

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: 12/13/17 **ON-SITE SEWAGE DISPOSAL SYSTEM** P 562359-B
 APPROVAL DATE: 01/05/2018 **PERMIT: CONSTRUCTION** A _____
 PROPERTY ADDRESS: 8441 Parecco Drive
 SUBDIVISION: Beaufort Estates LOT: 3 TAX ID: 05-413818
 CONTRACTOR: South Carroll Backhoe EMAIL: scbackhoe@comcast.com
 CONTRACTOR ADDRESS: 4410 Salem Bottom Road, Westminster, MD 21157 PHONE: 410-596-3618
 PROPERTY OWNER: Xue Jue and Liu Xiaonong EMAIL: _____
 OWNER ADDRESS: 6505 Tipperany Court, Clarksville, MD 21029 PHONE: _____
 SEPTIC TANK SIZE (GALLONS): 2000 TANK MANUFACTURER: Mayer Bros
 PUMP MODEL: N/A PUMP SIZE N/A PUMP TANK CAPACITY: N/A

DISTRIBUTION SYSTEM: GRAVITY PRESSURE DOSED BEDROOMS: 6 APPLICATION RATE 1.2

TRENCHES:	LINEAR FEET REQUIRED: <u>135</u>	INLET DEPTH: <u>3</u>
	TRENCH WIDTH: <u>2</u>	MAXIMUM BOTTOM DEPTH: <u>7</u>
	MINIMUM SPACE BETWEEN TRENCHES: <u>10</u>	EFFECTIVE AREA BEGINNING DEPTH: <u>3</u>
LOCATION:	PER APPROVED SITE PLAN. SEWAGE DISPOSAL AREA AND TANK LOCATIONS MUST BE STAKED BY LICENSED SURVEYOR PRIOR TO PRE-CONSTRUCTION INSPECTION.	
NOTES:		

ISSUED BY: Kevin Wolf ISSUE DATE: 12/13/17 EXPIRATION DATE: 12/13/18

- 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 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 _____
- 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.

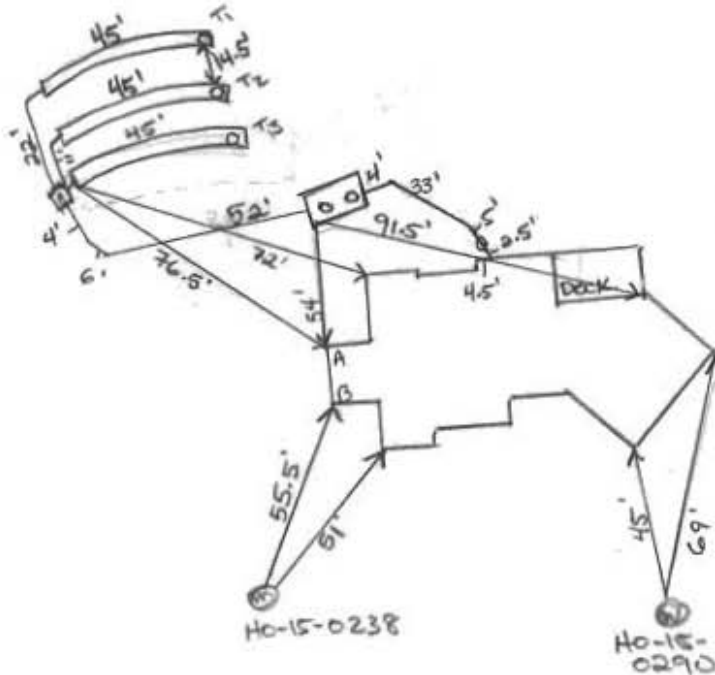
**PERMITTEE RESPONSIBLE FOR OBTAINING FINAL APPROVAL ON THIS PERMIT.
 CALL 410-313-1771 TO SCHEDULE INSPECTIONS.**

NOT TO SCALE

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
2'	3'	7'
NUMBER OF TRENCHES	3	
TOTAL LENGTH	135'	
ABSORPTION AREA	270 A ² + 840	
DISTRIBUTION BOX LEVEL	DN1	
DISTRIBUTION BOX BAFFLE	YES	
DISTRIBUTION BOX PORT	YES	

D Box To
 A: 75'
 B: 87'



PARRACO ROAD NAME DRIVE

SEPTIC TANK DATA

SEPTIC TANK I LEVEL	DN1
MANUFACTURER	Babylon
CAPACITY	2000 GAL
SEAM LOC	Top
TANK LID DEPTH	12" - 24"
BAFFLES	YES
BAFFLE FILTER	NO
MANHOLE LOC	Front / Back
6" PORT LOC	Inlet
WATERTIGHT TEST	N/A
SLOTTED	YES
DATE ON LID	2-12-19

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:

3/28/2018 Ammended layout to optimize SDA and make fall to 2nd Rep Sys.
 Relocated D box to mid upper edge of SDA. 3 x 45' Trenches for 135 linear.
 Tank shifted toward house, still meets 20' setback @

INSTALLATION:

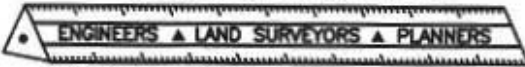
3/28/2018 (PM) TANK SET. @ 3/29/2018 (AM) Trench 1 complete + ok to backfill. Trench 2 half constructed. Needs more stone. Trench construction matches specs. Installed SHC + house effluent line into ST. @ 3/29/2018 Trench 2 completed and final trench awaiting stone. Contractor to install d box on Friday 3/30 (office closed) and will send as built @ 4/2/2018 Contractor submitted as built for work completed 4/5/2018 Photo inspection of D Box. @

FINAL INSPECTOR

DATE OF APPROVAL

4/5/2018

BENCHMARK



ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043
410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

TO: Health Dept

DATE <u>7/11/17</u>	PROJECT No. <u>2687</u>
ATTENTION <u>Hank Oswald</u>	
RE: <u>Beaufort Estates Lot 3</u>	
<u>8441 Parreco Dr.</u>	
<u>Revised OSDS Plan</u>	

WE ARE SENDING YOU Attached Under separate cover via _____ the following items

Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

COPIES of	No. of SHEETS	DESCRIPTION
<u>3</u>	<u>2</u>	<u>Plan for Septic Permit</u>
<u>1</u>	<u>1</u>	<u>Response Letter</u>

THESE ARE TRANSMITTED as checked below

For Comment For your use For Approval
 For Review As requested Other _____

REMARKS:

COPY TO: _____
RECEIVED BY: [Signature]
If enclosures are not as noted, kindly notify us at once.

SIGNED: [Signature]



Bureau of Environmental Health

8930 Stanford Boulevard, Columbia, MD 21045

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TDD 410-313-2323 | Toll Free 1-866-313-6300

www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: [HowardCoHealthDep](https://twitter.com/HowardCoHealthDep)

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

July 5, 2017

Benchmark
8480 Baltimore National Pike
Ellicott City, MD 21043
Attn: John Carney

Sent via email to:

RE:

OSDS Plan
8441 Parreco Drive
Fulton, MD 20759

Hi John:

The OSDS Plan for Beaufort Estates, Lot 3 has been reviewed with the following comments:

- 1.) Add both well locations & well tag #s.
- 2.) Change note #6 to include both well tag #s.
- 3.) Add note that basically states that both wells will be tied in together to serve the house.
- 4.) Show 3rd system and calculations

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

Respectfully,

Hank Oswald

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

Oswald, Hank

From: Oswald, Hank
Sent: Wednesday, July 05, 2017 11:51 AM
To: John Carney (jcarney@bei-civilengineering.com)
Subject: OSDS Plan_Beaufort Estates Lot 3_8441 Parreco Drive
Attachments: OSDS_8441 Parreco Drive_7.2017.pdf; Beaufort Estates_Lot 3.pdf

Hi John:

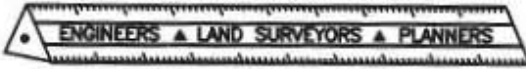
During BP review, the OSDS plan was also reviewed again. Please see attachment for revision comments. Also, I included a copy of the septic specs. Please contact me with any questions.

Respectfully,

Hank

Hank Oswald, L.E.H.S.
Howard County Health Department
Bureau of Environmental Health
Well & Septic Program
8930 Stanford Boulevard
Columbia, MD 21045
410.313.1786 (Office)
410.313.2648 (Fax)

BENCHMARK



ENGINEERING, INC.

8480 Baltimore National Pike • Suite 315 • Ellicott City, Maryland 21043
410-465-6105 410-465-6644 (Fax)

LETTER OF TRANSMITTAL

DATE <u>3/17/17</u>	PROJECT No. <u>7601</u>
ATTENTION	
RE: <u>Bractfort Park Lot 3</u>	

TO: Health Dept

WE ARE SENDING YOU Attached Under separate cover via _____ the following items

Photocopies Prints Originals Samples
 Specifications Invoices Change Order Other _____

COPIES of	No. of SHEETS	DESCRIPTION
<u>3</u>	<u>2</u>	<u>Soil Plan</u>
<u>1</u>	<u>-</u>	<u>Architecture Plans</u>

THESE ARE TRANSMITTED as checked below

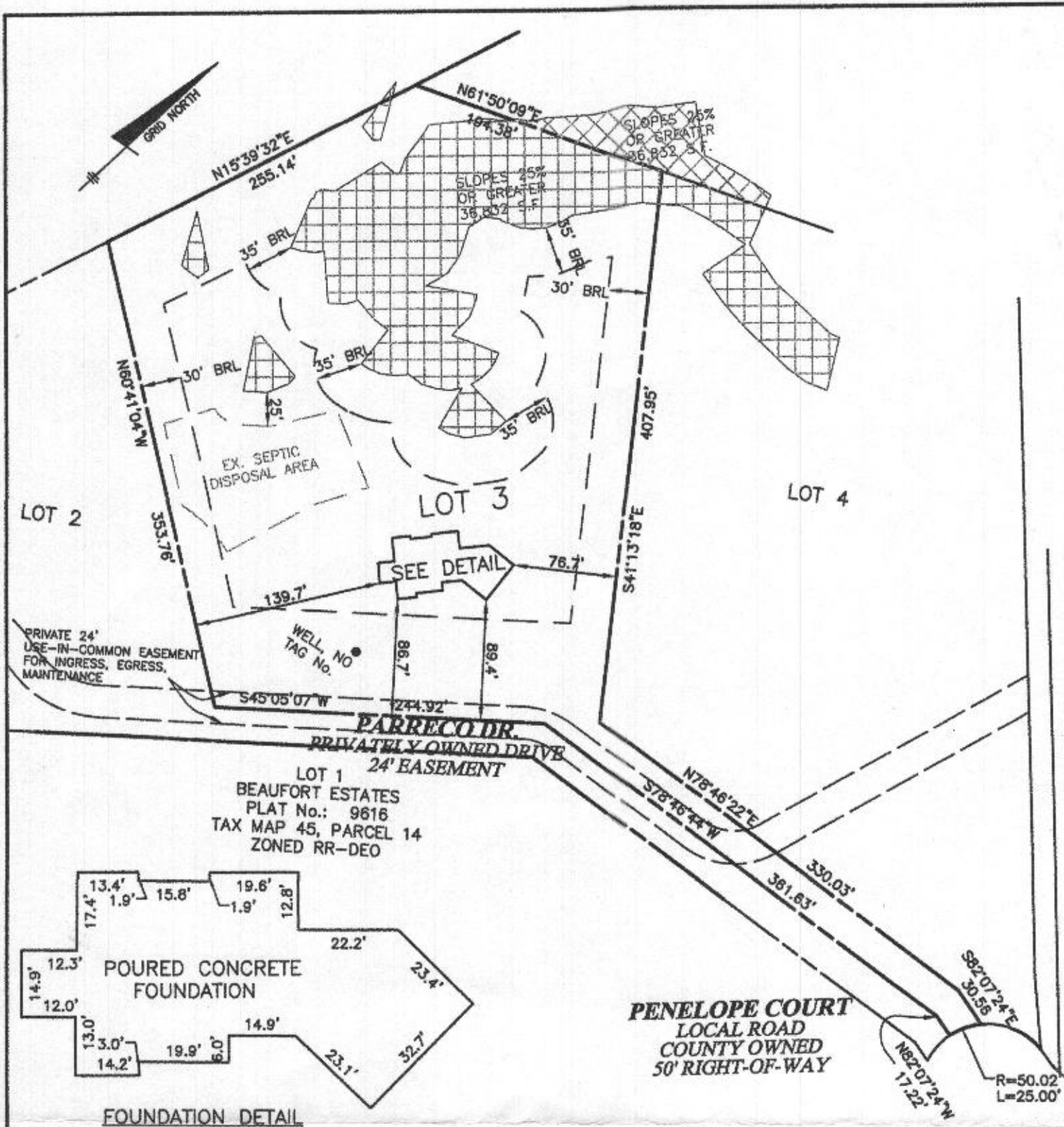
For Comment For your use For Approval
 For Review As requested Other _____

REMARKS:

COPY TO: _____
RECEIVED BY: _____
(Signature)

SIGNED: *(Signature)*

If enclosures are not as noted, kindly notify us at once.



SURVEYOR'S CERTIFICATE

I HEREBY CERTIFY THAT THESE DOCUMENTS, WERE PREPARED BY ME OR UNDER MY RESPONSIBLE CHARGE, AND THAT I AM A DULY LICENSED PROFESSIONAL LAND SURVEYOR UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 21320, EXPIRATION DATE 1-7-2019 AND TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF, THAT THE DIMENSIONS OF THE BUILDING WALLS SHOWN HEREON ARE CORRECT; THAT THEY ARE BASED ON A FIELD RUN SURVEY PERFORMED BY BENCHMARK ENGINEERING, INC. ON 08/28/2017.

TOP OF FOUNDATION WALL = 408.2'
 OFFSET DIMENSIONS TO PROPERTY LINES ARE ± 0.1'

DONALD A. MASON
 PROFESSIONAL LAND SURVEYOR 21320
 MARYLAND REG. No. 21320

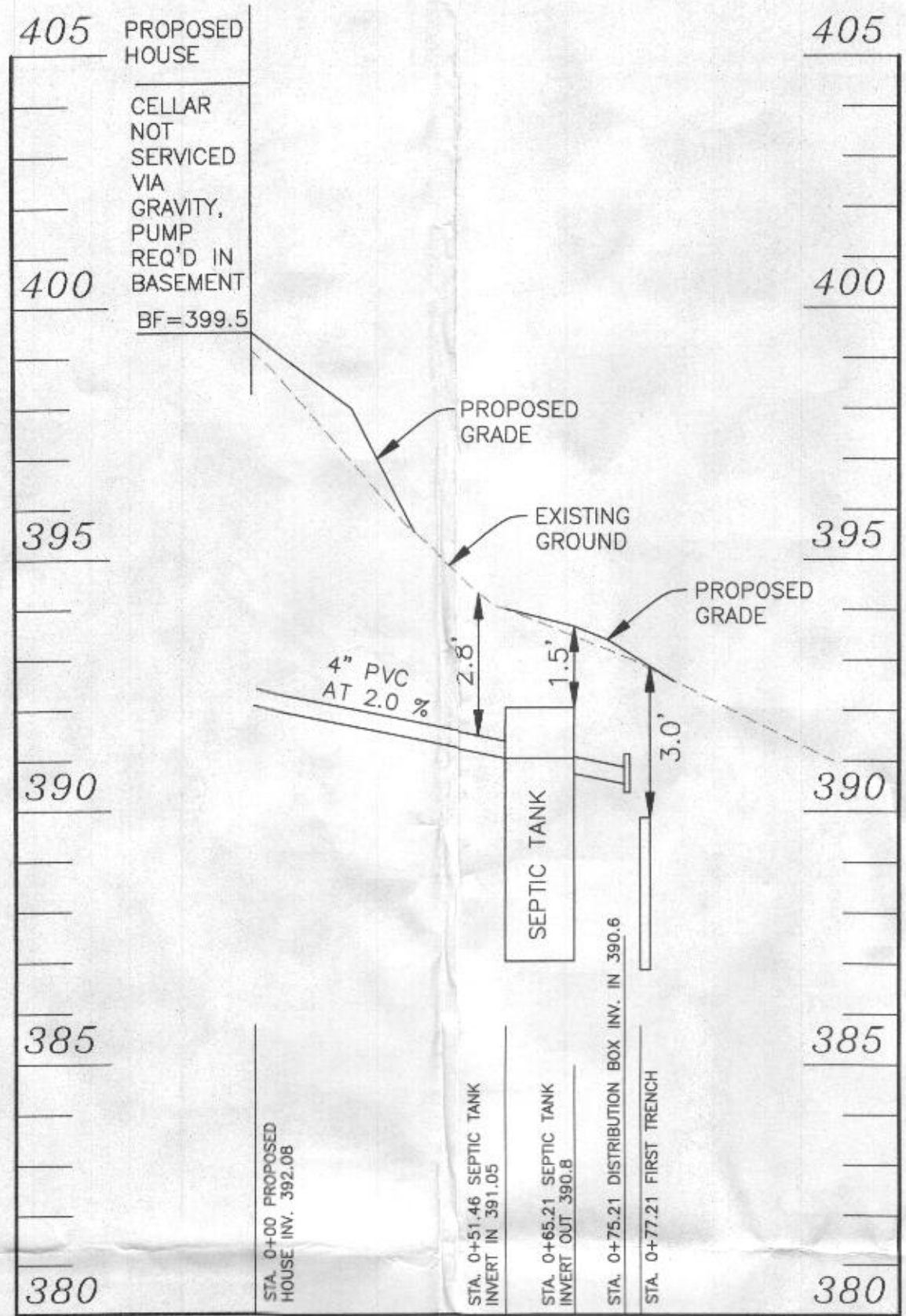
FEMA FIRM No. 24027C0140D
 ZONE: X
 DATED: 11/6/2013

WALL CHECK
BEAUFORT ESTATES LOT 3
PLAT No. 20041
LOT No. 3

BENCHMARK
ENGINEERS LAND SURVEYORS PLANNERS
ENGINEERING, INC.
 8480 BALTIMORE NATIONAL PIKE SUITE 315
 ELLICOTT CITY, MARYLAND 21043
 (P) 410-485-6105 (F) 410-485-6644

8441 PARRECO DRIVE
 5TH ELECTION DISTRICT
 HOWARD COUNTY, MARYLAND

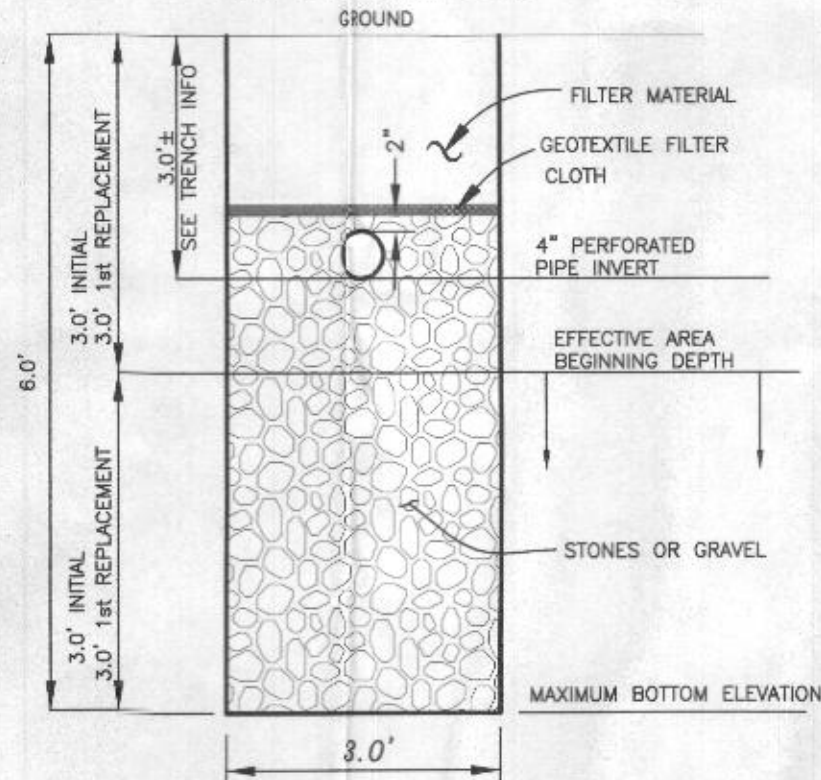
FIELD OBS. BY DH
 COMP. BY EWF
 DRAWN BY EWF SCALE: 1" = 100' DATE: 08/28/2017



SEWER PROFILE - LOT 3
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	62.50 LF	393.0	390.0	386.0
TRENCH 1-2	62.50 LF	391.7	388.7	384.7
TRENCH 2-1	62.50 LF	389.8	386.8	382.8
TRENCH 2-2	62.50 LF	388.2	385.2	381.2

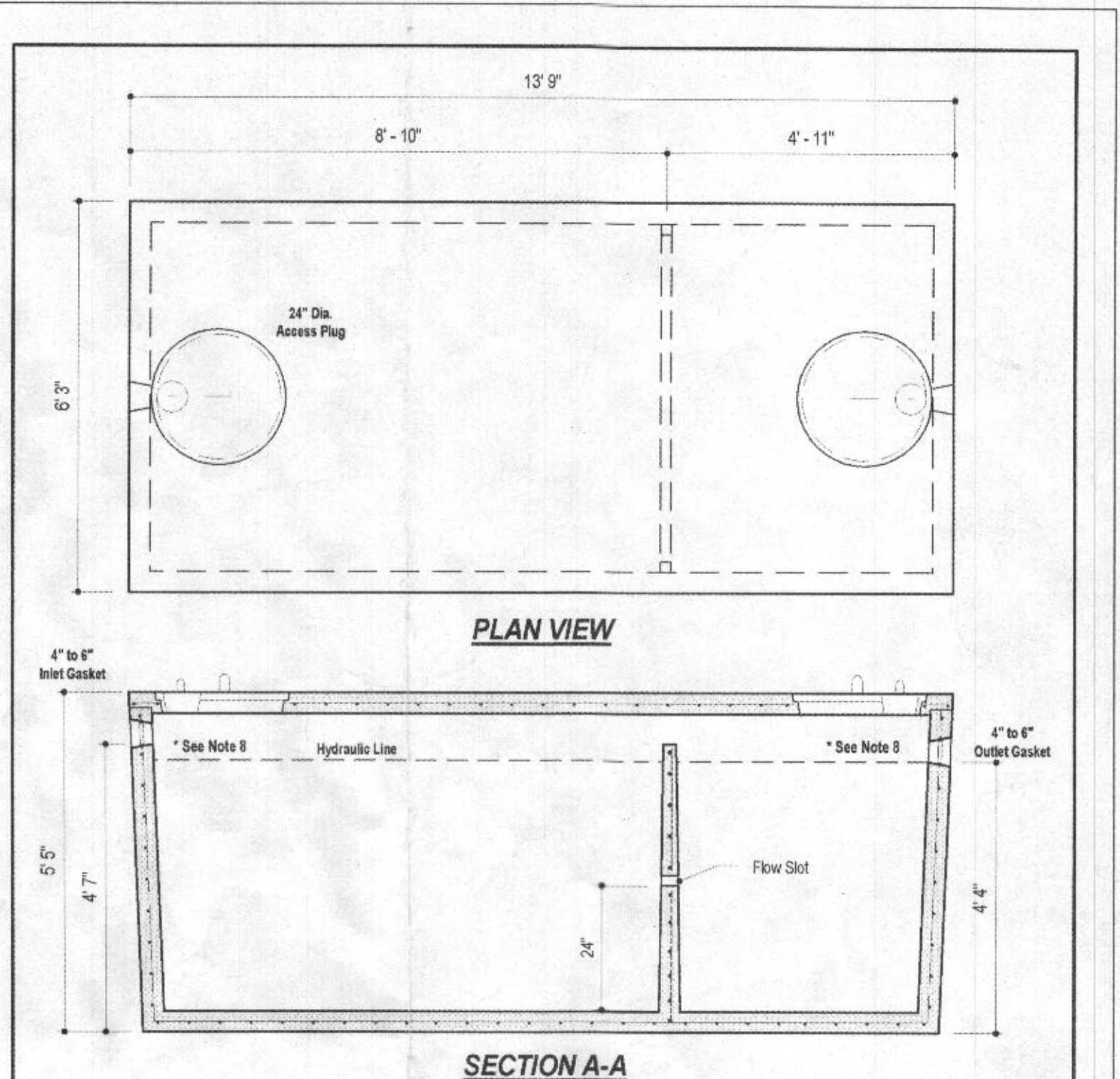


TYPICAL TRENCH DETAIL
NOT TO SCALE

INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

2nd REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.5	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.56	
Trench width	3	
Effective Area Depth	2.5	
Linear Length of trench Required	139	lf



DESIGN DATA & GENERAL NOTES

- [1] Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 150 pcf
- [2] Cement - Portland Type III per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 260-88 & C 494-92.
- [4] Reinforcing per ASTM A198, Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 6" top thickness.
- [7] Max 3" of cover
- [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.

Approved Septic System Plan
Howard County Health Department
[Signature] 8/8/17
Signature Date

MB
Mayer Bros., Inc. www.mayerbrosprecast.com
6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438

2,000 GALLON SEPTIC TANK
2-Compartment
Stock Item [Approx. 19,900 lbs]
Dwg. No. 2000-2C No Scale Aug 11, 2008

SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

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. 45577, Expiration Date: 06-08-2018.

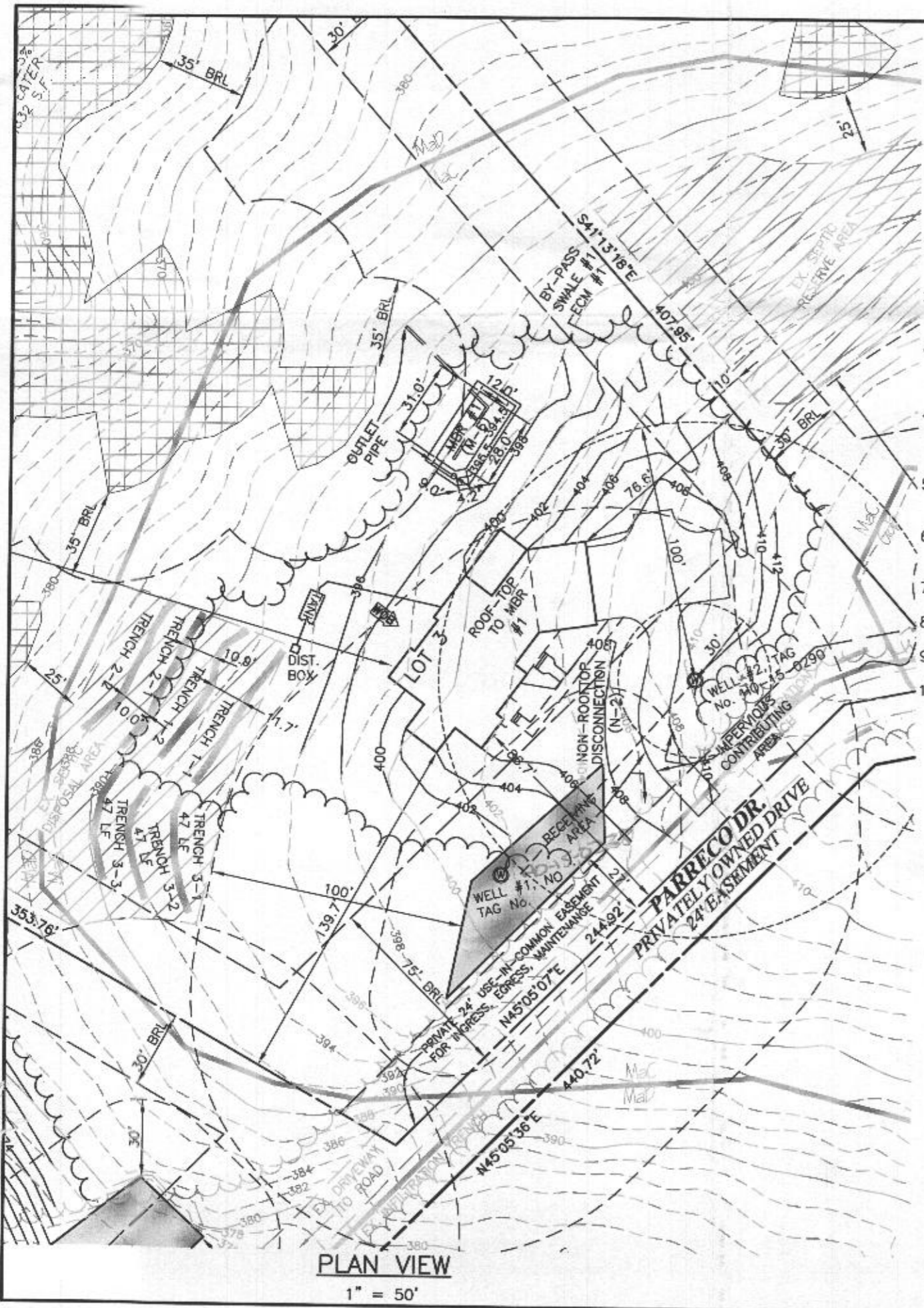
BENCHMARK ENGINEERING, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
BEI@BEI-CIVILENGINEERING.COM



SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

THIS PLAN IS FOR SEPTIC DESIGN ONLY

OWNER: JUE XUE XIAONONG LIU 6505 TIPPERANY COURT CLARKSVILLE, MD 21029	PROJECT:	BEAUFORT ESTATES LOT 3	
	LOCATION:	8441 PARRCO DRIVE FULTON, MD 20759 TAX MAP 45, GRID 6, PARCEL 14 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND TAX ID 05-413818	
DEVELOPER: BAKER DEVELOPMENT 16 GREENMEADOW DRIVE, SUITE G106 LUTHERVILLE, MARYLAND 21093 OFFICE (410) 616 6280 JOHN PIERCE SENIOR PROJECT MANAGER CELL (443) 800 4214 JOHN.PIERCE@BAKERLD.COM	TITLE:	SEPTIC PLAN	
	HOUSE TYPE:	LIU XUE RESIDENCE	
DESIGN: JC	DRAFT: CBD	DATE: MARCH, 2017 JULY, 2017	PROJECT NO. 2681
SCALE: 1" = 30'		DRAWING 2 OF 2	



PLAN VIEW
1" = 50'

LEGEND

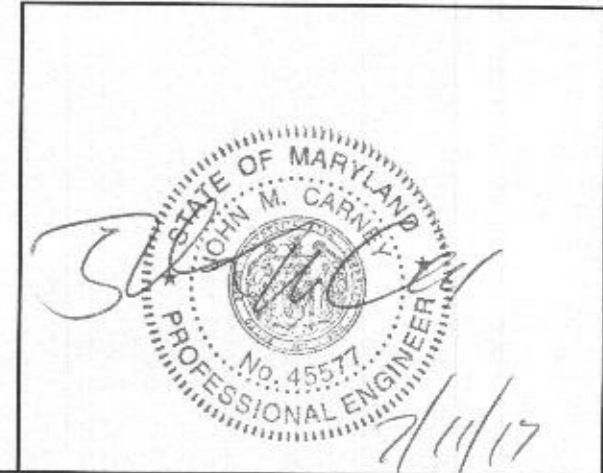
- PROJECT BOUNDARY
- SOILS CLASSIFICATION
- SOILS DELINEATION
- EXISTING CONTOURS (AERIAL 12/02)
- LIMIT OF WETLANDS
- EXISTING WOODS LINE
- EXISTING SEPTIC RESERVE AREA
- REVISED WELL BOX
- SLOPES 25% OR GREATER

BUILDING PERMIT PLAN NOTES:

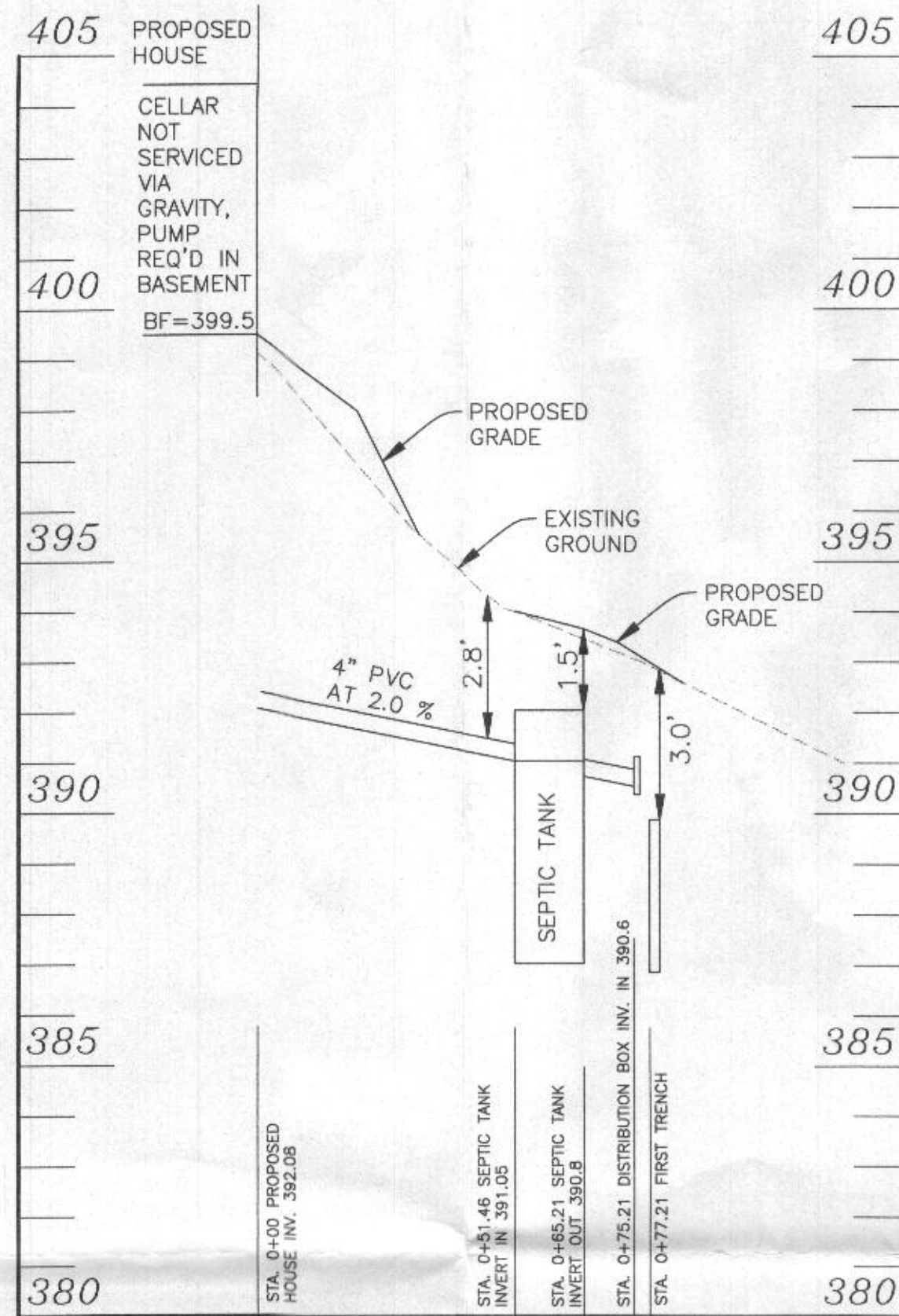
1. THE LOT SHOWN HEREON WAS RECORDED ON THE PLAT FOR VISTA RIDGE, PLAT Nos. 20040-20041. REFER TO THE PLATS FOR LOT DIMENSIONS, LOT AREAS, ALL EASEMENTS AND CONDITIONS.
2. SEDIMENT AND EROSION CONTROLS WERE APPROVED BY HOWARD SOIL CONSERVATION DISTRICT UNDER A GRADING PLAN AND MODIFIED FOR THIS SPECIFIC HOUSE.
3. TOPOGRAPHY SHOWN HEREON IS TAKEN FROM A FIELD RUN TOPOGRAPHIC SURVEY BY BENCHMARK ENGINEERING, INC., ON OR ABOUT MARCH, 2017 AND SUPPLEMENTED WITH THE GEOGRAPHIC INFORMATION SYSTEMS DATA FROM HOWARD COUNTY.
4. ALL SEDIMENT AND EROSION CONTROL FEATURES USED ON THIS SITE SHALL COMPLY WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. A CUSTOM GRADING PLAN HAS BEEN PROCESSED WITH HOWARD COUNTY.
5. ALL DRAINAGE AND STORMWATER MANAGEMENT FEATURES USED ON THIS SITE MUST COMPLY WITH THE APPROVED ROAD CONSTRUCTION PLANS EXCEPT AS WAIVED.
6. THE EXISTING WELLS SHOWN ON THIS PLAN, WELL #1 NO TAG 40-15-0238 AND WELL #2, TAG No. HO-15-0290, HAVE BEEN FIELD LOCATED BY BENCHMARK ENGINEERING, INC., AND ARE ACCURATELY SHOWN.
7. THERE ARE NO EXISTING WELLS OR SEPTIC SYSTEMS WITHIN 100' OF THIS PROJECT'S BOUNDARY EXCEPT AS NOTED.
8. ANY CHANGES TO A PRIVATE SEWAGE EASEMENT OR WELL BOX SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.
9. STORMWATER MANAGEMENT FOR THIS LOT WAS DESIGNED TO BE PROVIDED BY BOTH POND #1, A POCKET POND, AND IN POND #2, A MICROPOL ED POND.
10. THE SUPPLY LINES FROM WELLS #1 AND #2 SHALL BE TIED TOGETHER IN ORDER TO PROVIDE ADEQUATE SERVICE TO THE HOUSE. TIE LOCATIONS SHALL BE NOTED AND PROVIDED TO THE OWNER.

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. 45577, Expiration Date: 06/08/18

BENCHMARK
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
ENGINEERING, INC.
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
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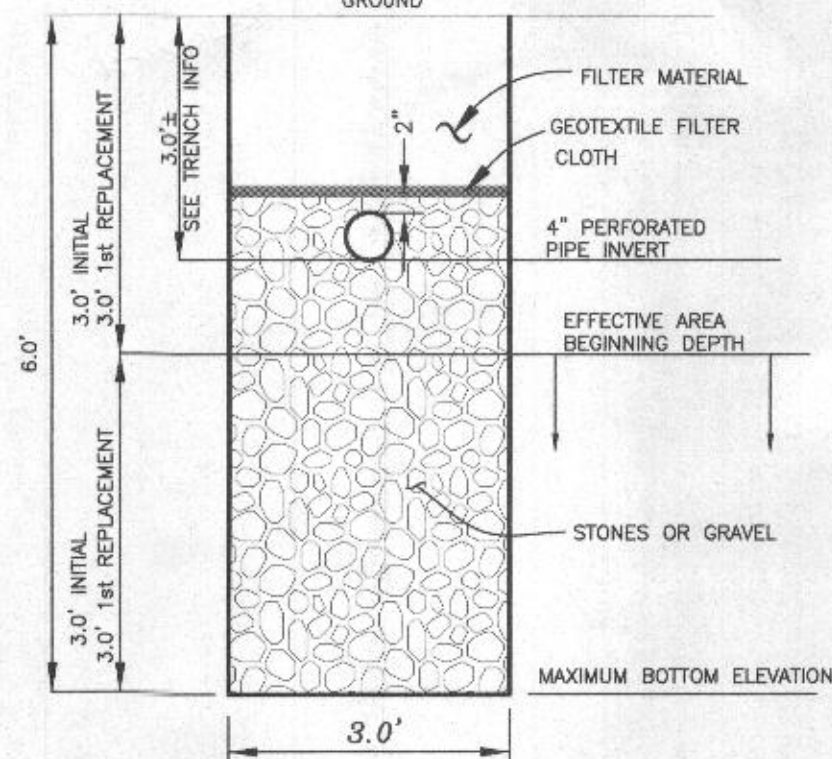
<p>OWNER: JUE XUE XIAONONG LIU 6505 TIPPERANY COURT CLARKSVILLE, MD 21029</p> <p>DEVELOPER: BAKER DEVELOPMENT 16 GREENMEADOW DRIVE, SUITE G106 LUTHERVILLE, MARYLAND 21093 OFFICE (410) 616 6280 JOHN PIERCE SENIOR PROJECT MANAGER CELL (443) 800 4214 JOHN.PIERCE@BAKERLD.COM</p>	<p>PROJECT: BEAUFORT ESTATES LOT 3</p> <p>LOCATION: 8441 PARRECO DRIVE FULTON, MD 20759 TAX MAP 45, GRID 6, PARCEL 14 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND TAX ID 05-413818</p> <p>TITLE: SEPTIC PERMIT PLAN</p> <p>HOUSE TYPE: LIU XUE RESIDENCE</p>
<p>DESIGN: JC</p> <p>DRAFT: CBD</p>	<p>DATE: MAY, 2017 JULY, 2017</p> <p>PROJECT NO. 2681</p> <p>SCALE: 1" = 50'</p> <p>DRAWING 1 OF 3</p>



SEWER PROFILE - LOT 3
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	62.50 LF	393.0	390.0	386.0
TRENCH 1-2	62.50 LF	391.7	388.7	384.7
TRENCH 2-1	62.50 LF	389.8	386.8	382.8
TRENCH 2-2	62.50 LF	388.2	385.2	381.2



TYPICAL TRENCH DETAIL
NOT TO SCALE

INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

2nd REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.5	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.56	
Trench width	3	
Effective Area Depth	2.5	
Linear Length of trench Required	139	lf

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

THIS PLAN IS FOR SEPTIC DESIGN ONLY

DESIGN DATA & GENERAL NOTES

- [1] Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 150 pcf.
- [2] Cement - Portland Type VII per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 260-86 & C 494-92.
- [4] Reinforcing per ASTM A185. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 5" top thickness.
- [7] Max 3" of cover
- [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] 8/8/17
Date

2,000 GALLON SEPTIC TANK
2-Compartment
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C No Scale Aug 11, 2008

M3
Mayer Bros., Inc. 6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbrosprecast.com

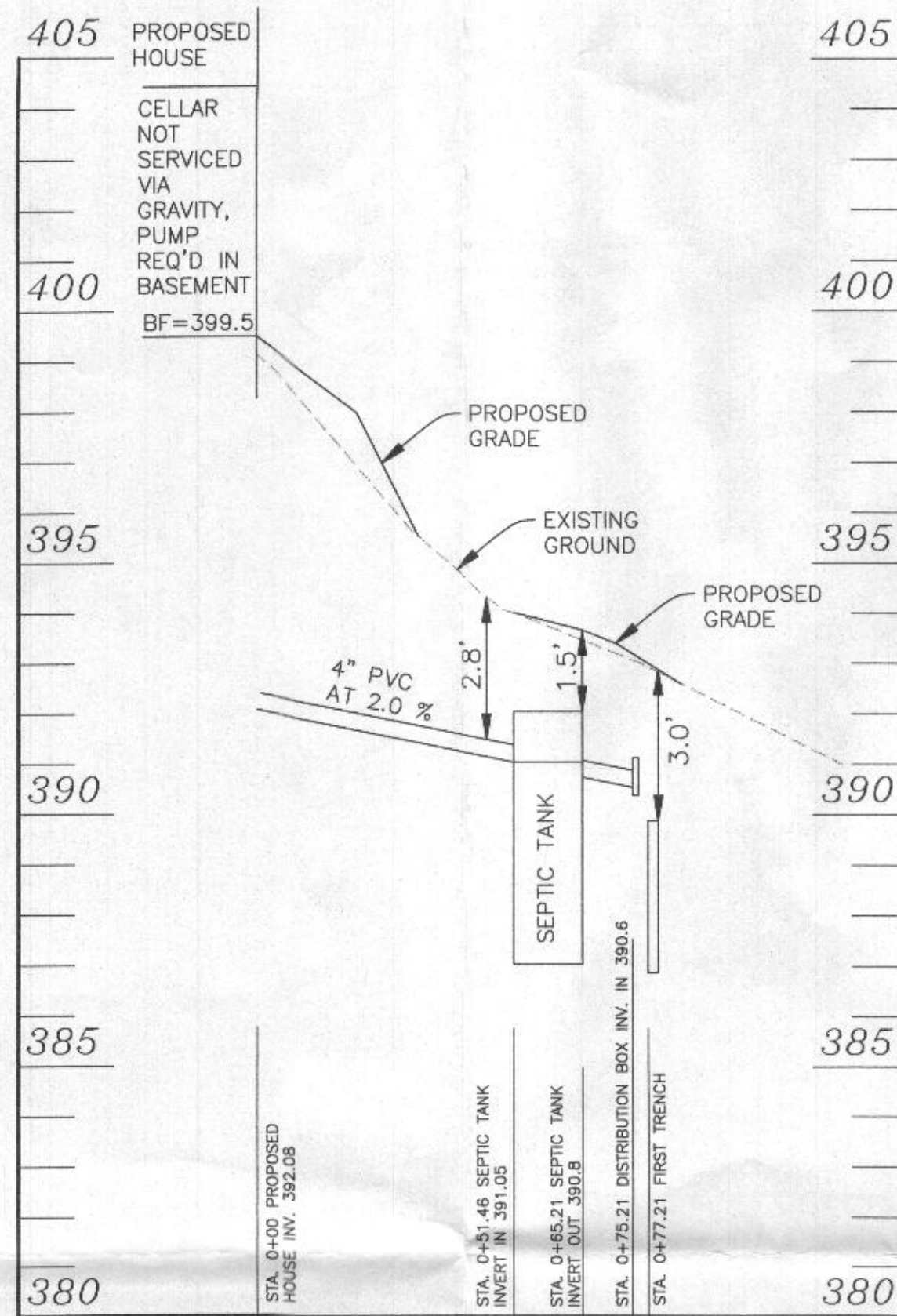
SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

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. 45577, Expiration Date: 06-08-2018.

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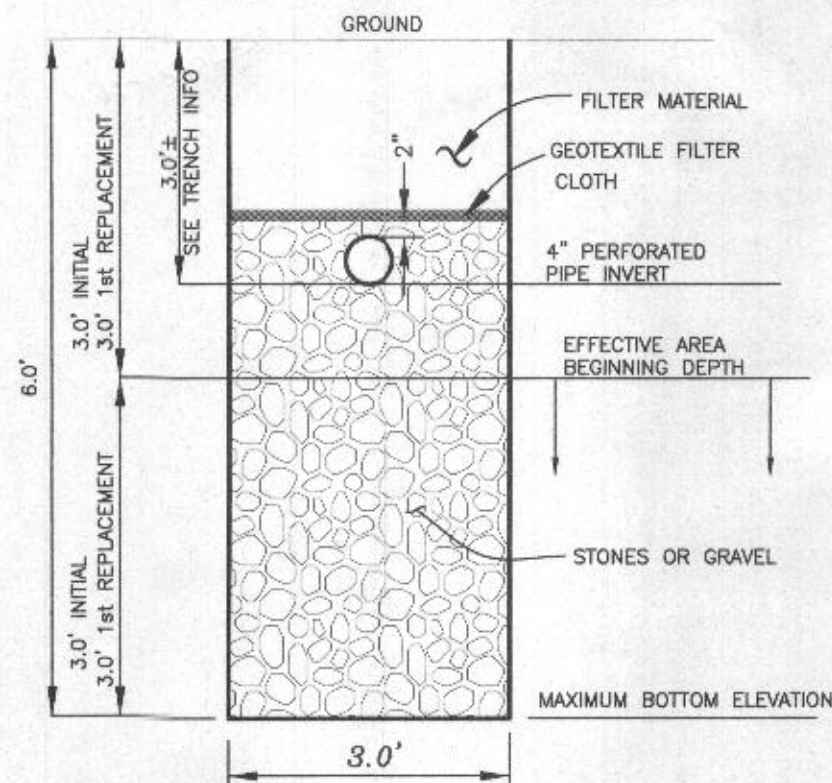
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DESIGN: JC DRAFT: CBD	TITLE: SEPTIC PLAN
HOUSE TYPE: LIU XUE RESIDENCE	DATE: MARCH, 2017 JULY, 2017
PROJECT NO. 2681	DRAWING 2 OF 2
SCALE: 1" = 30'	



SEWER PROFILE - LOT 3
SCALE: HORIZONTAL 1"=30'
VERTICAL 1"=3'

TRENCH INFORMATION

TRENCH	LENGTH	GROUND ELEVATION	INVERT ELEVATION	MAX. BOTTOM ELEV.
TRENCH 1-1	62.50 LF	393.0	390.0	386.0
TRENCH 1-2	62.50 LF	391.7	388.7	384.7
TRENCH 2-1	62.50 LF	389.8	386.8	382.8
TRENCH 2-2	62.50 LF	388.2	385.2	381.2



TYPICAL TRENCH DETAIL
NOT TO SCALE

INITIAL SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

1st REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.50	
Trench width	3	
Effective Area Depth	3	
Linear Length of trench Required	125	lf

2nd REPLACEMENT SYSTEM		
Number of Bedrooms	6	
Application Rate	1.2	gpd/sf
Effective Area Beginning Depth	3.5	ft
Bottom Max Depth	6	ft
Design Flow	900	gpd
Drainage Field square footage	750	sf
Sidewall reduction credit	0.56	
Trench width	3	
Effective Area Depth	2.5	
Linear Length of trench Required	139	lf

SEE MANUFACTURERS SPECIFICATIONS FOR DETAILS.
WWW.MAYERPRECAST.COM
EQUIVALENT FROM OTHER MANUFACTURERS CAN BE SUBSTITUTED.

THIS PLAN IS FOR SEPTIC DESIGN ONLY

PLAN VIEW

13' 9"
8' - 10"
4' - 11"
6' 2"
24" Dia. Access Plug

SECTION A-A

4" to 6" Inlet Gasket
4" to 6" Outlet Gasket
Hydraulic Line
Flow Slot
24"
5' 5"
4' 7"
4' 4"

DESIGN DATA & GENERAL NOTES

- [1] Concrete strength $f_c=4,000$ p.s.i. @ 28 days. Density = 150 pcf.
- [2] Cement - Portland Type VII per ASTM C 150-92.
- [3] Admixtures & plasticizers per ASTM C 260-86 & C 494-92.
- [4] Reinforcing per ASTM A185. Min. 1-1/2" cover.
- [5] Top slab sealed with butyl rope mastic.
- [6] 4" wall, 4" base, & 5" top thickness.
- [7] Max 3" of cover
- [8] Depending on use of tank, Inlet & Outlet baffle may be required by code.

Approved Septic System Plan
Howard County Health Department
Signature: [Signature] 8/8/17
Date

M3
Mayer Bros., Inc. 6264 Race Road
Elkridge, Maryland 21075
Tel. 410.796.1434
Fax. 410.796.1438
www.mayerbrosprecast.com

**2,000 GALLON SEPTIC TANK
2-Compartment**
Stock Item [Approx. 19,900 lbs]

Dwg. No. 2000-2C No Scale Aug 11, 2008

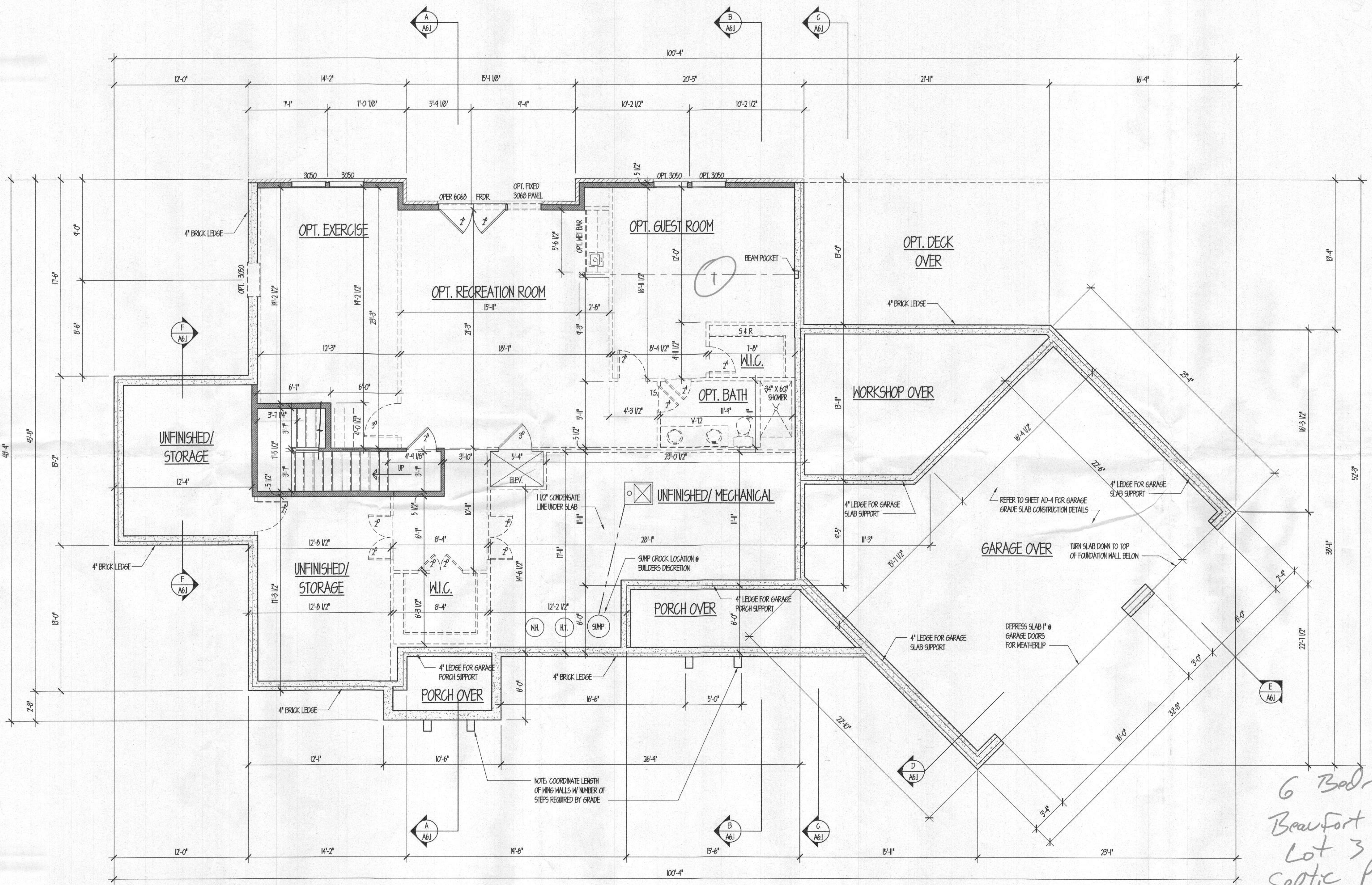
SIGNATURE AND SEAL ARE FOR SEPTIC PROFILE AND CALCULATIONS ONLY, TANK AND DETAILS WERE NOT DESIGNED OR REVIEWED BY THE ENGINEER:

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. 45577, Expiration Date: 06-08-2018.

BENCHMARK ENGINEERING, INC.
ENGINEERS ▲ LAND SURVEYORS ▲ PLANNERS
8480 BALTIMORE NATIONAL PIKE ▲ SUITE 315
ELLCOTT CITY, MARYLAND 21043
PHONE: 410-465-6105 ▲ FAX: 410-465-6644
BEI@BEI-CIVILENGINEERING.COM

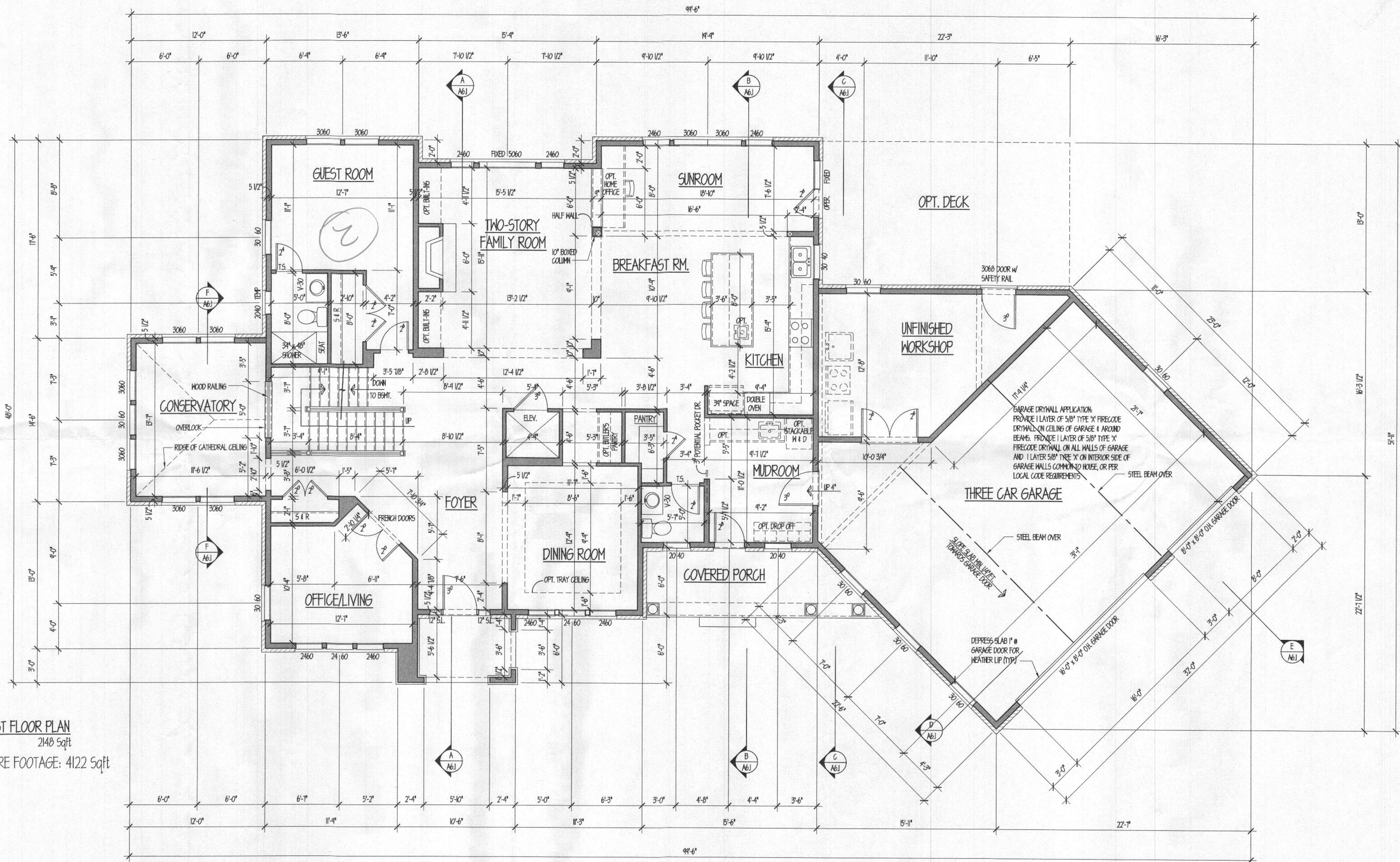


OWNER: JUE XUE XIAONONG LIU 6505 TIPPERANY COURT CLARKSVILLE, MD 21029	PROJECT: BEAUFORT ESTATES LOT 3
DEVELOPER: BAKER DEVELOPMENT 16 GREENMEADOW DRIVE, SUITE G106 LUTHERVILLE, MARYLAND 21093 OFFICE (410) 616 6280 JOHN PIERCE SENIOR PROJECT MANAGER CELL (443) 800 4214 JOHN.PIERCE@BAKERLD.COM	LOCATION: 8441 PARRECO DRIVE FULTON, MD 20759 TAX MAP 45, GRID 6, PARCEL 14 5TH ELECTION DISTRICT HOWARD COUNTY, MARYLAND TAX ID 05-413818
DESIGN: JC	TITLE: SEPTIC PLAN
DRAFT: CBD	HOUSE TYPE: LIU XUE RESIDENCE
DATE: MARCH, 2017 JULY, 2017	PROJECT NO. 2681
SCALE: 1" = 30'	DRAWING 2 OF 2

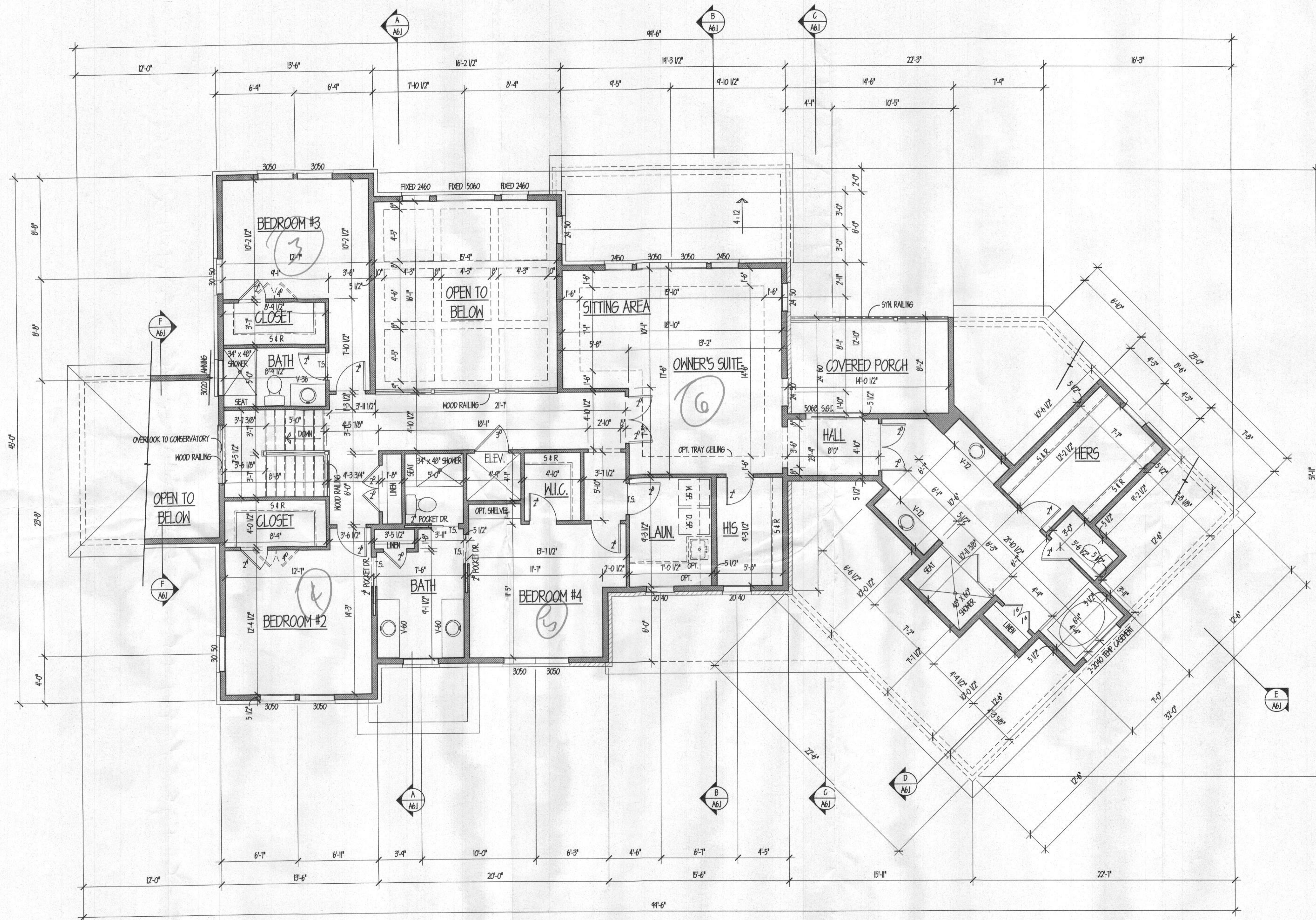


BASEMENT PLAN
 FINISHED BASEMENT : ADDITIONAL +1341 Sqft

6 Bedrooms
 Beaufort Estates
 Lot 3
 Septic Permit
 Plan
 3/15/17



FIRST FLOOR PLAN
2148 Sqft
TOTAL SQUARE FOOTAGE: 4122 Sqft



SECOND FLOOR PLAN
1474 Sqft