

LAYOUT 1/12/09 INSP 4 \_\_\_\_\_  
INSP 2 1/13/09 INSP 5 \_\_\_\_\_  
INSP 3 1/14/09 INSP 6 \_\_\_\_\_

ISSUE DATE: \_\_\_\_\_

# PERMIT

*(Signed in to Post-Tension)*

P 530281

APPROVAL DATE: 7/20/10

A 45595

TAX ID # 03283712

## ON-SITE SEWAGE DISPOSAL SYSTEM HOWARD COUNTY HEALTH DEPARTMENT BUREAU OF ENVIRONMENTAL HEALTH

William H. Smith Jr. IS PERMITTED TO INSTALL  ALTER

ADDRESS: 1916 Castleton Rd. PHONE NUMBER: 410.879.7041

SUBDIVISION: Kings Gift LOT NUMBER: 16

ADDRESS: 11624 Norwich Lane PROPERTY OWNER: Jin Chang

SEPTIC TANK CAPACITY (GALLONS): 2000 OUTLET BAFFLE FILTER REQUIRED

PUMP CHAMBER CAPACITY (GALLONS): 2000 COMPARTMENTED TANK REQUIRED

NUMBER OF BEDROOMS: 5

SQUARE FEET PER BEDROOM: \_\_\_\_\_

LINEAR FEET OF TRENCH REQUIRED: 180

TRENCHES:	Trench to be 3.0 feet wide. Inlet 3.0 feet below original grade. Bottom maximum depth 6.0 feet below original grade. Effective area begins at 3.5-4.0 feet below original grade. 3.0 feet of stone below distribution pipe.
LOCATION:	1) Set distribution box at top center of easement (per plan). 2) Install 4x45ft. trenches on contour (2 to each side of distribution box.)
NOTES:	1) Stake septic easement corners 2) Call for layout inspection. 3) Gravel tickets must be available for inspector 4) Basement will not sewer by gravity

PLANS APPROVED: Robert Bricker DATE: 2/19/08

- NOTE: PERMIT VOID AFTER 2 YEARS
- NOTE: CONTRACTOR RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION INSPECTION FOR ALL INSTALLATIONS
- NOTE: WATERTIGHT SEPTIC TANKS REQUIRED
- NOTE: ALL PARTS OF SEPTIC SYSTEM SHALL BE 100 FEET FROM ANY WATER WELL
- NOTE: MANHOLE RISERS REQUIRED ON ALL SEPTIC TANKS AND PUMP CHAMBERS UNLESS SPECIFICALLY AUTHORIZED

**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 FOR INSPECTION OF SEPTIC SYSTEM**

NOT TO SCALE

Public H<sub>2</sub>O

\* See Seperate sheet for As-Built

ROAD

TRENCH/DRAINFIELD DATA

WIDTH	INLET	BOTTOM
3'	3'	6'
NUMBER OF TRENCHES		4
TOTAL LENGTH		180'
ABSORPTION AREA		540' x SW
DISTRIBUTION BOX LEVEL		Yes
DISTRIBUTION BOX BAFFLE		90° bend
DISTRIBUTION BOX PORT		manhole

SEPTIC TANK DATA

SEPTIC TANK 1 LEVEL	Yes
CAPACITY	2000 GAL
SEAM LOC	Top
TANK LID DEPTH	2'
BAFFLES	Yes 6" F&R
BAFFLE FILTER	—
MANHOLE LOC	Front/Rear
6" PORT LOC	none
WATERTIGHT TEST	—
<sup>Pump</sup> SEPTIC TANK 2 LEVEL	Yes
CAPACITY	2000 GAL
SEAM LOC	Top
TANK LID DEPTH	2'-2.5'
BAFFLES	Front
BAFFLE FILTER	—
MANHOLE LOC	Rear
6" PORT LOC	none
WATERTIGHT TEST	—

PRE-CONSTRUCTION 1/12/08 set stakes on high side of drainage swale, parallel to house set Dbox in middle of spot area. Install 4x4x5'

INSTALLATION trenches on contour. OK to pull above spot area some. Call for f/v insp. (KW) 1/13/08 Tanks set. Plumbing installed up to house. Need house connection. 2" force main installed up to Dbox. No trenches installed (KW) 1/14/08 Dbox set. Top trench dig and stored. Contractor forgot obs. pipe. Will need to install this. OK to continue (KW) 1/15/09 All system components installed. Will need p/A test for final approval (KW) 7/20/10 P/A test approved.

FINAL INSPECTOR K. Wray

DATE OF APPROVAL 7/20/10

↑ Norwich Ln

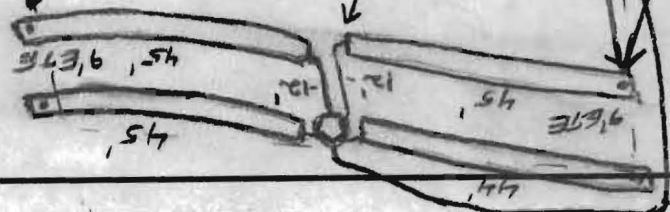
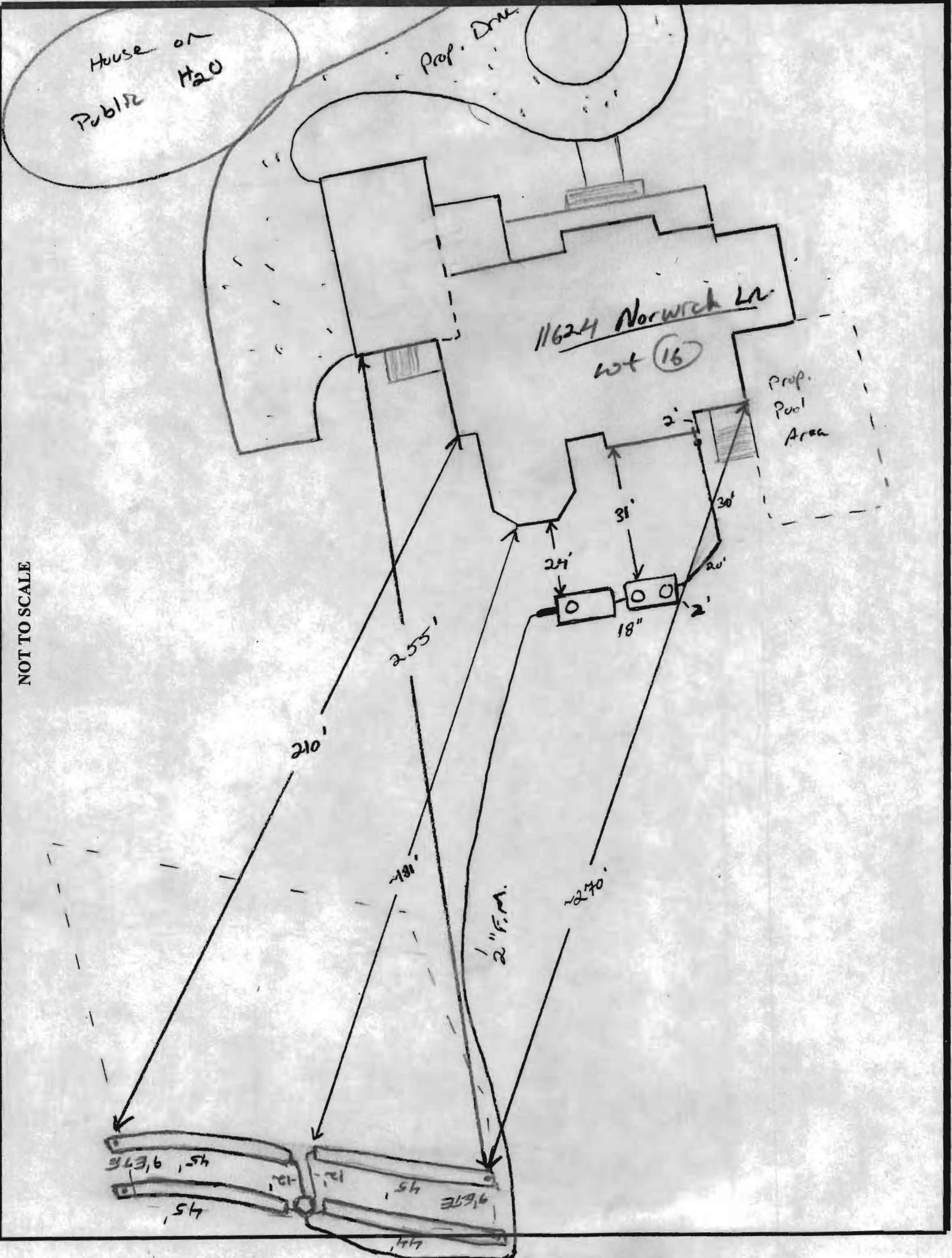
House on Public H<sub>2</sub>O

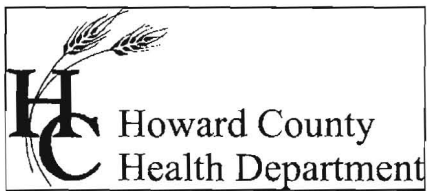
Prop. Drive

11624 Norwich Ln  
Lot (16)

Prop. Pool Area

NOT TO SCALE





Bureau of Environmental Health  
7178 Columbia Gateway Drive Columbia, Maryland 21046-2132  
(410) 313-2640 Fax (410) 313-2648  
TDD (410) 313-2323 Toll Free 1-866-313-6300  
website: www.hchealth.org

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Pennv E. Borenstein. M.D., M.P.H., Health Officer

July 23<sup>rd</sup>, 2010

Homeowner  
11624 Norwich Lane  
Ellicott City, MD 21042

*Sent via email to [jinc168@gmail.com](mailto:jinc168@gmail.com)*

RE: King's Gift, Lot16  
11624 Norwich Lane  
Ellicott City, MD 21042  
BP# B08000174  
**PUBLIC WATER**

Dear Sir/Madam:

This is to advise you that the septic system for the above referenced property has been installed and inspected. **Final approval of the septic system was granted on 07/20/2010.**

The property is served by public water and is therefore exempt from the Health Department water sampling requirements.

By issuance of this letter, this office recommends release of the Use and Occupancy permit for the referenced property.

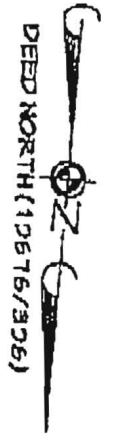
Approving Authority,

A handwritten signature in black ink that reads 'Kevin M. Wolf, R.S.'.

Kevin M. Wolf, R.S., R.E.H.S.  
Environmental Sanitarian  
Well & Septic Program

KMW  
cc: Building Inspector's Office  
File

1" = 100'



OLD FREDERICK ROAD  
(RTE. #144)

Wall check  
OK 1-9-09  
HG

NORWICH

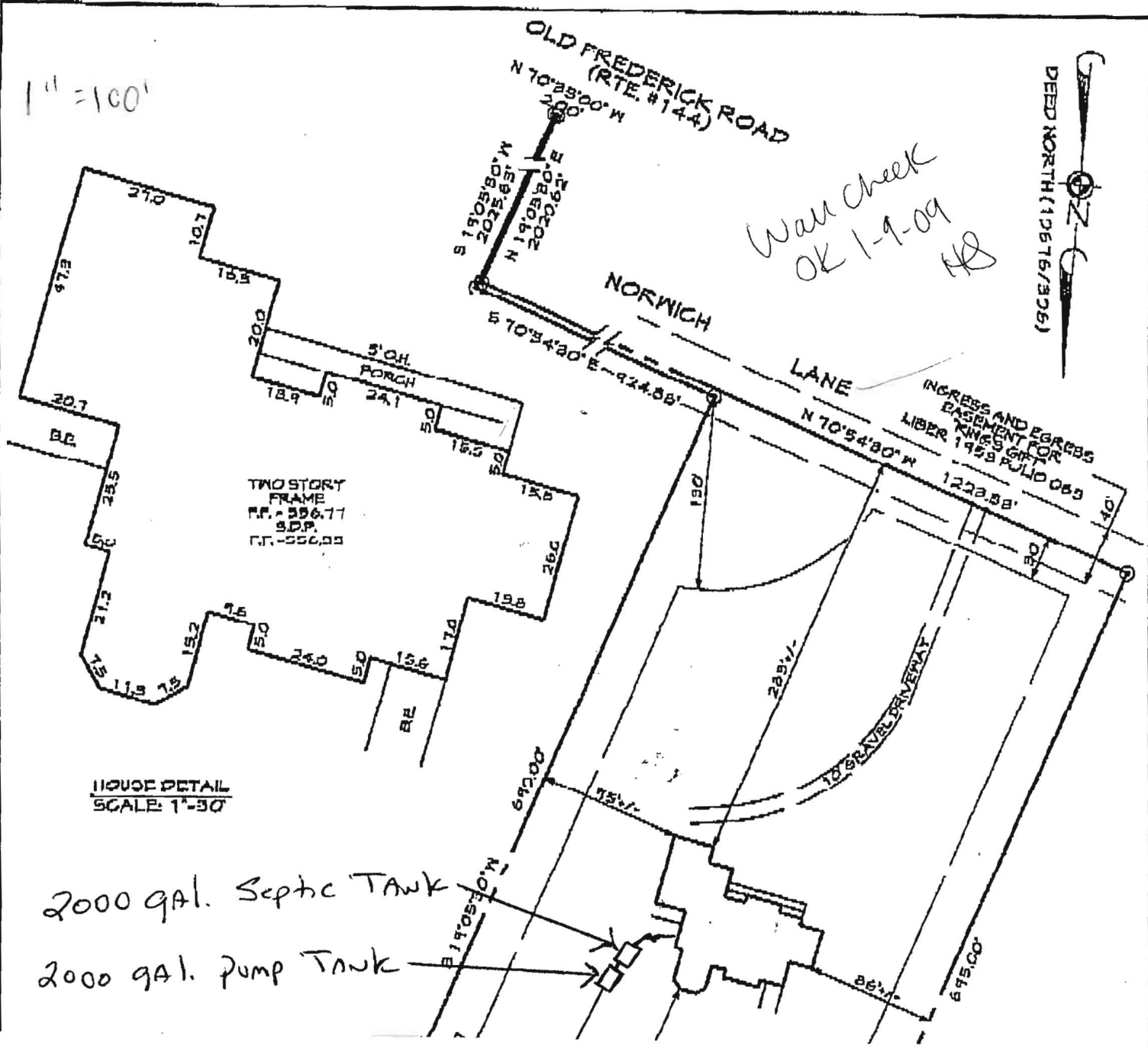
LANE

INGRESS AND EGRESS  
BASEMENT FOR  
KING'S GIFT  
LIBER 1958 P.110 069

TWO STORY  
FRAME  
A.P. - 336.77  
S.D.P.  
C.T. - 356.25

HOUSE DETAIL  
SCALE: 1"=30'

2000 gal. Septic Tank  
2000 gal. pump Tank





North America

WEIGHMASTER | PLANT ID  
MCRANFOR | 30514

MARRIOTTSTVILLE PLANT  
11411 MARRIOTTSTVILLE ROAD, MARRIOTTSTVILLE, MD 21104

TICKET NO. 187270

ORDER NO. | LOCATION  
1501 | Plant Phone : 410-461-8800  
Dispatch Phone : 410-461-8800

DATE | TIME IN | TIME OUT  
01/15/2009 | | 8:51

CUSTOMER ID | CUSTOMER NAME  
3087085 | PRESTON, JERRY

69940 lb	GROSS	31724 kg	MAX GWW
25120 lb	TARE	11394 kg	70000 lb
44820 lb	NET	20330 kg	
22.41 tn		20.33 t	

P.O. NUMBER | JOB NUMBER | QUOTE #  
| | 308523

JOB ADDRESS | ZONE # | HIRED ID | HIRED ID DESC | TRUCK ID | TRUCK DESC  
2009 MARYLAND VARIOUS - AGREGATES | | JP | JERRY PRESTO JP04 | 150ED28 | JERRY PRESTON J

DELIVERY INSTRUCTIONS | DELIVERY  
2009 MARYLAND VARIOUS - AGREG | N

PRODUCT ID	PRODUCT DESCRIPTION	QTY	QTY TODAY	LOAD #	UOM	PRICE	SUB TOTAL	TAX	TOTAL
857012	ASTM #5	22.41	22.41	2	TN				

99 for Total  
Needed 104 for  
OK  
Kw

STANDBY TIME APPROVAL | STANDBY TIME

RECEIVED BY | DRIVER'S SIGNATURE

DLCMDT01 (3/07)

C2827991



North America

WEIGHMASTER | PLANT ID  
MCRANFOR | 30514

MARRIOTTSTVILLE PLANT  
11411 MARRIOTTSTVILLE ROAD, MARRIOTTSTVILLE, MD 21104

TICKET NO. 187273

ORDER NO. | LOCATION  
1501 | Plant Phone : 410-461-8800  
Dispatch Phone : 410-461-8800

DATE | TIME IN | TIME OUT  
01/15/2009 | | 9:48

CUSTOMER ID | CUSTOMER NAME  
3087085 | PRESTON, JERRY

45960 lb	GROSS	20847 kg	MAX GWW
25120 lb	TARE	11394 kg	70000 lb
20840 lb	NET	9453 kg	
10.42 tn		9.45 t	

P.O. NUMBER | JOB NUMBER | QUOTE #  
| | 308523

JOB ADDRESS | ZONE # | HIRED ID | HIRED ID DESC | TRUCK ID | TRUCK DESC  
2009 MARYLAND VARIOUS - AGREGATES | | JP | JERRY PRESTO JP04 | 150ED28 | JERRY PRESTON J

DELIVERY INSTRUCTIONS | DELIVERY  
2009 MARYLAND VARIOUS - AGREG | N

PRODUCT ID	PRODUCT DESCRIPTION	QTY	QTY TODAY	LOAD #	UOM	PRICE	SUB TOTAL	TAX	TOTAL
857012	ASTM #5	10.42	10.42	3	TN				

STANDBY TIME APPROVAL | STANDBY TIME

RECEIVED BY | DRIVER'S SIGNATURE

DLCMDT01 (3/07)



North America

WEIGHMASTER	PLANT ID	MARRIOTTSTVILLE PLANT	TICKET NO.	187235
MURRAY	30614	11411 MARRIOTTSTVILLE ROAD, MARRIOTTSTVILLE, TN	DATE	01/14/2009
ORDER NO.	LOCATION	Plant Phone : 410-681-8800	TIME IN	12:14
		Dispatch Phone : 410-681-8800	TIME OUT	12:20
CUSTOMER ID	CUSTOMER NAME		69440 lb	GROSS
3287085	PRESTON, JERRY		25120 lb	TARE
P.O. NUMBER	JOB NUMBER	QUOTE #	44200 lb	NET
		308523	22.16 tn	

JOB ADDRESS	ZONE #	HIRED ID	HIRED ID DESC	TRUCK ID	TRUCK DESC
2009 MARYLAND WARDENS - ADDRESS		JF	JERRY PRESTO JF04		JERRY PRESTON
DELIVERY INSTRUCTIONS			DELIVERY	150CD28	
2009 MARYLAND WARDENS - ADDRESS			N		

PRODUCT ID	PRODUCT DESCRIPTION	QTY	QTY TODAY	LOAD #	UOM	PRICE	SUB TOTAL	TAX	TOTAL
867012	ASTM #3	22.16	22.16	1	TN				

STANDBY TIME APPROVAL	STANDBY TIME

RECEIVED BY	DRIVER'S SIGNATURE
	<i>[Signature]</i>

C2827956

C2706130

DRIVER'S SIGNATURE	RECEIVED BY

STANDBY TIME APPROVAL	STANDBY TIME

PRODUCT ID	PRODUCT DESCRIPTION	QTY	QTY TODAY	LOAD #	UOM	PRICE	SUB TOTAL	TAX	TOTAL

JOB ADDRESS	ZONE #	HIRED ID	HIRED ID DESC	TRUCK ID	TRUCK DESC
2009 MARYLAND WARDENS - ADDRESS		JF	JERRY PRESTO JF04		JERRY PRESTON
DELIVERY INSTRUCTIONS			DELIVERY	150CD28	
2009 MARYLAND WARDENS - ADDRESS			N		
CUSTOMER ID	CUSTOMER NAME	P.O. NUMBER	JOB NUMBER	QUOTE #	
3287085	PRESTON, JERRY			308523	
GROSS	NET	TARE	MAX GW		
69440 lb	25120 lb	20001 lb	70000 lb		
ORDER NO.	LOCATION	DATE	TIME IN	TIME OUT	
3287085	11411 MARRIOTTSTVILLE ROAD, MARRIOTTSTVILLE, TN	01/14/2009	12:14	12:20	
WEIGHMASTER	PLANT ID	PLANT NAME	LOCATION	DISPATCH PHONE	
MURRAY	30614	MARRIOTTSTVILLE PLANT	11411 MARRIOTTSTVILLE ROAD, MARRIOTTSTVILLE, TN	410-681-8800	



# Maryland Concrete, Inc.

21616 York Road  
Maryland Line, Maryland 21105

January 13, 2009

Howard County Health Dept.

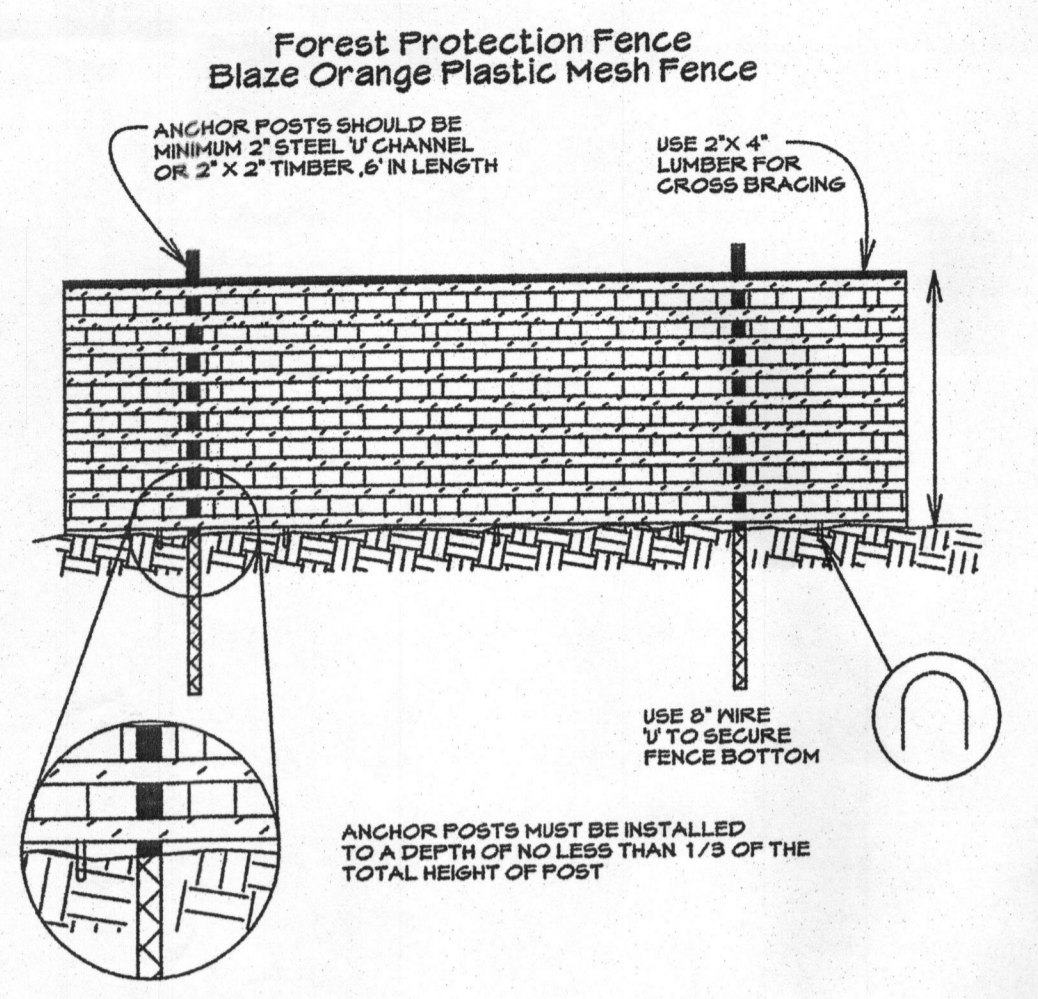
Dear Sir or Madam:

This letter is to certify that the lid on the 2000 gallon septic tank delivered to 11624 Norwich Lane, Ellicott City, MD 21042 was manufactured on 10/24/2008 and meets the 7 (seven) day curing qualification. The lid was manufactured before we became aware of the regulations that the date must be scribed in the concrete.

Sincerely,

A handwritten signature in black ink, appearing to read "Rodney L. Glace". The signature is written in a cursive style with a large initial "R".

Rodney L. Glace  
Plant Manager



**FOREST RETENTION AREA**  
 MACHINERY, DUMPING OR STORAGE OF ANY MATERIALS IS PROHIBITED.  
 VIOLATORS ARE SUBJECT TO FINES AS IMPOSED BY THE MARYLAND FOREST CONSERVATION ACT OF 1991.  
 PLACES APPROXIMATELY EVERY 100 FT.

NOTE: PRESERVATION OF EXISTING TREES WILL EXCEED BUFFER PLANTING REQUIREMENT- NO NEW PLANTING PROPOSED.

**SCHEDULE A PERIMETER LANDSCAPE EDGE**

CATEGORY	ADJACENT TO PERIMETER PROPERTIES		ADJACENT TO ROADWAYS	
	N/A REAR	N/A SIDE	N/A SIDE	B FRONT
LINEAR FT. OF ROADWAY FRONTAGE/PERIMETER	0	0	0	0
CREDIT FOR EXISTING VEGETATION	N/A	N/A	N/A	N/A
CREDIT FOR WALL, FENCE OR BERM	N/A	N/A	N/A	N/A
# OF PLANTS REQ. SHADE TREES	0	0	0	0
EVERGREENS	0	0	0	0
SHRUBS	0	0	0	0
# OF PLANTS PROVIDED SHADE TREES	0	0	0	0
EVERGREENS	0	0	0	0
SHRUBS	0	0	0	0
OTHER TREES (2:1 SUBSTITUTION SHRUBS 10:1 SUBSTITUTION)	N/A	N/A	N/A	N/A

**TABLE 1 PERIMETER LANDSCAPE TREES-BASED ON ADJACENT USE**

LANDSCAPE EDGE TYPE	LANDSCAPE CHARACTER	SHADE TREES/ LINEAR FEET	EVERGREEN TREES/ SHRUBS/ LINEAR FEET	SHRUBS/ LINEAR FEET
B	MODERATE BUFFER	(1:50)	(1:40)	0

**LANDSCAPING NOTES**  
 1. This plan has been prepared in accordance with Section 16.124 of the Howard County Code and the Landscape Manual. Financial Surety for the required landscaping has NOT been posted as part of the builder's grading permit application as there is no landscape required or proposed.

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND MEETS TECHNICAL REQUIREMENTS.

APPROVED: FOR PUBLIC WATER SYSTEM

APPROVED: DEPARTMENT OF PLANNING AND ZONING

CHIEF, DEVELOPMENT ENGINEERING DIVISION

CHIEF, DIVISION OF LAND DEVELOPMENT

DIRECTOR

**GENERAL NOTES**

- THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP WIDTH AND LOT AREA AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT.
- THERE ARE NO OTHER EXISTING WELLS AND/OR SEPTIC AREAS WITHIN 100 FEET OF THIS PROPERTY, FROM FIELD INSPECTION BY CLS, INC.
- ALL HOUSE SITES SHOWN COMPLY WITH MINIMUM BUILDING RESTRICTION REGULATIONS.
- ALL EXISTING TOPO ELEVATIONS SHOWN ON THIS PLAN ARE BASED ON FIELD RUN SURVEY PREPARED BY CLS, INC. AND ALSO HOWARD COUNTY 2004 TOPOGRAPHY MAP. THE HORIZONTAL DATUM IS THE MARYLAND COORDINATE SYSTEM N.A.D. 1483 AND VERTICAL DATUM IS BASED ON N.A.V.D. 1985.
- ANY CHANGES TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERCOLATION CERTIFICATION PLAN.

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND PROBABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

ALFRED L. HANSARD  
 PROFESSIONAL ENGINEER REG. NO. 23446

DATE: 10/19/07

DEVELOPERS CERTIFICATE  
 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE ACCESS TO AND FOLLOW THE APPROVED TRAINING PROGRAM FOR THE CONTROL OF EROSION AND SEDIMENTATION PREPARED BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS, AS ARE DEEMED NECESSARY.

JIMMY CHANG  
 SIGNATURE OF THE DEVELOPER

DATE: 10/19/07

**SEPTIC SYSTEM NOTES**

- SEPTIC EASEMENT SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT NO.
- PROPOSED 2000 GALLON SEPTIC TANK (FOR 6 BEDROOM HOUSE)
- A. FIRST FLOOR ELEVATION: 553.00
- B. BASEMENT ELEVATION: 544.93
- C. INVERT OF SEPTIC SYSTEM AT HOUSE: 551.50
- D. INVERT IN AT SEPTIC TANK: 550.00
- E. INVERT OUT AT SEPTIC TANK: 550.00
- F. PROPOSED GRADE OVER SEPTIC TANK: 552.23
- G. INVERT AT DISTRIBUTION BOX: 554.00
- H. EXISTING GROUND COVER DISTRIBUTION BOX: 561.00
- I. LENGTH OF TRENCH TO BE DETERMINED AT TIME OF SEPTIC PERMIT ISSUANCE.
- CONTRACTOR / BUILDER TO VERIFY ELEVATIONS IN FIELD BEFORE BEGINNING ANY CONSTRUCTION.

NOTE: BUILDER TO VERIFY AVAILABILITY OF BASEMENT SEWER SERVICE PRIOR TO DWELLING STAKEOUT.

**PUMP CHAMBER NOTES**

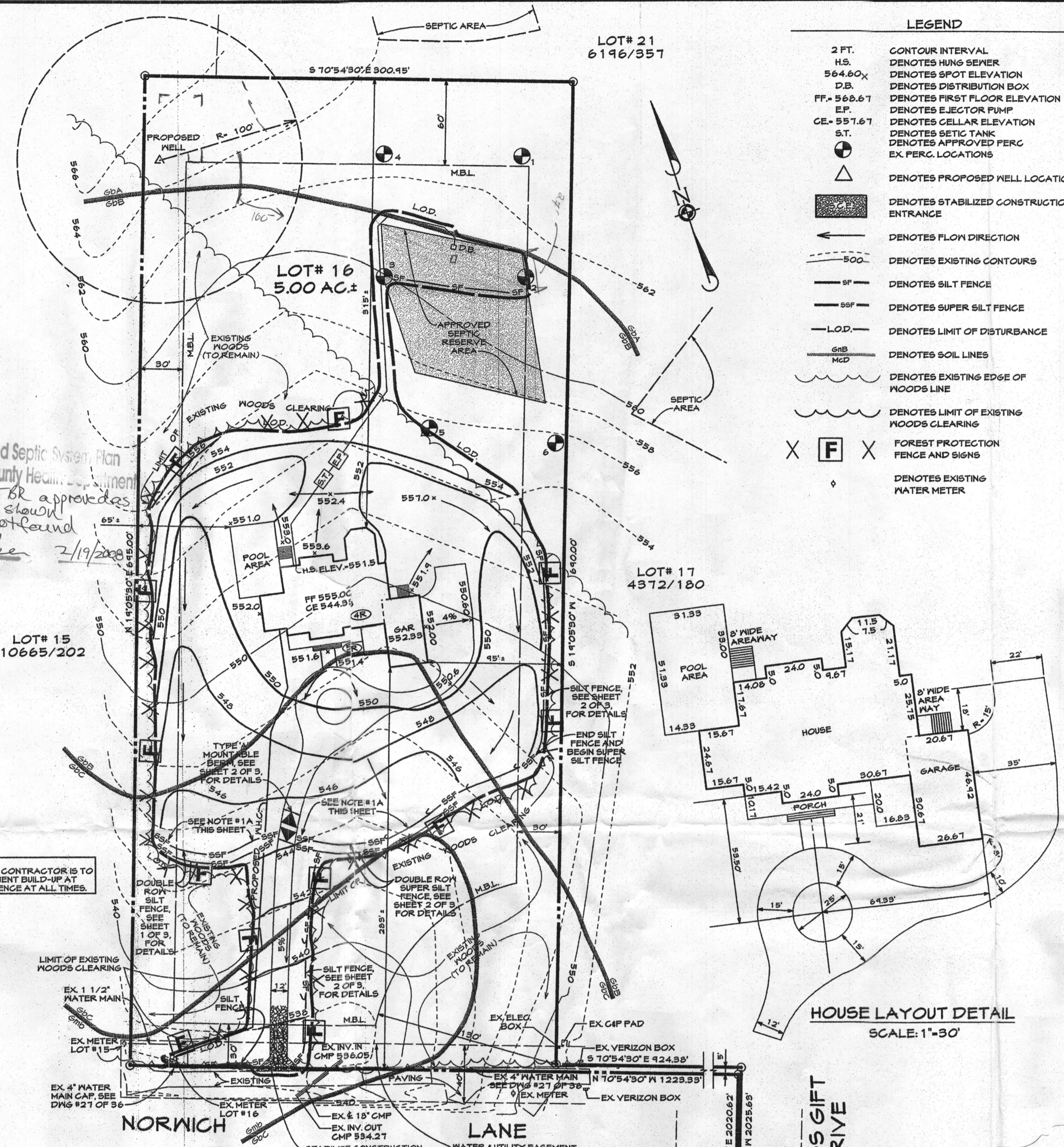
- PUMP CHAMBER SUBJECT TO HOWARD COUNTY HEALTH DEPARTMENT NO.
- PROPOSED 2000-GALLON CHAMBER
- INVERT AT PUMP CHAMBER: 544.70
- INVERT OUT OF PUMP CHAMBER: 544.40
- PROPOSED GRADE OVER PUMP CHAMBER: 552.23

**SOILS DATA**

SOIL SYMBOL	SOIL SERIES	SOIL USE
S8B	GLADSTONE LOAM	B
GMB	GENEVILLE LOAM	B
GDG	GLADSTONE LOAM	B
GBA	GLADSTONE LOAM	B

THIS AREA DESIGNATES A PRIVATE SEPTIC RESERVE AREA OF 10,000 S.F. AS REQUIRED BY THE MARYLAND STATE DEPARTMENT OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED UNTIL PUBLIC SEWAGE IS AVAILABLE. THIS RESERVE AREA SHALL BECOME NULL AND VOID UPON CONNECTION OF PUBLIC SEWAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE RESERVE AREA. RECORDATION OF A MODIFIED SEWAGE EASEMENT SHALL NOT BE NECESSARY.

**HOUSE GRADING & SEPTIC DESIGN LAYOUT**  
 SCALE: 1"=50'



- LEGEND**
- 2 FT. H.S. 564.60x D.B. FF= 566.67 E.P. CE= 557.67 S.T. DENOTES HUNG SEWER
  - DENOTES SPOT ELEVATION
  - DENOTES DISTRIBUTION BOX
  - DENOTES FIRST FLOOR ELEVATION
  - DENOTES EJECTOR PUMP
  - DENOTES CELLAR ELEVATION
  - DENOTES SEPTIC TANK
  - DENOTES APPROVED PERG EX PERG. LOCATIONS
  - DENOTES PROPOSED WELL LOCATION
  - DENOTES STABILIZED CONSTRUCTION ENTRANCE
  - DENOTES FLOW DIRECTION
  - DENOTES EXISTING CONTOURS
  - DENOTES SILT FENCE
  - DENOTES SUPER SILT FENCE
  - DENOTES LIMIT OF DISTURBANCE
  - DENOTES SOIL LINES
  - DENOTES EXISTING EDGE OF WOODS LINE
  - DENOTES LIMIT OF EXISTING WOODS CLEARING
  - FOREST PROTECTION FENCE AND SIGNS
  - DENOTES EXISTING WATER METER

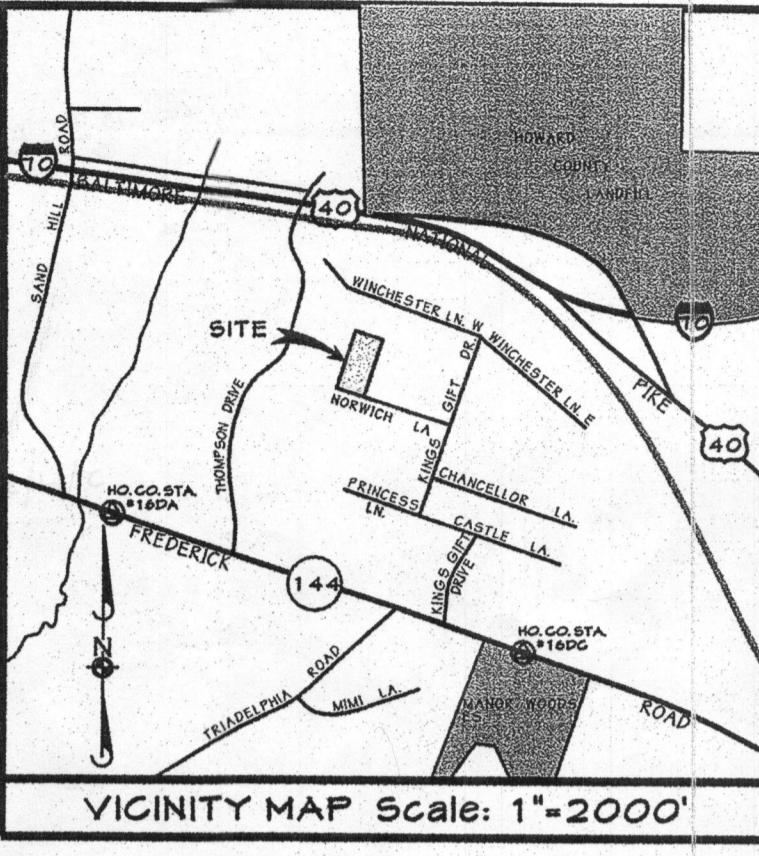
**BENCHMARKS:**  
 NO. 60 MON # 16DC ELEV 528.170  
 Concrete Monument 0.2 FT. Below surface  
 N549049.49; E199946.110  
 NO. 60 MON # 16DA ELEV 466.95  
 Concrete Monument 0.3 FT. Below surface  
 N549112.04; E199299.202

NOTE: TOTAL LIMIT OF IMPERVIOUS AREA = 14,575 S.F.

L.O.D. - DENOTES LIMIT OF DISTURBANCE TOTAL AREA = 87,150 S.F. 2.00 AC.

NOTE: HOUSE CAN ONLY BE GRAVITY SERVED FROM THE FIRST FLOOR.

- GENERAL NOTES**
- THE SUBJECT PROPERTY IS ZONED RC-DEO PER THE 2/2/04 COMPREHENSIVE ZONING PLAN.
  - IN ACCORDANCE WITH SECTION 12B OF THE HOWARD COUNTY ZONING REGULATIONS, BAY WINDOWS, CHIMNEYS OR EXTERIOR STAIRWAYS NOT MORE THAN 16 FEET IN WIDTH MAY PROJECT NOT MORE THAN 4 FEET INTO ANY SETBACKS, PORCHES OR DECKS, OPEN OR ENCLOSED MAY PROJECT NOT MORE THAN 10 FEET INTO THE FRONT OR REAR YARD SETBACK (APPLIES FOR RESIDENTIAL SDPS)
  - NO GRADING, REMOVAL OF VEGETATIVE COVER OR TREES, PAVING AND NEW STRUCTURES SHALL BE PERMITTED WITHIN THE REQUIRED WETLANDS, STREAMS OR THEIR BUFFERS, FOREST CONSERVATION EASEMENT AREAS AND 100 YEAR FLOODPLAIN.
  - A DRIVEWAY SHALL BE PROVIDED PRIOR TO ISSUANCE OF A USE AND OCCUPANCY PERMIT FOR ANY NEW DWELLINGS TO INSURE SAFE ACCESS FOR FIRE AND EMERGENCY VEHICLES PER THE FOLLOWING MINIMUM REQUIREMENTS:
    - WIDTH-12'
    - SURFACE-6" OF COMPACTED CRUSHER RUN BASE PAVTAR AND CHIP COATING (1-1/2" MIN)
    - GEOMETRY- MAX. 1% GRADE, MAX. 10% GRADE CHANGE AND MIN. 45' TURNING RADIUS.
    - MAINTENANCE- SUFFICIENT TO INSURE ALL WEATHER USE.
  - THE CONTACTOR SHALL NOTIFY THE DEPARTMENT OF PUBLIC WORKS/BUREAU OF ENGINEERING/CONSTRUCTION INSPECTION DIVISION AT (410) 313-1880 AT LEAST (5) FIVE WORKING DAYS PRIOR TO THE START OF WORK.
  - THE CONTRACTOR SHALL NOTIFY MISS UTILITY AT 1-800-257-1117 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION WORK BEING DONE.
  - THE EXISTING TOPOGRAPHY WAS SURVEYED BY CLS I.
  - THE COORDINATES SHOWN HEREON ARE BASED UPON HOWARD COUNTY MONUMENT #5 16DC AND 16DA (SEE VICINITY MAP FOR LOCATION)
  - STORMWATER MANAGEMENT IS PROVIDED UNDER ENVIRONMENTALLY SENSITIVE DEVELOPMENT CREDIT.
  - EXISTING UTILITIES ARE BASED UPON FIELD RUN TOPO AND AERIAL TOPOGRAPHY ETC.
  - ANY DAMAGE TO THE COUNTY'S RIGHT OF WAY SHALL BE CORRECTED AT THE DEVELOPERS EXPENSE.
  - THIS PLAN HAS BEEN PREPARED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 16.124 OF THE HOWARD COUNTY CODE AND LANDSCAPE MANUAL.
  - THERE ARE NO STREAMS, WETLANDS OR THEIR BUFFERS ON SITE.
  - THERE ARE NO FLOODPLAINS ON SITE.
  - THIS PLAN IS SUBJECT TO THE AMENDED FIFTH EDITION OF THE SUBDIVISION AND LAND DEVELOPMENT REGULATIONS AS AMENDED BY COUNCIL BILL 45-2009 AND THE ZONING REGULATIONS AS AMENDED BY COUNCIL BILL 75-2003. CONSTRUCTION ON THESE LOTS MUST COMPLY WITH SETBACK AND BUFFER REGULATIONS IN EFFECT AT THE TIME OF SUBMISSION OF THE SITE DEVELOPMENT PLAN, WAIVER PETITION APPLICATION, OR BUILDING/GRADING PERMIT.
  - NO CLEARING OF EXISTING VEGETATION IS PERMITTED WITHIN THE LANDSCAPE EDGE FOR WHICH CREDIT IS BEING TAKEN; HOWEVER, LANDSCAPE MAINTENANCE IS AUTHORIZED.
  - THE FOREST CONSERVATION OBLIGATION FOR THIS SITE DEVELOPMENT PLAN IS EXEMPT UNDER HOWARD COUNTY ORDINANCE.
  - THE STAKING OF FOUNDATIONS PRIOR TO CONSTRUCTION TO ENSURE COMPLIANCE WITH REGULATORY BUILDING RESTRICTION LINES IS RECOMMENDED.



**SHEET INDEX**

- SITE PLAN & GENERAL NOTES
- SEDIMENT CONTROL NOTES & DETAILS
- STORMWATER MANAGEMENT PLAN & DETAILS

**GP-08-29**

**PERCOLATION TEST RESULTS, A-45595**

**ADDRESS CHART**

LOT/PARCEL NO.	STREET ADDRESS
16/333	11624 NORWICH LANE

**PERMIT INFORMATION CHART**

SUBDIVISION NAME	SECTION/AREA	LOT NO.
KINGS GIFT	N/A	LOT 16

PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DISTR.	CENSUS TRACT
N/A	8	RC-DEO	16	THIRD	603000

MATER CODE	PRIVATE	SEWER CODE	PRIVATE

**SITE PLAN SINGLE FAMILY RESIDENTIAL KINGS GIFT LOT 16 PLAN & GENERAL NOTES**

DEED REFERENCE: 9974/293

TAX MAP: 16, BLOCK: 08, PARCEL: 333

3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: AS SHOWN DATE: SEP. 2007 SHEET: 1/3

County File No. SDP--

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23446, EXPIRATION DATE: AUGUST 28, 2008

**CLS I**  
 Civil, Surveying & Environmental Consultants  
 www.clsi-civileng.com

FREDERICK OFFICE: 8445 Progress Drive, Suite BB Frederick, MD 21701-4879 (301) 662-1790 FAX (301) 662-8004

WESTMINSTER OFFICE: 439 East Main Street Westminister, MD 21757-5539 (410) 848-1790 FAX (410) 848-1791

Alfred L. Hansard  
 Professional Engineer  
 Registration No. 23446

Date: SEPT 15, 2007

Drawing No.: 88254E

County File No.:

Surveyed By: CLS I

Computed By:

Drawn By: CDD, JM

Checked By: JEF

PREVIOUS HOWARD COUNTY FILES

WATER CONTRACT NO. 44-3479

OWNER/DEVELOPER

JIMMY CHANG  
 6001 HELEN DORSEY WAY  
 COLUMBIA, MD. 21045

CAD Drawing File Name: 6:/08/08/254/DGN/PLOTPLAN/SHT1.LOT16.DGN

**Standard Sediment Control Notes**

1. A minimum of 48 hours notice must be given to the Howard County Department of Inspections, Licenses and Permits, Sediment Control Division prior to the start of any construction (9 13-1B55).
2. All vegetative and structural practices are to be installed according to the provisions of this plan and are to be in conformance with the most current MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, and revisions thereto.
3. 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.
4. All sediment traps/basins shown must be fenced and warning signs posted around their perimeter in accordance with Vol. 1, Chapter 12 of the HOWARD COUNTY DESIGN MANUAL, Storm Drainage.
5. 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 (Sec. 5.1), sod (Sec. 5.4), temporary seeding (Sec. 5.0) and mulching (Sec. 5.2). Temporary stabilization with mulch alone can only be done when recommended seeding dates do not allow for proper germination and establishment of grasses.
6. 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.
7. Site Analysis:  
Total Area of Site - 5.00 Acres  
Area Disturbed - 2.00 Acres/ 87,150 SF.  
Area to be roofed or paved - 0.334 Acres/ 14,575 SF.  
Area to be vegetatively stabilized - 1.67 Acres/ 72,575 SF.  
Total Cut - 750 Cu Yds.  
Total Fill - 750 Cu Yds.  
Offsite waste/borrow area location - NONE
8. Any sediment control practice, which is disturbed by grading activity for placement of utilities, must be repaired on the same day of disturbance.
9. Additional sediment control must be provided, if deemed necessary by the Howard County Sediment Control Inspector.
10. 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.
11. Trenches for the construction of utilities is limited to three pipe lengths or that which shall be back-filled and stabilized by the end of each workday, whichever is shorter.

**STANDARDS AND SPECIFICATIONS FOR TOPSOIL CONSTRUCTION AND MATERIAL SPECIFICATIONS**

- I. Topsoil salvaged from the existing site may be used provided that it meets the standards as set forth in these specifications. Typically, the depth of topsoil to be salvaged for a given soil type can be found in the representative soil profile section in the Soil Survey published by USDA-SCS in cooperation with Maryland Agricultural Experimental Station.
- II. Topsoil Specifications - Soil to be used as topsoil must meet the following:
  - i. Topsoil shall be a loam, sandy loam, clay loam, silt loam, sandy clay loam, loamy sand. Other soils may be used if recommended by an agronomist or soil scientist and approved by the appropriate approval authority. Regardless, topsoil shall not be a mixture of contrasting textured subsols and shall contain less than 5% by volume of clinders, stones, slag, coarse fragments, gravel, sticks, roots, trash, or other materials larger than 1" in diameter.
  - ii. Topsoil must be free of plants or plant parts such as Bermuda grass, quack grass, Johnson grass, nut sedge, poison ivy, thistle, or others as specified.
  - iii. Where the subsol is either highly acidic or composed of heavy clays, ground limestone shall be spread at the rate of 4-8 tons/acre (200-400 pounds per 1,000 square feet) prior to the placement of topsoil. Lime shall be distributed uniformly over designated areas and worked into the soil in conjunction with tillage operations as described in the following procedures.
- III. For sites having disturbed areas under 5 acres:
  - i. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
- IV. For sites having disturbed areas over 5 acres:
  - i. On soil meeting Topsoil specifications, obtain test results dictating fertilizer and lime amendments required to bring the soil into compliance with the following:
    - a) pH for topsoil shall be between 6.0 and 7.5. If the tested soil demonstrates a pH of less than 6.0, sufficient lime shall be prescribed to raise the pH to 6.5 or higher.
    - b) Organic content of topsoil shall be not less than 1.5 percent by weight.
    - c) Topsoil having soluble salt content greater than 500 parts per million shall not be used.
    - d) No sod or seed shall be placed on soil which has been treated with soil sterilants or chemicals used for weed control until sufficient time has elapsed (14 days min.) to permit dissipation of phytotoxic materials.
  - ii. Place topsoil (if required) and apply soil amendments as specified in 20.0 Vegetative Stabilization - Section I - Vegetative Stabilization Methods and Materials.
  - iii. Topsoil Application
    - i. When topsoiling, maintain needed erosion and sediment control practices such as diversions, grade stabilization structures, earth dikes, slope silt fence and sediment traps and basins.
    - ii. Grades on the areas to be topsoiled, which have been previously established, shall be maintained, albeit 4"-8" higher in elevation.
    - iii. Topsoil shall be uniformly distributed in a 4"-8" layer and lightly compacted to a minimum thickness of 4". Spreading shall be performed in such a manner that sodding or seeding can proceed with a minimum of additional soil.
    - iv. preparation and tillage. Any irregularities in the surface resulting from topsoiling or other operations shall be corrected in order to prevent the formation of depressions or water pockets.
    - v. Topsoil shall not be placed while the topsoil or subsol is in a frozen or muddy condition, when the subsol is excessively wet or in a condition that may otherwise be detrimental to proper grading and seedbed preparation.
  - vi. Alternative for Permanent Seeding - Instead of applying the full amounts of lime and commercial fertilizer, composted sludge and amendments may be applied as specified below:
    - i. Composted Sludge Material for use as a soil conditioner for sites having disturbed areas over 5 acres shall be tested to prescribe amendments and for sites having disturbed areas under 5 acres shall conform to the following requirements:
      - a) Composted sludge shall be supplied by, or originate from, a person or persons that are permitted (at the time of acquisition of the compost) by the Maryland Department of the Environment under COMAR 26.04.06.
      - b) Composted sludge shall contain at least 1 percent nitrogen, 1.5 percent phosphorus, and 0.2 percent potassium and have a pH of 7.0 to 8.0. If compost does not meet these requirements, the appropriate constituents must be added to meet the requirements prior to use.
      - c) Composted sludge shall be applied at a rate of 1 ton/1,000 square feet.
    - ii. Composted sludge shall be amended with a potassium fertilizer applied at the rate of 4 lb/1,000 square feet, and 1/3 the normal lime application rate.

**HOWARD SOIL CONSERVATION DISTRICT PERMANENT SEEDING NOTES**

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

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING OR OTHER ACCEPTABLE MEANS BEFORE SEEDING, IF NOT PREVIOUSLY LOOSENED.

SOIL AMENDMENTS IN LIEU OF SOIL TEST RECOMMENDATIONS, USE ONE OF THE FOLLOWING SCHEDULES:  
1) PREFERRED- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (42 LBS./1000 SQ.FT.) AND 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ. FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL. AT TIME OF SEEDING, APPLY 400 LBS. PER ACRE 30-0-0 UREAFORM FERTILIZER (9 LBS./1000 SQ. FT.)

2) ACCEPTABLE- APPLY 2 TONS PER ACRE DOLOMITIC LIMESTONE (42 LBS./1000 SQ. FT.) AND 1000 LBS. PER ACRE 10-10-10 FERTILIZER (23 LBS./1000 SQ.FT.) BEFORE SEEDING. HARROW OR DISK INTO UPPER THREE INCHES OF SOIL.

SEEDING- FOR THE PERIODS MARCH 1 THROUGH APRIL 30, AND AUGUST 1 THROUGH OCTOBER 15, SEED WITH 60 LBS. PER ACRE (1.4 LBS./1000 SQ. FT.) OF KENTUCKY 31" TALL FESCUE, FOR THE PERIOD MAY 1 THROUGH JULY 31, SEED WITH 60 LBS. KENTUCKY 31" TALL FESCUE PER ACRE AND 2 LBS. PER ACRE (0.5 LBS./1000 SQ.FT.) OF KEEPLING LOVEGRASS, DURING THE PERIOD OF OCTOBER 16 THROUGH FEBRUARY 28. PROTECT SITE BY: OPTION (1) 2 TONS PER ACRE OF WELL-ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING. OPTION (2)- USE SOD. OPTION (3)- SEED WITH 60 LBS./ACRE KENTUCKY 31" TALL FESCUE AND MULCH WITH 2 TON/ACRE WELL-ANCHORED STRAW.

MULCHING- APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ. FT.) OF UNROTTED SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR MULCH IMMEDIATELY AFTER APPLICATION USING A MULCH ANCHORING TOOL OR 2 1/2 GALLONS PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS ON SLOPES OF 8 FEET OR HIGHER. USE 3 1/2 GALLONS PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

MAINTENANCE- INSPECT ALL SEEDING AREAS AND MAKE NEEDED REPAIRS, REPLACEMENTS AND RESEEDING.

**TEMPORARY SEEDING NOTES**

APPLY TO GRADED OR CLEARED AREAS LIKELY TO BE REDISTURBED WHERE A SHORT TERM VEGETATIVE COVER IS NEEDED.

SEEDBED PREPARATION: LOOSEN UPPER THREE INCHES OF SOIL BY RAKING, DISKING, OR OTHER ACCEPTABLE MEANS BEFORE SEEDING IF NOT PREVIOUSLY LOOSENED.

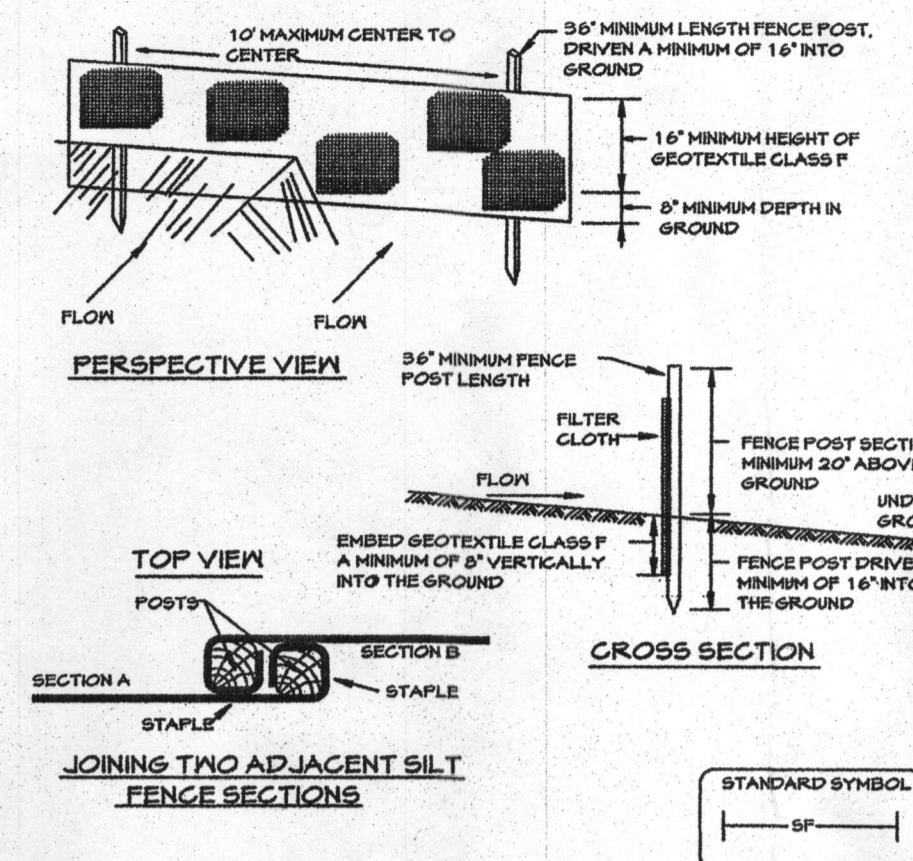
SOIL AMENDMENTS: APPLY 600 LBS. PER ACRE 10-10-10 FERTILIZER (14 LBS./1000 SQ.FT.)

SEEDING: FOR PERIODS MARCH 1 THROUGH APRIL 30 AND AUGUST 15 THROUGH OCTOBER 15, SEED WITH 2-1/2 BUSHEL PER ACRE OF ANNUAL RYE (3.2 LBS./1000 SQ. FT.) FOR THE PERIOD OF MAY 1 THROUGH AUGUST 14, SEED WITH 3 LBS. PER ACRE OF KEEPING LOVEGRASS (0.7 LBS./1000 SQ.FT.) FOR THE PERIOD OF NOVEMBER 16 THROUGH NOVEMBER 28, PROTECT SITE BY APPLYING 2 TONS PER ACRE OF WELL ANCHORED STRAW MULCH AND SEED AS SOON AS POSSIBLE IN THE SPRING, OR USE SOD.

MULCHING: APPLY 1-1/2 TO 2 TONS PER ACRE (70 TO 90 LBS./1000 SQ.FT.) OF UNROTTED WHEED FREE SMALL GRAIN STRAW IMMEDIATELY AFTER SEEDING. ANCHOR IMMEDIATELY AFTER APPLICATION USING MULCH ANCHORING TOOL OR 2 1/2 GAL PER ACRE (5 GAL/1000 SQ.FT.) OF EMULSIFIED ASPHALT ON FLAT AREAS, ON SLOPES 8 FEET OR HIGHER, USE 3 1/2 GAL PER ACRE (8 GAL/1000 SQ.FT.) FOR ANCHORING.

REFER TO THE 1983 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR ADDITIONAL RATES AND METHODS NOT COVERED.

**DETAIL 22 - SILT FENCE**



**Construction Specifications**

1. FENCE POSTS SHALL BE A MINIMUM OF 3/4" LONG DRIVEN 1/4" MINIMUM INTO THE GROUND. POSTS SHALL BE 1 1/2" X 1 1/2" SQUARE BRUSHWOOD OR 1 1/2" DIAMETER (MINIMUM) ROUND AND SHALL BE OF SOUND QUALITY HARDWOOD. STEEL POSTS SHALL BE STANDARD T OR U SECTION HEIGHTING NOT LESS THAN 1.00 POUND PER LINEAR FOOT.
2. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH NINE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:  
TENSILE STRENGTH: 50 LBS./IN (MIN) TEST HEIGHT: 50"  
TENSILE MODULUS: 30 LBS./IN (MIN) TEST HEIGHT: 50"  
FLOW RATE: 0.3 GAL/FT<sup>2</sup>/MINUTE (MAX) TEST HEIGHT: 32"  
FILTERING EFFICIENCY: 75% (MIN) TEST HEIGHT: 32"
3. FENCE ENDS OF GEOTEXTILE FABRIC CLOTH TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT SEDIMENT BYPASS.
4. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHED 50% OF THE FABRIC HEIGHT.

**Silt Fence Design Criteria**

Slope Steepness	(Maximum) Slope Length	(Maximum) Silt Fence Length
Flatter than 5:1	unlimited	unlimited
5:1 to 10:1	125 feet	1,000 feet
10:1 to 15:1	100 feet	750 feet
5:1 to 3:1	60 feet	500 feet
3:1 to 2:1	40 feet	350 feet
2:1 and steeper	30 feet	125 feet

NOTE: IN AREAS OF LESS THAN 2% SLOPE AND SANDY SOILS (BSDA GENERAL CLASSIFICATION SYSTEM SOIL CLASS A) MAXIMUM SLOPE LENGTH AND SILT FENCE LENGTH WILL BE UNLIMITED. IN THESE AREAS A SILT FENCE MAY BE THE ONLY PERIMETER CONTROL REQUIRED.

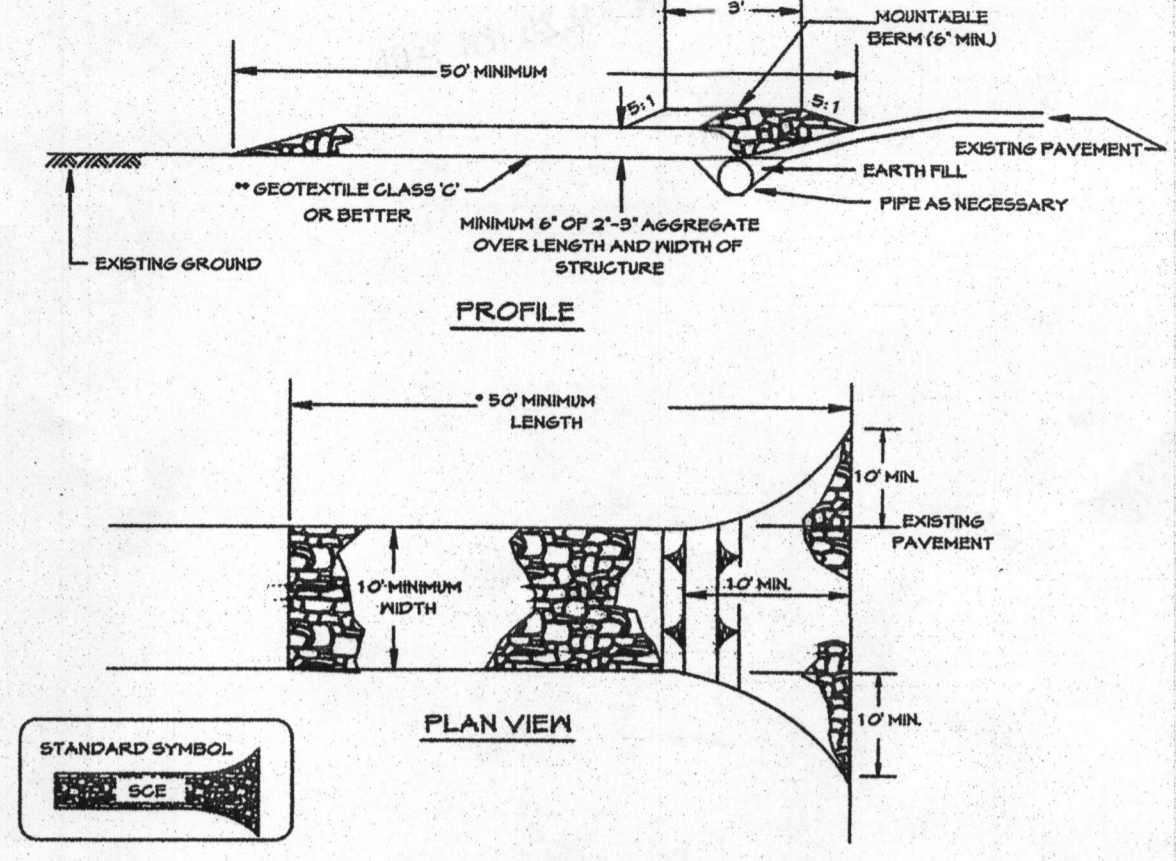
**CONSTRUCTION SEQUENCE**

1. OBTAIN GRADING PERMIT. (1 DAY)
2. INSTALL ALL SEDIMENT AND EROSION CONTROL DEVICES AS SHOWN ON PLAN. (1 DAY)
3. CONSTRUCT DWELLING. (90 DAYS)
4. FINE GRADE LOT AND INSTALL DRIVEWAY. (1 DAY)
5. INSTALL PERMANENT SEEDING AND MULCHING. (1 DAY)
6. INSTALL LANDSCAPING. (1 DAY)
7. ONCE LOT IS PERMANENTLY STABILIZED AND PERMISSION IS GRANTED BY E & S INSPECTOR, REMOVE SEDIMENT AND EROSION CONTROL DEVICES. (2 DAYS)

**STOCKPILE / TOPSOIL NOTES**

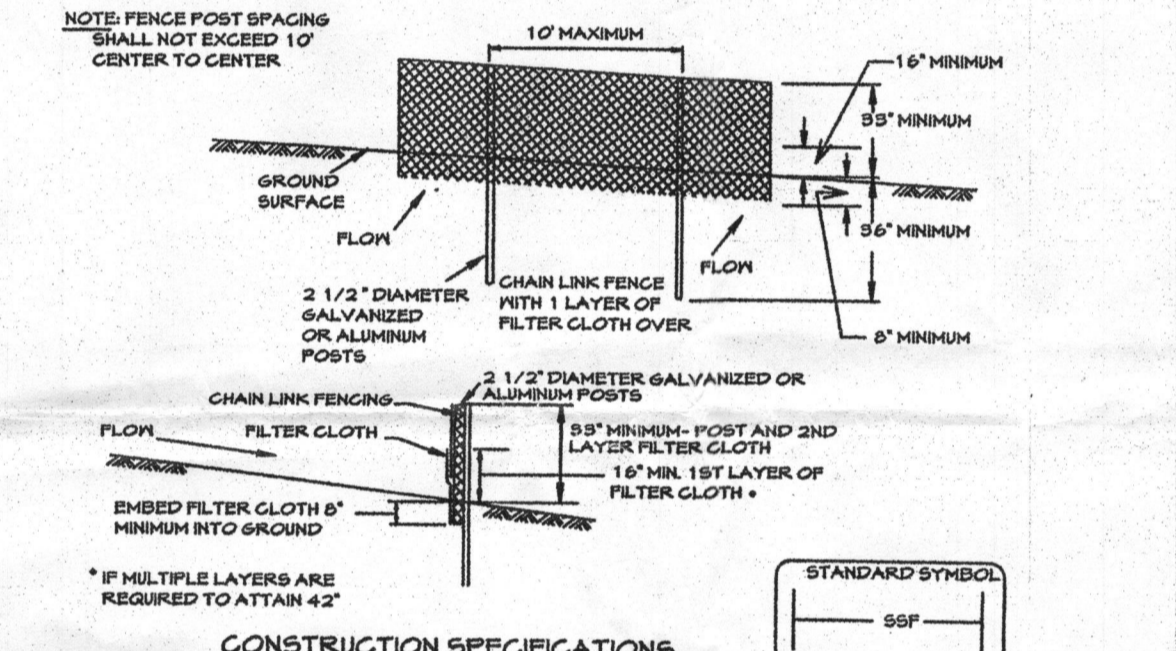
1. STOCKPILING WILL NOT BE ALLOWED ON ANY IMPERVIOUS AREA.
2. ALL STOCKPILES LEFT AT THE END OF THE DAY WILL NEED TO BE TEMPORARILY STABILIZED UNTIL THEY ARE AGAIN DISTURBED UNLESS THEY ARE WITHIN EXISTING PERIMETER SEDIMENT CONTROLS.
3. ALL STOCKPILE AREAS SHALL BE CONTAINED WITHIN PERIMETER CONTROLS. IN THE EVENT THAT STOCKPILE AREAS MUST BE LOCATED OUTSIDE DISTURBED AREAS, THE LOCATION SHALL BE AS DIRECTED BY THE INSPECTOR IN THE FIELD.

**DETAIL 24 - STABILIZED CONSTRUCTION ENTRANCE**



1. LENGTH - MINIMUM OF 50' (50' FOR SINGLE RESIDENCE LOT).
2. WIDTH - 10' MINIMUM SHOULD BE PLACED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS.
3. GEOTEXTILE FABRIC/FILTER CLOTH SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. THE PLAN APPROVAL AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE.
4. STONE - CRUSHED AGGREGATE (2" TO 3") OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE.
5. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE FILTERED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPE INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTABLE BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" OF STONE OVER THE PIPE. PIPE HAS TO BE SEED ACCORDING TO THE DRAINAGE. WHEN THE BERM IS LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPE SHOULD BE SEED ACCORDING TO THE AMOUNT OF RUNOFF TO BE CONVEYED. A 6" MINIMUM SHALL BE REQUIRED.
6. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE.

**DETAIL 23 - SUPER SILT FENCE**



- NOTE: FENCE POST SPACING SHALL NOT EXCEED 10' CENTER TO CENTER.
- CONSTRUCTION SPECIFICATIONS
1. THE POLES DO NOT NEED TO SET IN CONCRETE.
  2. CHAIN LINK FENCE SHALL BE FASTENED SECURELY TO THE FENCE POSTS WITH NINE TIES. THE LOWER TENSION WIRE, BRACE AND TRUSS RODS, DRIVE ANCHORS AND POST CAPS ARE NOT REQUIRED EXCEPT ON THE ENDS OF THE FENCE.
  3. FILTER CLOTH SHALL BE FASTENED SECURELY TO THE CHAIN LINK FENCE WITH TIES SPACED EVERY 2'-4" AT THE TOP AND MID SECTION.
  4. FILTER CLOTH SHALL BE EMBEDDED A MINIMUM OF 8" INTO THE GROUND.
  5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER, THEY SHALL BE OVERLAPPED BY 6" AND FOLDED.
  6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND SILT BUILDUPS REMOVED WHEN 'BULGES' DEVELOP IN THE SILT FENCE OR WHEN SILT REACHES 50% OF FENCE HEIGHT.
  7. FILTER CLOTH SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH NINE TIES OR STAPLES AT TOP AND MID SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F:  
TENSILE STRENGTH: 50 LBS./IN (MIN) TEST HEIGHT: 50"  
TENSILE MODULUS: 30 LBS./IN (MIN) TEST HEIGHT: 50"  
FLOW RATE: 0.3 GAL/FT<sup>2</sup>/MINUTE (MAX) TEST HEIGHT: 32"  
FILTERING EFFICIENCY: 75% (MIN) TEST HEIGHT: 32"

DESIGN CRITERIA

SLOPE	SLOPE STEEPNESS	SLOPE LENGTH (MAXIMUM)	SILT FENCE LENGTH (MAXIMUM)
0 - 10%	0 - 1:1	UNLIMITED	UNLIMITED
10 - 20%	10:1 - 5:1	200 FEET	1,500 FEET
20 - 33%	5:1 - 3:1	100 FEET	1,000 FEET
33 - 50%	3:1 - 2:1	100 FEET	500 FEET
50% +	2:1 +	50 FEET	250 FEET

BY THE ENGINEER:  
I CERTIFY THAT THIS PLAN FOR EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

Alfred L. Hansard  
PROFESSIONAL ENGINEER REG. NO. 23446  
DATE: 10/19/07

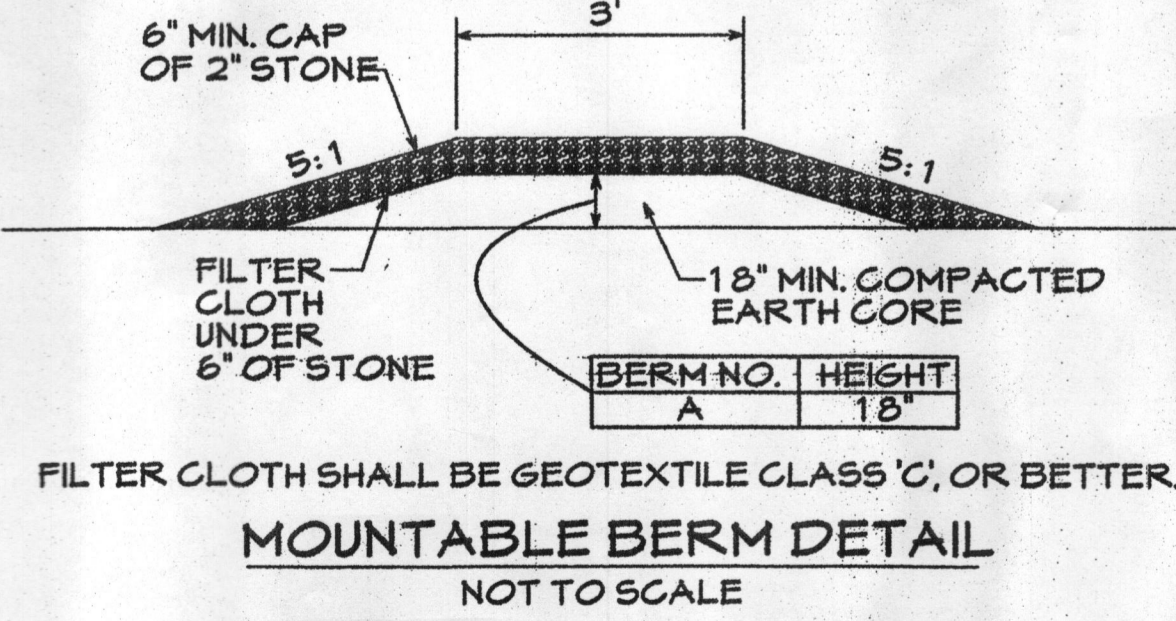
DEVELOPER'S CERTIFICATE  
I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THE CONSTRUCTION PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE CERTIFICATE OF ATTENDANCE AT A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERIODIC ON-SITE INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS ARE DEEMED NECESSARY.

Jimmy Chang  
SIGNATURE OF THE DEVELOPER  
DATE: 10/19/07

REVIEWED FOR THE HOWARD SOIL CONSERVATION DISTRICT AND METS TECHNICAL REQUIREMENTS.

USDA NATURAL RESOURCE CONSERVATION SERVICE  
DATE: 10/22/07

THIS DEVELOPMENT PLAN IS APPROVED FOR SOIL EROSION AND SEDIMENT CONTROL BY THE HOWARD SCD  
Howard Soil Conservation District  
DATE: 10/22/07



PROFESSIONAL CERTIFICATION, I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND, LICENSE NO. 23446, EXPIRATION DATE: AUGUST 28, 2009.

Alfred L. Hansard  
PROFESSIONAL ENGINEER  
REGISTRATION NO. 23446  
DATE: AUGUST 15, 2007

Frederick Office: 8443 Progress Drive, Suite 88, Frederick, MD 21701-4879, (301) 662-1799, FAX (301) 662-8004  
Westminster Office: 439 East Main Street, Westminster, MD 21157-5339, (410) 848-1790, FAX (410) 848-1791

Surveyed By: CLSI  
Computed By: JEP

Drawn By: GDD, JIM  
Checked By: JEP

PREVIOUS HOWARD COUNTY FILES

WATER CONTRACT NO. 44-3471

OWNER/DEVELOPER

JIMMY CHANG  
6001 HELEN DORSEY WAY  
COLUMBIA, MD. 21045

SITE DEVELOPMENT PLAN  
SINGLE FAMILY RESIDENTIAL  
**KINGS GIFT**  
LOT 16  
SEDIMENT CONTROL NOTES & DETAILS

DEED REFERENCE: 9974/293  
TAX MAP: 16, BLOCK: 08, PARCEL: 333  
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND

SCALE: N/A, DATE: AUG. 2007, SHEET: 2 / 3

County File No. SDP--

CAD Drawing File Name: G:\06\0254\06N\PLOTPLAN\SH2LOT16.DGN

CAD Drawing File Name: S:\88\88254\DNV\FLOTPLAN\SH16.DWG

BY THE ENGINEER:  
 I CERTIFY THAT THIS PLAN FOR POND CONSTRUCTION, EROSION, AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE CONDITIONS. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE HOWARD SOIL CONSERVATION DISTRICT.

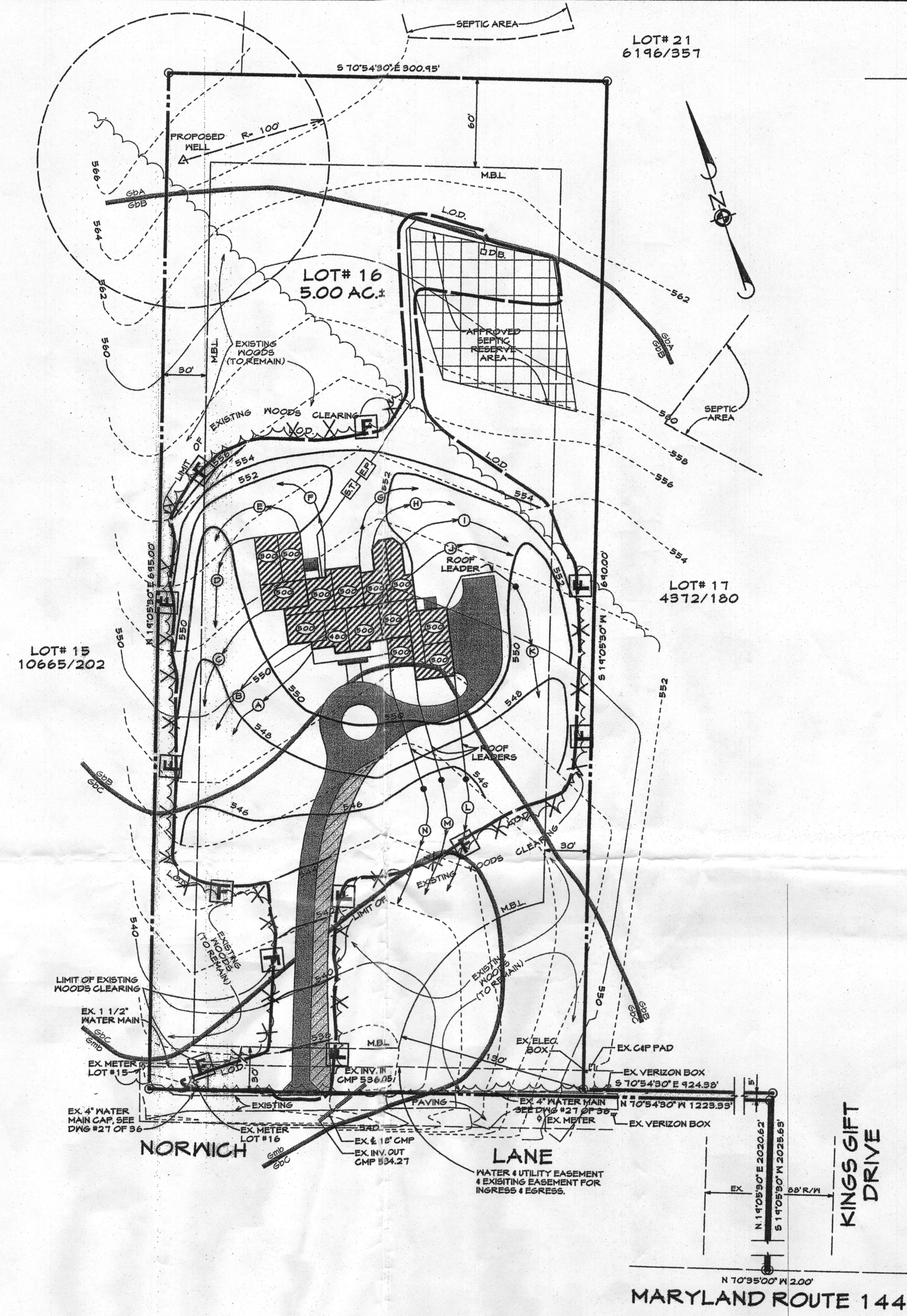
*Alfred L. Hamard*  
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 I CERTIFY THAT ALL DEVELOPMENT AND CONSTRUCTION WILL BE DONE ACCORDING TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THE CONSTRUCTION PROJECT WILL HAVE A CERTIFICATE OF ATTENDANCE BY A DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I ALSO AUTHORIZE PERSONNEL INSPECTION BY THE HOWARD SOIL CONSERVATION DISTRICT OR THEIR AUTHORIZED AGENTS AS SET FORTH HEREIN.

*Jimmy Chang*  
 SIGNATURE OF DEVELOPER 10/19/07  
 DATE

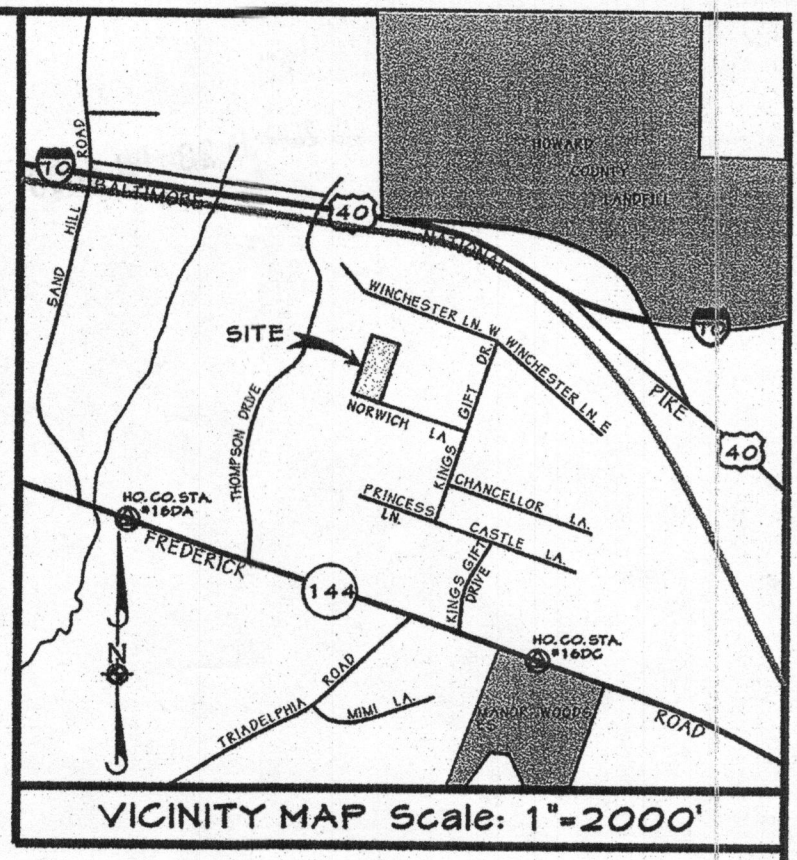
**DISCONNECT FLOW PATH CHART**

(A)	551.0 - 547.6 / 75' - 4.5%
(B)	551.0 - 547.4 / 75' - 4.8%
(C)	550.5 - 547.5 / 75' - 4.0%
(D)	551.0 - 548.8 / 75' - 4.3%
(E)	551.0 - 549.8 / 75' - 1.6%
(F)	553.6 - 551.0 / 75' - 3.5%
(G)	553.6 - 551.6 / 75' - 2.7%
(H)	553.0 - 551.0 / 75' - 2.7%
(I)	552.2 - 550.2 / 75' - 2.7%
(J)	552.0 - 550.0 / 75' - 2.7%
(K)	549.6 - 547.8 / 75' - 2.4%
(L)	545.5 - 543.5 / 75' - 2.7%
(M)	545.5 - 542.6 / 75' - 3.9%
(N)	545.5 - 542.0 / 75' - 3.4%



**LEGEND**

- NON-ROOFTOP IMPERVIOUS
- EQUAL AREA NON-ROOFTOP IMPERVIOUS DISCONNECT (5% OR LESS)
- ROOFTOP IMPERVIOUS
- ROOF LEADERS
- ROOFTOP IMPERVIOUS DISCONNECT PATHS
- AREA TO ROOF LEADERS
- LIMIT OF DISTURBANCE (L.O.D.)
- SEPTIC RESERVE AREA
- DISCONNECT FLOW PATH



**STORM WATER MANAGEMENT ANALYSIS**

TOTAL LOT AREA = 5.00 AC.  
 PROPOSED ON SITE IMPERVIOUS AREA = 0.334 AC.  
 0.334 / 5.00 LOT AREA = 6.68% OF LOT  
 PER 2000 MD. SWM DESIGN MANUAL UNDER CHAPTER FIVE (5) SECTION SIX (6) 5.6 -

ENVIRONMENTALLY SENSITIVE DEVELOPMENT CREDIT FOR SINGLE LOT DEVELOPMENT THE FOLLOWING CRITERIA IS MEET

- 1.) TOTAL SITE IMPERVIOUS < 15%
- 2.) LOT SIZE > (2) TWO ACRES
- 3.) ROOFTOP RUNOFF IS DISCONNECTED
- 4.) CURB AND GUTTER IS NOT USED

DUE TO ABOVE THIS SITE MEETS ALL APPLICABLE SWM / WQ REQUIREMENTS

PERCOLATION TEST RESULTS, A-45595					
ADDRESS CHART					
LOT/PARCEL NO.		STREET ADDRESS			
16/333		11624 NORWICH LANE			
PERMIT INFORMATION CHART					
SUBDIVISION NAME		SECTION/AREA		LOT NO.	
KINGS GIFT		N/A		LOT 16	
PLAT NO.	BLOCK NO.	ZONE	TAX MAP NO.	ELECT. DISTR.	CENSUS TRACT
N/A	8	RC-DEO	16	THIRD	603000
WATER CODE			SEWER CODE PRIVATE		
PREVIOUS HOWARD COUNTY FILES					
WATER CONTRACT NO. 44-3479					
OWNER/DEVELOPER					
JIMMY CHANG 6001 HELEN DORSEY WAY COLUMBIA, MD. 21045					
SITE PLAN SINGLE FAMILY RESIDENTIAL KINGS GIFT LOT 16 STORMWATER MANAGEMENT PLAN & DETAILS					
DEED REFERENCE: 9974/293					
TAX MAP: 16		BLOCK: 08		PARCEL: 333	
3rd ELECTION DISTRICT HOWARD COUNTY, MARYLAND					
SCALE: AS SHOWN		DATE: AUG. 2007		SHEET: 3 / 3	

PROFESSIONAL CERTIFICATION: I HEREBY CERTIFY THAT THIS DOCUMENT WAS PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND; LICENSE NO. 23446; EXPIRATION DATE: AUGUST 28, 2009.

Alfred L. Hamard  
Professional Engineer  
Registration No. 23446

CLSI  
www.clsi-civileng.com

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Date: SEPT 15, 2007  
 Drawing No.: 88254E  
 County File No.:  
 Surveyed By: CLSI  
 Computed By:  
 Drawn By: CDD, JIM  
 Checked By: JEP