

HOWARD COUNTY **809001936** PERMIT NUMBER
PERMIT APPLICATION

Building Address 4611 SHEPPARD MANOR DRIVE
ELLICOTT CITY, MD 21042
Suite/Apt. #: --- SDP/WP/Petition #: F-06-79
Census Tract 605101 Subdivision SHEPPARD MANOR
Section --- Area --- Lot 3
Tax Map 29 Parcel 268 Grid 1
Zoning R-100 Map Coordinates 10F13 Lot size 33,075 #

Property Owner's Name WILLIAMSBURG GROUP
Address 5425 HANOVERS FARM RD.

City Columbia State MD Zip Code 21044

Home Phone --- Work Phone 410-917-8200
Applicant's Name & Mailing Address, (if other than stated hereon):

Phone --- Fax 410-917-4358

Existing Use VACANT LOT
Proposed Use SPD
Estimated Construction Cost \$ 300,000
Description of Work 1110F13

Contractor Company JANE A. OWNER
Contact Person

Address
City 155 State --- Zip Code ---
License No. 155
Phone --- Fax ---

Occupant or Tenant SAME AS OWNER
Contact Name

Engineer or Architect Company FCH Assoc
Contact Person

Contact Person ZACH FISCH

Address
City --- State --- Zip Code ---

Address 6339 Howard Ave
City Rockville State MD Zip Code 21075

Phone --- Fax ---

Phone --- Fax ---

BUILDING DESCRIPTION - COMMERCIAL

BUILDING DESCRIPTION - RESIDENTIAL

Building Characteristics		Utilities	
Height:		Water Supply:	
No. of stories:		<input type="checkbox"/> Public	
Gross area, sq. ft. per floor:		<input type="checkbox"/> Private	
Use group:		Sewage Disposal:	
Construction type:		<input type="checkbox"/> Public	
<input type="checkbox"/> Reinforced Concrete		<input type="checkbox"/> Private	
<input type="checkbox"/> Structural Steel		Electric Yes <input type="checkbox"/> No <input type="checkbox"/>	
<input type="checkbox"/> Masonry		Gas Yes <input type="checkbox"/> No <input type="checkbox"/>	
<input type="checkbox"/> Wood Frame		Heating System:	
<input type="checkbox"/> State Certified Modular		Electric <input type="checkbox"/> Oil <input type="checkbox"/>	
		Natural Gas <input type="checkbox"/>	
		Propane Gas <input type="checkbox"/>	
		Sprinkler system: N/A <input checked="" type="checkbox"/>	
		<input type="checkbox"/> Full	
		<input type="checkbox"/> Partial	
		<input type="checkbox"/> Other Suppression	
		# of Heads	

THE UNDERSIGNED HEREBY CERTIFIES AND AGREES AS FOLLOWS: (1) THAT HE/SHE IS AUTHORIZED TO MAKE THIS APPLICATION; (2) THAT THE INFORMATION IS CORRECT; (3) THAT HE/SHE WILL COMPLY WITH ALL REGULATIONS OF HOWARD COUNTY WHICH ARE APPLICABLE THERETO; (4) THAT HE/SHE WILL PERFORM NO WORK ON THE ABOVE REFERENCED PROPERTY NOT SPECIFICALLY DESCRIBED IN THIS APPLICATION; (5) THAT HE/SHE GRANTS COUNTY OFFICIALS THE RIGHT TO ENTER ONTO THIS PROPERTY FOR THE PURPOSE OF INSPECTING THE WORK PERMITTED AND POSTING NOTICES.

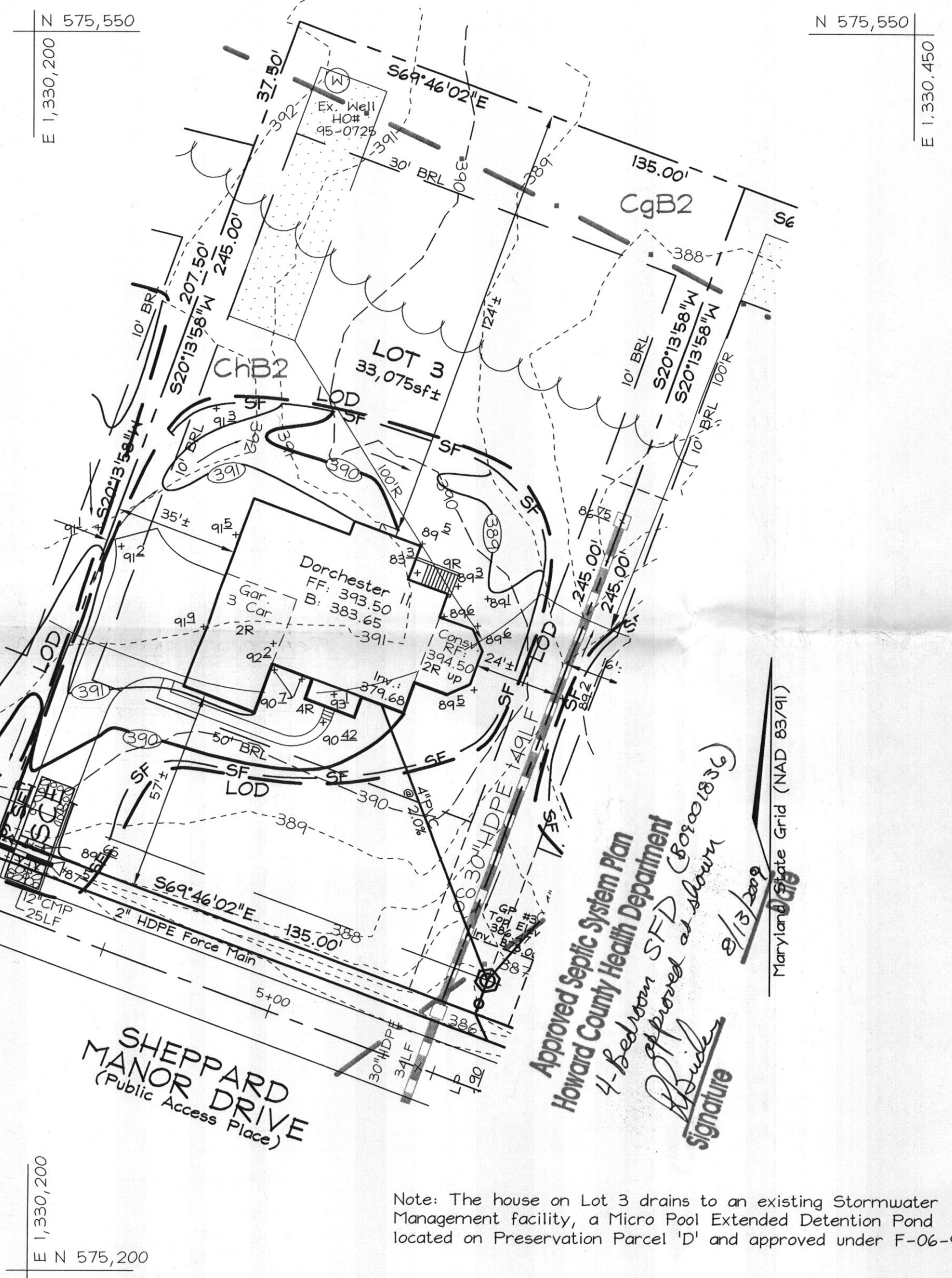
Suzanne P. Davis
Applicant's Signature
WGLLC-AGENT
Title/Company

SUZANNE P. DAVIS
Print Name

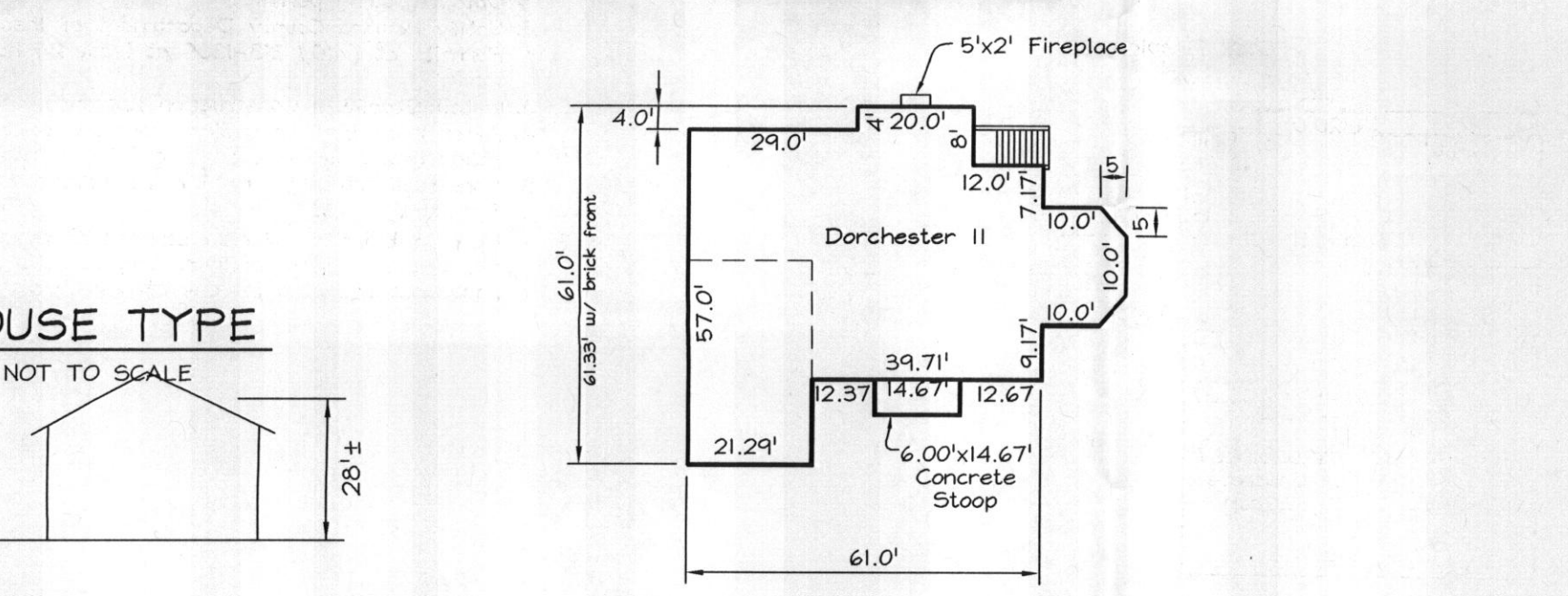
Date

Checks payable to: **DIRECTOR OF FINANCE OF HOWARD COUNTY**
** PLEASE WRITE NEATLY AND LEGIBLY. **
- FOR OFFICE USE ONLY -

AGENCY	DATE	SIGNATURE APPROVAL	DPZ SETBACK INFORMATION	PROPERTY ID#:
Land Development, DPZ			Front: _____	Filing fee \$ _____
State Highways			Rear: _____	Permit fee \$ _____
Building Official			Side: _____	Excise tax \$ _____
Dev. Engineering, DPZ			Side St.: _____	Add'l per. fee \$ _____
Health <u>8/13/2009</u>		<u>RBueker</u>	All minimum setbacks met?	TOTAL FEES \$ _____
Fire Protection			YES <input type="checkbox"/> NO <input type="checkbox"/>	Sub-total paid \$ _____
Is Sediment Control approval required prior to issuance?			Is Entrance Permit required?	Balance due \$ _____
YES <input type="checkbox"/> NO <input type="checkbox"/>			YES <input type="checkbox"/> NO <input type="checkbox"/>	Check # _____
CONTINGENCY CONSTRUCTION START: <input type="checkbox"/>			Historic District?	Validation # _____
ONE STOP SHOP: <input type="checkbox"/>			YES <input type="checkbox"/> NO <input type="checkbox"/>	
Distribution of Copies- White: Building Official			Lot Coverage for NewTown Zone _____	
Green: LDD, DPZ			SDP/Red-line approval date _____	Accepted by _____
Yellow: DED, DPZ				
Pink: Health				
Gold: SHA				



PLAN VIEW
SCALE: 1"=30'



HOUSE TYPE
NOT TO SCALE

PERMANENT SEEDING NOTES

APPLY TO GRADED OR CLEARED AREAS NOT SUBJECT TO IMMEDIATE FURTHER DISTURBANCE WHERE A PERMANENT LONG-LIVED VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (42 lbs/1000 s.f.) And 400 lbs / acre (20.7 lbs./1000s.f.) of 10-20-20 before seeding. Harrow or disc into upper 3 in. of soil.

SEEDING: Apply a mixture of Turf Type Tall Fescue (80%) and Hard Fescue (20%) in accordance with seeding rates shown in the Permanent Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below and apply permanent seeding within proper seeding dates.

MULCHING: Immediately following seeding, apply a uniform 1-2 in. Deep layer of un-rotted small grain straw at a rate of 2 tons/acre. (Apply 2.5 Tons/acre if a mulch anchoring tool is used.) Straw may be anchored with wood cellulose fiber at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. Of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Tax II, Acrylic DLR (Agror-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.

Seed Mixture (Hardness Zone 7a and 6b)	Fertilizer Rate (10-20-20)	Lime Rate
No. Species Application Rate (lb/ac.) Seeding Dates Seeding Depth	N P205 K20	
10 Tall Fescue (80%) 120 3/1-5/15 0.5 in.	90lb/ac (2.0lb/1000sf)	75lb/ac (1.8lb/1000sf)
Hard Fescue (20%) 30 8/15-11/15 0.5 in.	41lb (1.0lb/1000sf)	100lb (2.5lb/1000sf)

TEMPORARY SEEDING NOTES

SEEDBED PREPARATION: Loosen upper three inches of soil by raking, discing or other acceptable means before seeding, if not previously loosened.

SOIL AMENDMENTS: In lieu of soil test recommendations, use the following schedule: Apply 2 tons per acre dolomitic limestone (42 lbs/1000 s.f.) And 400 lbs / acre (15 lbs./1000s.f.) of 10-10-10 before seeding. Harrow or disc into upper 3 in. of soil.

SEEDING: Apply the Maryland State Highway approved seed mixture of Barley or Rye plus Foxtail Millet in accordance with seeding dates and rates shown in the Temporary Seeding Summary shown on this sheet. For stabilization outside of the seeding dates, apply straw mulch at rates and methods specified below.

MULCHING: Immediately following seeding, apply a uniform 1-2 in. Deep layer of un-rotted small grain straw at a rate of 2 tons/acre. (Apply 2.5 Tons/acre if a mulch anchoring tool is used.) Straw may be anchored with wood cellulose fiber at a rate of 750 lbs. / acre mixed at a ratio of 50 lbs. Of wood fiber/ 100 gal. of water. Synthetic liquid binders such as Terra Tax II, Acrylic DLR (Agror-Tack), DCA-70, Petrosol and other approved equals may be used at rates recommended by the manufacturers.

REFER TO THE 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR RATE AND METHODS NOT COVERED.

Seed Mixture (Hardness Zone 6a and 7a)	Fertilizer Rate (10-10-10)	Lime Rate
No. Species Application Rate (lb/ac.) Seeding Dates Seeding Depth		
1 Barley or Rye plus Foxtail Millet 150 lbs (3.5lb/1000sf) 2/1-11/30 (7a) 1/4 in-1/2 in (15lb/1000sf)	600 lb/ac (15lb/1000sf)	2 tons/ac (100lb/1000sf)

SEDIMENT CONTROL NOTES

- A minimum of 48 hours notice must be given to the Howard County Department of Inspection, License and Permits Sediment Control Division prior to the start of any construction (410-313-1855).
- All vegetation and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
- Following initial soil disturbance or re-disturbance, permanent or temporary stabilization shall be completed within (a) 7 calendar days for all perimeter sediment control structures, dikes, perimeter slopes, and all slopes greater than 3:1, (b) 14 days as to all other disturbed or graded areas on the project site.
- All sediment traps/basins shall be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 7, HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
- All disturbed areas must be stabilized within the time period specified above in accordance with the 1994 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL for permanent seeding, sod, temporary seeding, and mulching (Sec. G). Temporary stabilization with mulch alone shall be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
- All sediment control structures are to remain in place and are to be maintained in operative condition until permission for their removal has been obtained from the Howard County Sediment Control Inspector.
- Site Analysis:

Total Area	0.754 Acres
Area Disturbed	0.306 Acres
Area to be roofed or paved	0.145 Acres
Area to be vegetatively stabilized	0.155 Acres
Total Cut	4.64 CFT
Total Fill	4.64 CFT
- Offsite waste/borrow area location.
- Any sediment control practice which is disturbed by grading activity for placement of utilities must be repaired on the same day of disturbance.
- Additional sediment controls must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
- On all sites with disturbed areas in excess of 2 acres, approval of the inspection agency shall be requested upon completion of installation of perimeter erosion and sediment controls, but before proceeding with any other earth disturbance or grading. Other building or grading inspection approvals may not be authorized until this initial approval by the inspection agency is made.
- Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized within one working day, whichever is shorter.
- Earthwork quantities are solely for the purpose of calculating fees.
- Contractor to verify all quantities prior to the start of construction.
- To be determined by contractor, with pre-approval of the Sediment Control Inspector with an approved and active grading permit.

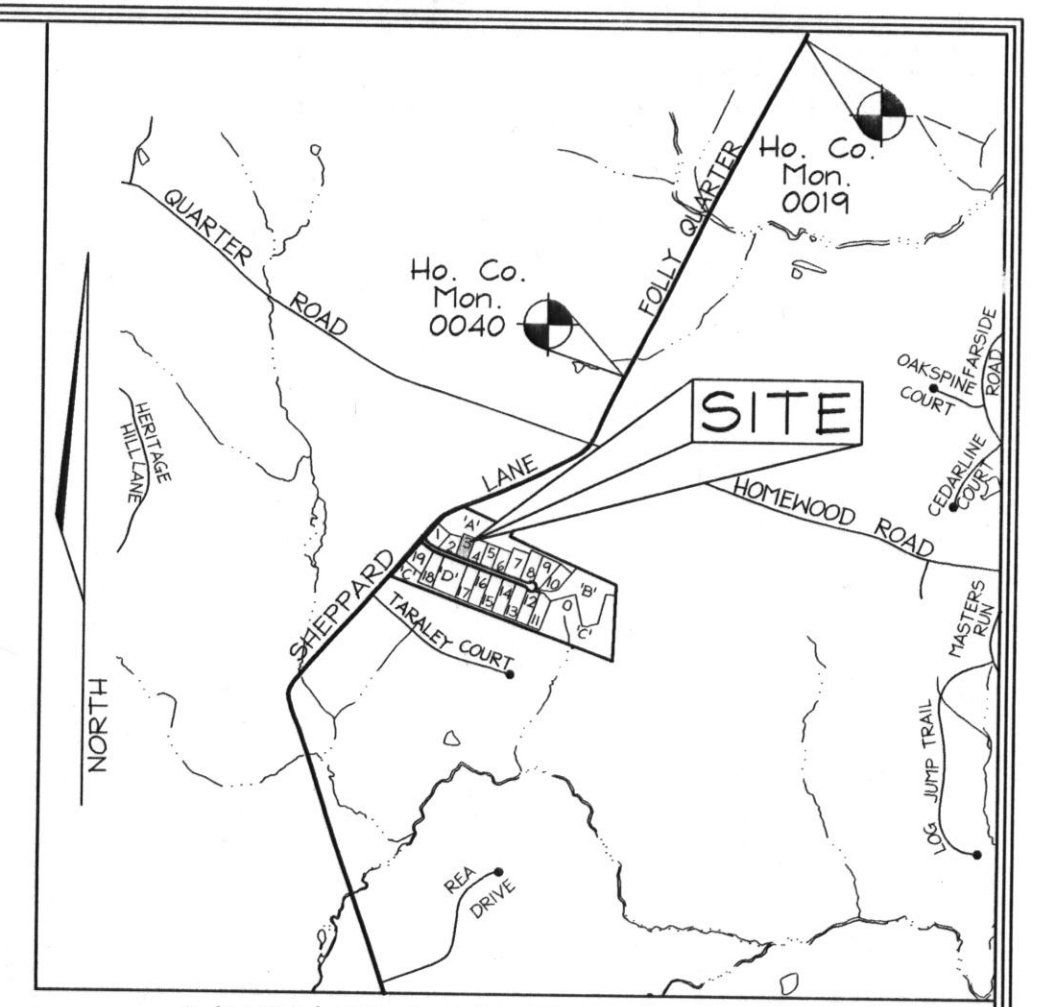
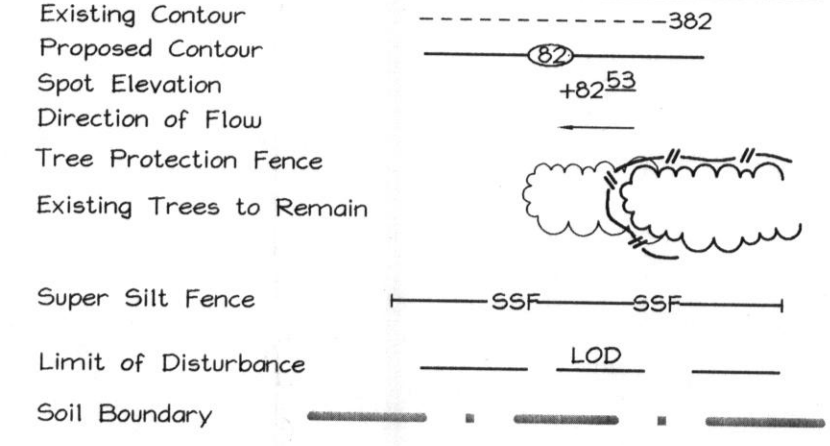
SEQUENCE OF CONSTRUCTION

- Obtain grading permit.
- Notify Howard County Department of Inspections, License and Permits at (410) 313-1880 at least 24 hours before starting any work.
- Install Stabilized Construction Entrance.
- After receiving permission from the sediment control inspector, rough grade site and begin building construction.
- Construct driveway and finish building construction.
- Fine grade site.
- Upon stabilization of all disturbed areas and with the permission of the Sediment Control Inspector, remove all sediment control measures and stabilize any remaining disturbed area.

SOILS LEGEND

SYMBOL	NAME / DESCRIPTION	SOIL GROUP
Es	Baile silt loam	D
CqB2	Chester gravelly silt loam, 3 to 8 percent slopes, moderately eroded	B
CqC2	Chester gravelly silt loam, 8 to 15 percent slopes, moderately eroded	B
ChA	Chester silt loam, 0 to 3 percent slopes	B
ChB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	B
GID2	Glenelg loam, 15 to 25 percent slopes, moderately eroded	B
MqB2	Minor gravelly loam, 3 to 8 percent slopes, moderately eroded	B
MqC3	Minor gravelly loam, 8 to 15 percent slopes, severely eroded	B
MID2	Minor loam, 15 to 25 percent slopes, moderately eroded	B
MIE	Minor loam, 25 to 45 percent slopes	B

LEGEND

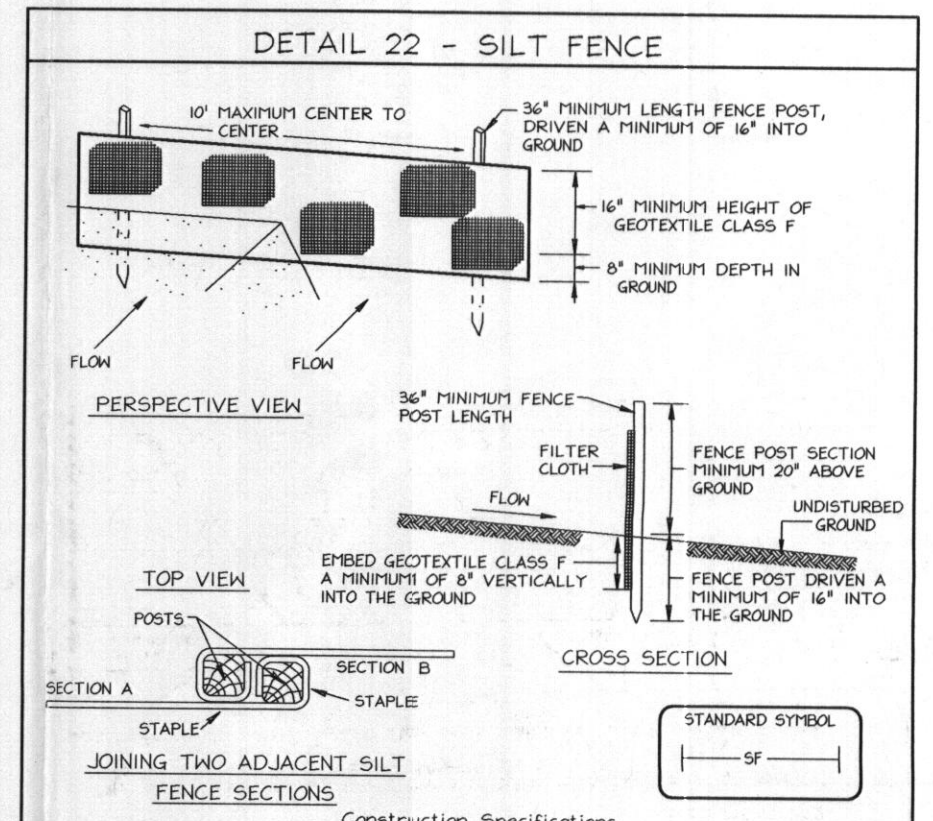


BENCHMARKS

Sta.	0019	0040
N	176,927.0394	175,952.4260
E	406,505.1110	405,995.1970
Elevation (feet)	117.6061	111.3465
Elevation (meters)	35.4846	33.9465

GENERAL NOTES

- This property is zoned "RC-DEO" per the 02/02/04 Comprehensive Zoning Plan and the Comp Lite Zoning Regulations Amendments effective 07/28/06.
- Total area of property = 33,075sf ± or 0.754 Act.
- Private water and shared sewer will serve this lot.
- On-site topography based on a Field Run Topographic Survey prepared by FSH Associates dated 1/12/04. Off-site and non-critical topography based on Howard County 1998 Aerial Topographic Surveys with five foot contours.
- The existing well shown on this plan (identified with the attached well tag number: H40-95-0725) has been field located by FSH Associates, Inc at August 17, 2007 and is accurately shown.
- A stockpile will not be permitted on site.
- Storm Water Management for this lot is provided in a Micro Pool Extended Detention facility. Approved under F-06-099.



U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE	PAGE E - 5 - 3	MARYLAND DEPARTMENT OF ENVIRONMENT WATER MANAGEMENT ADMINISTRATION
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4611 Sheppard Manor Dr.
OWNER/DEVELOPER
WILLIAMSBURG GROUP LLC
5485 Harpers Farm Road #2000
Columbia, Maryland 21044-3834
Telephone: (410) 997-8800
Fax: (410) 997-4958

PLOT PLAN Rev.02
SHEPPARD MANOR
LOT 3
TAX MAP 39 GRIDS 01
5TH ELECTION DISTRICT
PARCEL 268
HOWARD COUNTY, MARYLAND

ENGINEERS CERTIFICATE
I CERTIFY THAT THIS PLAN FOR SEDIMENT AND EROSION CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS AND THAT IT WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.
SIGNATURE OF ENGINEER: ZACHARIA Y. FISCH
DATE: _____

DEVELOPER'S CERTIFICATE
I HEREBY CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN FOR SEDIMENT AND EROSION CONTROL AND THAT ALL RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT.
SIGNATURE OF DEVELOPER: _____
DATE: _____

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. #22418, Expiration Date: 7/29/2011.

FSH Associates
Engineers Planners Surveyors
6339 Howard Road, Elkridge, MD 21075
Tel: 410-567-5200 Fax: 410-796-1562
E-mail: info@fsher.com

DESIGN BY: AY
DRAWN BY: AY
CHECKED BY: ZYF
SCALE: As shown
DATE: Aug. 7, 2009
W.O. No.: 3160
SHEET No.: 1 OF 1

DEPARTMENT OF INSPECTIONS, LICENSES & PERMITS 3430 COURT HOUSE DRIVE ELLCOTT CITY, MD 21043 PERMITS (410) 313-2455 INSPECTIONS (410) 313-1850	HOWARD COUNTY RESIDENTIAL HEATING-VENTILATION-AIR CONDITIONING AND REFRIGERATION PERMIT APPLICATION	HVACR PERMIT # M07000813 BUILDING PERMIT #
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BUILDING ADDRESS: SUITE/A T: 4611 SHEPPARD MANOR DRIVE SUBDIVISION: CENSUS TRACT: SECTION: AREA: 2 LOT: 3 TAX MAP: PARCEL: BLOCK: 9999 ZONE: PROPERTY ID: 29-1-268 MAP COORDINATES: TYPE OF IMPROVEMENTS: NEW USE: RES	OWNERS NAME: WILLIAMS BURG BUILDERS BOB & EMILY STOLL ADDRESS: 4611 SHEPPARD MANOR DRIVE CITY: ELLICOTT CITY STATE: MD ZIP CODE: 21042 HOME PHONE: WORK PHONE: 410-997-8800 N-26 (BUILDER)
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<table border="1"> <thead> <tr> <th><u>CHECK ONE</u></th> <th><u>HOW MANY</u></th> </tr> </thead> <tbody> <tr> <td>SINGLE FAMILY DWELLING ZONES <input checked="" type="checkbox"/></td> <td style="text-align: center;"><u>3</u></td> </tr> <tr> <td>SINGLE FAMILY TOWNHOUSE ZONES <input type="checkbox"/></td> <td style="text-align: center;">—</td> </tr> <tr> <td>MULTI-FAMILY / HOTEL/MOTEL UNITS <input type="checkbox"/></td> <td style="text-align: center;">—</td> </tr> </tbody> </table>	<u>CHECK ONE</u>	<u>HOW MANY</u>	SINGLE FAMILY DWELLING ZONES <input checked="" type="checkbox"/>	<u>3</u>	SINGLE FAMILY TOWNHOUSE ZONES <input type="checkbox"/>	—	MULTI-FAMILY / HOTEL/MOTEL UNITS <input type="checkbox"/>	—	COMPANY NAME: Ground Loop Heating & Air Cond., Inc. LICENSEE NAME: Michael E. Cullum ADDRESS: 1701 Whiteford Road CITY: Darlington STATE: MD ZIP CODE: 21034 PHONE: 410-836-1706 HVACR LICENSE NO: 6539
<u>CHECK ONE</u>	<u>HOW MANY</u>								
SINGLE FAMILY DWELLING ZONES <input checked="" type="checkbox"/>	<u>3</u>								
SINGLE FAMILY TOWNHOUSE ZONES <input type="checkbox"/>	—								
MULTI-FAMILY / HOTEL/MOTEL UNITS <input type="checkbox"/>	—								

New <input checked="" type="checkbox"/> Heating and Air Conditioning Replacement <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input checked="" type="checkbox"/> Heating and Air Conditioning	EQUIPMENT: WATER FURNACE <input type="checkbox"/> Heating System Only <input checked="" type="checkbox"/> Other Work (Describe): GEOTHERMAL Additions and Alterations <input type="checkbox"/> Heating <input type="checkbox"/> Air Conditioning <input type="checkbox"/> Heating and Air Conditioning (1) NDV072 = 6 TON (1) NDZ038 = 3 TON (SPHIT UNIT)
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Zones Permit Fee = # of Zones x \$40 = <u>120.00</u> Technology Fee (10% of Permit Fee) = <u>12.00</u> Plus Application Fee <u>\$50</u> Total Fees Due = \$ 182.00	Units Permit Fee = # of Units x \$80 = _____ Technology Fee (10% of Permit Fee) = _____ Plus Application Fee \$50 _____ Total Fees Due = \$50
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I HAVE CAREFULLY EXAMINED AND READ THIS APPLICATION AND KNOW IT IS TRUE AND CORRECT. THE WORK DESCRIBED HEREIN WILL BE PERFORMED BY A STATE HVACR LICENSED PERSON(S), AND ALL WORK WILL BE PERFORMED IN COMPLIANCE WITH APPLICABLE CODES AND STANDARDS OF HOWARD COUNTY THE STATE OF MARYLAND.

Michael E. Cullum

SIGNATURE OF LICENSEE DATE
Michael E. Cullum

PRINT NAME OF LICENSEE

Make check payable to: DIRECTOR OF FINANCE OF HOWARD COUNTY
Word doc: HVAC APPLICATION - JUNE 2004

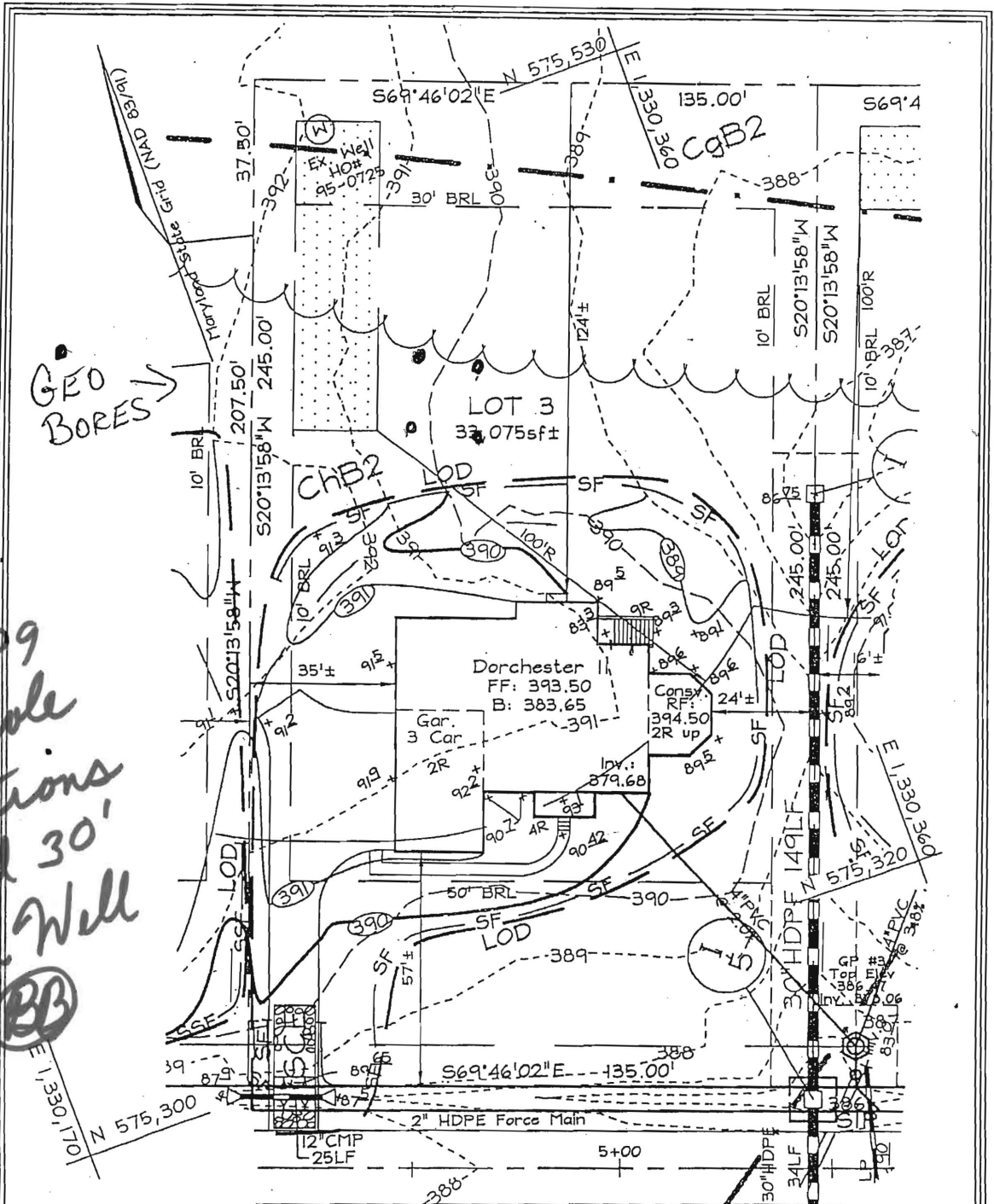
Validation Check Number: <u>14326</u> Cash: _____ Receipt Number: <u>1810231</u>
--

WELL & SEPTIC

11/2/09 approved

BB

MO 9000813



11/2/09
 Borehole
 Locations
 Moved 30'
 From Well
 Box. (BB)

SHEPPARD MANOR DRIVE
 (Public Access Place)

FSH Associates
 Engineers Planners Surveyors
 6339 Howard Lane, Elkridge, MD 21075
 Tel: 410-567-5200 Fax: 410-796-1562
 E-mail: info@fsheri.com

OWNER/DEVELOPER
 WILLIAMSBURG GROUP LLC
 5485 Harpers Farm Road #200
 Columbia, Maryland 21044-3834
 Telephone: (410) 997-8800
 Fax: (410) 997-4358



DESIGN BY: AY
 DRAWN BY: AY
 CHECKED BY: ZYF
 SCALE: 1"=30'
 DATE: July 30, 2009
 W.O. No.: 3160
 SHEET No.: 1 OF 1

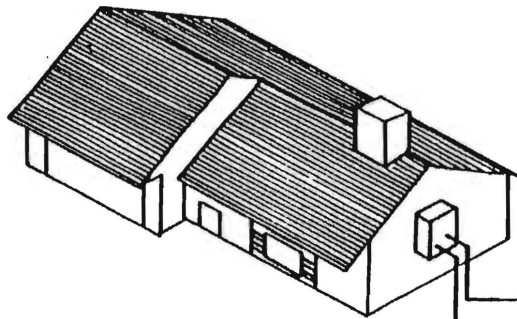
LOT RESITE
 LOT 3
SHEPPARD MANOR

Rev.02

TAX MAP 39 GRIDS 01
 5TH ELECTION DISTRICT

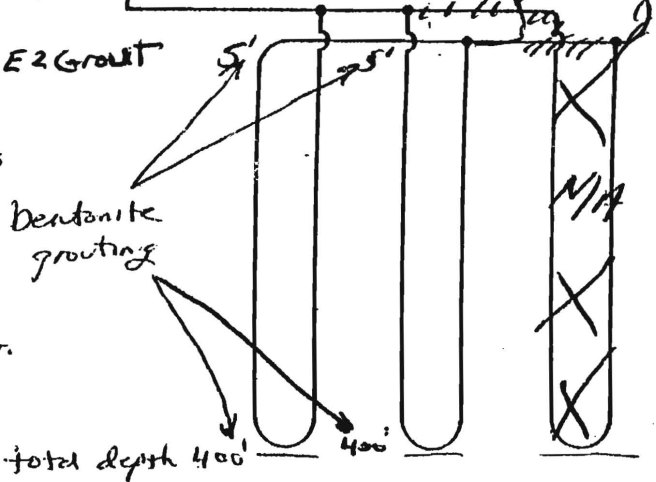
PARCEL 268
 HOWARD COUNTY, MARYLAND

Driller: Jones Well Drilling Inc.
contact: David Kelly
410-692-6981



bury depth 5' below grade

Wyo-Ben bentonite-E2 GROUT
grout (50 lb. bags)
mixed with 24 gallons
of water per
manufacturer specs
yields 27 gal. slurry
with a 0.42 btu/ft-hr.
thermal conductivity



Earth Coil Type: Vertical - Single U-Bend
Water Flow: Parallel
Pipe Sizes: 1 1/4" double Loop

Bore Lengths: 400' x 4 holes (800' vertical bore)
Pipe Lengths: 800' x 4 (3200' vertical pipe)

FIGURE 4.5: Parallel Vertical Ground Heat Exchanger

SURFACES

				NORTH				
----- WALLS/PARTITIONS -----	TYPE	CNSTR	INFILT	HEIGHT	LENGTH	EXPOSE		
1 EXT. WALL- R19	1	4	1	8	61	0		
2 CONCR-4' BEL GRD-R11	3	4	1	8	61	0		
3								
4								
5								
----- WINDOWS/DOORS -----	TYPE	CNSTR	INFILT	HEIGHT	WIDTH	DIRECT	SHADE	WALL
6 D.H./SLDG-WOOD-DOUBLE	6	3	1	5.5	26	1	1	1
7 D.H./SLDG-WOOD-DOUBLE	6	3	1	4.6	6	1	1	2
8 DOOR-WOOD-STRM	10	2	1					
9 SLDG DR-WOOD-DOUBLE	9	3	1					
10								
11								
----- CEILINGS/FLOORS -----	TYPE	CNSTR	INFILT	LENGTH	WIDTH	EXPOSE		
12 FRAME CEILING-R38	11	8	1					
13								
14 BASEMENT FLOOR	15	9	1	61	49	0		
15								
16								

EAST					SOUTH					WEST				
HEIGHT	LENGTH	EXPOSE			HEIGHT	LENGTH	EXPOSE			HEIGHT	LENGTH	EXPOSE		
8	49	0			8	61	0			8	46	0		
8	44	0			8	61	0			8	46	0		
HEIGHT	WIDTH	DIRECT	SHADE	WALL	HEIGHT	WIDTH	DIRECT	SHADE	WALL	HEIGHT	WIDTH	DIRECT	SHADE	WALL
5.2	19.6	3	1	1	6.2	11.2	5	1	1	4.2	2	3	1	1
					6.8	11.4	5	1	1	5.2	2.8	3	1	1
										6.8	5.4	3	1	2
LENGTH	WIDTH	EXPOSE			LENGTH	WIDTH	EXPOSE			LENGTH	WIDTH	EXPOSE		

HOME OWNER:

WILLIAMSBURG BUILDERS
 BOB & EMILY STOLL
 4611 SHEPPARD MANOR DRIVE
 ELLICOTT CITY, MD 21042

HVAC CONTRACTOR:

MICHAEL CULLUM
 HVAC LICENSE #6539
 GROUND LOOP HEATING & AIR CONDITIONING, INC.
 1701 WHITEFORD ROAD, DARLINGTON, MD 21034

SURFACES

NORTH

----- WALLS/PARTITIONS -----				HEIGHT	LENGTH	EXPOSE				
TYPE	CNSTR	INFILT								
1 EXT. WALL- R19	1	4	1	8	61	0				
2										
3										
4										
5										
----- WINDOWS/DOORS -----				HEIGHT	WIDTH	DIRECT	SHADE	WALL		
TYPE	CNSTR	INFILT								
6 D.H./SLDG-WOOD-DOUBLE	6	3	1	5.2	20	1	1	1		
7 D.H./SLDG-WOOD-DOUBLE	6	3	1							
8 DOOR-WOOD-STRM	10	2	1							
9 SLDG DR-WOOD-DOUBLE	9	3	1							
10										
11										
----- CEILINGS/FLOORS -----				LENGTH	WIDTH	EXPOSE				
TYPE	CNSTR	INFILT								
12 FRAME CEILING-R38	11	8	1	61	49	1				
13										
14 BASEMENT FLOOR	15	9	1							
15										
16										

EAST

SOUTH

WEST

EAST					SOUTH					WEST				
HEIGHT	LENGTH	EXPOSE			HEIGHT	LENGTH	EXPOSE			HEIGHT	LENGTH	EXPOSE		
8	49	0			8	61	0			8	46	0		
HEIGHT	WIDTH	DIRECT	SHADE	WALL	HEIGHT	WIDTH	DIRECT	SHADE	WALL	HEIGHT	WIDTH	DIRECT	SHADE	WALL
5.2	2.8	3	1	1	5.2	21	5	1	1	4.2	2	3	1	1
LENGTH WIDTH EXPOSE					LENGTH WIDTH EXPOSE					LENGTH WIDTH EXPOSE				

HOME OWNER:

WILLIAMSBURG BUILDERS
BOB & EMILY STOLL
4611 SHEPPARD MANOR DRIVE
ELLCOTT CITY, MD 21042

HVAC CONTRACTOR:

MICHAEL CULLUM
HVAC LICENSE #6539
GROUND LOOP HEATING & AIR CONDITIONING, INC.
1701 WHITEFORD ROAD, DARLINGTON, MD 21034

1st & Basement
with Zone Control

NDU 072

- Water Furnace Envision

3200 SF

WaterFurnace Energy Analysis				
ASHRAE Single Zone Load Calculation Ver. 8.3				
Dealer-	Ground Loop Heating & Air Cond	Client-	Williamsburg builders Stoll	
	1701 Whiteford Rd Darlington Md 21034			
Design Conditions-	Winter	Summer	Daily Range:	
Outside Temp:	10 ° F	95 ° F		
Inside Temp:	70 ° F	75 ° F	23	
Difference:	60 ° F	20 ° F	° F	
General Information-				
Glass Type:	0 Clear	Exposed Ducts:	15%	
Roof Color:	0 Dark	Duct Loss Factor:	0.15	
Occupancy:	4 People	Duct Gain Factor:	0.15	
Light/Appliance:	2000 btuh			
Infiltration Evaluation:		Qty	Code	
Fireplace:		1	1	Std-Damper
Fans/Vents:		3	1	W/ Damper
Attic Access:		0	1	
Window AC:		0	0	
Fossil Furnace:		0	0	
Fossil DHW Heater:		0	0	
Exposed Duct System:			0	Poorly Sealed
Building # Stories:			3	
Wind Shielding:			2	Moderate
BUILDING LOAD SUMMARY - WHOLE HOUSE				
		AREA	LOSS	GAIN
WALLS/PARTITIONS-				
EXT. WALL- R19		1321	6884	2139
CONCR-4' BEL GRD-R11		1632	5874	
WINDOWS/DOORS-				
D.H./SLDG-WOOD-DOUBLE		323	14542	9836
D.H./SLDG-WOOD-DOUBLE		28	1244	511
DOOR-WOOD-STRM		92	3371	317
SLDG DR-WOOD-DOUBLE		37	2335	1880
CEILINGS/FLOORS-				
FRAME CEILING-R38				
BASEMENT FLOOR		2989	4484	
PEOPLE				1200
LIGHT/APPLIANCE				2000
EXPOSED DUCT SYSTEM		15%	872	402
MOISTURE REMOVAL				5485
OTHER LOSS/GAIN-			0	0
TOTAL LOAD (BTU/HR)			39605	23770

HOME OWNER:

WILLIAMSBURG BUILDERS
BOB & EMILY STOLL
4611 SHEPPARD MANOR DRIVE
ELLCOTT CITY, MD 21042

HVAC CONTRACTOR:

MICHAEL CULLUM
HVAC LICENSE #6539
GROUND LOOP HEATING & AIR CONDITIONING, INC.
1701 WHITEFORD ROAD, DARLINGTON, MD 21034

2nd Floor
Page 1 of 2

WaterFurnace Energy Analysis				
ASHRAE Single Zone Load Calculation Ver. 8.3				
Dealer-	Ground Loop Heating & Air Cond 1701 Whiteford Rd Darlington Md 21034		Client-	Williamsburg builders Stoll
Design Conditions-	Winter	Summer	Daily	
Outside Temp:	10 ° F	95 ° F	Range:	
Inside Temp:	70 ° F	75 ° F	23	
Difference:	60 ° F	20 ° F	° F	
General Information-				
Glass Type:	0 Clear	Exposed Ducts:	100%	
Roof Color:	0 Dark	Duct Loss Factor:	0.15	
Occupancy:	4 People	Duct Gain Factor:	0.15	
Light/Appliance:	2000 btuh			
Infiltration Evaluation:	Qty	Code		
Fireplace:	1	1	Std-Damper	
Fans/Vents:	3	1	W/ Damper	
Attic Access:	1	1	Well Sealed	
Window AC:	0	0		
Fossil Furnace:	0	0		
Fossil DHW Heater:	0	0		
Exposed Duct System:		0	Poorly Sealed	
Building # Stories:		3		
Wind Shielding:		2	Moderate	
BUILDING LOAD SUMMARY - WHOLE HOUSE				
	AREA	LOSS	GAIN	
WALLS/PARTITIONS-				
EXT. WALL- R19	1500	9713	2773	
WINDOWS/DOORS-				
D.H./SLDG-WOOD-DOUBLE	236	12344	6240	
D.H./SLDG-WOOD-DOUBLE				
DOOR-WOOD-STRM				
SLDG DR-WOOD-DOUBLE				
CEILINGS/FLOORS-				
FRAME CEILING-R38	2989	2824	1913	
BASEMENT FLOOR				
PEOPLE			1200	
LIGHT/APPLIANCE			2000	
EXPOSED DUCT SYSTEM	100%	3732	2119	
MOISTURE REMOVAL			4873	
OTHER LOSS/GAIN-		0	0	
TOTAL LOAD (BTU/HR)		28613	21118	

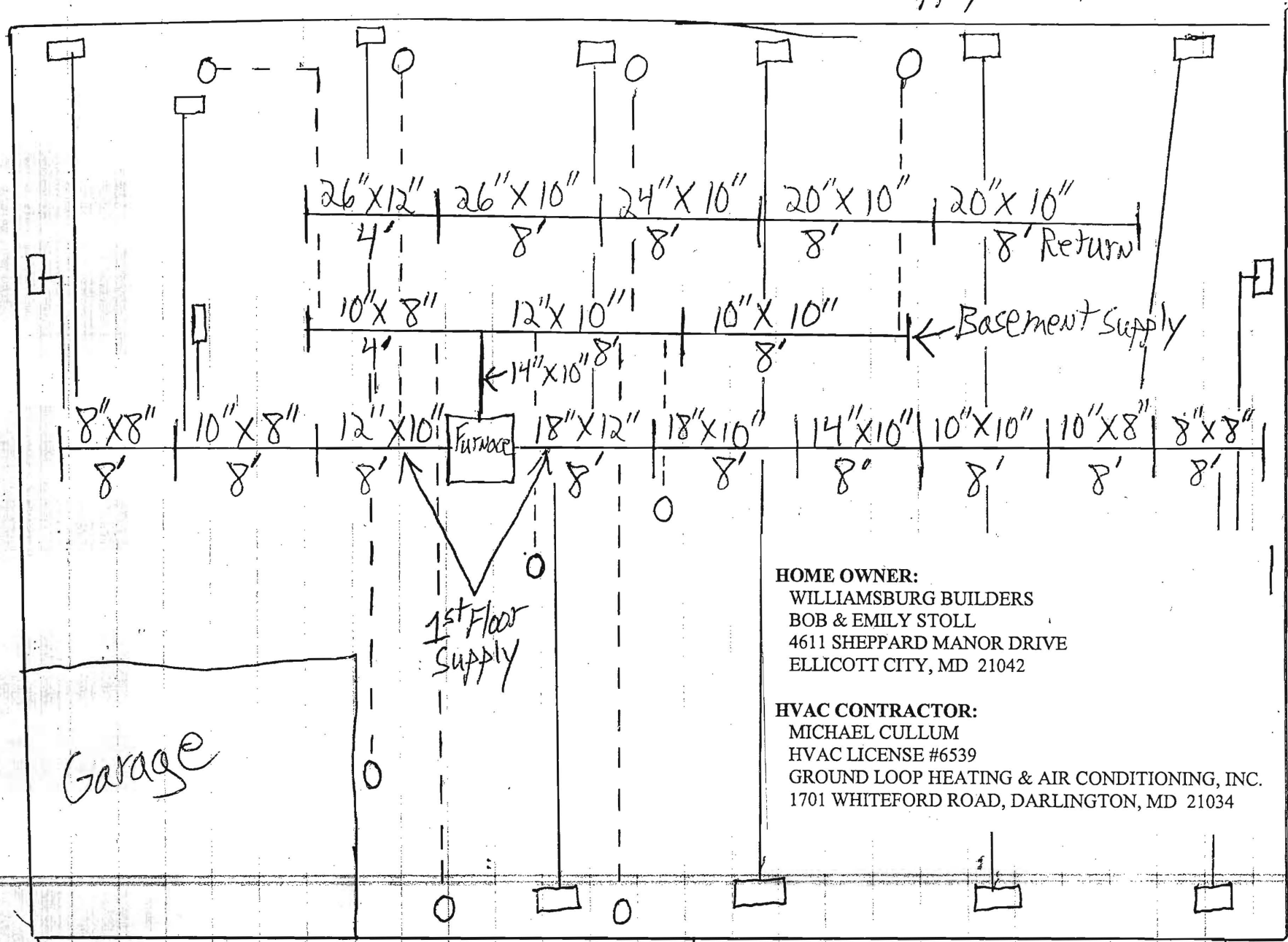
NDZ 038
Water Furnace
Envision

HOME OWNER:
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1500-CFM Return 1st Floor
 700-CFM Return Basement Back of House

○ - 6" Supply Basement
 □ - 6" Supply 1st Floor



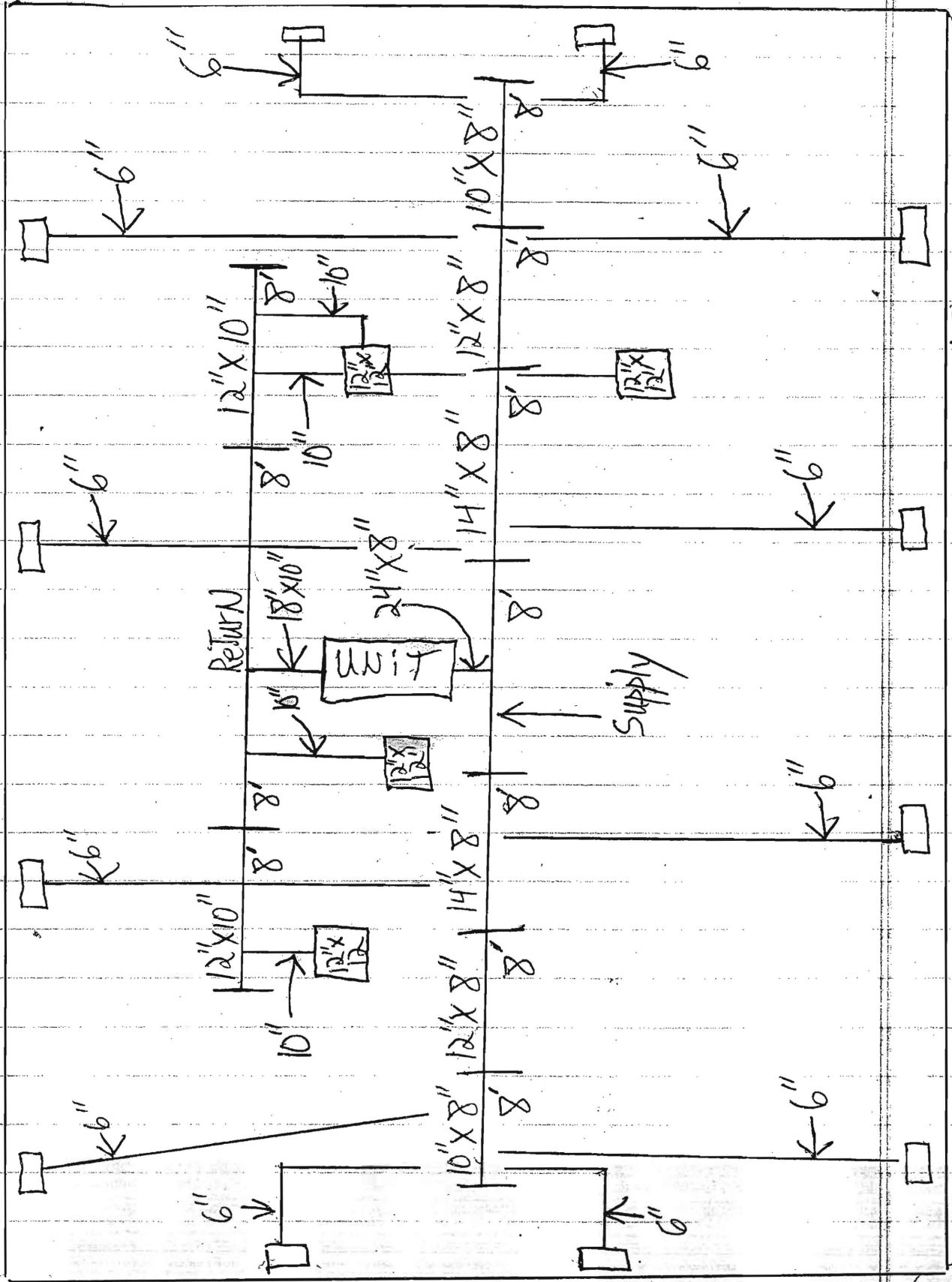
HOME OWNER:
 WILLIAMSBURG BUILDERS
 BOB & EMILY STOLL
 4611 SHEPPARD MANOR DRIVE
 ELLICOTT CITY, MD 21042

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Garage

FRONT 1st Floor + Basement

Back of House



2ND Floor
AND
Circum

Front of House