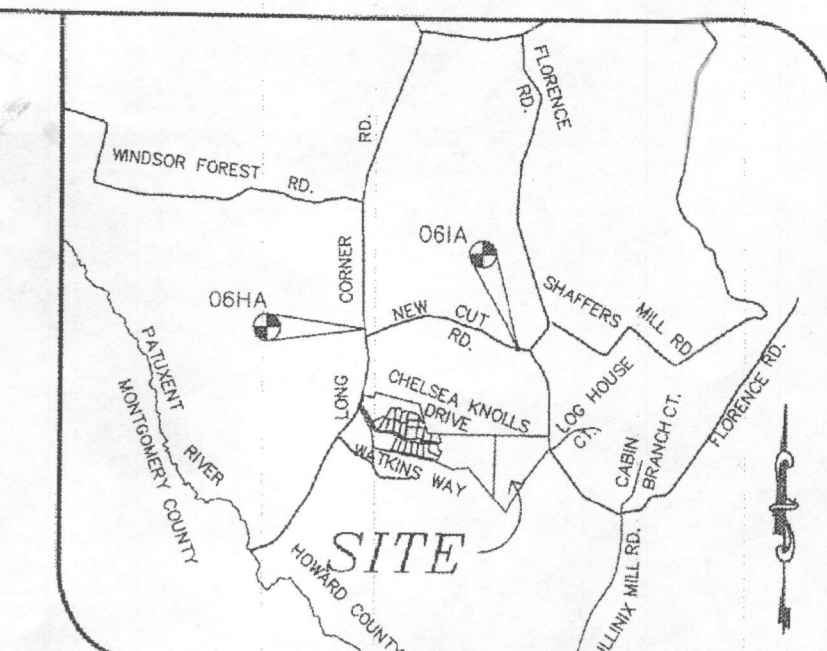
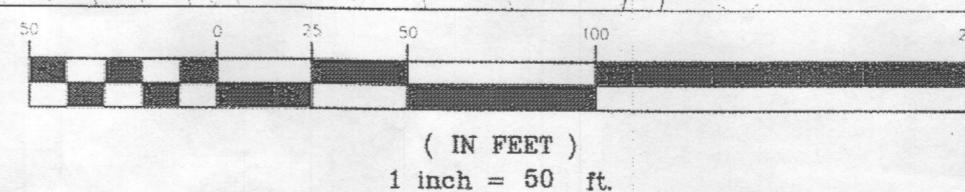
DONNA LYNN SHAPIRO
2082 FLORENCE ROAD
MT. AIRY, MD 21711



TRENCH DATA

TRENCH	DESCRIPTION	ELEVATION
1	EXIST. GROUND ELEVATION	664.0
1	INVERT	661.0
1	BOTTOM OF TRENCH	659.0
2	EXIST. GROUND ELEVATION	663.0
2	INVERT	660.0
2	BOTTOM OF TRENCH	658.0

DETAIL GRAPHIC SCALE



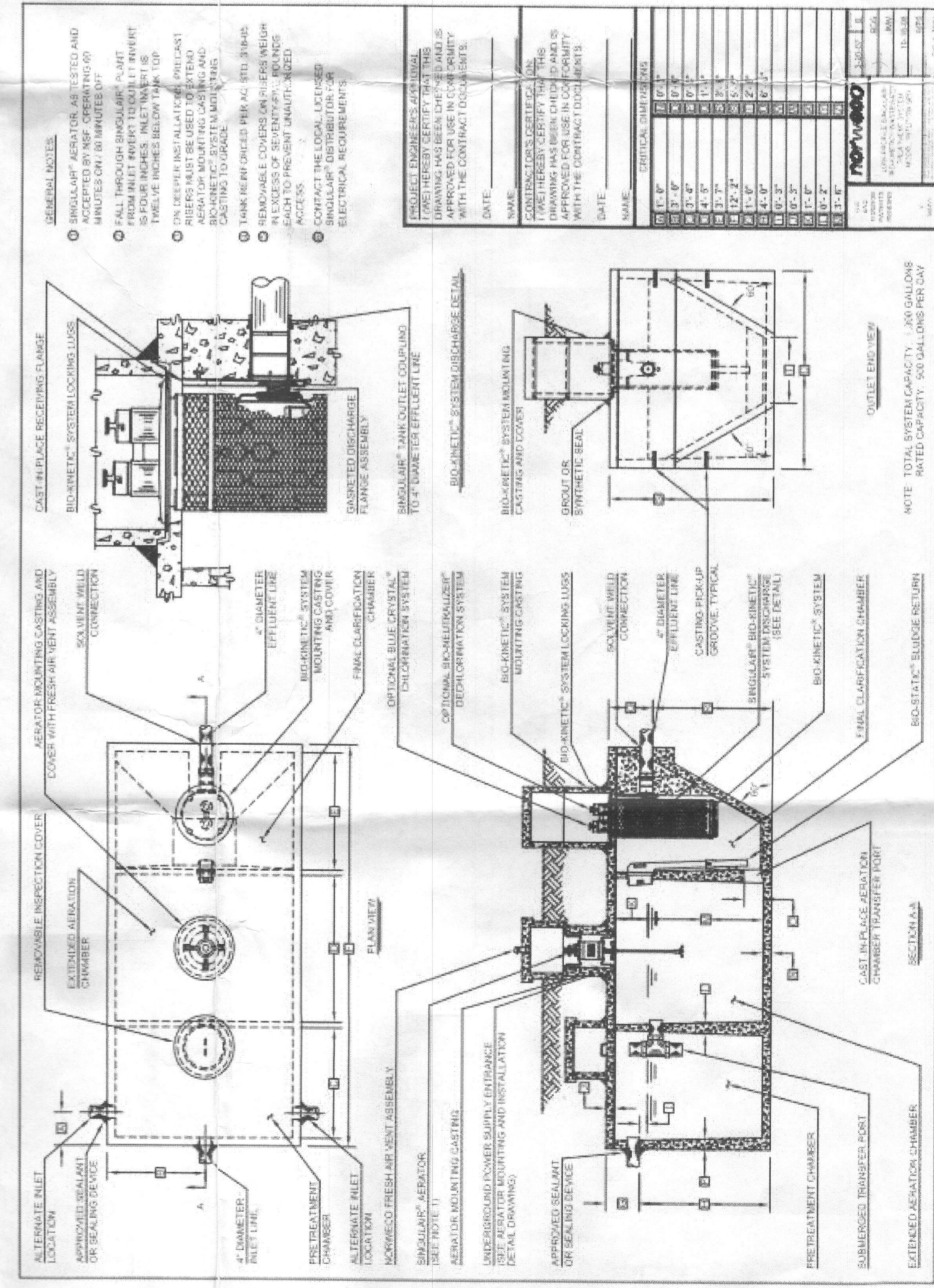
VICINITY MAP
SCALE: 1" = 2000'
ADC MAP 14 GRID E-1

BAT COMPONENTS ELEVATIONS

LOCATION	DESCRIPTION	ELEVATION
A	FINISHED GRADE AT SEPTIC TANK	668.0
B	INVERT INTO TANK	665.48
C	EXTERIOR BOTTOM OF TANK	660.98
D	INTERIOR BOTTOM OF TANK	661.23
E		
F		
G		
H		
I	INVERT OUT OF TANK	664.90



Approved Septic System Plan
Howard County Health Department
Signature: Hank Oswald Date: 2/14/16



Project	13-020	date	JUN 2015
Illustration	TMH	engineering	MMH
Scale	1" = 100'	approval	MMH

CHELSEA KNOLLS, PARCEL D
1890 FLORENCE ROAD, MT. AIRY, MD
TAX MAP 12, GRID 05, PARCEL 78, PLAT#23138
FOURTH ELECTION DISTRICT
HOWARD COUNTY, MARYLAND
SITE PLAN FOR BAT INSTALLATION

MILDBERG, BOENDER & ASSOC., INC.
Engineers Planners Surveyors
7350-B Crans Drive, Columbia, Maryland 21044
(410) 997-0286 Fax (410) 997-0288 Fax

