

C1 7236

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

1 2 3 4 5 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

FILL IN THIS FORM COMPLETELY PLEASE TYPE

COUNTY NUMBER

ST/CO USE ONLY DATE RECEIVED MM DD YY

DATE WELL COMPLETED MM DD YY

Depth of Well

PERMIT NO. FROM "PERMIT TO DRILL WELL"

OWNER last name first name STREET OR RFD TOWN SUBDIVISION CROSSING SECTION LOT

WELL LOG table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Includes handwritten entries: Brown mic-shale 0-75, Gray limestone 75-100.

GROUTING RECORD form with checkboxes for YES/NO, CEMENT (CM), BENTONITE CLAY (BC), NO. OF BAGS (24), NO. OF POUNDS (2250), DEPTH OF GROUT SEAL (0-37 ft).

CASING RECORD form with checkboxes for STEEL (ST), CONCRETE (CO), PLASTIC (PL), OTHER (OT), MAIN CASING TYPE (PL), Nominal diameter (06), Total depth (80).

OTHER CASING (if used) form with columns for diameter (inch) and depth (feet).

SCREEN RECORD form with checkboxes for STEEL (ST), BRASS (BR), BRONZE (PL), PLASTIC (PL), OPEN HOLE (HO), HOLE (OT), OTHER (OT).

NUMBER OF UNSUCCESSFUL WELLS: 0. WELL HYDROFRACTURED: YES (Y), NO (N).

CIRCLE APPROPRIATE LETTER: A (WELL ABANDONED), E (ELECTRIC LOG OBTAINED), P (TEST WELL CONVERTED TO PRODUCTION). I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04...

DRILLERS LIC. NO. 1 MSD 009. DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION).

LIC. NO. 1 D. SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee).

DEPTH (nearest ft.) table with rows for ACCHS, R, E, E, N and columns for slot size and diameter of screen.

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68. MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER).

TELESCOPE CASING, LOG INDICATOR, OTHER DATA.

PUMPING TEST form with fields for HOURS PUMPED (03), PUMPING RATE (12), METHOD USED TO MEASURE PUMPING RATE (190L), WATER LEVEL (46 ft before, 54 ft when pumping), TYPE OF PUMP USED (submersible).

PUMP INSTALLED form with fields for DRILLER INSTALLED PUMP (YES/NO), TYPE OF PUMP INSTALLED (centrifugal), CAPACITY: GALLONS PER MINUTE (31-35), PUMP HORSE POWER (37-41), PUMP COLUMN LENGTH (43-47), CASING HEIGHT (above/below), LAND SURFACE (01 ft).

LOCATION OF WELL ON LOT form with a diagram showing permanent structures and landmarks, and a note: NO Survey stakes.

B 1	6142	SEQUENCE NO. (MDE USE ONLY)	STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL 527287 please type	STATE PERMIT NUMBER HO-95-1254 fill in this form completely
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OWNER INFORMATION

Date Received (APA) _____

8 MM DD YY 13
 15 Last Name Toll Brothers Owner First Name _____ 34
 36 Street or RFD 11423 Hunt Crossing Ct 55
 57 Town Ellicott City Md 21042 70 State 72 Zip 76

LOCATION OF WELL

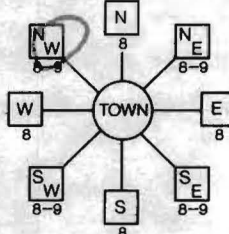
B 3


8 COUNTY Howard 21
 23 SUBDIVISION Homewood Crossing 42
 SECTION _____ LOT 46
 44 46 48 50
 52 NEAREST TOWN COLUMBIA 71
 MILES FROM TOWN (enter 0 if in town) 5 M I
 73 76 77 78

DRILLER INFORMATION

Driller's Name Allen Compton M S D 009 76 License No. 81
 Firm Name Fogles Well Drilling
 Address 580 Obrecht rd
 Signature [Signature] Date 7-13-07

B 4

1 2 DIRECTION OF WELL FROM TOWN (CIRCLE BOX)


11 NEAR WHAT ROAD Independence Way 30
~~Clarksville Pkwy~~
 ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX)

 550 000 37 DISTANCE FROM ROAD FT
 ENTER FT OR MI 38 39
 TAX MAP: 29 BLK: 9 PARCEL 28

WELL INFORMATION

B 2

APPROX. PUMPING RATE (GAL. PER MIN.) 5
 8 12
 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500
 14 20

USE FOR WATER (CIRCLE APPROPRIATE BOX)

DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION
 FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION)
 INDUSTRIAL, COMMERCIAL, DEWATERING
 PUBLIC WATER SUPPLY WELL
 TEST, OBSERVATION, MONITORING
 GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard (13) COUNTY NAME COUNTY NO. A515042
 STATE SIGNATURE _____ INSERT S →
 DATE ISSUED 9/20/2007 Brian Baker 9/20/2008
 43 MM DD YY 48 CO SIGNATURE EXP. DATE
 NORTH GRID 510 000 EAST GRID 827 000
 50 55 57 63

APPROXIMATE DEPTH OF WELL 300 FEET
 24 28

APPROXIMATE DIAMETER OF WELL 6 INCH
 NEAREST INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN
 30 AIR-ROTary AIR-PERcussion ROTARY (Hydraulic Rotary)
 37 CABLE REVerse-ROTary DRive-POINT
 other _____

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

THIS WELL WILL NOT REPLACE AN EXISTING WELL
 THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED
 THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS
 THIS WELL WILL DEEPEM AN EXISTING WELL
 PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE) 41 HO-95-0135 52

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

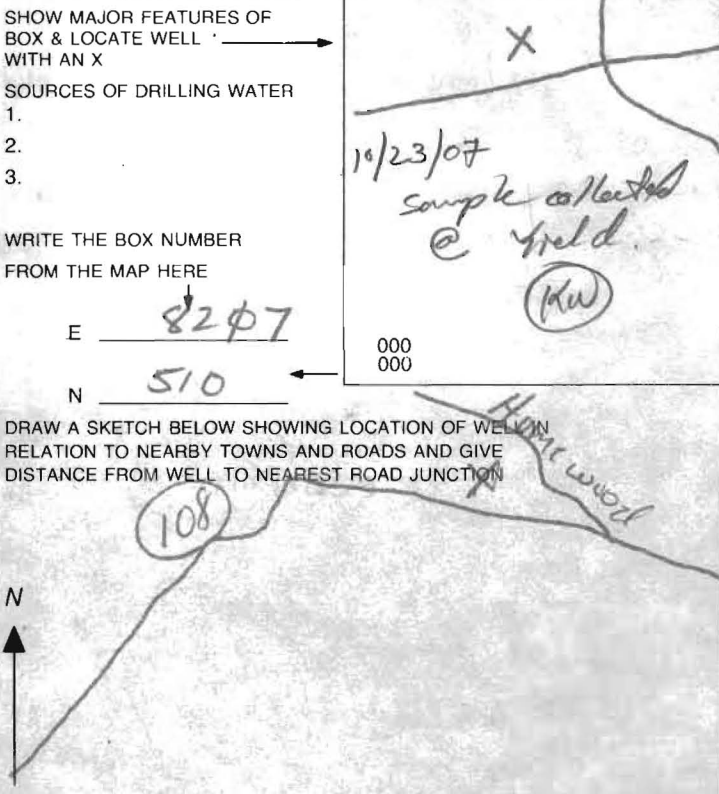
APPROP. PERMIT NUMBER HO2003G006
 PERMIT No. HO-95-1254
 70 71 72 73 74 75 76 77 78 79

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER
 1. _____
 2. _____
 3. _____

WRITE THE BOX NUMBER FROM THE MAP HERE
 E 827
 N 510

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION



10/23/07 sample collected @ well. (KW)

SPECIAL CONDITIONS
 NOTE - APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET FOR DETAILS
Radium Sample Needed

Yield Test Data Sheet

County File # _____
District 2

MD Well Permit #. HO-95-1254

Date of Test: 10-23-07

Subdivision Name: Home wood crossing

Section _____ Lot # 46

Street Address: Independence way

Measuring Point (MP) Description: Top of casing
(for ex. "Top of casing")

Distance from MP to ground surface 1 ft.

Well Depth 100' ft.

Well Driller: Fogle's Well Drilling

Must be submitted with the State of Maryland Well Completion Report

Submit to: Carroll County Health Department
Bureau of Environmental Health
P.O. Box 845
Westminster, MD 21158
410-876-1884, 410-857-5009
410-875-3385

Pump Start Time <u>8:00</u>	Static Water level: <u>46</u> ft.	Pumping Rate () Time to fill <u>1</u> gal. bucket () Flow meter reading (if used)	Calculated Flow (gallons per minute) <u>15</u>
TIME	WATER LEVEL BELOW M.P.		

Water level and pumping rate must be recorded every 15 minutes

1	<u>8:00</u>	<u>46</u> ft.	<u>4</u>	<u>15</u> GPM
2	<u>8:15</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
3	<u>8:30</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
4	<u>8:45</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
5	<u>9:00</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
6	<u>9:15</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
7	<u>9:30</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
8	<u>9:45</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
9	<u>10:00</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
10	<u>10:15</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
11	<u>10:30</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
12	<u>10:45</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
13	<u>11:00</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
14	<u>11:15</u>	<u>54</u> ft.	<u>5</u>	<u>12</u> GPM
15		ft.		GPM
16		ft.		GPM
17		ft.		GPM
18		ft.		GPM
19		ft.		GPM
20		ft.		GPM
21		ft.		GPM
22		ft.		GPM
23		ft.		GPM
24		ft.		GPM
25		ft.		GPM
26		ft.		GPM
27		ft.		GPM
28		ft.		GPM
29		ft.		GPM
30		ft.		GPM

NOTES:

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: Fogles well drilling LLC Telephone #: 410 795 5670
Address: PO Box 203
Woodbine, MD 21797

(Must circle one) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): David C. Fogle License #: MSD 226

*A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.

Name of Property Owner: Toil Brothers Telephone #: 410-489-2275
Subdivision: Patuxent Chase Lot #: 46 Well Tag #: HO-95-~~1254~~
Site Address: 11211 Independence Way
Emmitt City, MD 21042 1254

<u>Submersible Pump Data</u>	<u>Pitless Adapter</u>	<u>Well Cap and Electric Conduit</u>
Make: <u>Grundfos</u>	Make: <u>Cumorex II</u>	Two piece watertight cap: <u>YES</u>
Model #: <u>1590E07-180</u>	Model #: <u>N/A</u>	Screened, vented well cap: <u>YES</u>
Pump Capacity: <u>15</u> GPM	Depth: <u>36"</u> (36" min)	Cap secured to casing: <u>YES</u>
Well Yield: <u>12</u> GPM	NSF/WSC approved: <u>N/A</u>	Conduit min 18" B.G.: <u>YES</u>

Depth of well encountered at time of pump installation: 300 (feet) Conduit secured to well cap: YES

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used—Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing N/A

Piping to house

Type: 1" poly pipe

PSI: 70 (160 psi min)

Depth of supply line: 36" (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: YES

Length of sleeve (5' minimum from foundation): 6'

Sleeve sealed properly: YES

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation: David Fogle date: 2-17-16

For Health Department Use Only — Not to be completed by Installer

Date Insp. Requested: _____	Date Insp. Approved: <u>2/17/2016</u>	Inspector: <u>BB</u>
Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade		<input checked="" type="checkbox"/>
Two piece cap installed and attached to casing securely		<input checked="" type="checkbox"/>
Elec. conduit extends at least 18" below grade/attached to cap properly		<input checked="" type="checkbox"/>
Safety rope not outside of well cap/casing		<input checked="" type="checkbox"/>
Correct well tag attached properly and casing 8" above finished grade		<input checked="" type="checkbox"/>
Water supply line sleeved adequately at house connection		<input checked="" type="checkbox"/>
Adequate ground observed below pitless adapter		<input checked="" type="checkbox"/>

Toll Brothers

America's Luxury Home Builder™

May 20, 2010

Robert Bricker
Howard County Health Department
Environmental Sanitarian Supervisor

RE: Homewood Crossing Perc Cert

Dear Mr. Bricker,

I was forwarded your request by Michael Boyce of Eastern States Engineering concerning an explanation for the occurrence of two wells on lot 46.

In reviewing engineering for Lot 46 Homewood Crossing we discovered that well HO-95-0135 was installed in a location that interfered with future building plans. To accommodate future building plans, well HO-95-1254 was installed.

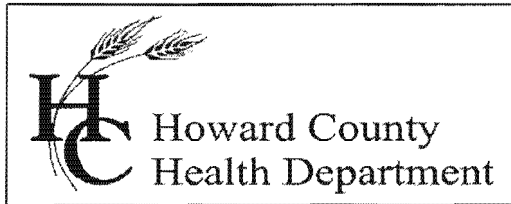
In talking with Michael Boyce it has come to my attention that well HO-95-135 has not yet been capped and abandon. I have spoken to Fogles Well and Septic and this well will be capped and abandon no later then May 28, 2010.

I can be reached at 410.992.5978 should you have any additional questions.

Regards,



Nathan Brandenburg
Project Manager
Patuxent Chase/Homewood Crossing
Toll Brothers Inc.



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
Main: 410-313-6300 | Fax: 410-313-6303
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org
Facebook: www.facebook.com/hocohealth
Twitter: HowardCoHealthDep

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

INTERIM CERTIFICATE OF POTABILITY
PERMANENT DEVIATION FOR RADIUM

Expiration Date – December 3, 2016

June 3, 2016

Homeowner
11211 Independence Way
Ellicott City, MD 21042

RE: Homewood Crossing, Lot 46
11211 Independence Way
Building Permit: B15002174
Well Permit: HO-95-1254

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **5/19/2016**. Final approval of the well line connection to the dwelling was granted on **2/17/2016**. The well construction was completed on **10/28/2007**. Water samples were collected on **4/27/2016 & 5/13/2016**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Radium 226 and 228 samples were also collected on **4/27/2016**. Results showed a Radium 226 level of **4.6 pCi/L** and a Radium 228 level of **1.8 pCi/L**. **This exceeds the combined maximum contaminant limit (MCL) of 5 pCi/L respectively.**

After installation of a radionuclide removal device (Reverse Osmosis), post-treatment water samples were collected on **5/16/2016** and indicated a Gross Alpha level of **1.3 ± 0.0 pCi/L**, a Gross Beta level of **4.6 ± 0.0 pCi/L**, and a combined Radium 226/228 level of **1.0 ± 0.0 pCi/L**.

This Department will grant a **permanent deviation** to the Interim Certificate of Potability on condition that the radionuclide removal system effectively maintains a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.

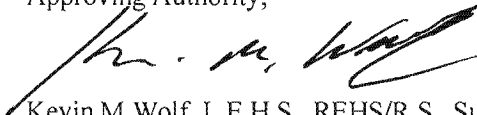
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this permanent deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.12F Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

This certifies that the initial sampling requirements of COMAR 26.04.04 "Well Regulations" have been met for the water supply system installed under well permit HO-95-1254. Although the submitted sample results are in compliance with COMAR standards, the Health Department does not guarantee water supplies.

This Interim Certificate of Potability will expire **six months** from the date of issuance. Submission of a second bacteriological test indicating the water is free of coliform and fecal coliform bacteria is required prior to the expiration date, after which time a Final Certificate of Potability will be issued. **Failure to submit an additional sample and obtain a Final Certificate of Potability will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

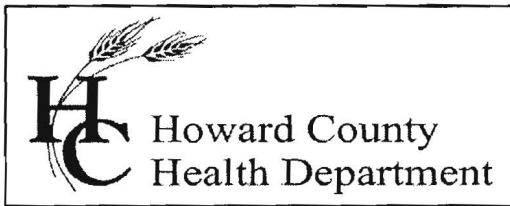
Please contact (410) 313-1773 to schedule a final water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Kevin M Wolf, L.E.H.S., REHS/R.S., Supervisor.
Groundwater Management Section
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File



Bureau of Environmental Health

8930 Stanford Blvd., Columbia, MD 21045
Main: 410-313-1771 | Fax: 410-313-2648
TDD 410-313-2323 | Toll Free 1-866-313-6300
www.hchealth.org

Facebook: www.facebook.com/hocohealth

Twitter: HowardCoHealthDep

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

TEMPORARY INTERIM CERTIFICATE OF POTABILITY
TEMPORARY DEVIATION FOR RADIUM

Expiration Date – JUNE 4, 2016

May 19, 2016

Homeowner
11211 Independence Way
Ellicott City, MD 21042

**RE: Homewood Crossing, Lot 46
11211 Independence Way
Building Permit: B15002174
Well Permit: HO-95-1254**

Dear Homeowner:

This is to advise you that the septic system installation and water well construction for the above referenced property have been inspected and approved. Final approval of the septic system was granted on **5/19/2016**. Final approval of the well line connection to the dwelling was granted on **2/17/2016**. The well construction was completed on **10/28/2007**. Water samples were collected on **4/27/2016 & 5/13/2016**.

The water sample results indicate that the water samples submitted for testing were free of coliform and fecal coliform bacteria at the time of sampling and are bacteriologically safe for drinking.

Radium 226 and 228 samples were also collected on **4/27/2016**. Results showed a Radium 226 level of **4.6 pCi/L** and a Radium 228 level of **1.8 pCi/L**. **This exceeds the combined maximum contaminant limit (MCL) of 5 pCi/L respectively.**

This is a **temporary deviation** to allow additional time for installation of a radionuclide removal system and submission of water sample results indicating that the treated water meets EPA recommendations.

This Department will grant a **temporary deviation** to the Interim Certificate of Potability on condition that water sample results for pre- and post-treatment short term and long term gross alpha/beta and radium 226/228 are submitted to this Department **within 45 days**. Those results must indicate that the radionuclide removal system is effectively maintaining a Gross Alpha level of less than **15 pCi/L**, a Gross Beta level of less than **50 pCi/L**, and a Radium 226/228 level of less than **5 pCi/L**.

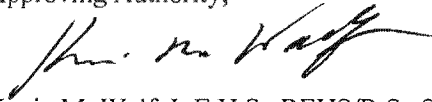
Furthermore, it will be necessary for you to comply with the following conditions:

1. The system must be properly operated and maintained continuously in accordance with the service contract for the life of the residence.
2. It is recommended that a Maryland certified water laboratory certified for radionuclide analysis perform a yearly radionuclide analysis.
3. If you decide to sell or rent your home in the future, you must make any potential buyer/tenant aware of this deviation. **A person who fails to make this disclosure is subject to the penalties set out in COMAR 26.04.04.38D Enforcement and Environment Article 9-1311, Annotated Code of Maryland.**

This Temporary Interim Certificate of Potability will expire 45 days from the date of issuance. **Failure to submit the required radium sample results and obtain an Interim Certificate of Potability before the expiration date will result in a Notice of Violation and is punishable as a misdemeanor under the *Annotated Code of Maryland, Environment Article, 9-1311*, subject to a fine of up to \$500 or imprisonment not to exceed three months.**

Please contact (410) 313-1773 to schedule a water sample appointment or contact a Maryland certified water quality laboratory to schedule a water sample. A list of laboratories certified by the state of Maryland may be found at the following website:
<http://www.mde.state.md.us/assets/document/WSP-Labs-2010apr16.pdf>

Approving Authority,



Kevin M. Wolf, L.E.H.S., REHS/R.S., Supervisor
Groundwater Management Section
Well & Septic Program

cc: Howard County Dept. of Inspections, Licenses, and Permits
Community Hygiene Program
File

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 106974 Account #: 1930
Reference: Toll Brothers Lot 46 Company: Fogle's Well Drilling
Location: 11211 Independence Way Requested By: Dave Fogle
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 4/27/2016 1309 Site: Kitchen Sink Tap
Date/Time Rec'd: 4/27/2016 1500 Treatment: None
Chlorine ppm: Free: ND Total: ND pH: 6.0
Collected By: J. Fogle 1974JF Well #: HO-95-1254

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	88.5	MPN/ 100 ml	<1.0	SM18 9223	4/28/2016 / 1000 / CCH
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	4/28/2016 / 1000 / CCH
Nitrate	1.61	mg/L	10	601	4/27/2016 / 1625 / CRS
Turbidity	1.76	NTU	<10	SM18 2130B	4/28/2016 / 1640 / CRS
Sand	NS	mg/L	5	Visual/Gravimetric	4/27/2016 / 1640 / CRS

NOTES

- 1 mg/L = milligrams per liter (also, parts per million)
- 2 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 3 NS = None Seen (NS indicates less than 5 mg/L)
- 4 NTU = Nephelometric Turbidity Units
- 5 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 6 ND = None Detected; N/A: Not Available
- 7 Sample collected by client, analyzed as received
- 8 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy

Building Permit # : B15002174

Date Reported: 5/4/2016

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #: 107356 Account #: 1930
Reference: Toll Brothers Lot 46 Company: Fogle's Well Drilling
Location: 11211 Independence Way Requested By: Dave Fogle
Ellicott City, MD 21042 Source: Well Water
Date/ Time Collected: 5/13/2016 1516 Site: Kitchen Sink Tap
Date/Time Rec'd: 5/13/2016 1640 Treatment: Prior to Reverse Osmosis
Chlorine ppm: Free: ND Total: ND pH: 6.0
Collected By: J. Fogle 1974JF Well #: HO-95-1254

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Bacteria, Coliform, Total, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	5/14/2016 / 1645 / BCD
Bacteria, E. coli, MPN	<1.0	MPN/ 100 ml	<1.0	SM18 9223	5/14/2016 / 1645 / BCD

NOTES

- 1 MPN/ 100 ml = Most Probable Number [of viable bacteria] per 100 ml of sample.
- 2 Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- 3 ND = None Detected; N/A: Not Available
- 4 Sample collected by client, analyzed as received
- 5 pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy

Building Permit # : B15002174

Date Reported: 5/16/2016

FOUNTAIN VALLEY ANALYTICAL LABORATORY, INC.

1413 Old Taneytown Rd. Westminster, MD (410) 848-1014 (410) 876-4554 FAX (410) 848-0298

REPORT OF ANALYSIS

Laboratory ID #:	106975	Account #:	1930
Reference:	Toll Brothers Lot 46	Company:	Fogle's Well Drilling
Location:	11211 Independence Way Ellicott City, MD 21042	Requested By:	Dave Fogle
Date/ Time Collected:	4/27/2016 1309	Source:	Well Water
Date/Time Rec'd:	4/27/2016 1500	Site:	Kitchen Sink Tap
Chlorine ppm:	Free: ND Total: ND	Treatment:	None
Collected By:	J. Fogle 1974JF	pH:	6.0
		Well #:	N/A

PARAMETERS	RESULTS	UNITS	REFERENCE	METHOD	DATE/TIME/ANALYST
Radium-226	4.6	pCi/L	****	903.1	5/11/2016 / 1307 / MJN
Radium-228	1.8	pCi/L	****	Ra-05	5/10/2016 / 1155 / SN

NOTES

- ****Radium 226 and Radium 228 combined have a reference of 5 pCi/L
- pCi/L = picocuries per liter
- Radium 226 Detection Limit: 0.1 pCi/L; Radium 228 Detection Limit: 0.8 pCi/L
- Results less than or within the reference range are considered satisfactory and within potable water limits at the time of sampling.
- Sub-contracted to Reference Lab #278
- ND = None Detected; N/A: Not Available
- Sample collected by client, analyzed as received
- pH and Chlorine level tested in lab

Reason for Test : Use & Occupancy
Building Permit # : B15002174

Date Reported: 5/13/2016



Bureau of Environmental Health
7178 Columbia Gateway Drive, Columbia, MD 21046-2147
(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

December 10, 2007

Toll Brothers, INC.
7164 Columbia Gateway Dr.
Suite 230
Columbia, MD 21046

RE: Patuxent Chase, Lot #46
Well Tag: HO-95-1254

To Whom It May Concern:

A sample was collected from a yield test October 23, 2007 and submitted to the Department of Health and Mental Hygiene Laboratories to assess the possible presence of **Gross Alpha** and **Gross Beta** in the future well water supply. **Gross Alpha** and **Gross Beta** measure the total alpha and beta particle activity in a water supply. In turn, this can provide information regarding naturally occurring radiation (i.e., Radionuclides) that may exist in your area of development within the County.

Results from this screening revealed a **Gross Alpha** of 7.0 ± 2.0 picocuries/liter (pCi/L); while the **Gross Beta** level was 5.0 ± 2.0 pCi/L. The **Gross Alpha** result was below its **maximum contaminant level (MCL)** of 15 pCi/L, while the **Gross Beta** level was below its target value of 50 pCi/L (roughly equivalent to the annual dose rate of 4 millirems/year).

At the time of testing and with respect to these parameters, the future well water supply appears safe for all uses. No additional testing for these parameters will be required to secure the future Use & Occupancy. However, other standard (potability) testing will still be necessary.

A copy of the test results is enclosed for your information. Please call this office at 410-313-1773 if you have any further questions.

Sincerely,

A handwritten signature in cursive script that reads 'Bert Nixon'.

Bert Nixon, Director
Bureau of Environmental Health

cc: Eric Dougherty, MDE Water Mgmt., Groundwater
Well & Septic File

Send Report To:

Bert Nixon

State of Maryland

DHMH - Laboratories Administration

Division of Environmental Chemistry

RADIATION LABORATORY

201 W. Preston Street, Baltimore, Maryland 21201

John M. DeBoy, Dr. P.H., Director

LABORATORY ANALYSIS REQUEST

Sample Bottle No. A: 140-95-1254 No. B: _____ Field Blank Bottle No. A: _____ No. B: _____

Plant/Site Name: Patuxent Chase - Lot 46 County: Howard

Sample Source: Independence Way Location: 140-95-1254
(well no., lab sink, sample tap, etc.)

County: 3 Plant No.

CHECK (one per box)

Drinking Water	<input checked="" type="checkbox"/>
Landfill	<input type="checkbox"/>
Stream	<input type="checkbox"/>
Other	<input type="checkbox"/>

Community	<input type="checkbox"/>
Non-community	<input type="checkbox"/>
Private	<input checked="" type="checkbox"/>
Other	<input type="checkbox"/>

Source (raw water)	<input checked="" type="checkbox"/>
Distribution (treated)	<input type="checkbox"/>
MCL	<input type="checkbox"/>

Emergency	<input type="checkbox"/>
Routine	<input checked="" type="checkbox"/>
Recheck	<input type="checkbox"/>
Special	<input type="checkbox"/>

Collector: K. Wolf

Telephone No: 410-313-2645

Date Collected: 10/23/07

Time Collected: 11:00 a.m. _____ p.m.

Nitric Acid Preserved: Yes No

Iced: Yes No

Submitters Code: Federal Project: Field Data: _____

Remarks: Sample collected @ end of yield test pH _____ Chlorine _____

✓	Test	EPA Code	Laboratory No.	Results (pCi/L)	Date Reported
✓	Gross Alpha	4000	0946	7±2	10/26/07
✓	Gross Beta	4100	0946	5±2	"
	Radon-222 Bottle A	4004			
	Radon-222 Bottle B	4004			
	Field Blank A	4004			
	Field Blank B	4004			
	Tritium				
	Ra - 226	4020			
	Ra - 228	4030			
	Total Uranium	4006			

Date Received: 10/23/07

Supervisor: S. Wise

50112-8 11:5:28

Program

MARYLAND DEPARTMENT OF THE ENVIRONMENT, WATER MANAGEMENT ADMINISTRATION
 1800 Washington Blvd., Baltimore, Maryland 21230 (410) 537-3784

 WATER WELL ABANDONMENT-SEALING REPORT FORM

SUBMIT COPIES OF COMPLETED FORM TO:

- * COUNTY ENVIRONMENT AGENCY (contact MDE, WMA if address needed)
- * WELL OWNER
- * MDE, WATER MANAGEMENT ADMINISTRATION, WELL PROGRAM

DATE WELL ABANDONED: 7/15/97 (month/day/year)

* PERMIT NUMBER OF ABANDONED WELL (if any)

140 - 75 - 0115
140 - 75 - 1254

* PERMIT NUMBER OF REPLACEMENT WELL

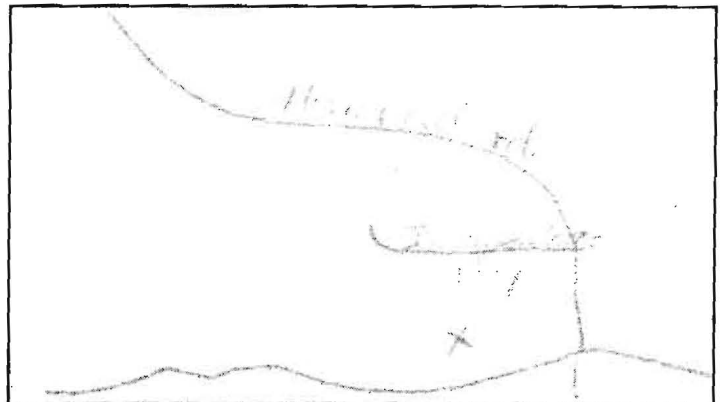
* PERSON ABANDONING WELL: [Signature]

WELL DRILLERS LICENSE NUMBER: 009
 CIRCLE: MWD/MSD/MGD

* OWNER'S NAME: [Signature]

* WELL LOCATION:
 COUNTY: [Signature]
 NEAREST TOWN: [Signature]
 TAX MAP BLOCK PARCEL
 SUBDIVISION:
 SECTION: LOT: #46
 NEAREST ROAD: [Signature]

SITE LOCATION MAP



* TYPE OF WELL BEING ABANDONED:

- DRILLED JETTED
- BORED/AUGERED HAND DUG
- OTHER (specify)

* USE CODE:

- DOMESTIC MUNICIPAL/PUBLIC
- IRRIGATION INDUSTRIAL
- TEST/OBSERVATION GEOTHERMAL

* TYPE OF CASING:

- STEEL PLASTIC
- CONCRETE OTHER (specify)

* SIZE OF CASING: INCHES IN DIAMETER

* DEPTH OF WELL: FEET DEEP

* WAS ANY CASING REMOVED? YES NO
 if yes, length removed, in feet: 15 - MC Bonds

* WAS CASING RIPPED OR PERFORATED? YES NO

LOG OF SEALING MATERIAL

MATERIAL	FEET	
	FROM	TO
VOLUME OF MATERIAL USED		
<u>27</u>		

SIGNATURE-MASTER WELL DRILLER OR SUPERVISING SANITARIAN _____ LICENSE # _____ CIRCLE ONE _____ DATE _____



C1 0116

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND WELL COMPLETION REPORT

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER 13 A515042

1 2 3 6 (THIS NUMBER IS TO BE PUNCHED IN COLS. 3-6 ON ALL CARDS)

ST/CO USE ONLY

DATE WELL COMPLETED

Depth of Well

PERMIT NO.

FROM "PERMIT TO DRILL WELL" H0-95-0135

DATE Received MM DD YY

11 08 05

22 300 26 (TO NEAREST FOOT)

OK 3/2/05

OWNER Toll Brothers Homes, STREET OR RFD Independence Way, TOWN Ellicott City, SUBDIVISION Benedict Farm, SECTION, LOT 46

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

Table with columns: DESCRIPTION, FEET (FROM, TO), check if water bearing. Rows include MEDIUM TAN, HARD GRAY TAN, HARD TAN, MEDIUM HARD TAN, HARD GRAY.

GROUTING RECORD

WELL HAS BEEN GROUTED (Y/N), TYPE OF GROUTING MATERIAL (CEMENT CM, BENTONITE CLAY BC), NO. OF BAGS 22, NO. OF POUNDS 2015, GALLONS OF WATER 131, DEPTH OF GROUT SEAL 87 ft.

CASING RECORD

MAIN CASING TYPE PL, Nominal diameter 6, Total depth 88, OTHER CASING (if used) diameter, depth (feet).

SCREEN RECORD

screen type or open hole (ST, BR, HO, PL, OT), DEPTH (nearest ft.) 87, 300.

C3

PUMPING TEST

HOURS PUMPED 3, PUMPING RATE 12 gal. per min., METHOD USED TO MEASURE PUMPING RATE Timer/bucket, WATER LEVEL BEFORE PUMPING 38 ft., WHEN PUMPING 220 ft., TYPE OF PUMP USED (for test) S submersible.

PUMP INSTALLED

DRILLER INSTALLED PUMP YES NO, IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS, TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29, CAPACITY: GALLONS PER MINUTE (to nearest gallon) 31 35, PUMP HORSE POWER 37 41, PUMP COLUMN LENGTH (nearest ft.) 43 47, CASING HEIGHT (circle appropriate box and enter casing height) above 49 below 1 (nearest foot).

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED YES Y NO N

CIRCLE APPROPRIATE LETTER A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED, E ELECTRIC LOG OBTAINED, P TEST WELL CONVERTED TO PRODUCTION WELL.

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 3 5 5, DRILLERS SIGNATURE, LIC. NO. D

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER) T (E.R.O.S.) W Q

70 72 74 75 76 TELESCOPE CASING LOG INDICATOR OTHER DATA

B 1 6508

SEQUENCE NO. (MDE USE ONLY)

STATE OF MARYLAND APPLICATION FOR PERMIT TO DRILL WELL

STATE PERMIT NUMBER

HO-95-0135

523472 please type

fill in this form completely

Date Received (APA) 10/11/2005

OWNER INFORMATION

Toll Brothers, Inc. 1164 Columbia Gateway Dr. St. 230 Columbia MD. 21046

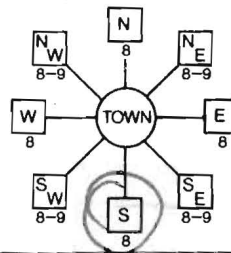
LOCATION OF WELL

Howard Co. 23 SUBDIVISION 44 46 SECTION 48 50 LOT 416 Clarksville

DRILLER INFORMATION

Michael Barlow MWD 355 Driller's Name License No. Michael Barlow Well Drilling Inc. Firm Name 522 Underwood Ln. Bel Air MD. 21034 Address 9/20/05 Date Signature

DIRECTION OF WELL FROM TOWN (CIRCLE BOX)



Independence Way 11 NEAR WHAT ROAD 30

ON WHICH SIDE OF ROAD (CIRCLE APPROPRIATE BOX) NORTH SOUTH WEST EAST DISTANCE FROM ROAD 34 30 37 ENTER FT OR MI 38 39 TAX MAP: 29 BLK: 9 PARCEL 28

WELL INFORMATION APPROX. PUMPING RATE (GAL. PER MIN.) 5 AVERAGE DAILY QUANTITY NEEDED (GAL. PER DAY) 500

USE FOR WATER (CIRCLE APPROPRIATE BOX)

- DOMESTIC POTABLE SUPPLY & RESIDENTIAL IRRIGATION (circled) FARMING (LIVESTOCK WATERING & AGRICULTURAL IRRIGATION) INDUSTRIAL, COMMERCIAL, DEWATERING PUBLIC WATER SUPPLY WELL TEST, OBSERVATION, MONITORING GEO-THERMAL

NOT TO BE FILLED IN BY DRILLER HEALTH DEPARTMENT APPROVAL

Howard 13 A515042 COUNTY NAME COUNTY NO. STATE SIGNATURE INSERT S DATE ISSUED 10/13/2005 Brian Baber 10/13/2006 CO SIGNATURE EXP. DATE NORTH GRID 510 000 EAST GRID 828 000

APPROXIMATE DEPTH OF WELL 250 FEET

APPROXIMATE DIAMETER OF WELL 6 INCH

METHOD OF DRILLING (circle one)

BORED (or Augered) JETTED Jetted & DRIVEN AIR-ROTary AIR-PERCussion ROTARY (Hydraulic Rotary) CABLE REVERSE-ROTary DRIVE-POINT

REPLACEMENT OR DEEPEMED WELLS (CIRCLE APPROPRIATE BOX)

- THIS WELL WILL NOT REPLACE AN EXISTING WELL (circled) THIS WELL WILL REPLACE A WELL THAT WILL BE ABANDONED AND SEALED THIS WELL WILL REPLACE A WELL THAT WILL BE USED AS A STANDBY-CONTACT LOCAL APPROVING AUTHORITY FOR POLICY ON STANDBY WELLS THIS WELL WILL DEEPEM AN EXISTING WELL PERMIT NUMBER OF WELL TO BE REPLACED OR DEEPEMED (IF AVAILABLE)

SHOW MAJOR FEATURES OF BOX & LOCATE WELL WITH AN X

SOURCES OF DRILLING WATER 1. 2. 3.

WRITE THE BOX NUMBER FROM THE MAP HERE

E 83028 N 510

DRAW A SKETCH BELOW SHOWING LOCATION OF WELL IN RELATION TO NEARBY TOWNS AND ROADS AND GIVE DISTANCE FROM WELL TO NEAREST ROAD JUNCTION

N



MD RT 108

Howard Rd.

Harpers Farm Rd.

Not to be filled in by driller (MDE OR COUNTY USE ONLY)

APPROP. PERMIT NUMBER H-02003-0006

PERMIT No. HO-95-0135

SPECIAL CONDITIONS

NOTE: APPROVING AUTHORITIES SHOULD USE SEPARATE SHEET IF NEEDED.

**HOWARD COUNTY HEALTH DEPARTMENT
BUREAU OF ENVIRONMENTAL HEALTH
WELL & SEPTIC PROGRAM
TEL: (410)313-1771 FAX: (410)313-2648**

Information Form for the Installation of the Well Pump, Pitless Adapter, and Supply Piping

NOTE: The installer is responsible for requesting an inspection prior to 9 am on the day of the desired inspection. No work is to be covered until approved by the Health Department. All installations must comply with the National Standard Plumbing Code (NSPC, as amended locally) and COMAR 26.04.04 (MD Well Construction Regulations). Submission of a complete form is required prior to Use and Occupancy approval.

Company Name: _____ Telephone #: _____
Address: _____

(**Must circle one**) Licensed Plumber Licensed Well Driller Licensed Well Pump Installer

License # and name of individual responsible for the field installation:

Name (Print): _____ License# _____

***A licensed individual must perform the actual installation. Apprentices must be under the supervision of a licensed journeyman or master plumber, pump installer or well driller. Licenses may be subjected to field verification. Unlicensed individuals may be reported to the appropriate licensing agency.**

Name of Property Owner: _____ Telephone #: _____
Subdivision: _____ Lot #: _____ Well Tag #: **HO** - ____ - _____
Site Address: _____

Submersible Pump Data

Make: _____
Model #: _____
Pump Capacity _____ GPM
Well Yield: _____ GPM

Pitless Adapter

Make: _____
Model#: _____
Depth: _____ (36" min)
NSF/WSC approved: _____

Well Cap and Electric Conduit

Two piece watertight cap: _____
Screened, vented well cap: _____
Cap secured to casing: _____
Conduit min 18" B.G.: _____

Depth of well encountered at time of pump installation: _____ (feet) Conduit secured to well cap: _____

If pump capacity exceeds well yield, a low water cut off switch is required by NSPC 1990 Section 17.8.4

Torque arrestors, Cable guards, or other acceptable method used- Must circle one

Safety rope, if used, attached to brass rope adapter or other acceptable method inside of well casing _____

Piping to house

Type: _____
PSI: _____ (160 psi min)
Depth of supply line: _____ (36" min)

House Connection

PVC sleeve to undisturbed soil at wall penetration: _____
Length of sleeve(5' minimum from foundation): _____
Sleeve sealed properly: _____

The water supply line is required to be at least ten feet from the septic tank, pump chamber, sewage piping, distribution box, drainfields, and sewage reserve area. If this cannot be accomplished, contact this office for approval prior to installation.

Signature of company representative responsible for installation _____ date _____

For Health Department Use Only – Not to be completed by Installer

Date Insp. Requested: _____ Date Insp. Approved: _____ Inspector: _____

Inspection Data: Pitless adapter watertight & water supply line at least 36" below grade _____
Two piece cap installed and attached to casing securely _____
Elec. conduit extends at least 18" below grade/attached to cap properly _____
Safety rope not outside of well cap/casing _____
Correct well tag attached properly and casing 8" above finished grade _____
Water supply line sleeved adequately at house connection _____
Adequate grout observed below pitless adapter _____

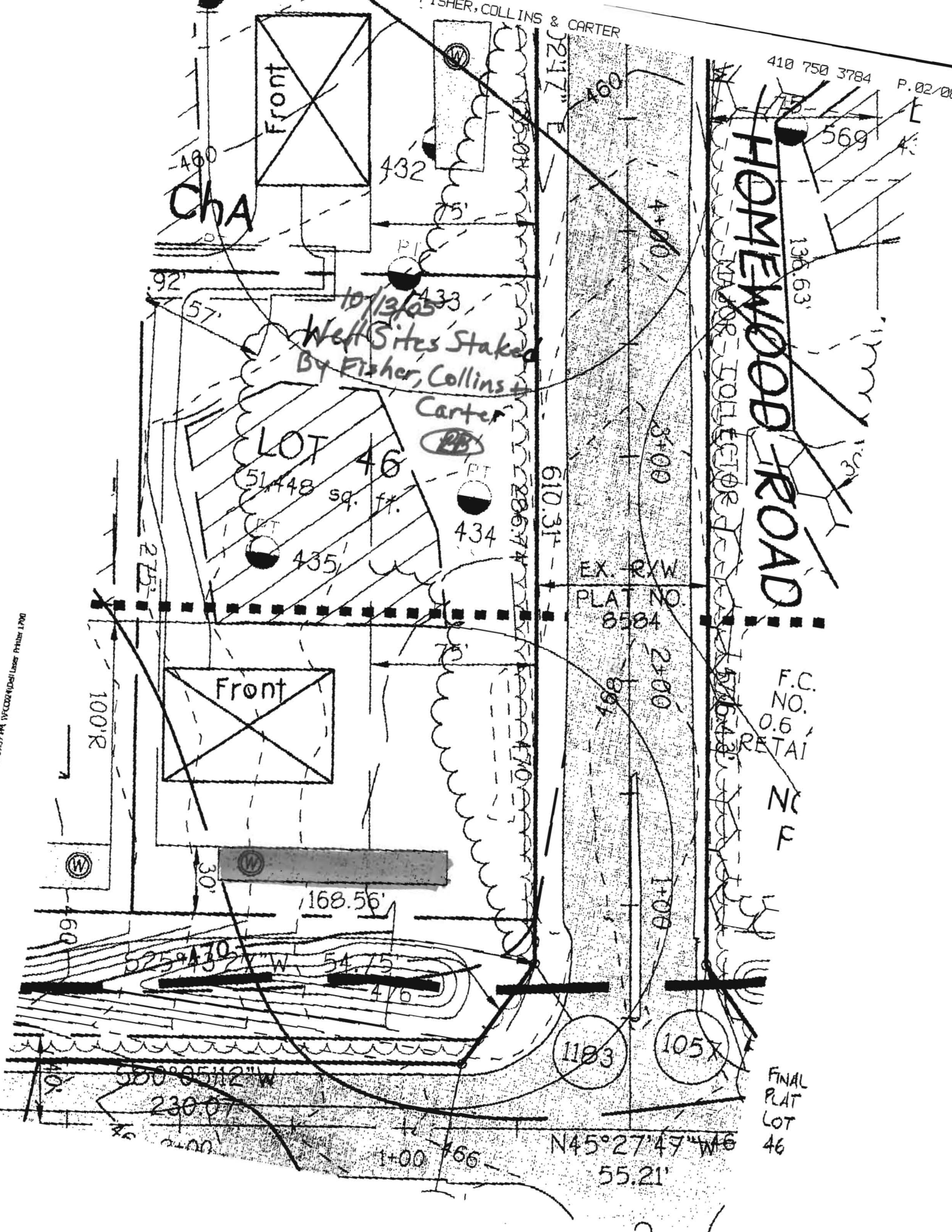


Map Tools

Terms of Use

Top
Culvert
Arrow





HOMEWOOD ROAD

10/13/05 Well Sites Staked By Fisher, Collins & Carter

LOT 46 51,448 sq. ft.

EX. RW PLAT NO. 8584

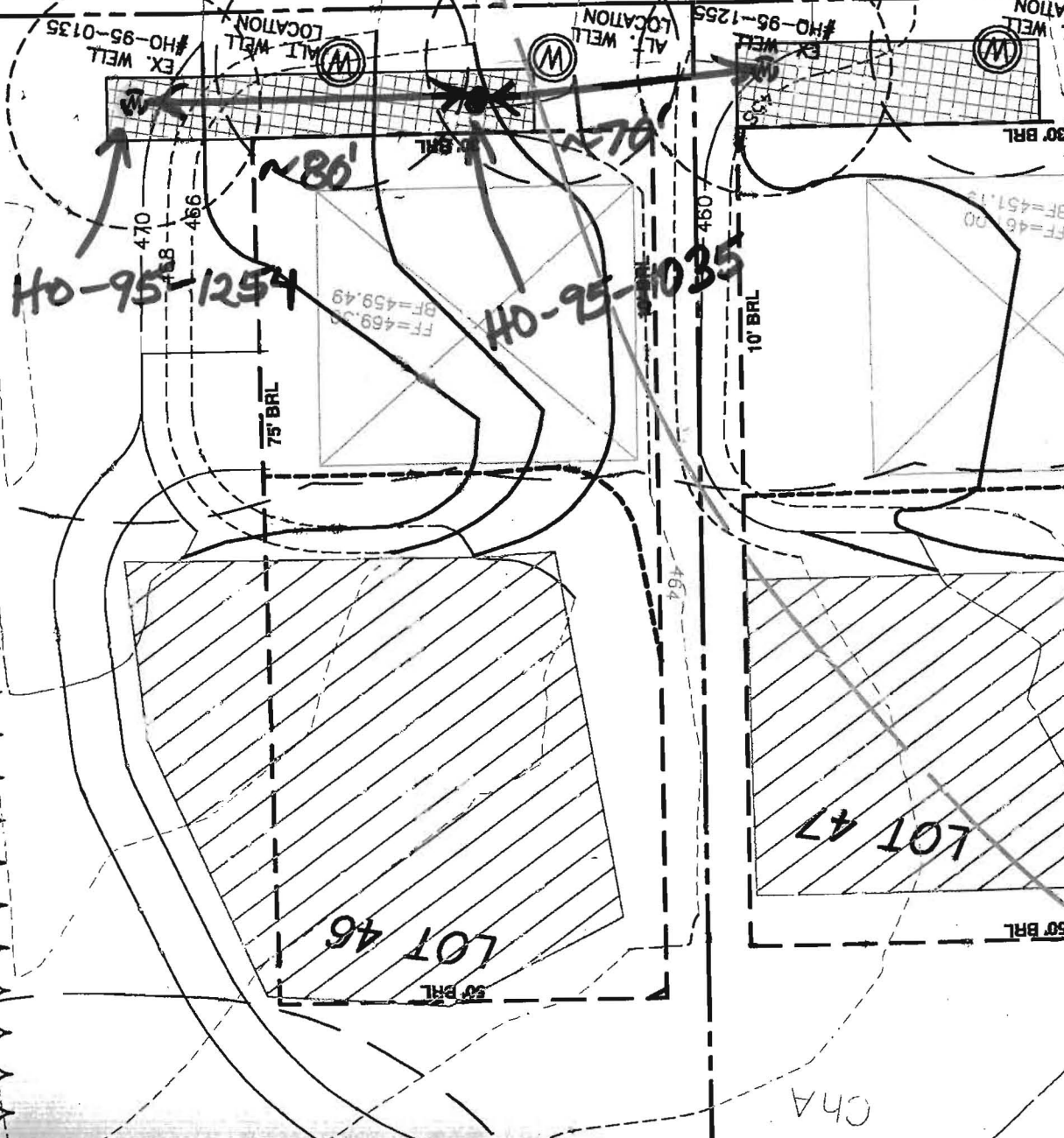
F.C. NO. 0.6 RETAI

N F

FINAL PLAT LOT 46

3:06:206 2:51:37 PM WPC0241061 Laser Printer 1700

HOMWOOD ROAD



PRIVATE USE-IN-COMMON
ACCESS EASEMENT
FOR LOTS 45 - 48

LOT 45

9/20/07
Well Site Staked
by Benchmark
(BB)

LOT 47

LOT 46

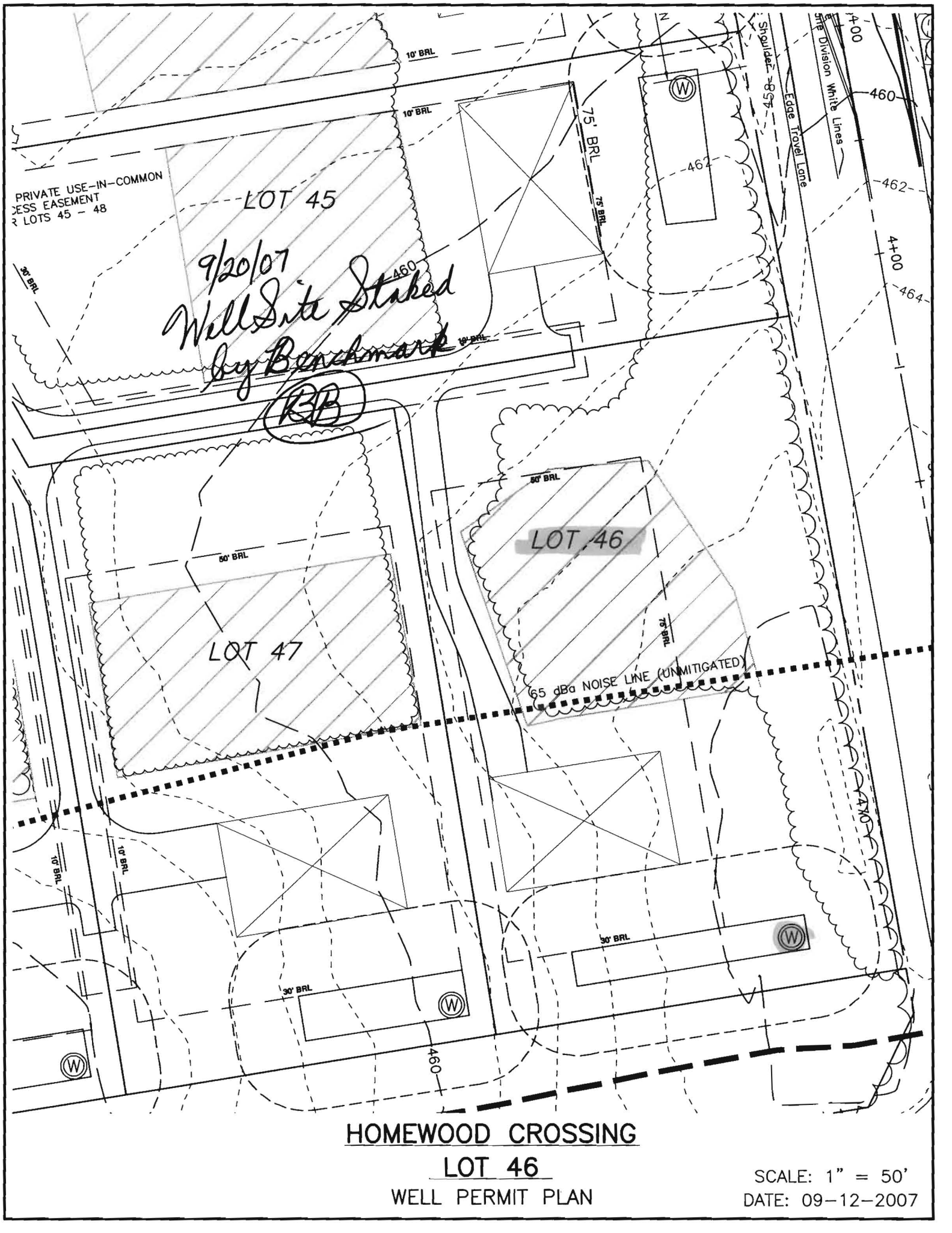
65 dBA NOISE LINE (UNMITIGATED)

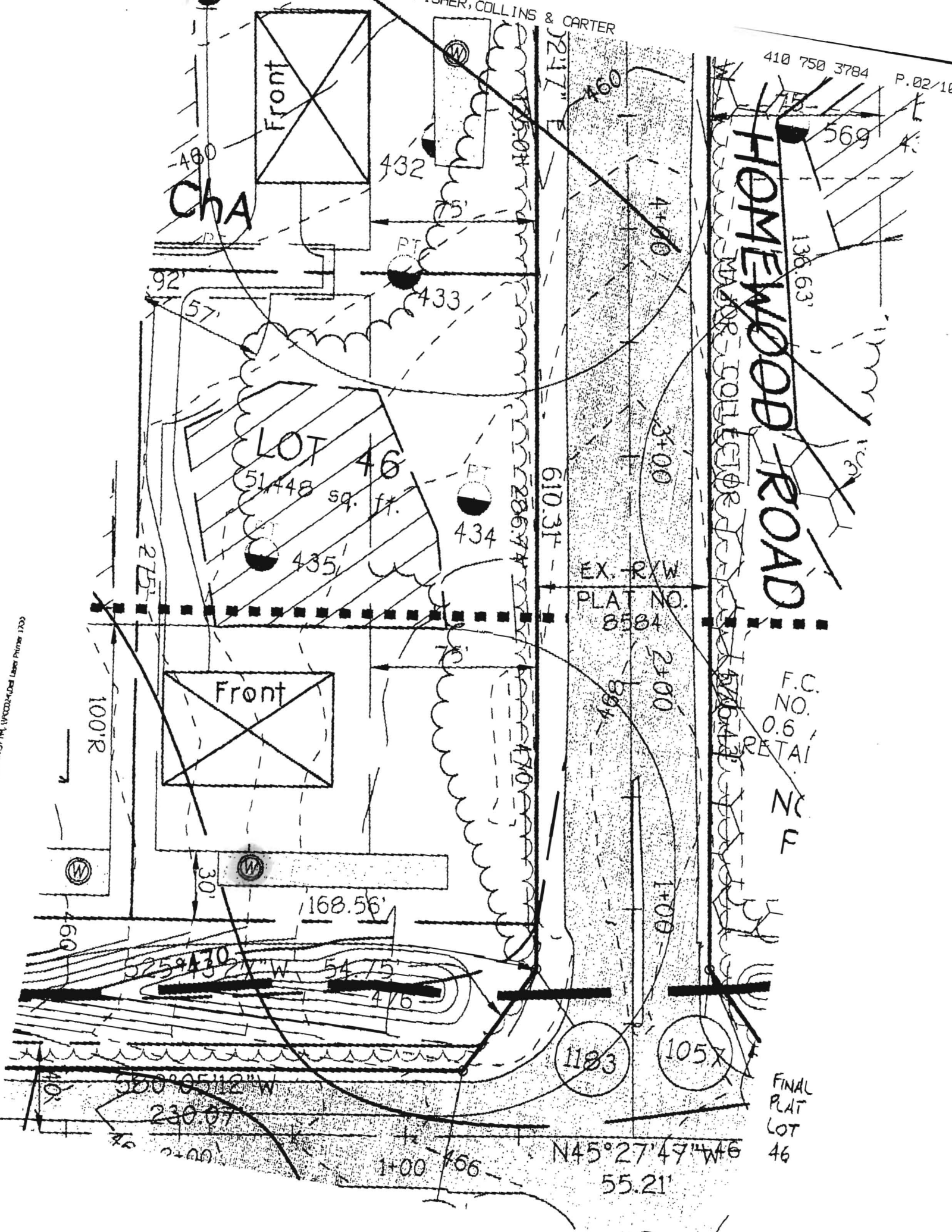
HOMEWOOD CROSSING

LOT 46

WELL PERMIT PLAN

SCALE: 1" = 50'
DATE: 09-12-2007





HOMEWOOD ROAD

EX. R/W
PLAT NO.
8584

F.C.
NO.
0.6
RETAI
N
P

FINAL
PLAT
LOT
46

10/20/2006 2:59:37 PM 11/03/2004 Del Laser Printe 1203

Check well locations
& rights

Corner of
Homewood Road
& Clarksville Pike.

Lot 46 Homewood
Crossing

two wells drilled

95-1254

10-28-07

95-0135

11-8-05