

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

Peter L. Beilenson, M.D., M.P.H., Health Officer

Date: June 30th, 2011

To: Cary Cumberland; Applicant
Viking Development Corp.

From: Heidi Scott, R.S.
Development Coordination Section
Well & Septic Program

RE: PERCOLATION TEST RESULTS
Indian Hill Drive - Tax Map 9, Parcel 165

Percolation tests were conducted at the above referenced property on May 27th, 2011. A total of four test holes were dug. Results indicate satisfactory soil conditions and perc rates for conventional onsite wastewater disposal. Field data collected is shown on the Test Data Worksheets enclosed with this letter.

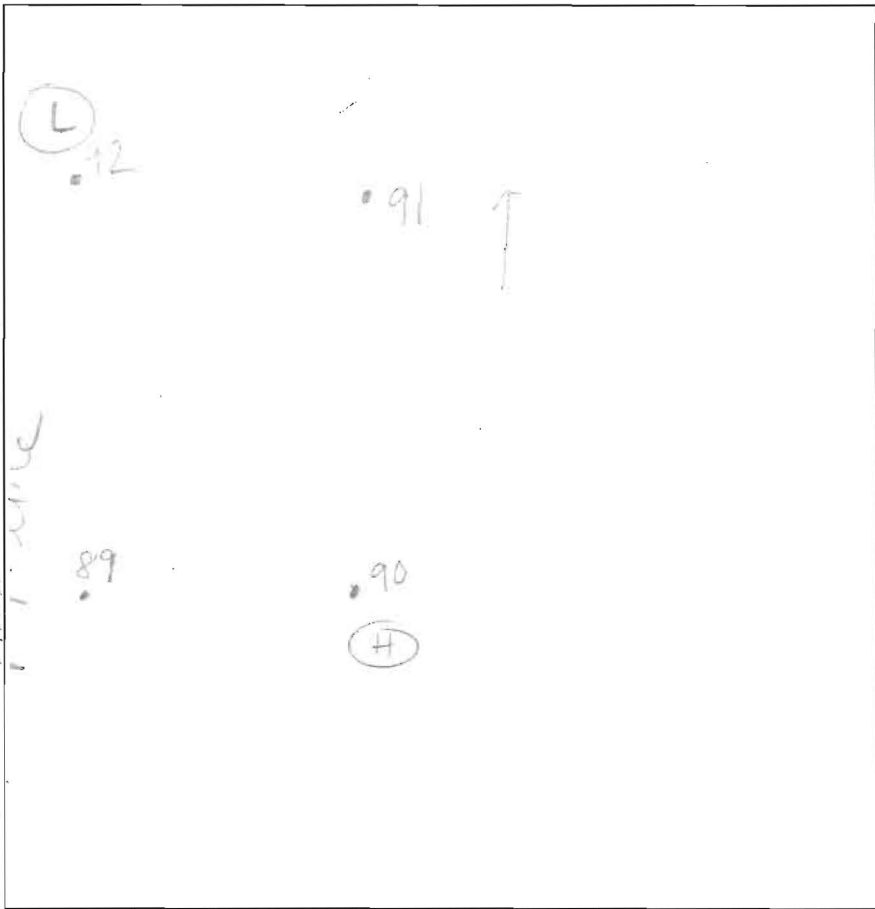
Further review of this project is contingent upon submission of a Percolation Certification Plan. If you have any questions regarding this evaluation or requirements for the Percolation Certification Plan, please contact me at (410) 313-6287.

Cc:
Ken Clements
File

15' red brn sil. Saprolite
 4' yellow brn sil. Saprolite
 7' yellow brn micaceous sil. 1/2 φ

8" unconsol. dk red brn sil. Saprolite (same as 170)
 3' red brn sil. Saprolite (same as 170)
 5' yellow brn sil. Saprolite few mica & 15% boulders

at 7.5' bottom



red brn sil. Saprolite
 yellow sil. Saprolite
 yellow brn sil. Saprolite

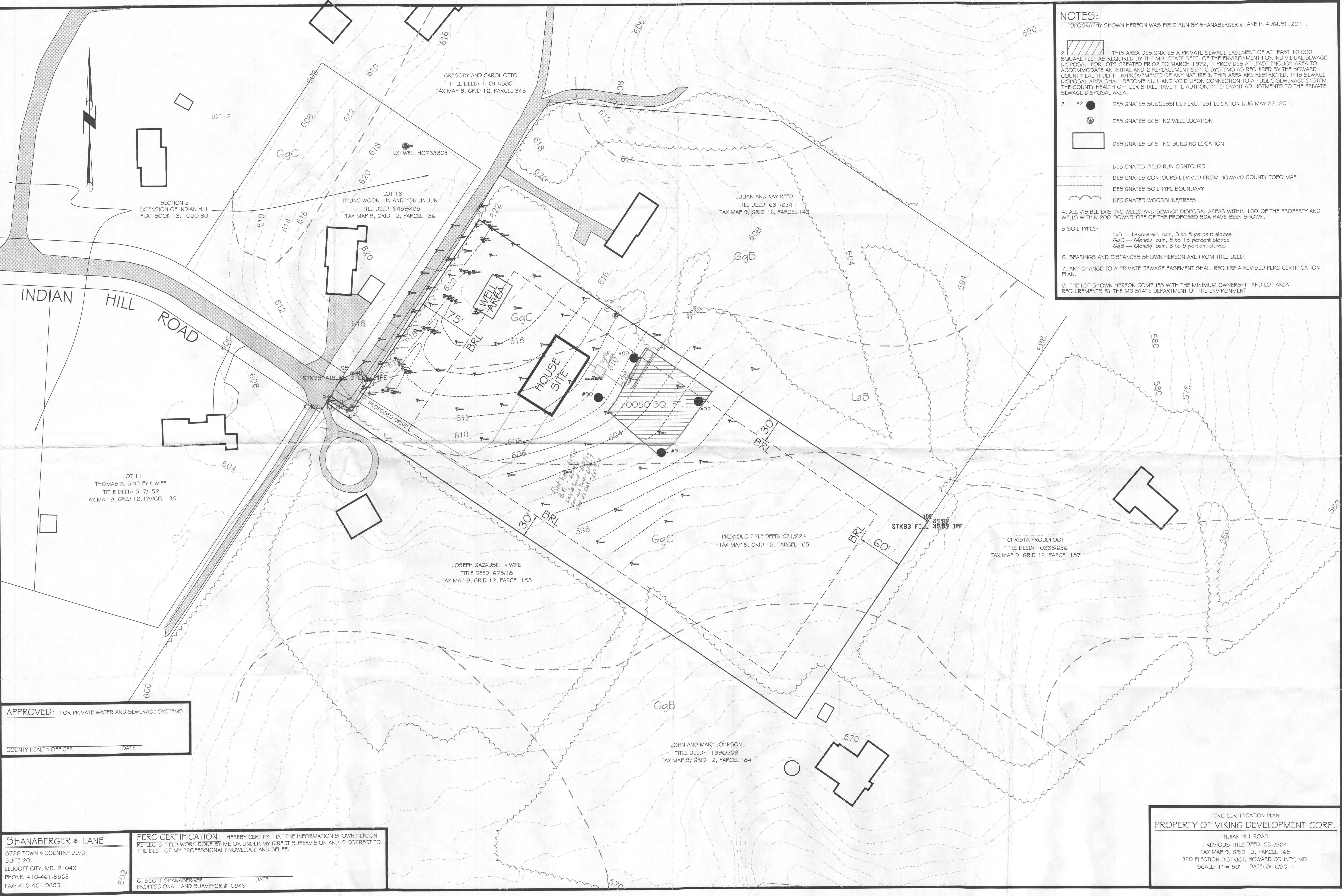
red brn sil. Saprolite
 red brn sil. Saprolite
 red brn sil. Saprolite
 red brn sil. Saprolite

at 10' bottom

DATE	TEST #	DEPTH	START	BREAK 1" DROP	STOP 2" DROP	TIME OF 2ND INCH	P/F/H
6-27-11	90	30' / 12'	9:45	9:48	9:54	6	P
6-27-11	89	3.5' / 11'	9:59	10:08	10:26	18	P
6-27-11	91	4' / 11'	10:16 ¹⁶	10:18 ³¹	10:25	7	P
6-27-11	92	4.4' / 11'	10:42	10:44	10:47	3	P

REMARKS all red clay soils very consistent
 SANITARIAN HS BACKHOE Bill Conter OTHERS Conter
 TEST HOLES USED IN SDA 5 AVG. PERC TIME 2.5 SQ. FT/BR
 TRENCH WIDTH 3 INLET DEPTH 3 MAX. BOT DEPTH 6 EFFECTIVE SW 2'

- NOTES:**
 1. TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY SHANABERGER & LANE IN AUGUST, 2011.
- 2. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL FOR LOTS CREATED PRIOR TO MARCH 1972. IT PROVIDES AT LEAST ENOUGH AREA TO ACCOMMODATE AN INITIAL AND 2 REPLACEMENT SEPTIC SYSTEMS AS REQUIRED BY THE HOWARD COUNTY HEALTH DEPT. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA.
 - 3. #2 ● DESIGNATES SUCCESSFUL PERC TEST LOCATION DUG MAY 27, 2011
 - DESIGNATES EXISTING WELL LOCATION
 - DESIGNATES EXISTING BUILDING LOCATION
 - DESIGNATES FIELD-RUN CONTOURS
 - DESIGNATES CONTOURS DERIVED FROM HOWARD COUNTY TOPO MAP
 - DESIGNATES SOIL TYPE BOUNDARY
 - DESIGNATES WOODSLINE/TREES
 - 4. ALL VISIBLE EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN.
 - 5. SOIL TYPES:
 LaB --- Legare silt loam, 3 to 8 percent slopes
 GgC --- Glenelg loam, 8 to 15 percent slopes
 GgB --- Glenelg loam, 3 to 8 percent slopes
 - 6. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM TITLE DEED.
 - 7. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
 - 8. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP AND LOT AREA REQUIREMENTS BY THE MD STATE DEPARTMENT OF THE ENVIRONMENT.



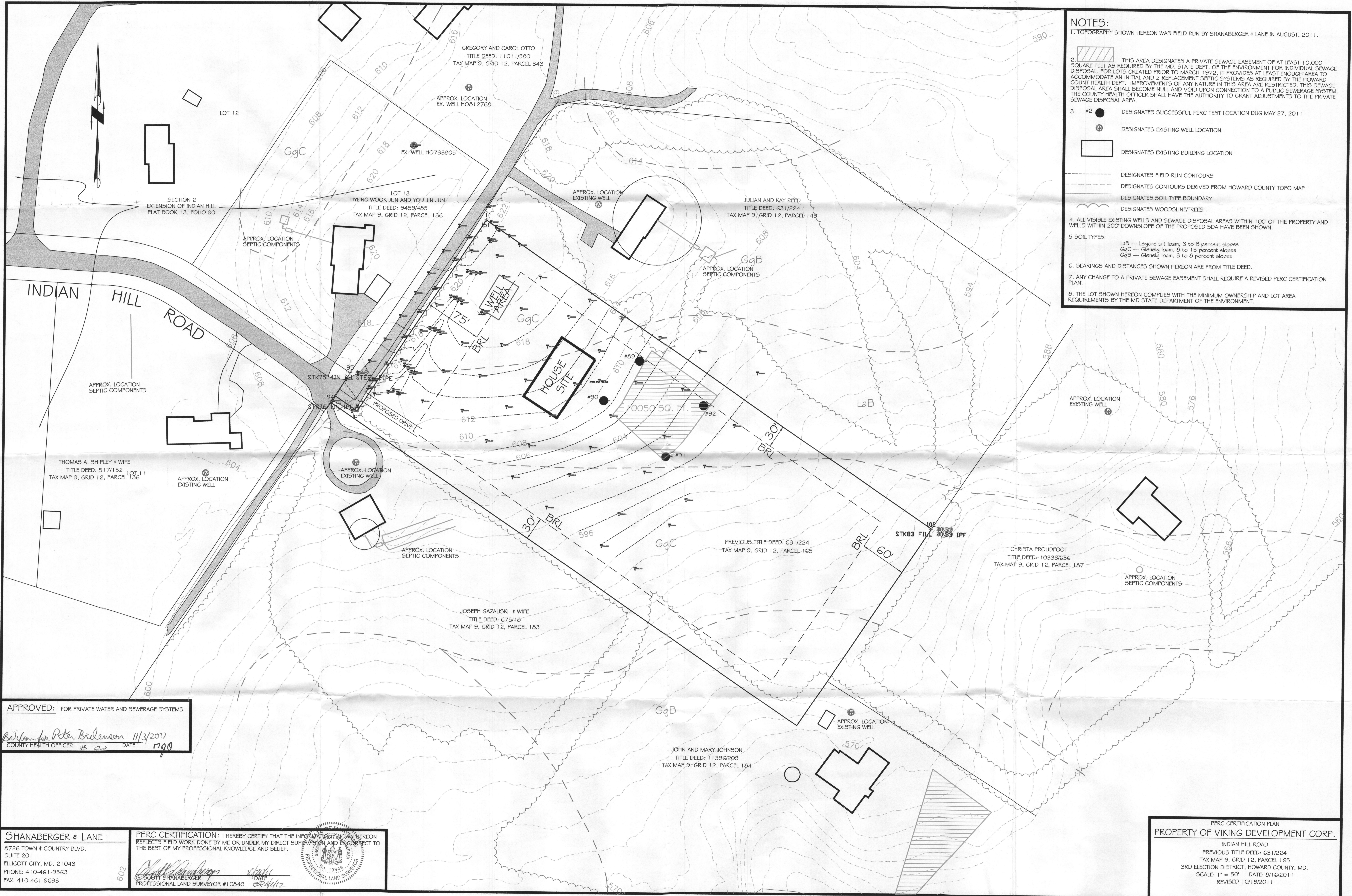
APPROVED: _____ FOR PRIVATE WATER AND SEWERAGE SYSTEMS
 COUNTY HEALTH OFFICER DATE

SHANABERGER & LANE
 8726 TOWN & COUNTRY BLVD.
 SUITE 201
 ELLICOTT CITY, MD, 21043
 PHONE: 410-461-9563
 FAX: 410-461-9693

PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

G. SCOTT SHANABERGER DATE
 PROFESSIONAL LAND SURVEYOR #10849

PERC CERTIFICATION PLAN
 PROPERTY OF VIKING DEVELOPMENT CORP.
 INDIAN HILL ROAD
 PREVIOUS TITLE DEED: 631/224
 TAX MAP 9, GRID 12, PARCEL 165
 3RD ELECTION DISTRICT, HOWARD COUNTY, MD.
 SCALE: 1" = 50' DATE: 8/16/2011



- NOTES:**
1. TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY SHANABERGER & LANE IN AUGUST, 2011.
 2. THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. FOR LOTS CREATED PRIOR TO MARCH 1, 1972, IT PROVIDES AT LEAST ENOUGH AREA TO ACCOMMODATE AN INITIAL AND 2 REPLACEMENT SEPTIC SYSTEMS AS REQUIRED BY THE HOWARD COUNTY HEALTH DEPT. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA.
 3. #2 ● DESIGNATES SUCCESSFUL PERC TEST LOCATION DUG MAY 27, 2011
 W ● DESIGNATES EXISTING WELL LOCATION
 □ DESIGNATES EXISTING BUILDING LOCATION
 - - - DESIGNATES FIELD-RUN CONTOURS
 - - - DESIGNATES CONTOURS DERIVED FROM HOWARD COUNTY TOPO MAP
 - - - DESIGNATES SOIL TYPE BOUNDARY
 ~~~~~ DESIGNATES WOODS/LINE/TREES
  4. ALL VISIBLE EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN.
  5. SOIL TYPES:  
 LaB --- Legeare silt loam, 3 to 8 percent slopes  
 GgC --- Glenelig loam, 8 to 15 percent slopes  
 GgB --- Glenelig loam, 3 to 8 percent slopes
  6. BEARINGS AND DISTANCES SHOWN HEREON ARE FROM TITLE DEED.
  7. ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
  8. THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP AND LOT AREA REQUIREMENTS BY THE MD STATE DEPARTMENT OF THE ENVIRONMENT.

APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS  
 Written for Peter Bidelson 11/3/2017  
 COUNTY HEALTH OFFICER HS 20 DATE 1790

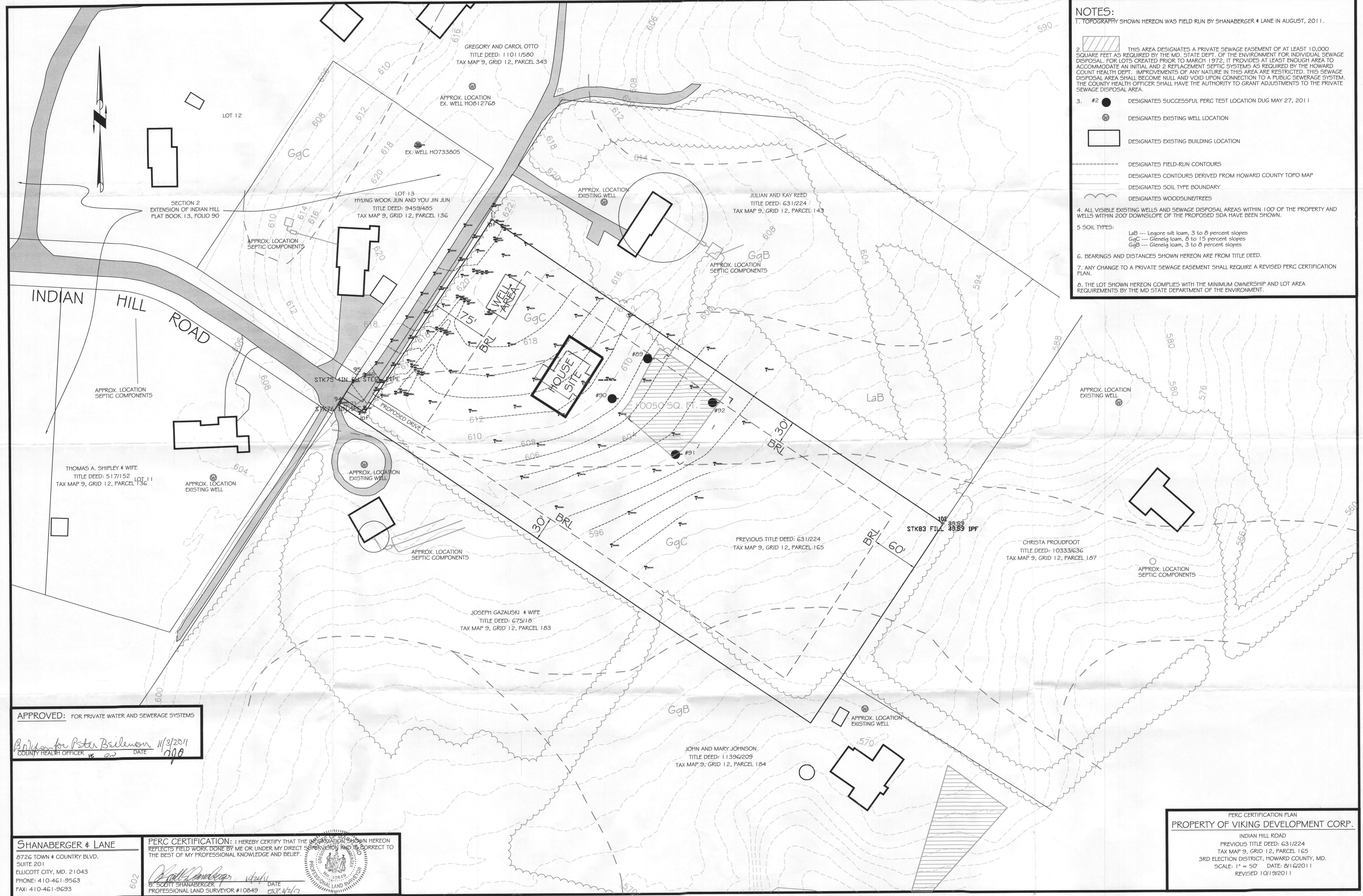
SHANABERGER & LANE  
 8726 TOWN & COUNTRY BLVD.  
 SUITE 201  
 ELLICOTT CITY, MD. 21043  
 PHONE: 410-461-9563  
 FAX: 410-461-9693

PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.  
 [Signature] DATE 8/16/2011  
 PROFESSIONAL LAND SURVEYOR #10849



PERC CERTIFICATION PLAN  
 PROPERTY OF VIKING DEVELOPMENT CORP.  
 INDIAN HILL ROAD  
 PREVIOUS TITLE DEED: 631/224  
 TAX MAP 9, GRID 12, PARCEL 165  
 3RD ELECTION DISTRICT, HOWARD COUNTY, MD.  
 SCALE: 1" = 50' DATE: 8/16/2011  
 REVISED 10/19/2011

- NOTES:**
- TOPOGRAPHY SHOWN HEREON WAS FIELD RUN BY SHANABERGER & LANE IN AUGUST, 2011.
  - THIS AREA DESIGNATES A PRIVATE SEWAGE EASEMENT OF AT LEAST 10,000 SQUARE FEET AS REQUIRED BY THE MD. STATE DEPT. OF THE ENVIRONMENT FOR INDIVIDUAL SEWAGE DISPOSAL. FOR LOTS CREATED PRIOR TO MARCH 1, 1972, IT PROVIDES AT LEAST ENOUGH AREA TO ACCOMMODATE AN INITIAL AND 2 REPLACEMENT SEPTIC SYSTEMS AS REQUIRED BY THE HOWARD COUNTY HEALTH DEPT. IMPROVEMENTS OF ANY NATURE IN THIS AREA ARE RESTRICTED. THIS SEWAGE DISPOSAL AREA SHALL BECOME NULL AND VOID UPON CONNECTION TO A PUBLIC SEWERAGE SYSTEM. THE COUNTY HEALTH OFFICER SHALL HAVE THE AUTHORITY TO GRANT ADJUSTMENTS TO THE PRIVATE SEWAGE DISPOSAL AREA.
  - #2 ● DESIGNATES SUCCESSFUL PERC TEST LOCATION DUG MAY 27, 2011
    - ⊙ DESIGNATES EXISTING WELL LOCATION
    - DESIGNATES EXISTING BUILDING LOCATION
    - - - - - DESIGNATES FIELD-RUN CONTOURS
    - - - - - DESIGNATES CONTOURS DERIVED FROM HOWARD COUNTY TOPO MAP
    - - - - - DESIGNATES SOIL TYPE BOUNDARY
    - ~ ~ ~ ~ ~ DESIGNATES WOODSLINE/TREES
  - ALL VISIBLE EXISTING WELLS AND SEWAGE DISPOSAL AREAS WITHIN 100' OF THE PROPERTY AND WELLS WITHIN 200' DOWNSLOPE OF THE PROPOSED SDA HAVE BEEN SHOWN.
  - SOIL TYPES:
    - LaB --- Legere silt loam, 3 to 8 percent slopes
    - GgC --- Glenelg loam, 8 to 15 percent slopes
    - GgB --- Glenelg loam, 3 to 8 percent slopes
  - BEARINGS AND DISTANCES SHOWN HEREON ARE FROM TITLE DEED.
  - ANY CHANGE TO A PRIVATE SEWAGE EASEMENT SHALL REQUIRE A REVISED PERC CERTIFICATION PLAN.
  - THE LOT SHOWN HEREON COMPLIES WITH THE MINIMUM OWNERSHIP AND LOT AREA REQUIREMENTS BY THE MD STATE DEPARTMENT OF THE ENVIRONMENT.



APPROVED: FOR PRIVATE WATER AND SEWERAGE SYSTEMS

*Bridgette P. Beileman* 11/3/2011  
 COUNTY HEALTH OFFICER DATE

**SHANABERGER & LANE**  
 8726 TOWN & COUNTRY BLVD.  
 SUITE 201  
 ELLICOTT CITY, MD. 21043  
 PHONE: 410-461-9563  
 FAX: 410-461-9693

PERC CERTIFICATION: I HEREBY CERTIFY THAT THE INFORMATION SHOWN HEREON REFLECTS FIELD WORK DONE BY ME OR UNDER MY DIRECT SUPERVISION AND IS CORRECT TO THE BEST OF MY PROFESSIONAL KNOWLEDGE AND BELIEF.

*Scott Shanaberger* 11/3/2011  
 8 SCOTT SHANABERGER DATE  
 PROFESSIONAL LAND SURVEYOR #10849

PERC CERTIFICATION PLAN  
 PROPERTY OF VIKING DEVELOPMENT CORP.  
 INDIAN HILL ROAD  
 PREVIOUS TITLE DEED: 631/224  
 TAX MAP 9, GRID 12, PARCEL 165  
 3RD ELECTION DISTRICT, HOWARD COUNTY, MD.  
 SCALE: 1" = 50' DATE: 8/16/2011  
 REVISED 10/19/2011