

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: 1-24-14 ~~3-24-14~~ **ONSITE SEWAGE DISPOSAL SYSTEM** P 546237  
 INSTALLATION APPROVAL DATE: 4/11/14 **PERMIT** A \_\_\_\_\_  
**CONSTRUCTION**

PROPERTY ADDRESS: 2819 Bridal Wreath Court  
 SUBDIVISION: Belle Haven Estates LOT: 19 TAX ID: 04-373839  
 CONTRACTOR: McKim Construction EMAIL: \_\_\_\_\_  
 CONTRACTOR ADDRESS: 38979 Housholder Road, Lovettsville, VA 20180 PHONE: 540-338-3583  
 PROPERTY OWNER: K Hovnanian Homes EMAIL: \_\_\_\_\_  
 OWNER ADDRESS: 1802 Brightseat Road, Landover, MD 20785 PHONE: 301-683-6268

BAT UNIT MODEL: HOOT BNR 600 BAT UNIT SIZE: 600 GPD  
 PUMP CHAMBER CAPACITY (GALLONS): \_\_\_\_\_ PUMP SIZE: \_\_\_\_\_  
 NUMBER OF BEDROOMS: 4 HOUSE SQ. FT. 3530 APPLICATION RATE: 0.8  
 DISTRIBUTION SYSTEM: GRAVITY FED  LOW PRESSURE DOSED

|           |  |  |
|-----------|--|--|
| TRENCHES: | LINEAR FEET REQUIRED: <u>155'</u> ✓  | INLET DEPTH: <u>3</u> ✓                    |
|           | TRENCH WIDTH: <u>3</u> ✓   | MAXIMUM BOTTOM DEPTH: <u>5</u> ✓           |
|           | MINIMUM SPACE BETWEEN TRENCHES: <u>9</u>   | EFFECTIVE AREA BEGINNING DEPTH: <u>3</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 and pump tank per plan.<br>Set distribution box per plan.<br>Install equal length trenches on contour. <i>3x52</i><br><i>* Serial Dist may be needed for approx to conserve area. *</i> |  |

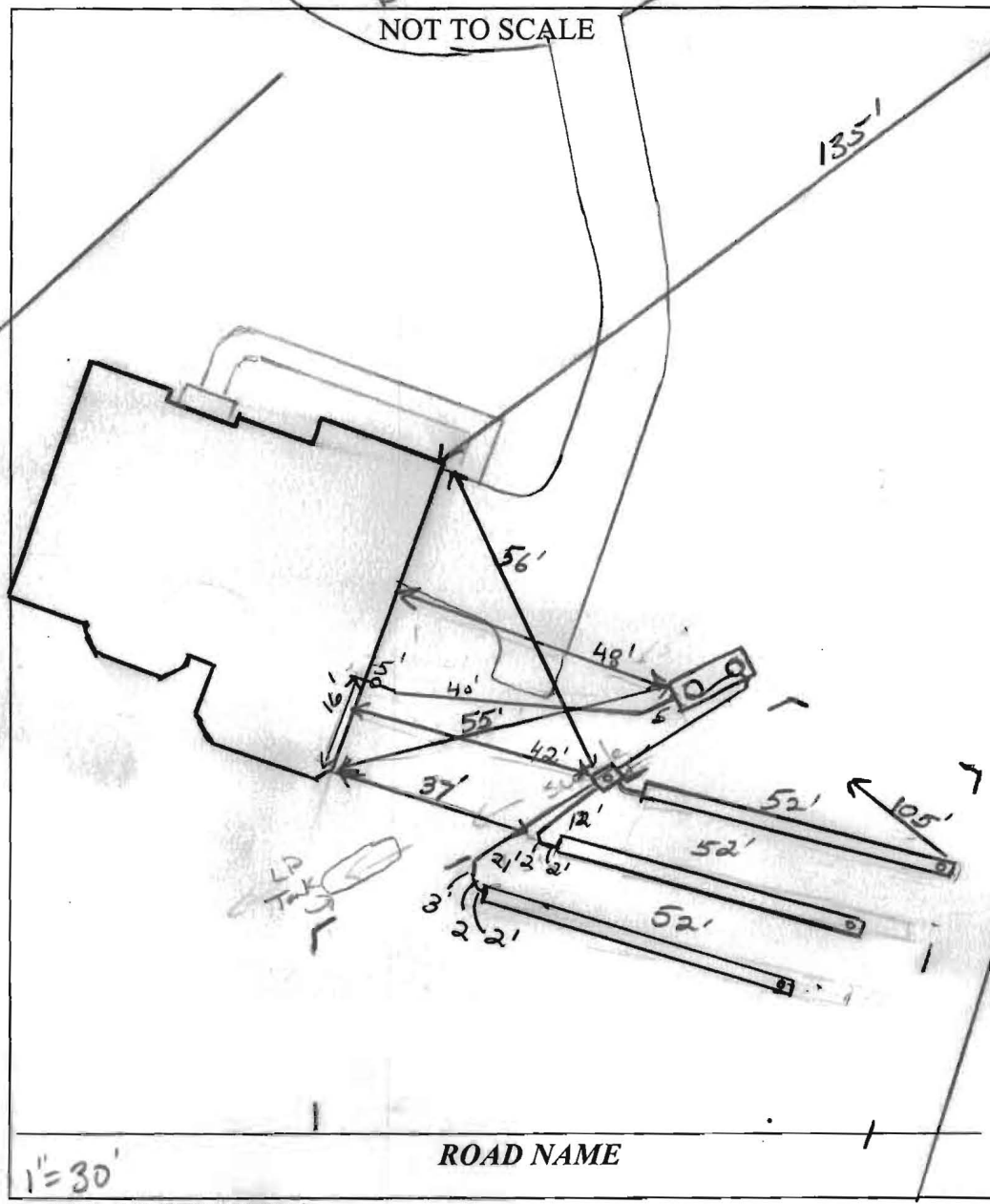
ISSUED BY: Dana Bernard ISSUE DATE: 3-24-14 EXPIRATION DATE: 3-24-15

- 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.

Bridel weather  
cowl

NOT TO SCALE



| TRENCH/DRAINFIELD DATA  |       |        |
|-------------------------|-------|--------|
| WIDTH                   | INLET | BOTTOM |
| 3                       | 2.5   | 5      |
| NUMBER OF TRENCHES      |       | 3      |
| TOTAL LENGTH            |       | 156'   |
| ABSORPTION AREA         |       | 468'   |
| DISTRIBUTION BOX LEVEL  |       | Yes    |
| DISTRIBUTION BOX BAFFLE |       | Yes    |
| DISTRIBUTION BOX PORT   |       | Yes    |

| SEPTIC TANK DATA       |             |
|------------------------|-------------|
| SEPTIC TANK 1 LEVEL    | Yes         |
| MANUFACTURER           | Myer Bros   |
| CAPACITY               | 600 GNR GAL |
| SEAM LOC               | Top         |
| TANK LID DEPTH         | 36"-40"     |
| BAFFLES                | Yes         |
| BAFFLE FILTER          |             |
| MANHOLE LOC            | Front/Rear  |
| 6" PORT LOC            | NONE        |
| WATERTIGHT TEST        |             |
| SLOTTED                | Yes         |
| DATE ON LID            | N/A         |
| 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:

3/26/14 Set BAT unit per approved BAT site plan. Install 3x52' trenches across area as flagged in field. Large swale covered in between house and SRA. BAT may need to be moved slightly down hill to accommodate fall and rise earth cover of 2'. Trench elevation shall be field. Install trenches as flagged in field. slight elevation diff. in each trench. (KW)

INSTALLATION:

4/2/14 Excessive rock broken up in tank hole. Contractor used fresh soil to pack ~12" in tank hole. Explained that gravel, stone, or sand should of been used. Hout rep will be notified. Lower two trenches started. Electrical components being installed.  
 4/3/14 Contractor finished w/ site. Electrical probe sensor too short. could not install wiring to BAT. Hout rep to bring longer wire w/ float free not sensor probe. (KW) 4/4/14 Dist. network installed 1/4" discharge. installed to dbox w/ 4" expansion. Need start-up of BAT. (KW)

FINAL INSPECTOR Kr DATE OF APPROVAL 4/11/14



**MAYER BROS., INC.**

*Precast Concrete Products*

6264 Race Rd. Elkridge, MD 21075

## Letter of Satisfaction Hoot System Installation

Address of Property: 2819 Bridalwath Ct  
Woodbine MD 21797

Date of Final Inspection: 4/11/14

Installer: McKim Construction

Hoot Technician/Inspector: Mike Sample

I hereby certify that the Hoot system installed at the property listed above has been installed according to proper Hoot installation practices. I have also verified the startup of the system and it is in proper working order.

Sincerely,

*N. Michael Dargatzis*

Name of Inspector  
Mayer Bros., Inc.

✓  
AG  
4/25/14

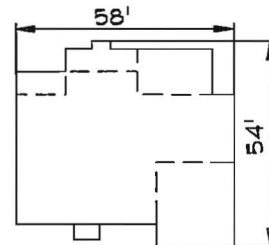
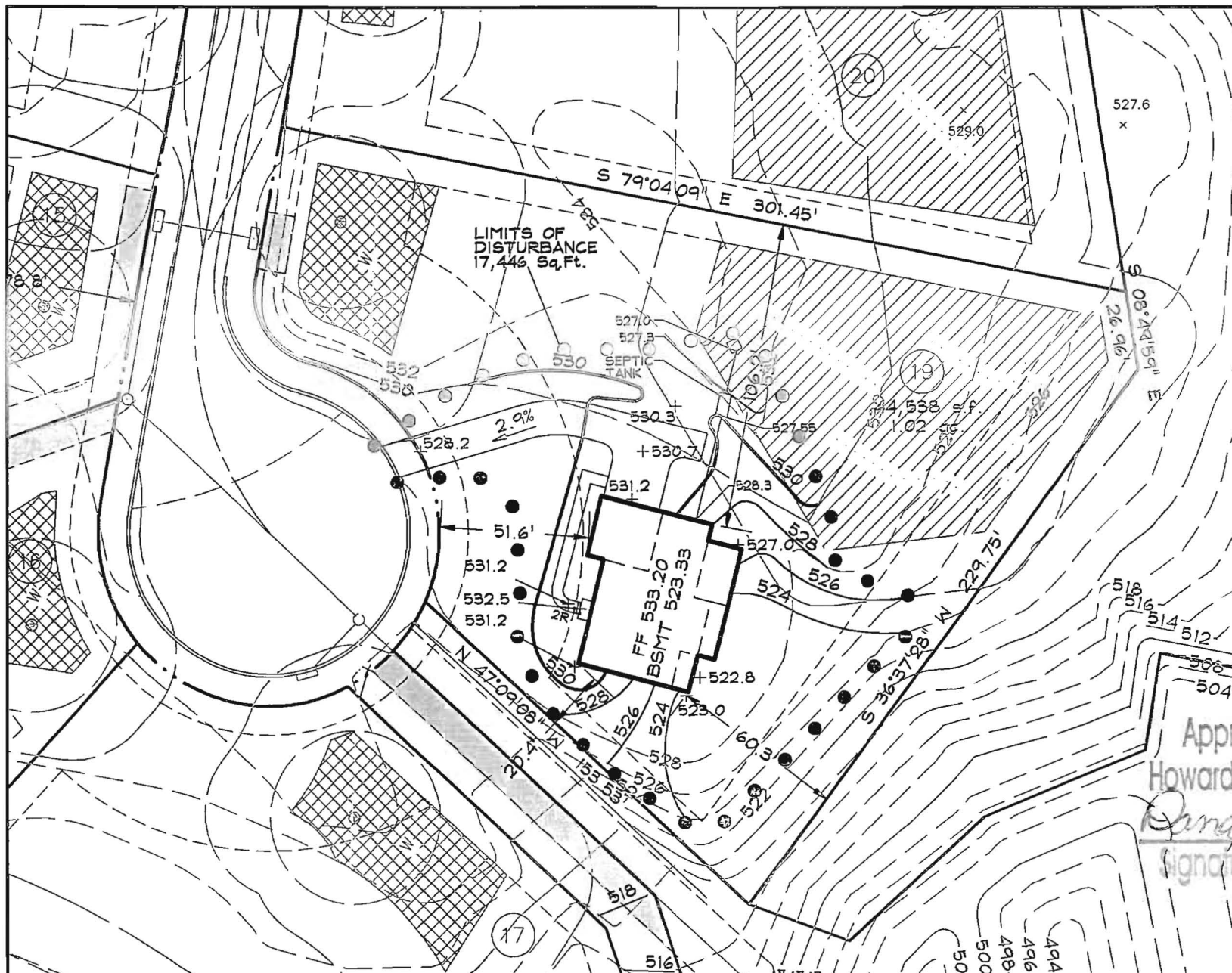
PH: 410-796-1434

FX: 410-796-1438

**WBE**  
**NPCA Certified Plant**

mayerbro@connext.net  
www.mayerbrosprecast.com

Grease Interceptors, Grease Solutions, Aerobic Treatment Units, Septic Tanks, Holding Tanks, Storm Water Structures, Hydroceptors, Bench Barrier, Water Meter Vaults, Sectional Valve Vaults, Top Slabs, Curb Heads, Curb Bumpers, FormEntry Basement Entries, Scapewal Window Walls, Custom Precast Products



COLORADO  
TRADITIONAL ELEVATION  
BRICK FRONT  
REVERSE UNIT  
WALKOUT

**GENERAL NOTES**

1. THE EXISTING WELL SHOWN ON THIS PLAN (HO-95-0672) HAS BEEN LOCATED BY DDC, PROFESSIONAL LAND SURVEYOR, AND IS ACCURATELY SHOWN.
2. BASE SQUARE FOOTAGE OF HOUSE: 3,530 sq. ft.  
NUMBER OF BEDROOMS: 4
3. INFORMATION SHOWN ON THIS PLAN BASED ON PLANS PREPARED BY DMW DATED 6/25/07. EXISTING TOPOGRAPHY BASED ON GRADING PLAN PREPARED BY DEMARIO DESIGN CONSULTANTS DATED 7/9/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN JAN. 2012
4. EJECTOR PUMP REQUIRED TO SEWER BASEMENT

Approved Septic System Plan  
Howard County Health Department  
*Rana Bernard* 4/16/13  
Signature \_\_\_\_\_ Date \_\_\_\_\_



Development Design Consultants

Planners  
Surveyors  
Engineers  
Landscape Architects

192 East Main St. #2  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

|                  |          |
|------------------|----------|
| <b>DDC JOB#:</b> | 06116.5  |
| <b>DATE:</b>     | 03/08/13 |
| <b>SCALE:</b>    | 1" = 50' |
| <b>DES. BY:</b>  | BKC      |
| <b>DRN. BY:</b>  | AJS      |
| <b>CHK. BY:</b>  | BKC      |

**BELLE HAVEN ESTATES**  
3rd ELECTION DISTRICT HOWARD COUNTY, MD  
TAX MAP 14, PARCEL 66

LOT 19  
2819 BRIDALWREATH COURT  
WOODBINE, MD 21797  
PLOT PLAN  
KHOV ELEVATION

OWNER/BUILDER: K.HOVNANIAN HOMES  
1802 Brightseat Road  
Landover, Maryland 20785  
(301)683-6268

## Williams, Jeffrey

---

**From:** Williams, Jeffrey  
**Sent:** Thursday, March 13, 2014 11:35 AM  
**To:** 'Shehata, Claudia'  
**Cc:** Brian Collins  
**Subject:** RE: BAT plans

Lots 24 and 33 have their building permits approved. Lot 19 needs a slight revision. The tank needs to be moved out of the graded swale along the side of the house and the trenches need to be equal length and on contour. They do not have to be straight lines, they can bend a bit to stay on contour. It looks like the trenches can be pushed down a bit to get 50' on the top one and then make the lower two 52'. The minimum space between trenches must be 9' edge to edge. Brian can make those changes for us and resubmit.

I don't know what else is holding up construction of the house, there is no hold on the building permit, the only thing we are holding is issuance of the septic permit.

---

**From:** Shehata, Claudia [mailto:CShehata@KHOV.COM]  
**Sent:** Wednesday, March 12, 2014 4:36 PM  
**To:** Williams, Jeffrey  
**Cc:** Brian Collins  
**Subject:** BAT plans

Jeff-

Thank you for meeting with us today. Your help was very much needed.

Please remember to give us the approval status for the lot permits 19,24 and 33. These are the ones that are very much behind in relation with the construction schedule.

Have a great evening.  
CS

Claudia Shehata  
Land Development Manager  
Direct line: 301-683-6217  
Cell phone: 301-710-7698  
Fax: 301-683-6371  
1802 Brightseat road  
Landover, Md 20785  
K.Hovnanian Homes (Maryland)



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 21<sup>st</sup> day of JANUARY, 2014, among K. ANNAMIAH HOMES OF MARYLAND, LLC, hereinafter collectively referred to as "Owner", and the Howard County Health Department hereinafter referred to as the "County".

20  
40  
[Handwritten initials]

WHEREAS, Owner is the owner or contract owner of a parcel of land located at 2819 BRIDAL WOODS CT, WOODBINE, MD 21797, in the 4<sup>th</sup> 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 15356 Folio 00465.

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

LIBER 15437 FOLIO 218

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.

*[Signature]*  
K. HOANGHIAN HOMES  
1/24/14  
Owner: Christina Willett Date

\_\_\_\_\_  
Owner Date

*[Signature]* 1/24/2014  
Howard County Health Department

LR - Agreement 20.00  
Recording Fee 20.00  
Grantor/Grantee Name: Hoanghian  
Reference/Control #: 153  
LR - Agreement Surcharge 40.00  
Subtotal: 80.00  
Total: 80.00  
#2404840-1  
01/24/2014 02:25  
#2404840 009503 -  
Howard Co  
Columbia/COB5.03.03 -  
Register 03 495  
C013-01



HOWARD COUNTY HEALTH DEPARTMENT

CASH  
 CHECK  
 NO 0000  
 13719

CODES  
 Received From  
 For

DATE 1/24/13

PS

46237

Received By

*Skimp*

Three hundred Ninety Dollars  
 Received From *KHovanian Stores*  
 For *Spitic for meet - 2879 Bridled*  
*W/11*

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

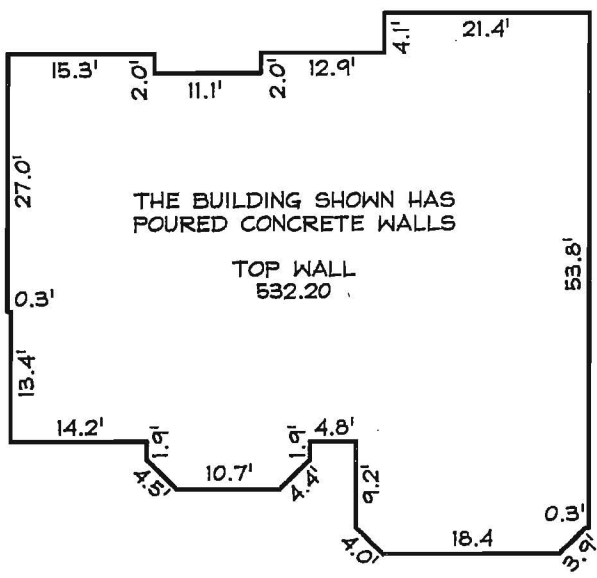
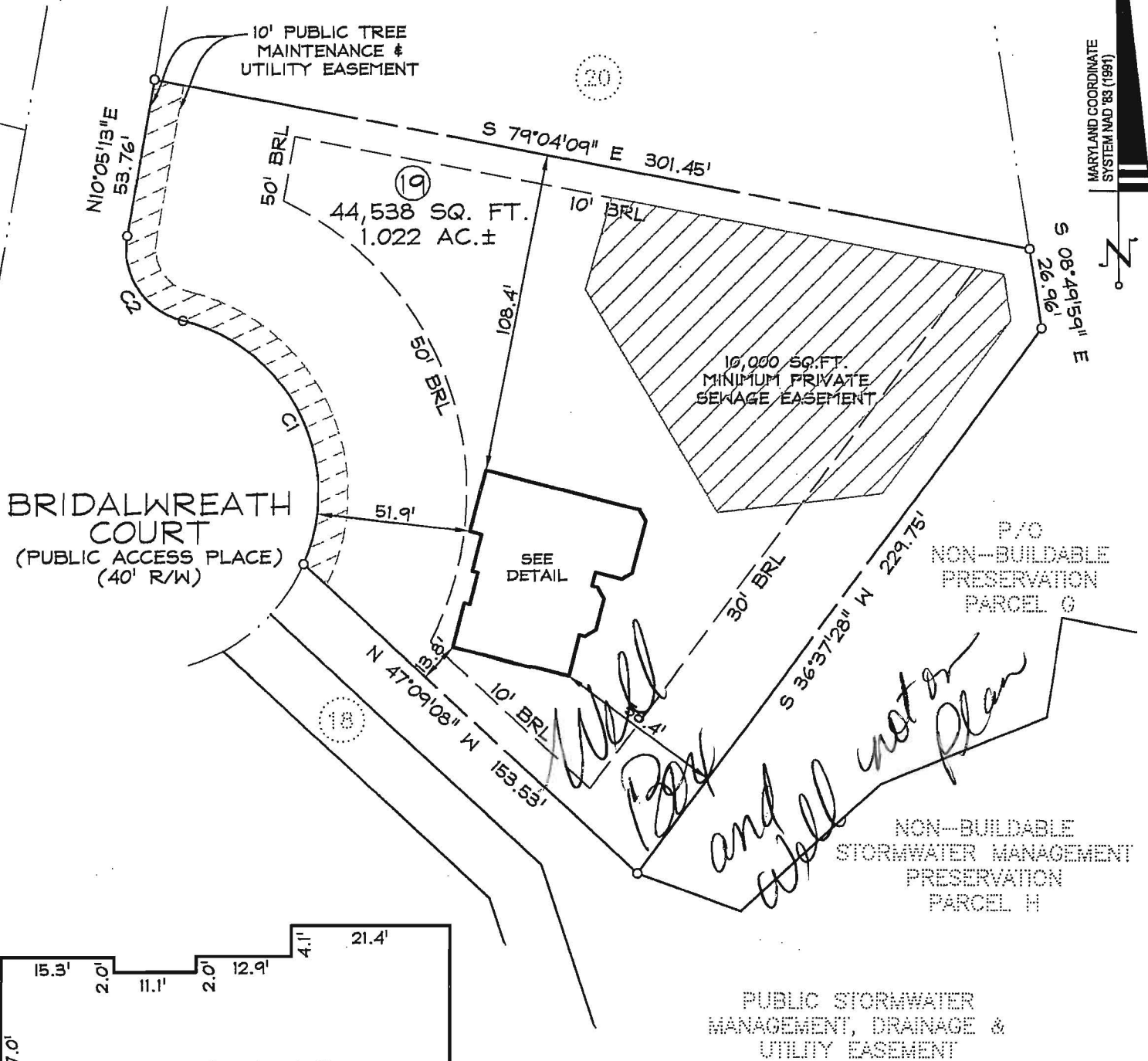
Grantor/Grantee Name: Hovanian  
Reference/Control #: 160

LR - Agreement Surcharge  
1x 40.00 40.00

SubTotal: 60.00  
Total: 60.00

REV-Check-BOA 60.00  
Number : 00013718

| CURVE TABLE |        |         |           |        |             |            |
|-------------|--------|---------|-----------|--------|-------------|------------|
| CURVE       | RADIUS | LENGTH  | DELTA     | TAN    | CHD. BRG.   | CHD. DIST. |
| C1          | 60.00' | 104.63' | 99°54'53" | 71.40' | N26°35'01"W | 91.87'     |
| C2          | 25.00' | 37.80'  | 86°37'41" | 23.57' | N33°13'37"W | 34.30'     |



**DETAIL**  
1"=20'

**SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 239, EXPIRATION DATE 7/6/14.



*Robert B. Southard* 1-14-14

WALL CHECK SURVEY  
2819 BRIDALWREATH COURT  
LOT 19  
BELLE HAVEN ESTATES  
PLAT No. 19950

ELECTION DIST. No.4

HOWARD COUNTY, MD

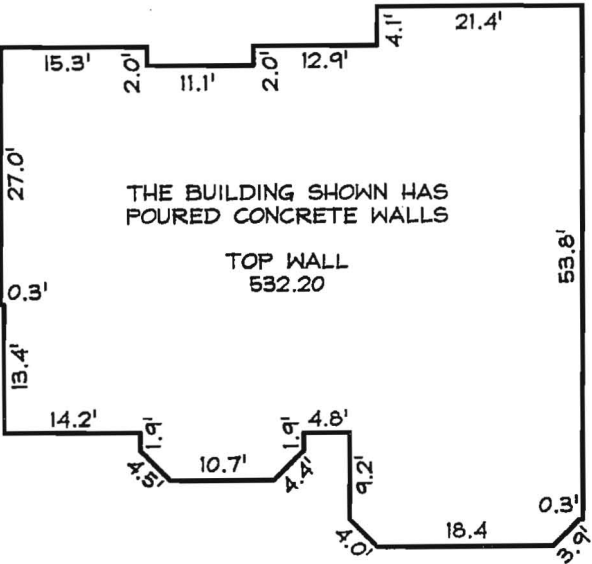
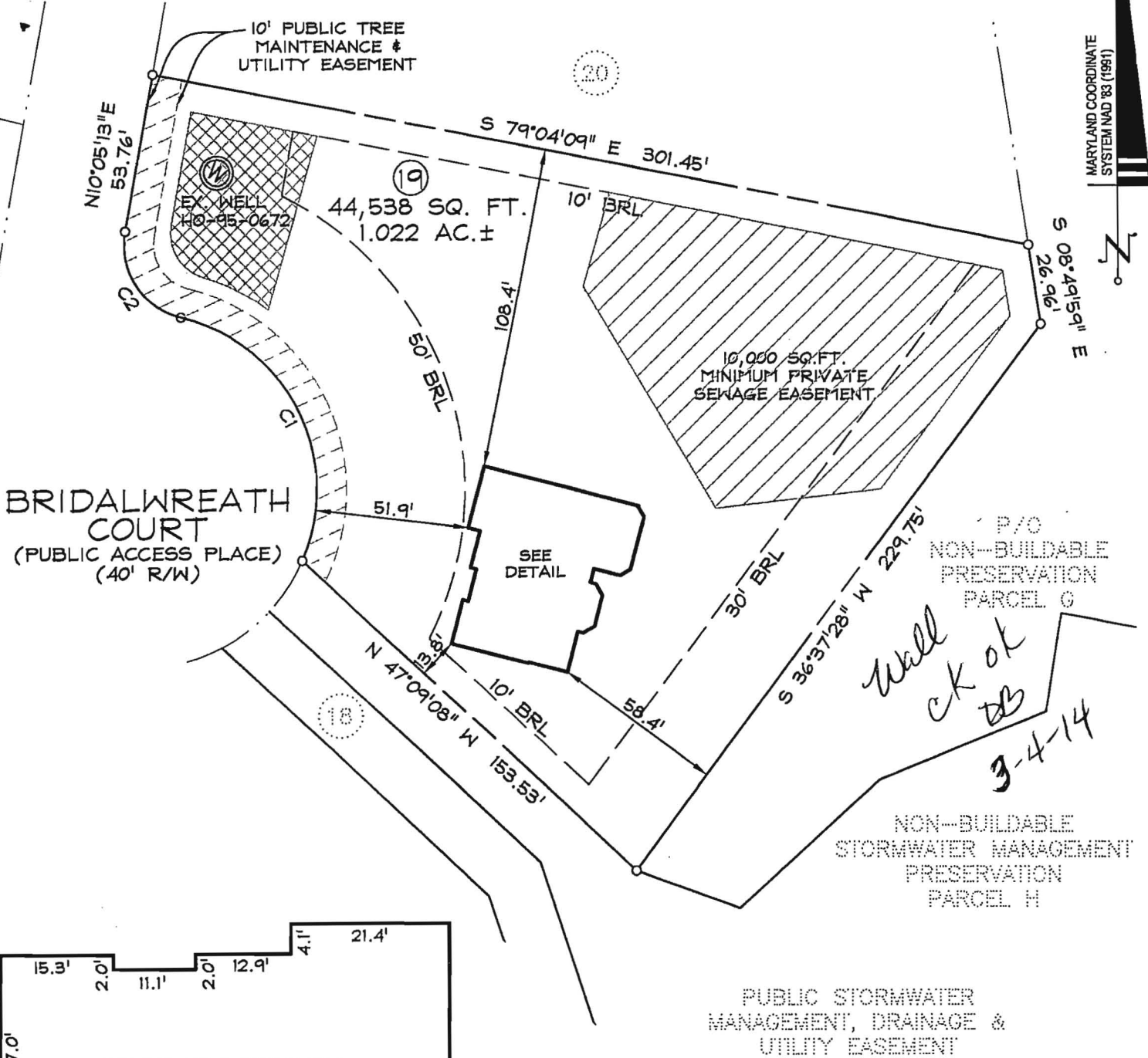
|           |            |
|-----------|------------|
| DDC JOB#: | 06116.5    |
| DATE:     | 01-10-2014 |
| SCALE:    | 1"=50'     |
| DRN. BY:  | SP         |
| CHK. BY:  | RBS        |



- Planners
- Surveyors
- Engineers
- Landscape Architects

192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

| CURVE TABLE |        |         |           |        |             |            |
|-------------|--------|---------|-----------|--------|-------------|------------|
| CURVE       | RADIUS | LENGTH  | DELTA     | TAN    | CHD. BRG.   | CHD. DIST. |
| C1          | 60.00' | 104.63' | 99°54'53" | 71.40' | N26°35'01"W | 91.87'     |
| C2          | 25.00' | 37.80'  | 86°37'41" | 23.57' | N33°13'37"W | 34.30'     |



**DETAIL**  
1" = 20'

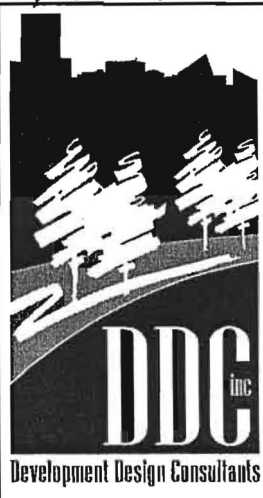
**SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 239, EXPIRATION DATE 7/6/14.



*Robert B. Southard 2-24-14*

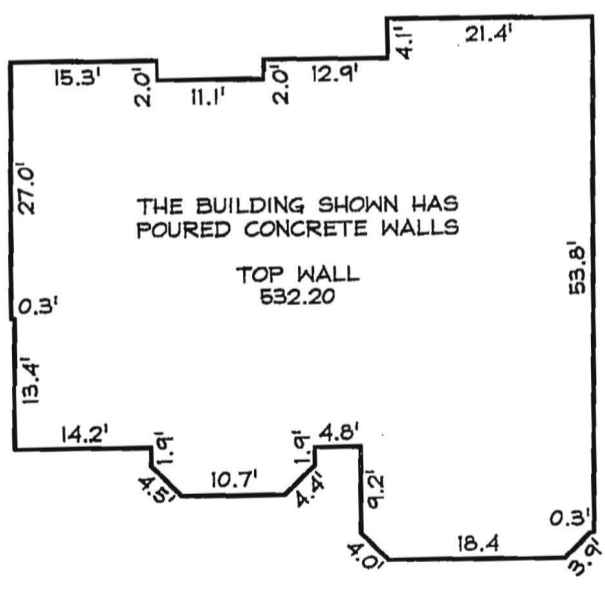
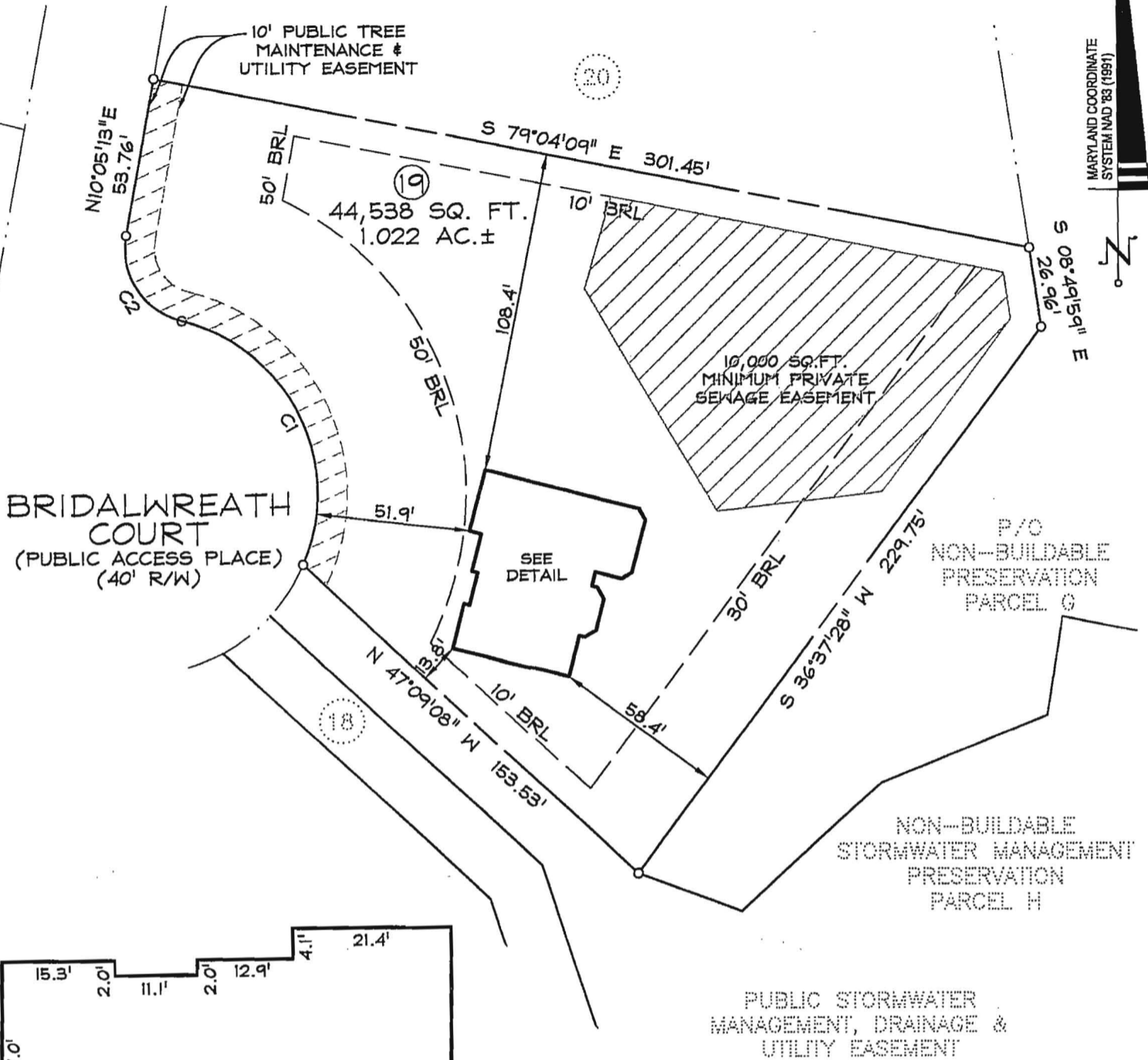
WALL CHECK SURVEY  
2819 BRIDALWREATH COURT  
LOT 19  
BELLE HAVEN ESTATES  
PLAT No. 19950  
ELECTION DIST. No.4      HOWARD COUNTY, MD

|           |            |
|-----------|------------|
| DDC JOB#: | 06116.5    |
| DATE:     | 01-10-2014 |
| SCALE:    | 1"=50'     |
| DRN. BY:  | SP         |
| CHK. BY:  | RBS        |



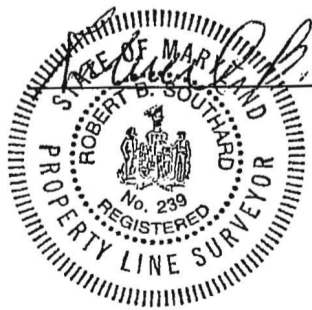
Planners  
Surveyors  
Engineers  
Landscape Architects  
  
192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

| CURVE TABLE |        |         |           |        |             |            |
|-------------|--------|---------|-----------|--------|-------------|------------|
| CURVE       | RADIUS | LENGTH  | DELTA     | TAN    | CHD. BRG.   | CHD. DIST. |
| C1          | 60.00' | 104.63' | 99°54'53" | 71.40' | N26°35'01"W | 91.87'     |
| C2          | 25.00' | 37.80'  | 86°37'41" | 23.57' | N33°13'37"W | 34.30'     |



**DETAIL**  
1"=20'

**SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 239, EXPIRATION DATE 7/6/14.



*Robert B. Southard* 1-14-14

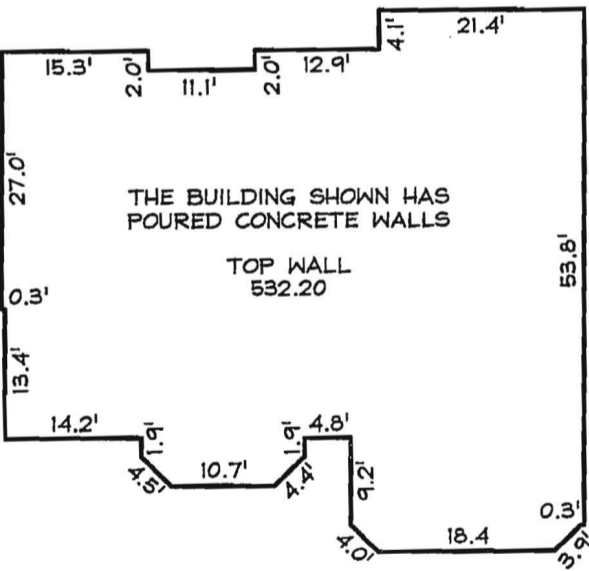
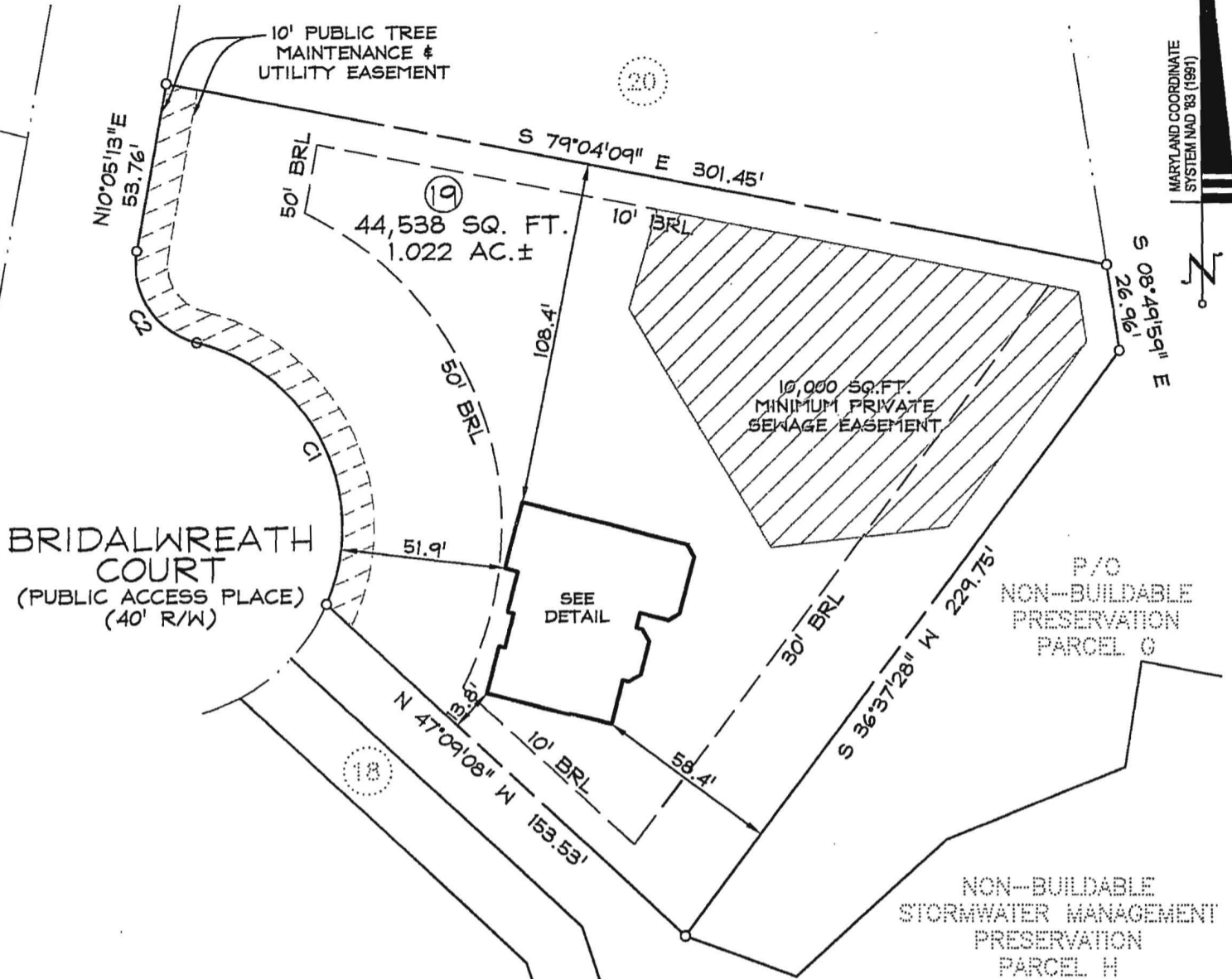
WALL CHECK SURVEY  
2819 BRIDALWREATH COURT  
LOT 19  
BELLE HAVEN ESTATES  
PLAT No. 19950  
ELECTION DIST. No.4 HOWARD COUNTY, MD

|           |            |
|-----------|------------|
| DDC JOB#: | 06116.5    |
| DATE:     | 01-10-2014 |
| SCALE:    | 1"=50'     |
| DRN. BY:  | SP         |
| CHK. BY:  | RBS        |



Planners  
Surveyors  
Engineers  
Landscape Architects  
  
192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

| CURVE TABLE |        |         |           |        |             |            |
|-------------|--------|---------|-----------|--------|-------------|------------|
| CURVE       | RADIUS | LENGTH  | DELTA     | TAN    | CHD. BRG.   | CHD. DIST. |
| C1          | 60.00' | 104.63' | 99°54'53" | 71.40' | N26°35'01"W | 91.87'     |
| C2          | 25.00' | 37.80'  | 86°37'41" | 23.57' | N33°13'37"W | 34.30'     |



**DETAIL**  
1" = 20'

**SURVEYOR'S CERTIFICATE**  
I HEREBY CERTIFY THAT I EITHER PERSONALLY PREPARED OR WAS IN RESPONSIBLE CHARGE OVER THE PREPARATION OF THIS DRAWING AND THE SURVEYING WORK REFLECTED IN IT, AND THAT IT IS IN COMPLIANCE WITH REQUIREMENTS SET FORTH IN REGULATION .12 OF CHAPTER 06, MINIMUM STANDARDS OF PRACTICE. I AM A DULY LICENSED PROPERTY LINE SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE No. 239, EXPIRATION DATE 7/6/14.



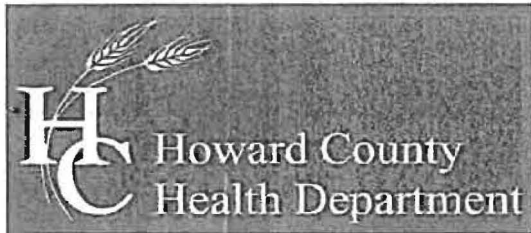
*Robert B. Southard* 1-14-14

WALL CHECK SURVEY  
2819 BRIDALWREATH COURT  
LOT 19  
BELLE HAVEN ESTATES  
PLAT No. 19950  
ELECTION DIST. No.4 HOWARD COUNTY, MD

DDC JOB#: 06116.5  
DATE: 01-10-2014  
SCALE: 1"=50'  
DRN. BY: SP  
CHK. BY: RBS



Planners  
Surveyors  
Engineers  
Landscape Architects  
192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us



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 24<sup>th</sup> day of January 2014, among K. AKYANIAN HOMES OF MARYLAND I, LLC, 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 2819 BRIDLEWORTH CT. WOODBRINE, MD 21797, in the 4<sup>th</sup> 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 15356 Folio 00465.

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.

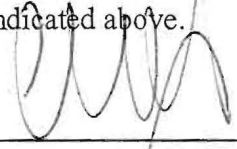
G. This agreement may be voided at any time at the discretion of the County.

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.

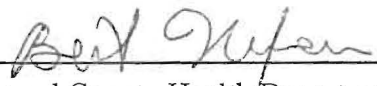
I. The laws of the State of Maryland govern the provisions of all transactions pursuant to this agreement.

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.

  
Owner Christina Willett Date 1/24/14

Owner \_\_\_\_\_ Date \_\_\_\_\_

  
Howard County Health Department Date 1/24/2014



HOWARD COUNTY HEALTH DEPARTMENT

|   |
|---|
| <input type="checkbox"/> CASH             |
| <input checked="" type="checkbox"/> CHECK |

No 0000  
13719

\$ 296.00

|        |
|--------|
| COPIES |
|        |
|        |

DATE  
1/24/13

PS  
46237

Received From  
K Hovnanian Home  
For  
Sptic Permit - 2819 Bridle  
Creek  
Dollars

Received By

*[Signature]*

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: Hovnanian  
Reference/Control #: 160

LR - Agreement Surcharge  
1x 40.00 40.00

SubTotal: 60.00  
Total: 60.00

REV-Check-BOA 60.00  
Number : 00013718

01/24/2014 14:25 CC13-CH

#2404840 /495/109

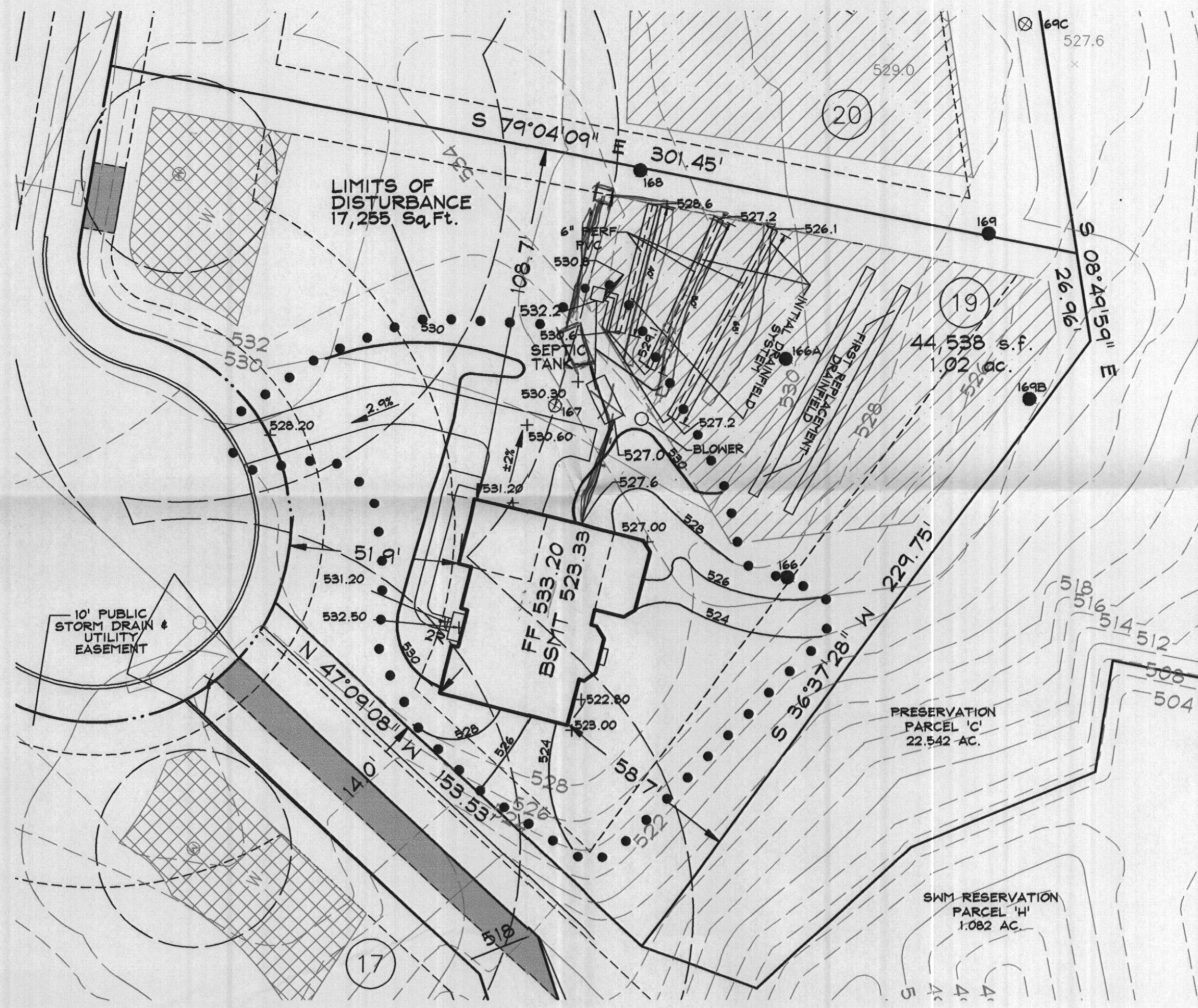
Thank you for visiting us today~

**GENERAL NOTES**

1. BASE SQUARE FOOTAGE OF HOUSE: 4,144 SQ.FT.
2. NUMBER OF BEDROOMS: 4
3. EJECTOR PUMP REQUIRED TO SEWER BASEMENT
4. DRIVEWAY CULVERT NOT REQUIRED PER THE APPROVED ROAD DRAWINGS, F-07-38.
5. THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/2/04 COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS DATED 7/25/06.
6. PLAT REFERENCE: #19948
7. BASE INFORMATION SHOWN ON THIS PLAN IS BASED ON PLANS PREPARED BY DMH, AND DATED 06/25/07. EXISTING TOPOGRAPHY BASED ON GRADING PLAN PREPARED BY DEMARIO DESIGN CONSULTANTS DATED 07/09/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN JAN. 2012.
8. SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE OWNER/BUILDERS RESPONSIBILITY TO PROVIDE DDC, INC. WITH THE MOST RECENT SET OF HOUSE PLANS.
9. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEVELOPMENT OF PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION DIVISION AT (410)319-1881 AT LEAST FIVE (5) WORKING DAYS PRIOR TO THE START OF WORK.
10. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
11. TOTAL LIMIT OF DISTURBANCE: 17,255 SQ. FT. / 0.40 AC.
12. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED PER THE PREVIOUSLY APPROVED FINAL PLAN (F-07-38).
13. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND SPECIFICATIONS.
14. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR WRITTEN CONSENT OF THE CIVIL ENGINEER (DDC, INC.) MAY CAUSE THE WORK TO BE UNACCEPTABLE.
15. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN DISAGREEMENT.
16. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT.
17. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT LEAST 10,000 SQ.FT. AS REQUIRED BY THE MARYLAND DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BE VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
18. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN SHOWN.
19. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
20. UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS OF ALL PROPOSED STRUCTURES AND OR EXISTING STRUCTURE EXPANSIONS SHALL BE RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
21. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL CONCEPT PLAN SINCE STORMWATER MANAGEMENT HAS PREVIOUSLY APPROVED UNDER F-07-38.

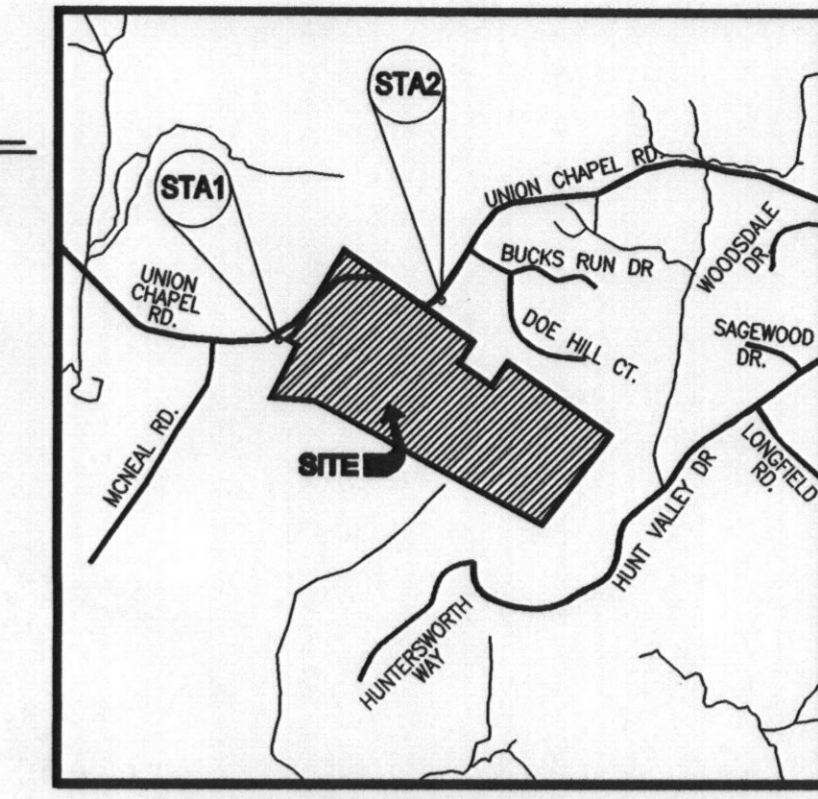
**SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:**

1. 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.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3 FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED ON THE MANUFACTURE'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE INSTALLATION.



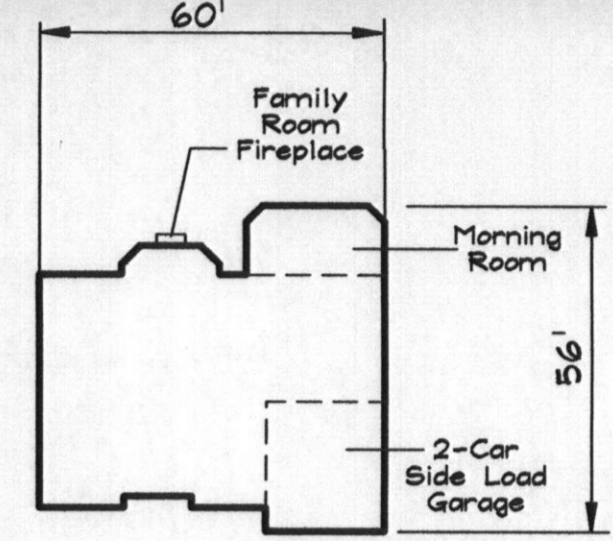
**BENCHMARK**

|                                   |            |
|-----------------------------------|------------|
| <b>GEODETIC SURVEY CONTROL #1</b> |            |
| N.                                | 591450.42  |
| E.                                | 129721.25  |
| A.A.                              | 140A       |
| ELEV.                             | 535.43     |
| <b>GEODETIC SURVEY CONTROL #2</b> |            |
| N.                                | 591653.85  |
| E.                                | 1298121.80 |
| B.L.                              | 140B       |
| ELEV.                             | 542.23     |
| <b>ADD MAP COORDINATES</b>        |            |
| 4812C4                            |            |



**VICINITY MAP**

SCALE: 1" = 2000'



MANHATTAN ELEVATION 'C' BRICK FRONT REVERSE UNIT WALKOUT

**DATA SOURCES:**



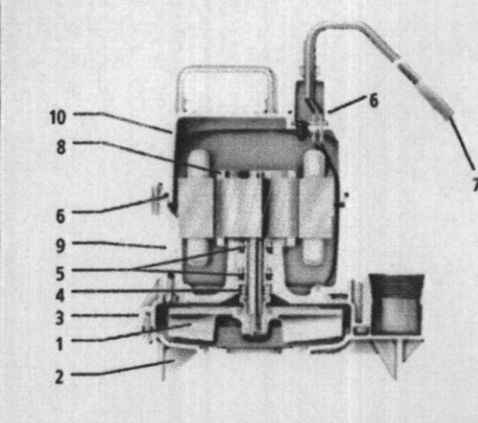
**GOULDS PUMPS Wastewater**

**PERFORMANCE RATINGS**

| Total Head (ft. of water) | Gallons Per Minute | EP04 | EP05 |
|---------------------------|--------------------|------|------|
| 5                         | 53                 | -    | -    |
| 10                        | 46                 | 62   | -    |
| 15                        | 36                 | 55   | -    |
| 20                        | 21                 | 46   | -    |
| 25                        | 0                  | 33   | -    |
| 30                        | -                  | 11   | -    |

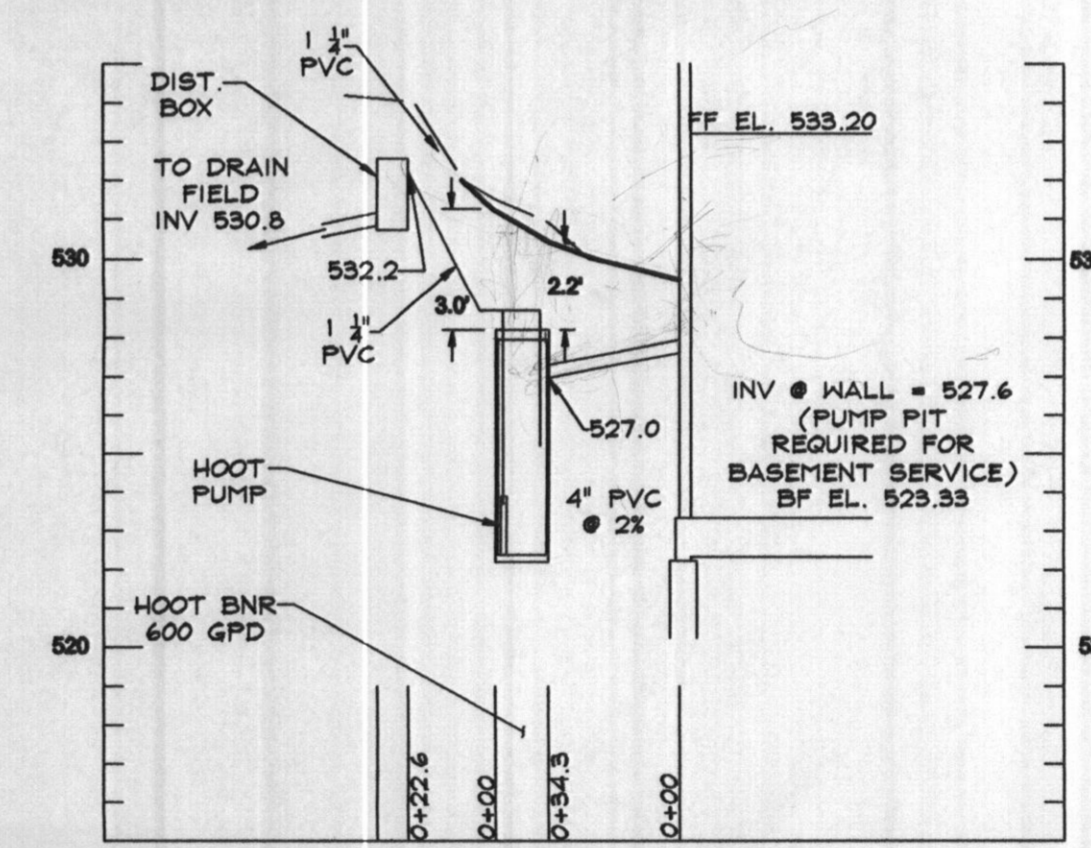
**COMPONENTS**

| Item No. | Description                    |
|----------|--------------------------------|
| 1        | Impeller                       |
| 2        | Base                           |
| 3        | Pump Casing                    |
| 4        | Mechanical Seal                |
| 5        | Ball Bearings                  |
| 6        | O-Rings                        |
| 7        | Power Cord                     |
| 8        | Oil Filled Motor               |
| 9        | Motor Housing/ Stator Assembly |
| 10       | Motor Cover                    |



**LOT 19 PUMP ELEVATIONS**

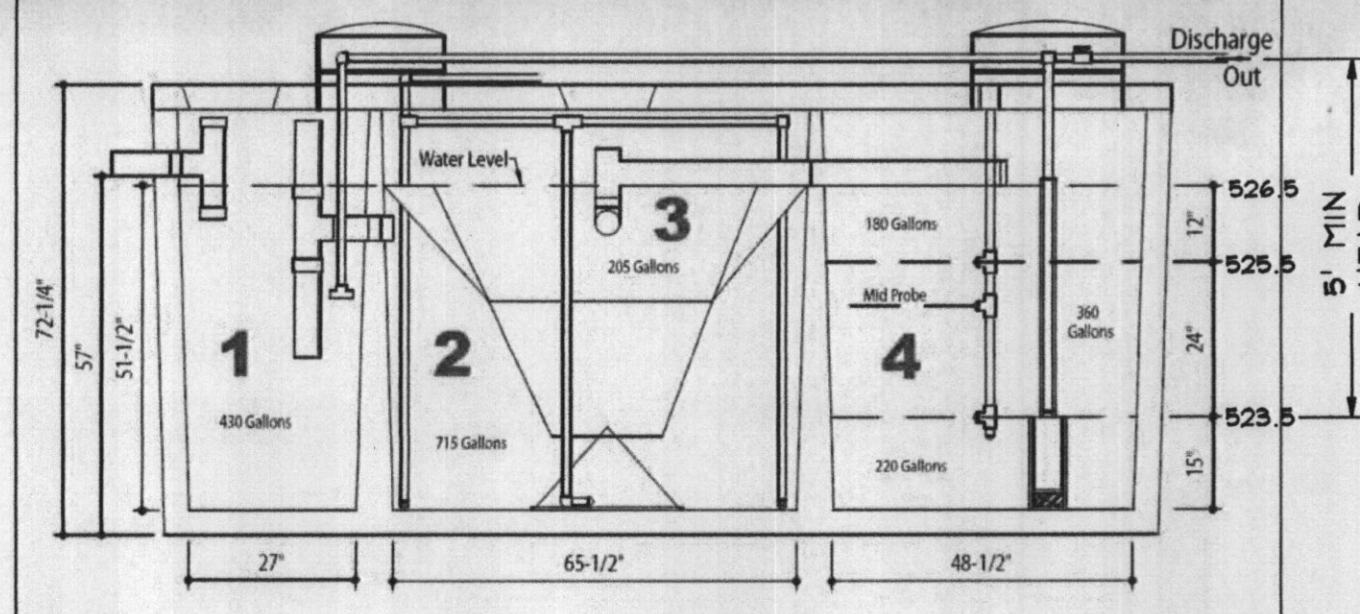
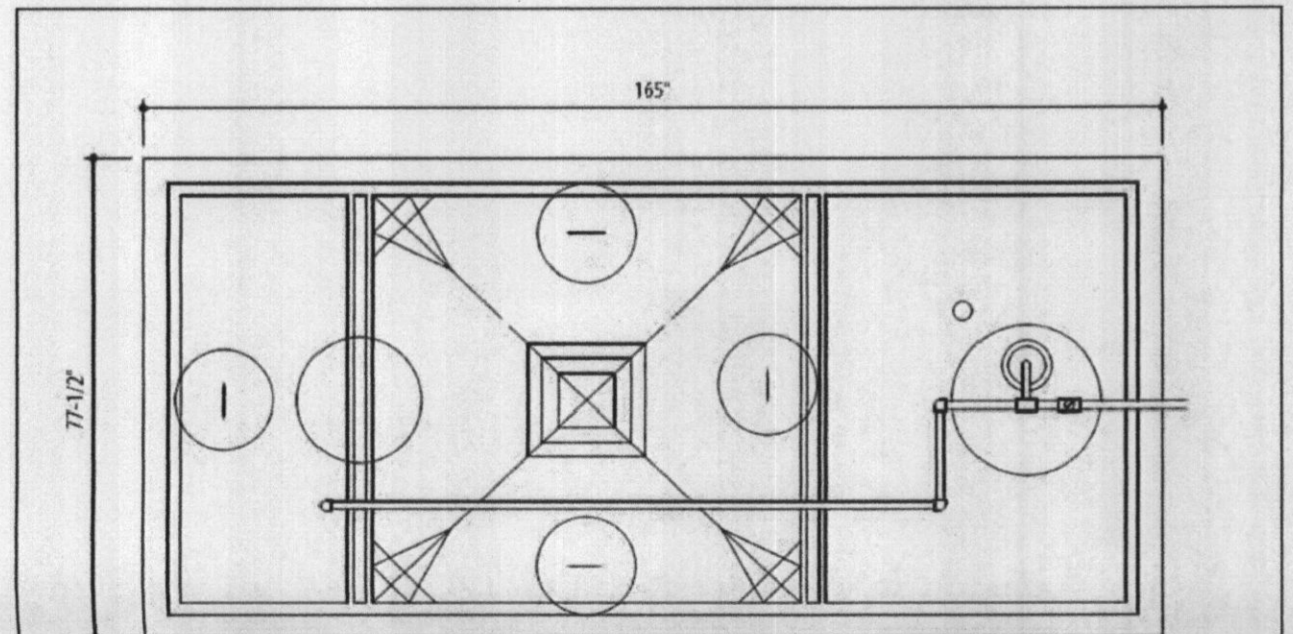
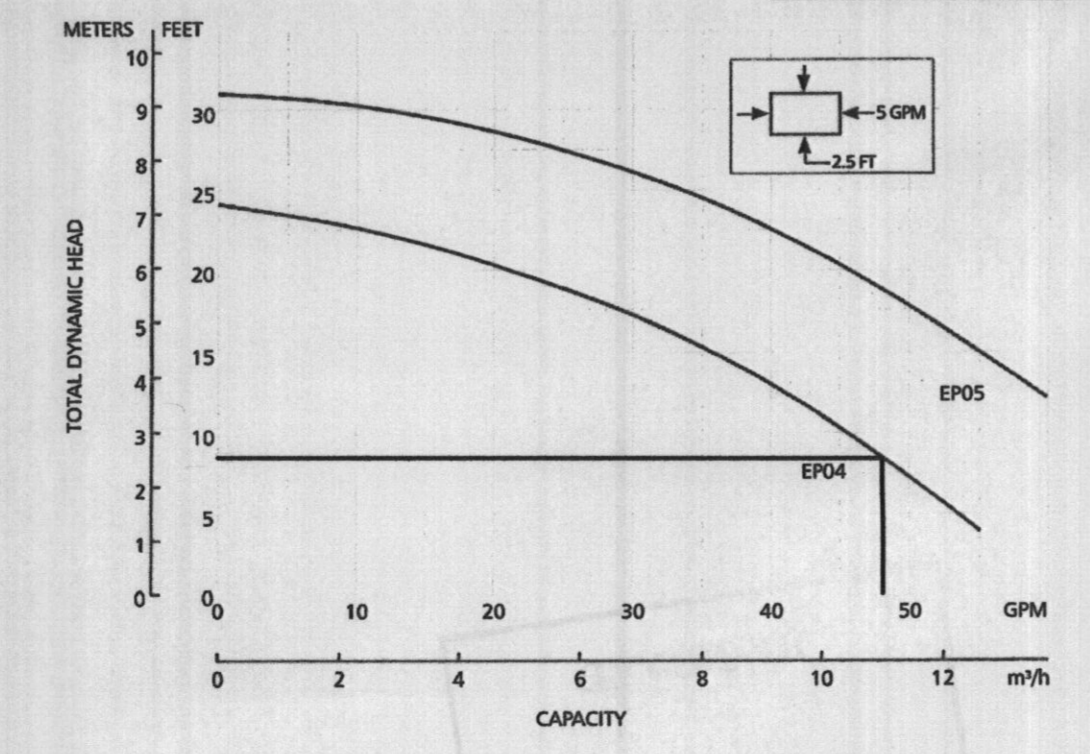
| ON    | OFF   | ALARM |
|-------|-------|-------|
| 529.5 | 529.5 | 526.5 |



**SEPTIC SYSTEM PROFILE LOT 19**  
SCALE: HORIZ. 1"=50' VERT. 1"=5'

**SEWAGE DISPOSAL SYSTEM DATA (4 BEDROOM):**

1. INVERT @ FOUNDATION WALL: 527.6 (BASEMENT PUMP REQUIRED)
2. 600 GPD BNR SYSTEM w/ 750 GALLON PUMP CHAMBER  
EX. GRADE OVER TANK: 531.2  
PROPOSED GRADE OVER TANK: 530.3  
INVERT: 527.0
3. DISTRIBUTION BOX  
EX. GRADE OVER TANK: 534.0  
INVERT: 535.2



**DESIGN DATA & GENERAL NOTES**

- 1) Concrete strength f'c=4000 p.s.i. @ 28 days. Density = 150 pcf.
- 2) Cement - Portland Type I/II per ASTM C 150-92.
- 3) Admixtures & plasticizers per ASTM C 209.6 & C 494-92.
- 4) Reinforcing per ASTM A185. Min. 1-1/2" cover.

**Mayer Brothers, Inc.**  
600 GPD BNR SYSTEM H-600 ABNR with 750 GALLON PUMP CHAMBER  
Dwg. No. Hoot Form #1 No Scale March 19, 2009

**DRAWING LEGEND**

- 500 PROPOSED GRADE
- 502 PROPOSED GRADE
- PROPOSED LIMIT OF DISTURBANCE
- + 665.5 PROP. SPOT ELEV./FLOW ARROW
- PROPOSED 20' SEPTIC RESERVE BUFFER
- EXISTING 30' WELL BUFFER
- EXISTING 100' WELL BUFFER
- BUILDING RESTRICTION LINE
- SEPTIC RESERVE AREA
- WELL AREA
- 174 PASSED PERCOLATION TEST
- ⊗ 127 FAILED PERCOLATION TEST

**DDC Development Design Consultants**

Planners  
Surveyors  
Engineers  
Landscape Architects

192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

**OWNER:** K. HOWANIAN HOMES  
11022 Brightwood Road  
Lanham, Maryland 21086  
(301) 685-6200

**DEVELOPER:**

**SITE ADDRESS:** LOT 19  
2510 BRIDALWEATH COURT  
Woodbine, Maryland 21787

**BELLE HAVEN ESTATES LOT 19**  
**SITE PLAN FOR BAT INSTALLATION**

PROFESSIONAL CERTIFICATION  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DAILY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.

03/11/2014  
DATE

PAUL G. CAVANAUGH  
PROFESSIONAL ENGINEER

3rd ELECTION DISTRICT HOWARD COUNTY

| NO. | DESCRIPTION OF CHANGES | DRN. | REV. | DATE |
|-----|------------------------|------|------|------|
|     |                        |      |      |      |

|                    |                    |
|--------------------|--------------------|
| CO. FILE #:        | DES. BY: JHK       |
| TAX ACC. #:        | DRN. BY: BKC       |
| TAX MAP: 14        | CHK. BY: PGC       |
| BLOCK / GRID:      | DATE: 03/11/14     |
| PARCEL #: 66       | DDC JOB #: 08116.5 |
| ZONE / USE: RC-DEO | SHEET NUMBER:      |
| DWG. SCALE: 1"=30' | 1 of 1             |

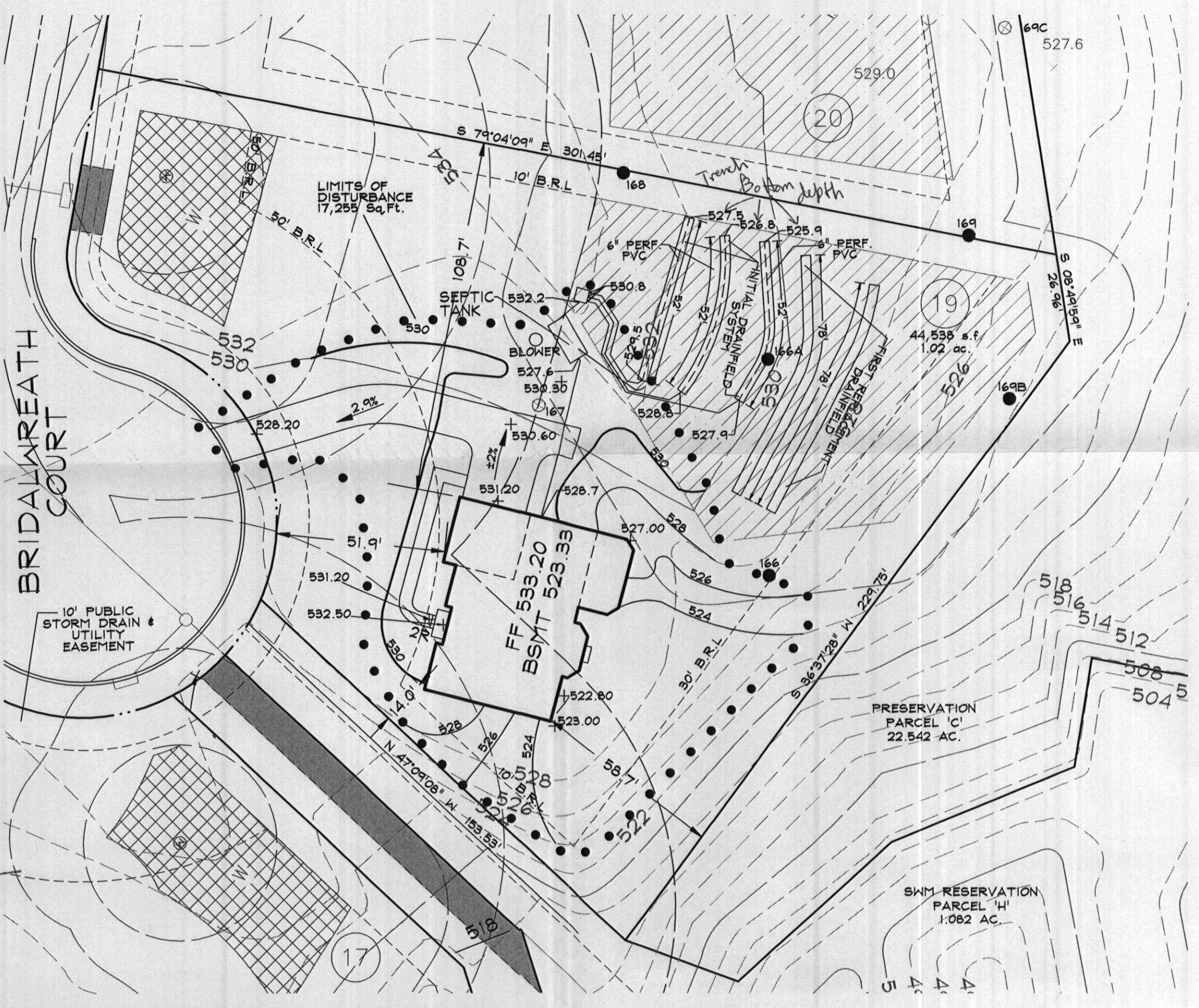
**GENERAL NOTES**

1. BASE SQUARE FOOTAGE OF HOUSE: 4,144 SQ.FT.  
NUMBER OF BEDROOMS: 4
2. EJECTOR PUMP REQUIRED TO SEWER BASEMENT  
DRIVEWAY CULVERT NOT REQUIRED PER THE APPROVED ROAD  
DRAWINGS, F-07-38.
3. THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/2/04  
COMPREHENSIVE ZONING PLAN AND PER COMP-LITE ZONING REGULATIONS  
DATED 7/28/06.
4. PLAT REFERENCE: #1994B
5. BASE INFORMATION SHOWN ON THIS PLAN IS BASED ON PLANS  
PREPARED BY DDM AND DATED 06/25/07. EXISTING TOPOGRAPHY  
BASED ON GRADING PLAN PREPARED BY DEMARIO DESIGN CONSULTANTS  
DATED 07/09/07 AND FIELD RUN TOPOGRAPHY PREPARED BY DDC INC IN  
JAN. 2012.
6. SEE ARCHITECTURAL PLANS FOR BUILDING DIMENSIONS AND DESIGN  
DETAILS. PRIOR TO STAKEOUT FOR CONSTRUCTION, IT SHALL BE THE  
OWNER/BUILDERS RESPONSIBILITY TO PROVIDE DDC, INC. WITH THE  
MOST RECENT SET OF HOUSE PLANS.
7. THE CONTRACTOR OR DEVELOPER SHALL NOTIFY THE DEVELOPMENT OF  
PUBLIC WORKS / BUREAU OF ENGINEERING / CONSTRUCTION INSPECTION  
DIVISION AT (410)313-1881 AT LEAST FIVE (5) WORKING DAYS PRIOR TO  
THE START OF WORK.
8. THE CONTRACTOR SHALL NOTIFY "MISS UTILITY" AT 1-800-257-7777 AT  
LEAST FORTY-EIGHT (48) HOURS PRIOR TO ANY EXCAVATION WORK  
BEING DONE.
9. TOTAL LIMIT OF DISTURBANCE: 17,255 SQ. FT. / 0.40 AC.
10. STORMWATER MANAGEMENT FOR THIS LOT IS PROVIDED PER THE  
PREVIOUSLY APPROVED FINAL PLAN (F-07-38).
11. ANY DAMAGE TO PUBLIC "RIGHT-OF-WAYS" OR PAVED PUBLIC ROADS  
SHALL BE REPAIRED IMMEDIATELY AT THE CONTRACTORS EXPENSE IN  
ACCORDANCE WITH THE HOWARD COUNTY STANDARDS AND  
SPECIFICATIONS.
12. DEVIATIONS FROM THESE PLANS AND SPECIFICATIONS WITHOUT PRIOR  
WRITTEN CONSENT OF THE CIVIL ENGINEER (DDC, INC.) MAY CAUSE THE  
WORK TO BE UNACCEPTABLE.
13. THE DIMENSIONED DISTANCES SHALL GOVERN IF SCALED AND  
DIMENSIONED DISTANCES ON THIS PLAN ARE FOUND TO BE IN  
DISAGREEMENT.
14. THE LOTS SHOWN HEREON COMPLY WITH THE MINIMUM LOT AREA AND  
OWNERSHIP WIDTH AS REQUIRED BY THE MARYLAND DEPARTMENT OF  
THE ENVIRONMENT.
15. THIS AREA DESIGNATES A PRIVATE SEWAGE DISPOSAL AREA OF AT  
LEAST 10,000 SQ.FT. AS REQUIRED BY THE MARYLAND DEPARTMENT  
OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL.  
IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE  
DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC  
SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE AUTHORITY TO  
GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE EASEMENT. RECORDATION OF A  
REVISED SEWAGE EASEMENT SHALL NOT BE NECESSARY.
16. EXISTING WELLS, SEPTIC SYSTEMS, AND SEWAGE DISPOSAL AREAS WITHIN 100'  
OF THE PROPERTY AND THOSE WELLS WITHIN 200' DOWN GRADIENT OF EXISTING  
OR PROPOSED SEPTIC SYSTEMS OR SEWAGE DISPOSAL AREAS HAVE BEEN  
SHOWN.
17. ANY CHANGES TO A PRIVATE SEWAGE AREA SHALL REQUIRE A REVISED  
PERCOLATION CERTIFICATION PLAN.
18. UPON BUILDING PERMIT REVIEW THE SEPTIC SYSTEMS OF ALL PROPOSED  
STRUCTURES AND OR EXISTING STRUCTURE EXPANSIONS SHALL BE  
RE-EVALUATED TO DETERMINE SUFFICIENT SYSTEM CAPACITY.
19. THE DEVELOPMENT OF THIS LOT DOES NOT REQUIRE AN ENVIRONMENTAL  
CONCEPT PLAN SINCE STORMWATER MANAGEMENT WAS PREVIOUSLY APPROVED  
UNDER F-07-38.

**SEPTIC SYSTEM/BEST AVAILABLE TECHNOLOGY (BAT) NOTES:**

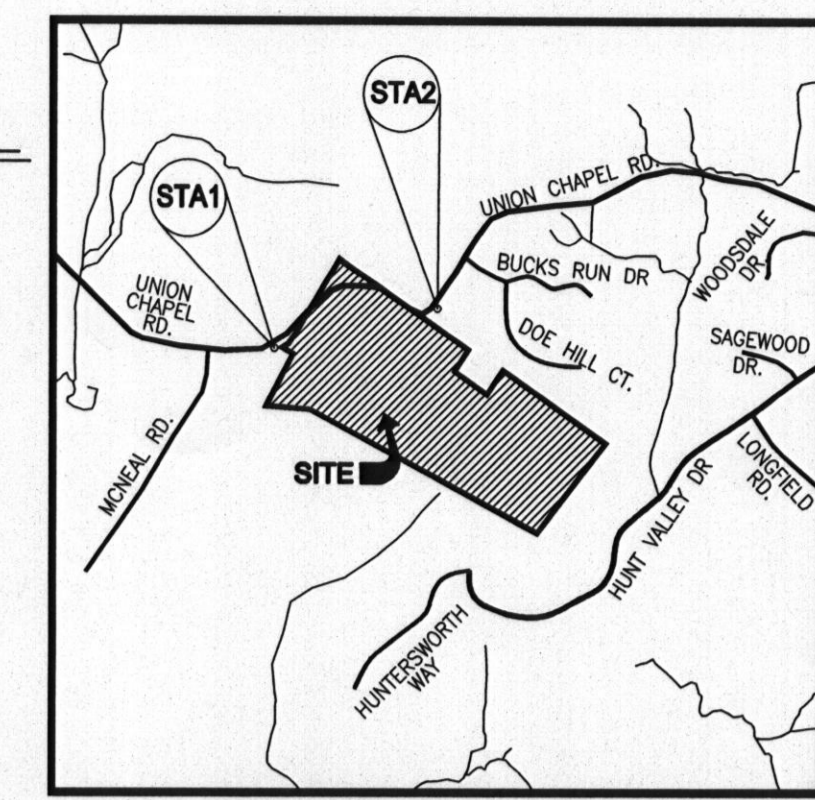
1. ANY CHANGE TO THE LOCATIONS OR DEPTHS TO ANY COMPONENTS MUST BE  
APPROVED BY THE ENGINEER AND THE HOWARD COUNTY HEALTH DEPARTMENT  
PRIOR TO INSTALLATION. A REVISED SITE PLAN MAY BE REQUIRED.
2. THE MAXIMUM DEPTH OF THE BAT PER THE MANUFACTURER'S SPECIFICATION IS 3  
FEET.
3. THE BLOWER MAY NOT BE LOCATED MORE THAN 10 FEET FROM THE TANK BASED  
ON THE MANUFACTURE'S SPECIFICATIONS.
4. THE BAT SYSTEM SHALL BE MAINTAINED AND OPERATED FOR THE LIFE OF THE  
SYSTEM.
5. THE BAT SHALL BE OPERATED BY AND MAINTAINED BY A CERTIFIED SERVICE  
PROVIDER.
6. 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.
7. ELECTRICAL WORK FOR THE BAT INSTALLATION MUST BE PERFORMED BY A  
LICENSED ELECTRICIAN.
8. AN AGREEMENT AND EASEMENT MUST BE COMPLETED AND SIGNED BY ALL  
APPLICABLE PARTIES, AND RECORDED IN LAND RECORDS OF HOWARD COUNTY.
9. THE HEALTH DEPARTMENT REQUIRES DOCUMENTATION FOR THE START-UP  
CERTIFICATION FROM THE MANUFACTURER PRIOR TO FINAL APPROVAL OF THE  
INSTALLATION.

Approved Septic System  
Howard County Health Department  
Signature: [Signature] Date: 3/21/14



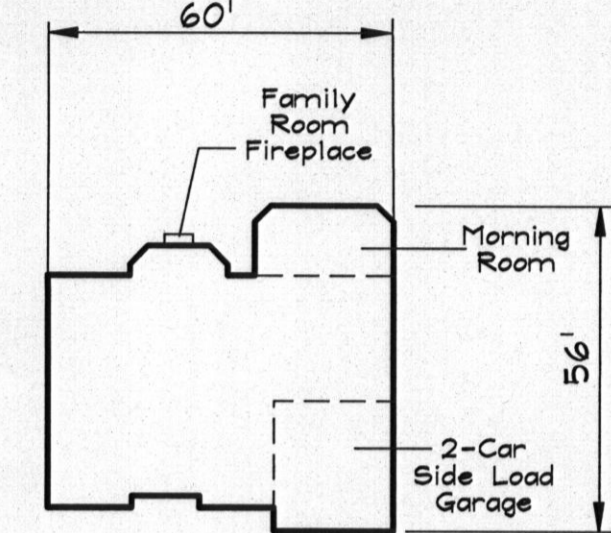
**BENCHMARK**

|                                    |            |
|------------------------------------|------------|
| <b>GEODETTIC SURVEY CONTROL #1</b> |            |
| N.                                 | 091450.42  |
| E.                                 | 120751.28  |
| A.A.                               | 146A       |
| ELEV.                              | 636.43     |
| <b>GEODETTIC SURVEY CONTROL #2</b> |            |
| N.                                 | 201683.06  |
| E.                                 | 1299121.80 |
| B.M.                               | 140B       |
| ELEV.                              | 642.23     |
| ADG MAP COORDINATES<br>4612C4      |            |



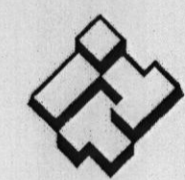
**VICINITY MAP**

SCALE: 1" = 2000'



MANHATTAN  
ELEVATION 'C'  
BRICK FRONT  
REVERSE UNIT  
WALKOUT

DATA SOURCES:



**ITT**

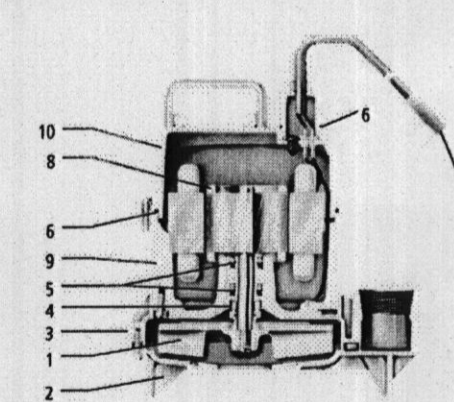
**GOULDS PUMPS**  
Wastewater

**PERFORMANCE RATINGS**

| Total Head (ft. of water) | Gallons Per Minute | EP04 | EP05 |
|---------------------------|--------------------|------|------|
| 5                         | 53                 | -    | -    |
| 10                        | 46                 | 62   | -    |
| 15                        | 36                 | 55   | -    |
| 20                        | 21                 | 46   | -    |
| 25                        | 0                  | 33   | -    |
| 30                        | -                  | 11   | -    |

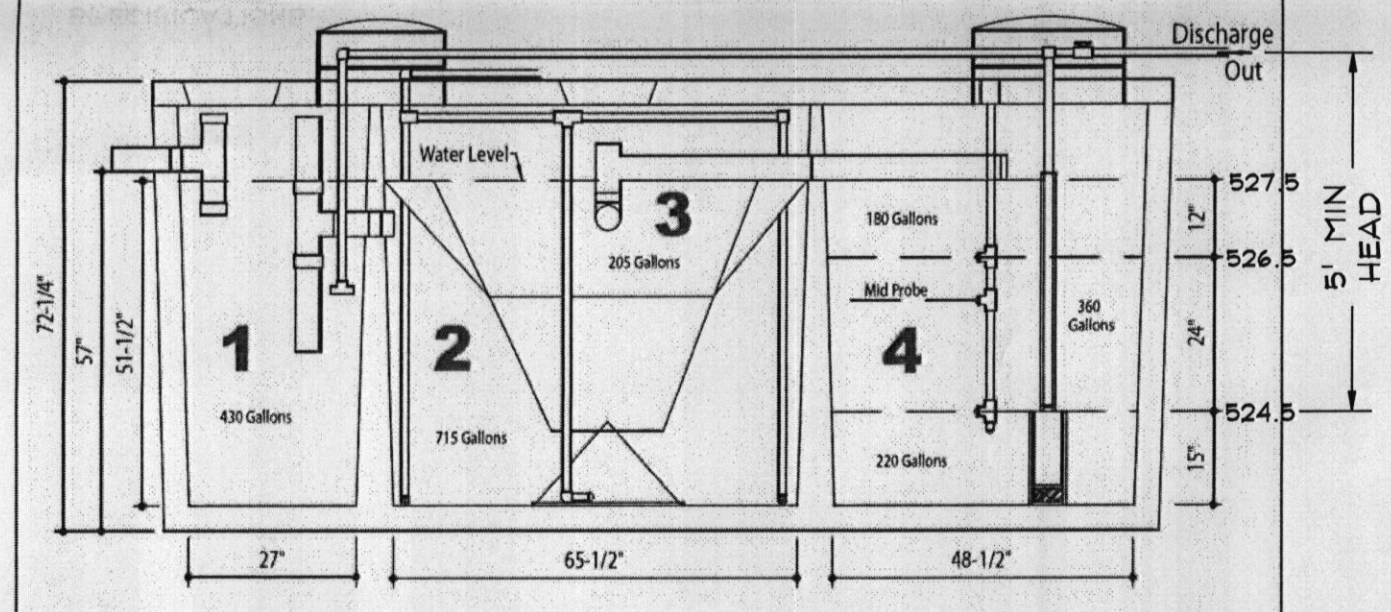
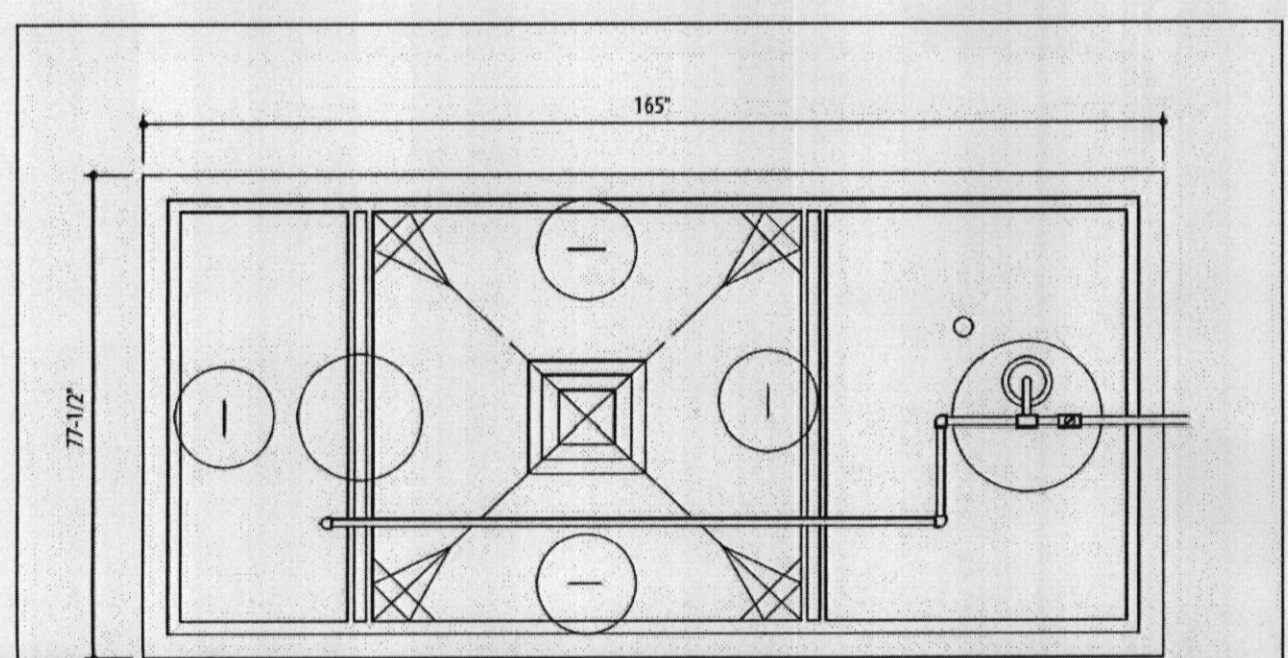
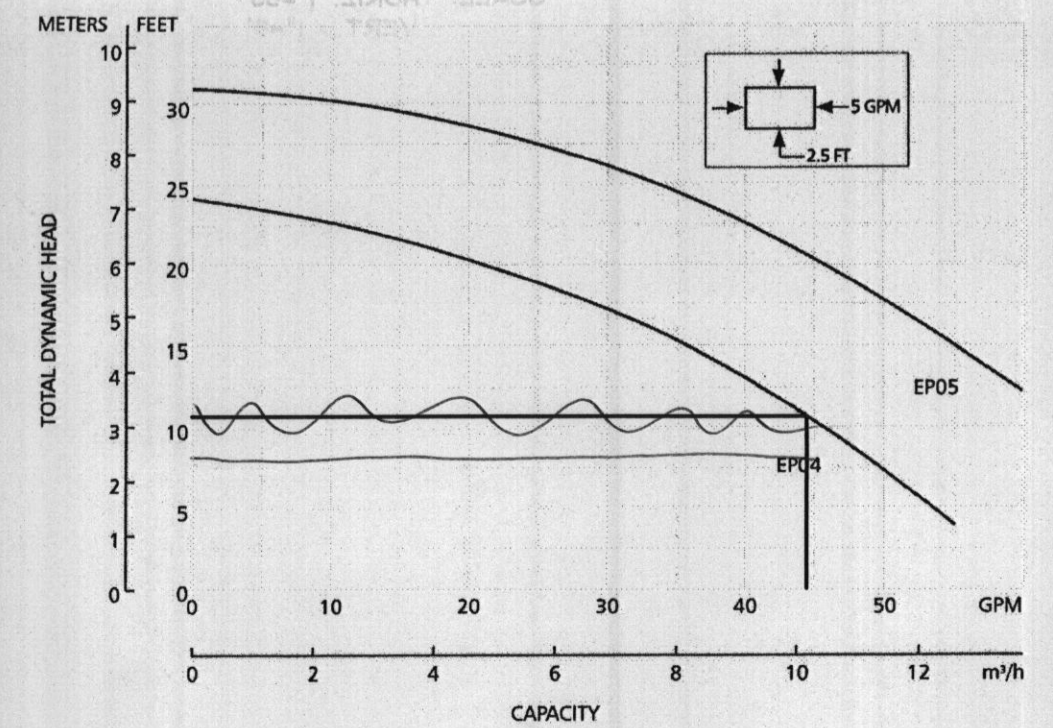
**COMPONENTS**

| Item No. | Description                    |
|----------|--------------------------------|
| 1        | Impeller                       |
| 2        | Base                           |
| 3        | Pump Casing                    |
| 4        | Mechanical Seal                |
| 5        | Ball Bearings                  |
| 6        | O-Rings                        |
| 7        | Power Cord                     |
| 8        | Oil Filled Motor               |
| 9        | Motor Housing/ Stator Assembly |
| 10       | Motor Cover                    |



**LOT 19 PUMP ELEVATIONS**

| OFF   | ON    | ALARM |
|-------|-------|-------|
| 524.5 | 526.5 | 527.5 |



**DESIGN DATA & GENERAL NOTES**

- 1) Concrete strength Fc=4,000 p.s.i. @ 28 days. Density = 150 pcf.
- 2) Cement - Portland Type III per ASTM C 150-93
- 3) Admixtures & plasticizers per ASTM C 209.86 & C 494-92.
- 4) Reinforcing per ASTM A185. Min. 1-1/2" cover.

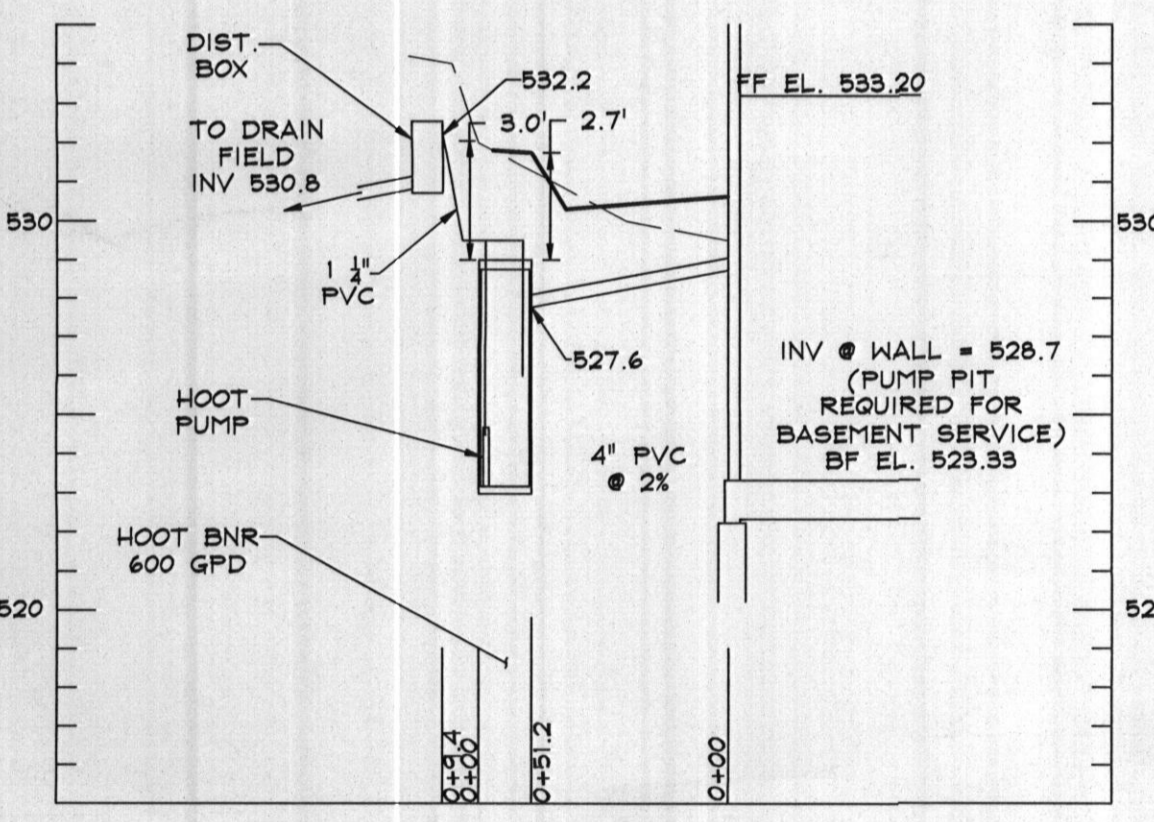
**Mayer Brothers, Inc.**  
6347 Lee Road  
Elkridge, Maryland 21075  
Tel. 410.796.1434  
Fax. 410.796.1438  
www.mayerbrothers.com

**600 GPD BNR SYSTEM**  
H-600 ABNR  
with 750 GALLON PUMP CHAMBER

Dwg. No. Hoot Form #1 No Scale March 19, 2009

**DRAWING LEGEND**

- 500 PROPOSED GRADE
- 502 PROPOSED LIMIT OF DISTURBANCE
- + 665.5 PROP. SPOT ELEV./FLOW ARROW
- PROPOSED 20' SEPTIC RESERVE BUFFER
- EXISTING 30' WELL BUFFER
- EXISTING 100' WELL BUFFER
- BUILDING RESTRICTION LINE
- SEPTIC RESERVE AREA
- WELL AREA
- 74 PASSED PERCOLATION TEST
- 127 FAILED PERCOLATION TEST



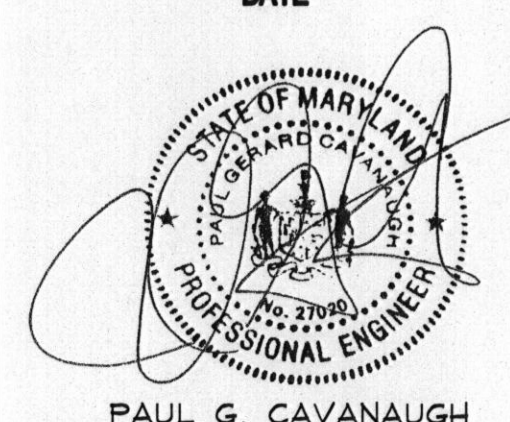
**SEPTIC SYSTEM PROFILE**  
LOT 19  
SCALE: HORIZ. 1"=50'  
VERT. 1"=5'

- SEWAGE DISPOSAL SYSTEM DATA (4 BEDROOM):**
1. INVERT @ FOUNDATION WALL: 528.7 (BASEMENT PUMP REQUIRED)
  2. 600 GPD BNR SYSTEM W/ 750 GALLON PUMP CHAMBER  
EX. GRADE OVER TANK: 531.6  
PROPOSED GRADE OVER TANK: 531.8  
INVERT: 527.6
  3. DISTRIBUTION BOX  
EX. & PROPOSED GRADE OVER TANK: 534.0  
INVERT: 533.2
  4. TRENCH DESIGN (4 BDRM x 150 GPD/BDRM = 600 GPD)  
600 GPD / 0.8 APP. RATE = 750 SF  
USE 3' WIDE TRENCH W/ 24" OF GRAVEL BELOW PIPE  
9' MIN SPACING BETWEEN TRENCH EDGES  
750 SF / 3' WIDTH = 166.67 LF x 0.62 = 155 LF MIN. TRENCH  
USE 3 - 52' LONG TRENCHES = 156 LF FOR INITIAL SYSTEM  
USE 2 - 78' LONG TRENCHES = 156 LF FOR FIRST REPLACEMENT SYSTEM

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. 27020 EXPIRATION DATE: JANUARY 26, 2014

03/18/2014  
DATE



Planners  
Surveyors  
Engineers  
Landscape Architects

192 East Main Street  
Westminster, MD 21157  
410.386.0560  
410.386.0564 (Fax)  
DDC@DDCinc.us  
www.DDCinc.us

**DDC**  
Development Design Consultants

**OWNER:**  
K. HOVHANIAN HOMES  
1802 Brightwood Road  
Landover, Maryland 20785  
(301) 683-6288

**DEVELOPER:**

**SITE ADDRESS:**  
LOT 19  
2819 BRIDALWREATH COURT  
Woodbine, Maryland 21797

**BELLE HAVEN ESTATES**  
LOT 19  
**SITE PLAN FOR**  
**BAT INSTALLATION**

3rd ELECTION DISTRICT HOWARD COUNTY

| NO. | DESCRIPTION OF CHANGES | DRN. | REV. | DATE |
|-----|------------------------|------|------|------|
|     |                        |      |      |      |

|                           |                           |
|---------------------------|---------------------------|
| <b>CO. FILE #:</b>        | <b>DES. BY: JHK</b>       |
| <b>TAX ACC. #:</b>        | <b>DRN. BY: BKC</b>       |
| <b>TAX MAP: 14</b>        | <b>CHK. BY: PGC</b>       |
| <b>BLOCK / GRID:</b>      | <b>DATE: 03/18/14</b>     |
| <b>PARCEL #: 66</b>       | <b>DDC JOB #: 06116.5</b> |
| <b>ZONE / USE: RC-DEO</b> | <b>SHEET NUMBER:</b>      |
| <b>DWG. SCALE: 1"=30'</b> | <b>1 of 1</b>             |