CRD

TO: DEPT. OF PUBLIC WORKS & ENVIRONMENTAL SERVICES-(DPW&ES)
RESIDENTIAL INSPECTIONS BRANCH-(OBCS)

FROM: HEALTH DEPARTMENT/ENVIRONMENTAL SERVICES SECTION

RE: NOTIFICATION OF ISSUANCE OF SEPTIC TANK PERMIT AND/OR WELL PERMIT

DATE: MARCH 17, 1999

OWNER'S NAME: LOWES ISLAND L.C.

BUILDING APPLICATION NUMBER: 99062B0650

SUBDIVISION: CASCADES ESTATES SEC: 12A BLOCK: _____ LOT: 4

TAX MAP IDENTIFICATION: 2-2-003-4

PROPERTY ADDRESS: 333 SINEGAR PLACE, GREAT FALLS VIRGINIA 22066

HEALTH DEPARTMENT PERMIT # : 129-99-0318

PERMIT ISSUED FOR: [X] SEWAGE DISPOSAL [ ] WELL [ ] OTHER

TO SERVE: [X] RESIDENTIAL [ ] COMMERCIAL [ ] OTHER DESCRIBE: _____

SEWAGE DISPOSAL SYSTEM DESIGNED FOR FIVE BEDROOMS OR 750 GPD
(ALL PERMITS FOR DWELLING ARE DESIGNED TO INCLUDE AUTOMATIC WASHER AND GARBAGE DISPOSAL)

REMARKS:
THE ABOVE TO BE FAXED TO PERMITS DIVISION (OBCS) AND ORIGINAL TO BE ATTACHED WITH PERMIT.

NOTIFICATION OF FINAL APPROVAL:

SEWAGE DISPOSAL SYSTEM

APPROVED: 10-21-1999

ENTERED
CB gm

WATER SUPPLY SYSTEM

APPROVED: PUBLIC

John M. Miller
SIGNATURE

UPON FINAL APPROVAL, ONE COPY TO BE FAXED TO RESIDENTIAL INSPECTIONS BRANCH, ORIGINAL TO BE ATTACHED ON TOP OF FILE

NUMBER OF BEDROOMS AT FINAL INSPECTION: 5
STICKER PLACED: YES INITIALS: DCM

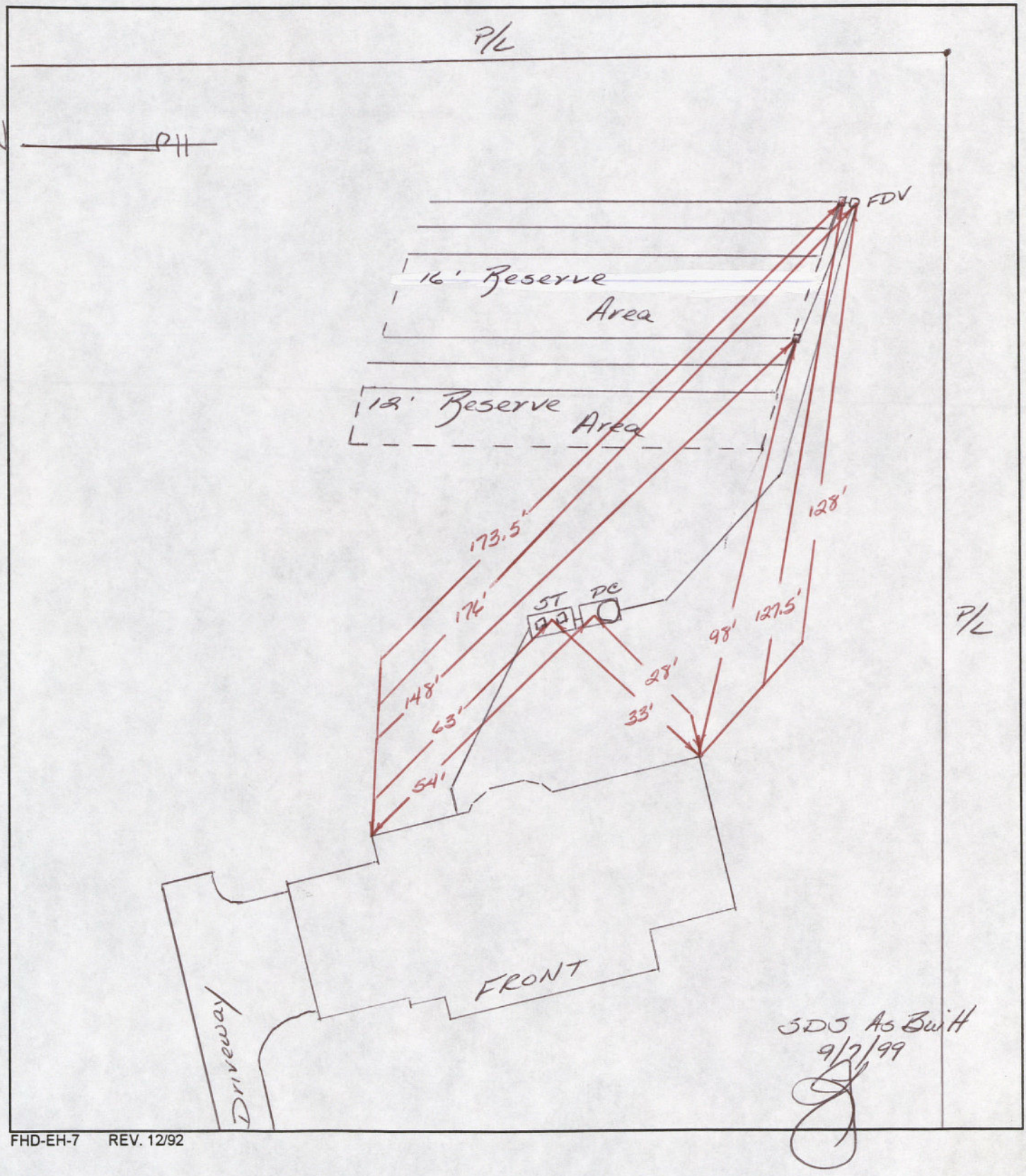
10-21-99
** FDV (CHECK ONE) X YES ☐ NO

FHD-EH-3 REV. 8/98

F[redacted]FAX COUNTY HEALTH DEPART[redacted]NT
SEWAGE DISPOSAL SYSTEM/WELL WATER SUPPLY AS-BUILT

Tax Map ID: 2-2-003-4 Street Address: 333 Vinegar Place

Subdivision: Cascade Estates City, State, Zip: Great Falls, VA 22066




FHD-EH-7 REV. 12/92

# Completion Statement

**Commonwealth of Virginia**
**State Department of Health**

Health Department Identification Number 189-99-0318

Fairfax Co. Health Department

Name of Company/Corporation/Individual: Hott And Sons Excavating

Address: 43072 Goose Glen La. Ashburn Telephone: 703-689-1066

Owner's Name Lowes Island, L.L.C.

Owner's Address 333 Sinegar Place Great Falls, VA 22066

Location of Installation: Lot 4 Block

Section: 12A Subdivision: Cascades Estates

Other: TM# 2-2-003-4

I hereby certify that the onsite sewage disposal system has been installed and completed in accordance with the construction permit issued (date) 7-27-99 and is in compliance with Part D of the Sewage Handling and Disposal Regulations and when appropriate the plans and specifications for the project.

10-29-99
Date

Signature and Title

C.H.S. 203 Rev. 4/83 FDV Key provided to owner: T.K.

# Water Supply and/or Sewage Disposal System Construction Permit

**Commonwealth of Virginia**
**Department of Health**
FAIRFAX COUNTY Health Department

Health Department Identification Number 129-99-0318
Map Reference 2-2-003-4

## General Information

Water Supply System: New ____ Repair ____ Public X FHA ____ VA ____ Case No. ____
Sewage Disposal System: New X Repair ____ Expanded ____ Conditional ____ Public ____

Based on the application for a sewage disposal system construction permit filed in accordance with Section 2.13 E, of the Sewage Handling and Disposal Regulations and/or Section 2.13 of the Private Well Regulations a construction permit is hereby issued to:

Owner LOWES ISLAND, L.C. Telephone ____
Address 6820 ELM STREET, MCLEAN, VA 22101 For a Type II Sewage Disposal System or Well to be constructed on/at 333 SINEGAR PLACE, GREAT FALLS, VIRGINIA 22066
Subdivision CASCADES ESTATES Section/Block 12A Lot 4 Actual or estimated water use 750gpd; 5 Bedroom

| Five bedrooms = **DESIGN** | **NOTE: SEWAGE DISPOSAL SYSTEM INSPECTION RESULTS** |
|---|---|
| **Water supply, existing:** (describe) PUBLIC<br>**To be installed:** class N/A<br>cased N/A grouted N/A | **Water supply location:** Satisfactory yes ☐ no ☐<br>comments N/A<br>Completion Report<br>G. W. 2 Received: yes ☐ no ☐ not applicable ☒ |
| **Building sewer:**<br>4" I.D. PVC Schedule 40, or equivalent.<br>~~Slope 1.25" per 10' (minimum).~~<br>☒ Other ¼" per foot fall. | **Building sewer:** yes ☒ no ☐ comments<br>Satisfactory<br>4" PVC Sch 40 |
| **Septic tank:** Capacity 1500 gals. (minimum).<br>☐ Other | **Pretreatment unit:** yes ☒ no ☐ comments<br>Satisfactory MFR TAPP GALLONS 1500FX |
| **Inlet-outlet structure:**<br>PVC Schedule 40, 4" tees or equivalent.<br>☐ Other | **Inlet-outlet structure:** yes ☒ no ☐ comments<br>Satisfactory 2" fall |
| **Pump and pump station:**<br>No ☐ Yes ☒ describe and show design.<br>if yes: As per pumping plans approved 5/28/99. | **Pump & pump station:** yes ☒ no ☐ comments<br>Satisfactory MFR TAPP gallons 1125 FX |
| **Gravity mains:** 4" or larger I.D., minimum 6" fall per 100', 1500 lb. crush strength or equivalent.<br>X☐ Other Flow Diversion Valve (FDV) | **Conveyance method:** yes ☒ no ☐ comments<br>Satisfactory Bull Run<br>MFR ~~Concord~~ Setting 1 |
| **Distribution box:**<br>Precast concrete with 8 ports. e@ box<br>☒ Other 4 Boxes | **Distribution box:** yes ☒ no ☐ comments<br>Satisfactory<br>TYPE Concrete DAMS Dial-A-Flows |
| **Header lines:**<br>Material: 4" I.D. 1500 lb. crush strength plastic or equivalent from distribution box to 2' into absorption trench. Slope 2" minimum.<br>☐ Other | **Header lines:** yes ☒ no ☐ comments<br>Satisfactory |
| **Percolation lines:**<br>Gravity 4" plastic 1000 lb. per foot bearing load or equivalent, slope 2" 4" (min. max.) per 100'.<br>☐ Other perc. = 20 rate @ | **Percolation lines:** yes ☒ no ☐ comments<br>Satisfactory<br>64" |
| **Absorption trenches:**<br>Square ft. required 1092 : depth from ground surface to bottom of trench 64" ; aggregate size ¾" to 1½"<br>Trench bottom slope 2" to 4" per 100' ;<br>center to center spacing 6' ; trench width 2'<br>Depth of aggregate 44" ; 36" under pipe<br>Trench length 91' ; Number of trenches 6 | **Absorption trenches:** yes ☒ no ☐ comments<br>Satisfactory<br>BF 12-16" min FG 12-16" |
| | Date 10/29/99 Inspected and approved by:<br>Sanitarian |

10/29/1999

C.H.S 202A SDS CONTRACTOR:
Hott And Sons Excavating

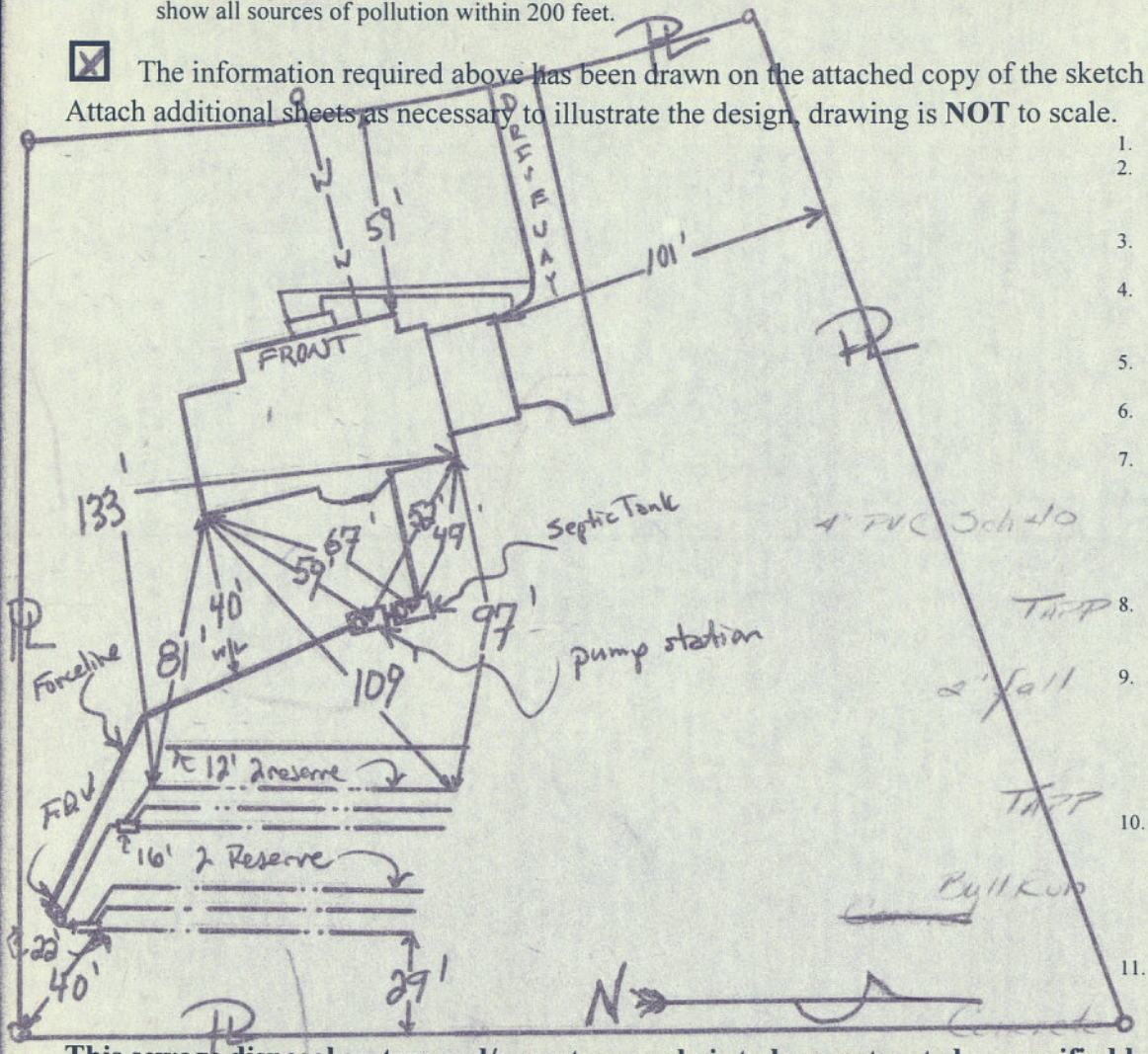
TAX MAP # 2-2-0034

Health Department
Identification Number 129-99-0318

## Schematic drawing of sewage disposal and/or water system and topographic features.

Show the lot lines of the building site, sketch of property showing any topographic features which may impact on the design of the well or sewage disposal system. Including existing and/or proposed structures and sewage disposal systems and wells within 200 feet. The schematic drawing of the well site or area and/or sewage disposal system shall show sewer lines, pretreatment unit, pump station, conveyance system, and subsurface soil absorption system, reserve area, etc. When a nonpublic drinking water supply is to be permitted, show all sources of pollution within 200 feet.

☒ The information required above has been drawn on the attached copy of the sketch submitted with the application. Attach additional sheets as necessary to illustrate the design, drawing is **NOT** to scale.




1. Grade per site approved by this office.
2. Install system as shown; a minimum of 10' from trees, property lines and utility lines.
3. Maximum backfill over system is not to exceed 20".
4. It is the contractors responsibility to meet all OSHA regulations relating to deep excavations.
5. House sewer line must be inspected by this Department to a point 3' from the dwelling.
6. Flow Diversion Valve (FDV) key must be provided to owner prior to occupancy.
7. *UPON COMPLETION OF FINAL GRADING AND WELL (if applicable), CALL THIS OFFICE (246-2201) FOR FINAL INSPECTION(S) A MINIMUM OF 30 DAYS PRIOR TO REQUEST FOR RESIDENTIAL USE PERMIT.*
8. Install system in accordance with all applicable State Regulations and County code.
9. Install an access manhole on the outlet port of the septic tank for inspection and sludge removal. The manhole must have a removable water tight and air tight cover installed flush with or above the ground surface and marked sewer.
10. Section 68-1-29 of the Fairfax County Code *requires* pumping of the septic tank once every five years. The owner of the property is *required* to provide written notification and proof to this Department each time the tank is pumped.
11. Do not install system during periods of wet weather and/or rain events.

**This sewage disposal system and/or water supply is to be constructed as specified by the permit ____ or attached plans and specifications X.**

This sewage disposal system and/or well construction permit is null and void if (a) conditions are changed from those shown on the application (b) conditions are changed from those shown on the construction permit (c) conditions are changed on the drainfield site.

No part of any installation shall be covered or used until inspected, corrections made if necessary, and approved, by the local health department or unless expressly authorized by the local health department. Any part of any installation which has been covered prior to approval shall be uncovered, if necessary upon the direction of the Department.

**Date:** 7-27-99 **Issued by:** _____ C.P.S.S., R.E.H.S.
Environmental Health Specialist

**Date:** 7-27-1999 **Reviewed by:** _____
Environmental Health Supervisor

This Construction Permit Valid until 12, 2000

# Commonwealth of Virginia

Fairfax County
DEPARTMENT OF HEALTH SERVICES

## PERMIT

HD Number:
129-99-0318

Sewage Disposal System Operation Permit

Date of Issue:
10/29/99

TO: LOWES ISLAND LC
333 SINEGAR PL
GREAT FALLS, VA
22066-

The above operator has made application and in accordance with the regulations of the Board of Health of the Commonwealth of Virginia is authorized by the Fairfax County Health Department to operate an Individual Onsite Sewage Disposal System with an actual or estimated water use of 750 GPD for a 5 bedroom dwelling.

Environmental Health Specialist

EHS Supervisor

Robert B. Stroube, M.D., M.P.H.
Director of Health Services

This permit must be displayed in a conspicuous location. Permit is non-transferrable.

File 1958

# ENVIRONMENTAL SERVICES SECTION
## FOLLOW-UP REPORT

Owner's Name Lowes Island L.C.

Tax Map: 8 - 2 | 1003 | | 4
Map Grid Sub Block Lot

Street Address 933 Sinegar Place

Subdivision Cascades Estates

City, State, Zip Great Falls, VA 22066

Phone # _____

| DATE | COMMENTS | RESCH DATE | INITIALS |
|---|---|---|---|
| ~~10/27~~ | | | |
| 10/28/99 | cover over lines OK, however, loader has left ruts in the wet earth. This will have to be fine graded and reinspected | 11/9/99 | |
| 10/29/99 | INSP FINAL GRADE - D.F. AREA IS NOW RINE RAKED, SEEDED & STRAWED. FG IS NOW O.K. HOTT NOT PRESENT TO SIGN COMPL. STMT., BUT IS "ON HIS WAY". WILL PICK UP NEXT INSP AND BUILDER WILL ARRANGE FOR HOTT TO BE HERE IN 1 HOUR. | | |
| 1 HR LATER | - HOTT NOW ON SITE TO SIGN COMPL. STATEMENT. ALL IS NOW READY FOR FINAL APPROVALS. | APPROVED | |
| | PLACED GREEN STICKER ON ELEC. BOX | FILE C | DCM |

REV. 10-90
FHD-EH-6

PERMIT # 129-99-038

2-2-003-4

LOCATION 33 ~~Sheagar~~ Sheagar Place
Subdivision or Tax Map Ref. GL Ferry, Lt

PART I ~~WATER SUPPLY INSPECTION REPORT~~ (To Supplement LHS-143)

Well Installed By _____ Pump Installed By _____

I. GROUT INSPECTED..... ____ ____
Date Sanitarian

II. PIPE & ELECTRIC WIRE FROM WELL TO STORAGE TANK APPROVED ____ ____
Date Sanitarian

III. TYPE OF INSTALLATION: /__/ PITLESS ADAPTOR /__/ PIT /__/ SURFACE
(4" Drain) (Drain) ____ ____
Date Sanitarian

PUBLIC WATER

IV. STORAGE TANK..... ____ ____
Date Sanitarian

Gate Valve____ Sample Tap and Elec. Dis. Switch____
Check Valve____ Backflow Preventer____ Press. Relief Valve____

V. INITIAL WATER SAMPLE COLLECTED..... ____ ____
Date Sanitarian

SDS Notes

| DATE | RECORD OF ADDITIONAL REMARKS OR VISITS | DISPOSITION | SANITARIAN |
|---|---|---|---|
| 7/27/99 | OK to issue SDS permit. | Hold | JMD |
| | | | |
| | | | |
| | | | |

PART II SEWAGE DISPOSAL SYSTEM INSPECTION REPORT (To Supplement LHS-141)

| DATE | RECORD OF REMARKS AND VISITS | DISPOSITION | SANITARIAN |
|---|---|---|---|
| 9/7/99 | Inspected SDS. Sewer line, septic tank, pump chamber, force main, lower d-box, header lines & trenches OK to backfill. FDV leaks. FDV and upper d-box to remain uncovered | Hold | |
| 10/28/99 | Inspected SDS. FDV valve now OK Great Falls Septic had scheduled the inspection for Lot 3 but wanted Lot 4 therefore no paperwork for Lot 4 at time of inspection. Pumps OK. Bedroom count OK. Depth of | cont. | |

PERMIT # 129-99-0318

TM; 2-2-003-4

LOCATION CASCADES ESTATES SEC. 12A LOT 4
Subdivision or Tax Map Ref.

PART I WATER SUPPLY INSPECTION REPORT (To Supplement LHS-143)

Well Installed By _____ Pump Installed By _____

I. GROUT INSPECTED..... _____ Date _____ Sanitarian

II. PIPE & ELECTRIC WIRE FROM WELL TO STORAGE TANK APPROVED _____ Date _____ Sanitarian

III. TYPE OF INSTALLATION: / / PITLESS ADAPTOR / / PIT / / SURFACE
(4"Drain)(Drain) _____ Date _____ Sanitarian

IV. STORAGE TANK..... _____ Date _____ Sanitarian

Gate Valve ____ Sample Tap and Elec. Dis. Switch ____
Check Valve ____ Backflow Preventer ____ Press. Relief Valve ____

V. INITIAL WATER SAMPLE COLLECTED..... _____ Date _____ Sanitarian

| DATE | RECORD OF ADDITIONAL REMARKS OR VISITS | DISPOSITION | SANITARIAN |
|---|---|---|---|
| | | | |
| | | | |
| | | | |
| | | | |

PART II SEWAGE DISPOSAL SYSTEM INSPECTION REPORT (To Supplement LHS-141)

| DATE | RECORD OF REMARKS AND VISITS | DISPOSITION | SANITARIAN |
|---|---|---|---|
| 5-20-99 | Rec sgl GP dlc $50 ~~due~~ SLD NO | Pd 5/20/99 | cj |
| 5/18/99 | approx | | cj |
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FHD-EH-13 10-80

1958

RECEIVED
MAR - 5 1999

# FAIRFAX COUNTY HEALTH DEPARTMENT

## PERMIT APPLICATION

MARK ALL APPLICABLE BOXES:

(X) NEW CONSTRUCTION ( ) SEWAGE DISPOSAL SYSTEM PERMIT ( ) INDIVIDUAL WELL WATER SUPPLY PERMIT
( ) ADDITION/REMODELING ( ) WELL ABANDONMENT ( ) SEWAGE DISPOSAL SYSTEM EXPANSION

TO BE COMPLETED BY THE APPLICANT PLEASE PRINT CLEARLY

OWNER Lawes Island LC. ADDRESS 6820 Elm St. PHONE
McLean, Va ZIP 22101
AGENT Nina Antonowics ADDRESS 12506 Old Yates Ford Rd PHONE 968-7159 #5
Sade
Clifton, Va ZIP 22024
SUBDIVISION Cascades Estates SECTION 12A BLOCK LOT 4
PROPERTY ADDRESS 333 Sinegar Place TAX MAP 0022-[redacted]-03-0004
GREAT FALLS VA 22066

(X) RESIDENTIAL
Sewage: (X) Septic Tank ( ) Public ( ) Other ( ) Basement - Plumbing in Basement ( ) Yes ( ) No
Number of Potential Bedrooms 5
Water: ( ) Well (X) Public ( ) Other

( ) COMMERCIAL
Sewage: ( ) Septic Tank ( ) Public ( ) Other Estimated Number of Patrons Number of Employees
Estimated Daily Water Usage Gallons
Water: ( ) Well ( ) Public ( ) Non-Community ( ) Other

**DESCRIBE ADDITION/REMODELING:** New SFD

I GIVE PERMISSION TO THE HEALTH DEPARTMENT TO ENTER ONTO THE PROPERTY DESCRIBED FOR THE PURPOSE OF PROCESSING THIS APPLICATION. I UNDERSTAND A SUBSTANTIAL PHYSICAL CHANGE TO THE PROPERTY MAY VOID APPROVAL OF THE LOT FOR AN ONSITE SEWAGE DISPOSAL SYSTEM.

SIGNATURE [signature] PRINT NAME Nina Antonowics
DATE 3-5-99 ( ) OWNER (X) AGENT

For Department Use Only

HD:ID:NO: 129-99-0318

Date Lot Approved: 5/14/93 Type System II Design for 5 Bedrooms or 750 Gallons per Day
Perc Rate 20 Depth 64 Septic Tank Gallons 1500 Absorption Field 545 (Lin. Ft.) Reserve Area 272.5 (Lin. Ft.)
Building Permit Number 99062B0650 Receipt Number #E99000659 $75 3/19/99
Remarks ~~HOLD~~ STATE DOE NOPE Rcv 3/8/99 New Owner - New applicant - all fees due

REVIEWED BY COS TITLE EHS Supervisor DATE 3-17-99

FHD-EH-2 REV. 9/96

# SE[redacted]GE PUMP INSPECTION REC[redacted]

5-28-99

PERMIT # 99-0318

PLANS APPROVED ~~5-17-99~~

LOCATION: 333 SINEGAR PL

TAX MAP #: 2-2-003-4

| ITEM | PER PLANS | PER INSPECTION | DATE/ INITIAL | REMARKS |
|---|---|---|---|---|
| 1. IS PUMP CHAMBER 12" ABOVE GRADE AND PROPERLY GRADED? | (YES) / NO | (YES) / NO | 10/22/99 | |
| 2. IS ELECTRICAL JUNTION BOX ABOVE GRADE? | | (YES) / NO | | |
| 3. DIAMETER OF PUMP CHAMBER | IN. | 30 IN. | | |
| 4. I S CONSTRUCTION OF CHAMBER SATISFACTORY? | YES / NO | (YES) NO | | |
| 5. MAKE AND MODEL NUMBER OF PUMPS *SEE NOTE BELOW | | | | Myers ME 50 |
| 6. CHECK VALVES PROPERLY LOCATED (TYPE OF MATERIAL PROPOSED) | YES / NO | (YES) / NO | | MATERIAL INSTALLED: brass |
| 7. FORCE LINE (SIZE/MATERIAL/ DEPTH) | | 2" PVC 24"+ | | |
| 8. FLOATS (TYPE/NUMBER/ SUSPENSION) | | Mere 3 | | |
| 9. DISTANCE OVERIDE BELOW INLET | / IN. | 15.0 IN. | | |
| 10. DISTANCE ALARM BELOW INLET | IN. | 15.0 IN. | | |
| 11. HEIGHT OF "OFF" FLOAT ABOVE FLOOR | IN. | 24.0 IN. | | |
| 12. DRAWDOWN BETWEEN ON & OFF FLOOR | IN. | 7.0 IN. | | |
| 13. CHAMBER LID SEALED | | (YES) / NO | | |
| 14. CONTROL PANEL (MAKE & MODEL #) | | | | American Mfr DAB III JF |
| (A) IS ALARM ON SEPARATE CIRCUIT? | YES / NO | (YES) / NO | | |
| (B) DOES OVERIDE FUNCTION PROPERTY? | | (YES) / NO | | |
| (C) DOES ALTERNATOR FUNCTION PROPERLY? | | (YES) / NO | | |
| (D) ARE PUMPS INDIVIDUALLY PROTECTED BY SEPARATE CIRCUIT BREAKERS? | YES / NO | (YES) / NO | | |
| 15. 6" SOLID CONCRETE BLOCK UNDER EACH PUMP OR EQUIVALENT CONSTRUCTION? | YES / NO | (YES) / NO | | |

***NOTE: THIS STATEMENT MUST BE COMPLETED AND SIGNED:**

I, HART & SONS EXCAVATING, DO HEREBY CERTIFY THAT THE SEWAGE PUMPS INSTALLED ON
(PRINT NAME OF SDS CONTRACTOR)

THIS LOT ARE Myers ME50 AND THAT THE PUMP IS
(MAKE AND MODEL NUMBER)

CONSTRUCTED IN ACCORDANCE WITH APPROVED PLANS.

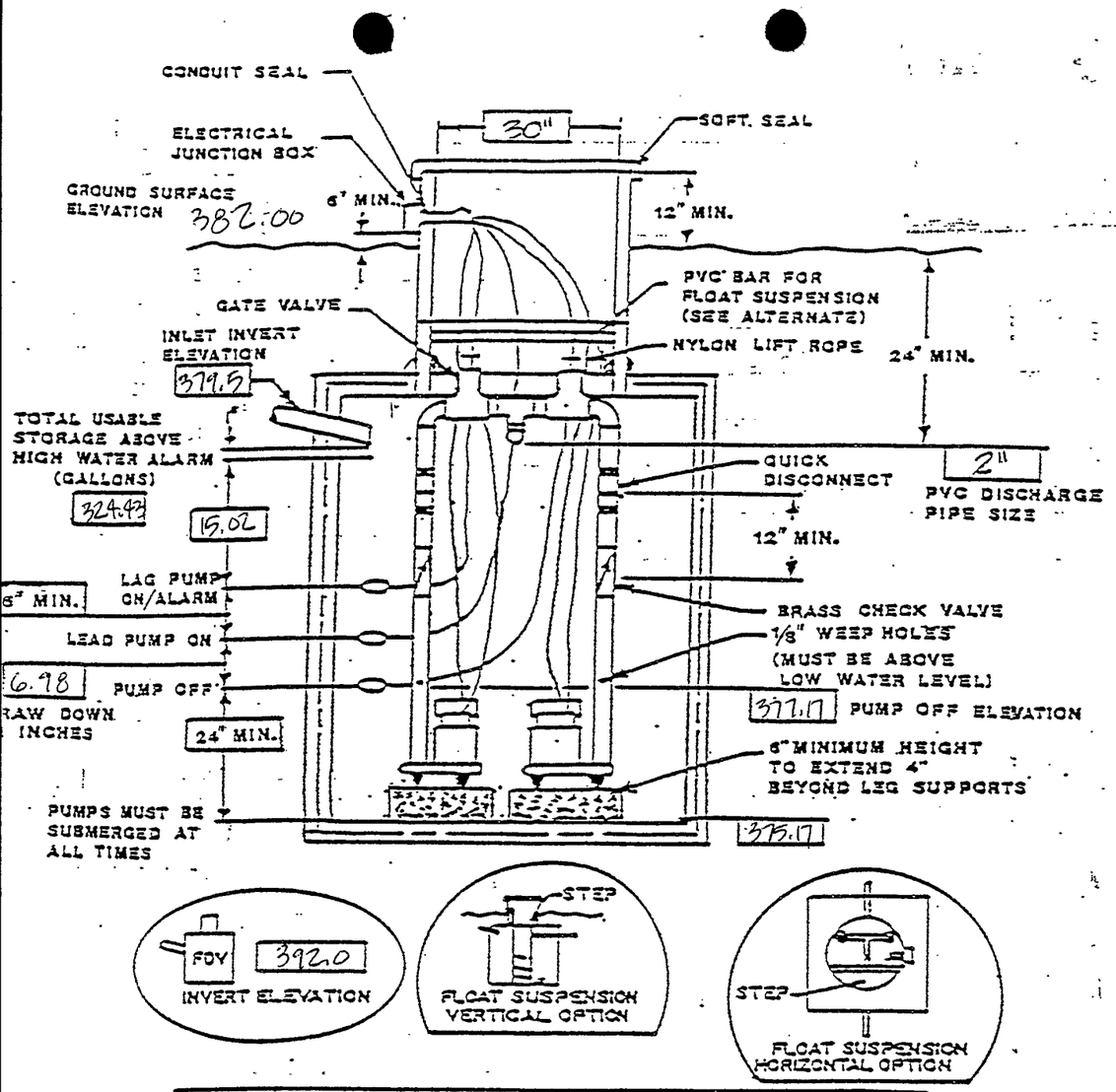
10-29-99
DATE

SIGNATURE OF SEWAGE DISPOSAL CONTRACTOR OR AUTHORIZED AGENT

10/22/99
DATE

ENVIRONMENTAL HEALTH SPECIALIST

FHD-EH-102 REV. 10/96




| GALLONS | INSIDE DIMENSIONS (INCHES) LENGTH | WIDTH | LIQ. DEPTH | GAL/IN | MANUFACTURER |
|---|---|---|---|---|---|
| 1125 | 97" | 51" | 52" | 21.6 | TAPP |
| | | | | | |

NOTE
FLOATS MUST BE INSTALLED AS NOT TO BE DISTURBED BY WASTEWATER ENTERING THE TANK

RECEIVED
MAY 28 1999

RECEIVED
MAY 28 1999

FAIRFAX COUNTY DIVISION OF ENVIRONMENTAL HEALTH
SEWAGE EFFLUENT PUMP CALCULATIONS

Plans prepared by: CHARLES P. JOHNSON & ASSOC Permit Holder's Name ~~CRAFTMARK HOMES~~

Address: ~~3959~~ PENDER DR. STE 210 Property Address:

FAIRFAX VA 22030 #333 SINEGAR PLACE

Phone: (703) 385-7555 Subdivision: CASCADES ESTATE

Date: 5-27-99 No. of Bedrooms 5 Tax Map I.D. 2-2((3))-4

1. 273 number linear feet (1/2 total linear feet shown on permit) to be dosed each cycle times .65 gallons per foot of 4" ID pipe times 85% equals gallons pumped per cycle (includes reserve capacity)

2. 150.83 number of gallons to be pumped each cycle

( ) 3. - Tank size 1,125 Gals.

4. 21.6 gallons per inch of tank

NOTE: An electrical permit is required for installation.

( ) 5. 6.98 inches drawdown per cycle

6. ~~324~~.43 gallons storage (1/4 day required above high water alarm)

7. 14.83 feet of static lift

8. 2 inches diameter of discharge pipe (2" minimum PVC)

9. 136 feet length of run of discharge pipe

10. 191 feet equivalent length of pipe

11. 20.8 feet of TDH at 40 gpm minimum

12. 36.4 feet of TDH at 80 gpm maximum

APPROVED
FAIRFAX COUNTY HEALTH DEPARTMENT
5/28/99 Date
Health Official

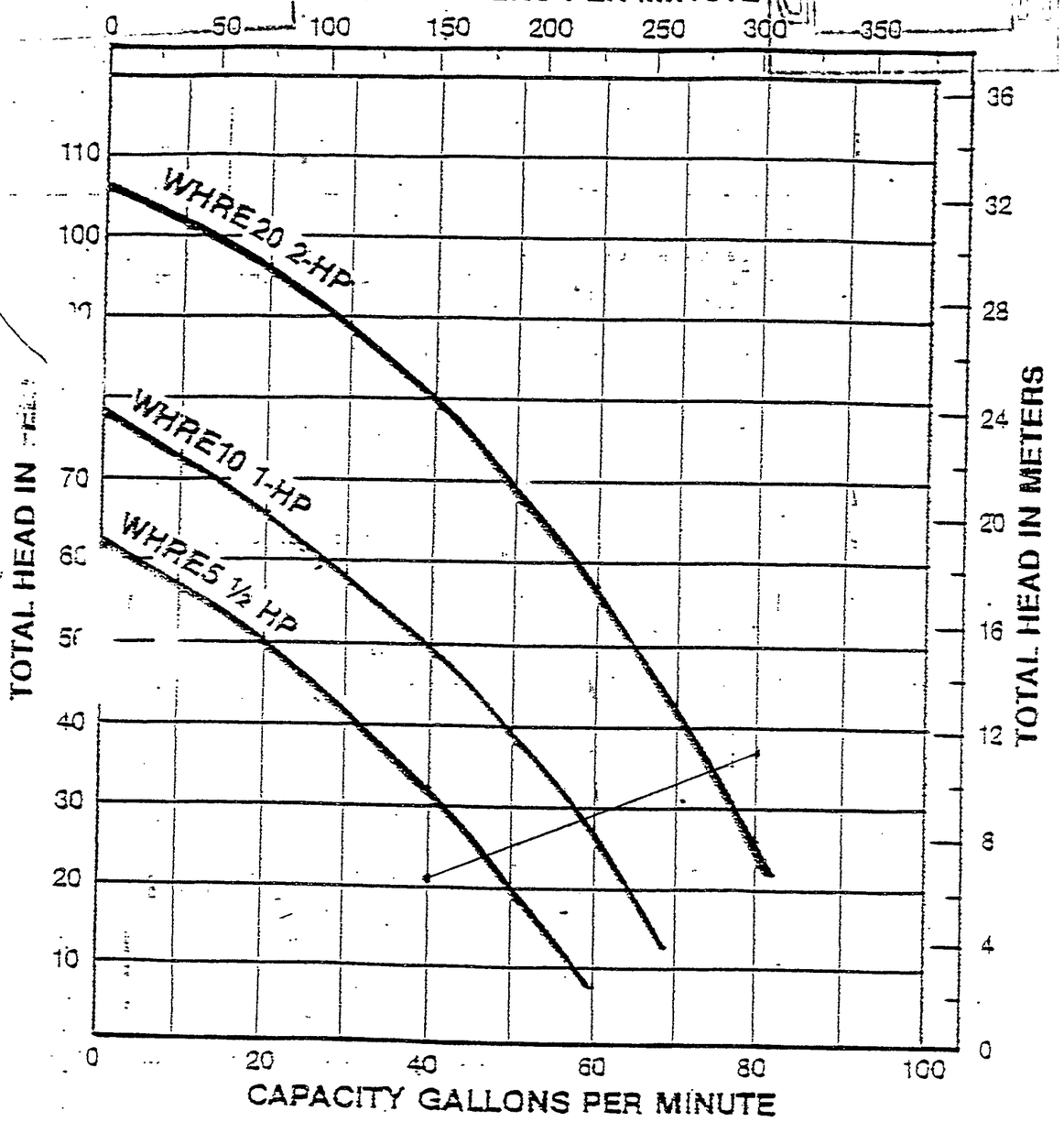
( )13. - Drawdown time: 3 minutes 45 sec. at 40 gpm
1 minutes 52.5 sec. at 80 gpm

( )14. - Recommended pump: #1 Make MYERS Model # WHRE 5
46 gpm at 22 feet TDH
115 volts 1 phase 1/2 horsepower

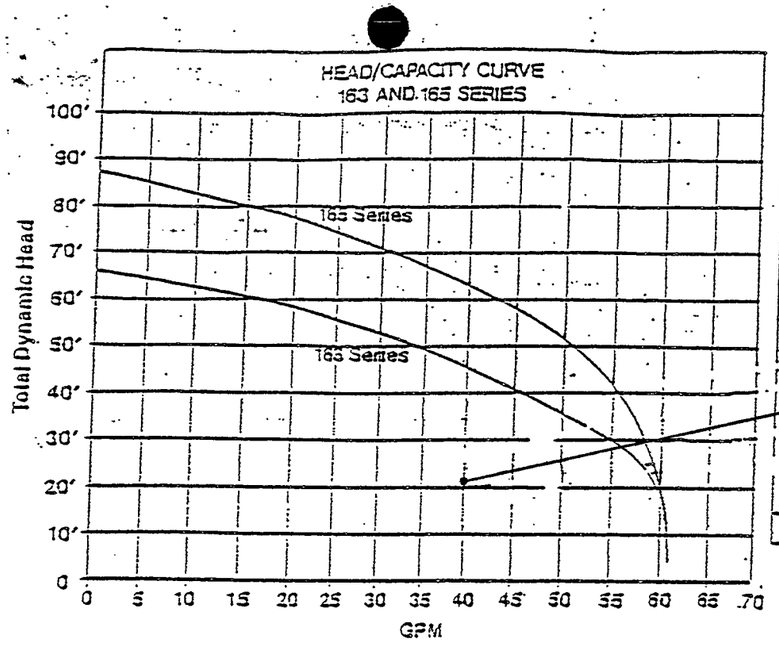
( ) #2 Make ZOELLER Model # M163
54 gpm at 28 feet TDH
115 volts 1 phase 1/2 horsepower

( )15. Control Panel: Make WATERGUARD Model # TAC II-5
230 volts 1 phase 1/2 maximum horsepower

# PERFORMANCE CURVE
## WHRE SERIES EFFLUENT PUMPS




Myers®
F.E. Myers, A Pentair Company
1101 Myers Parkway
Ashland, Ohio 44805-1923
419/289-1144
FAX: 419/289-6658. TLX: 98-7443




| Total Dynamic Head/ Capacity Per Minute | | | | | |
|---|---|---|---|---|---|
| Series | | 163 | | 165 | |
| Ft | M | Gal | Ltrs | Gal | Ltrs |
| 5 | 1.52 | 61 | 231 | 61 | 231 |
| 10 | 3.05 | 61 | 231 | 61 | 231 |
| 15 | 4.57 | 60 | 227 | 60 | 227 |
| 20 | 6.10 | 59 | 223 | 60 | 227 |
| 25 | 7.62 | 57 | 216 | 59 | 223 |
| 30 | 9.14 | 55 | 208 | 58 | 220 |
| 35 | 10.67 | 50 | 189 | 57 | 216 |
| 40 | 12.19 | 46 | 174 | 55 | 208 |
| 45 | 13.70 | 40 | 151 | 54 | 204 |
| 50 | 15.24 | 33 | 125 | 51 | 193 |
| 55 | 16.76 | 25 | 95 | 48 | 182 |
| 60 | 18.29 | 15 | 57 | 43 | 163 |
| 65 | 19.80 | | | 37 | 140 |
| 70 | 21.34 | | | 30 | 114 |
| 75 | 22.86 | | | 22 | 83 |
| 80 | 24.38 | | | 14 | 53 |
| LOCK VALVE | | 66' | | 87' | |

## CONSULT FACTORY FOR SPECIAL APPLICATIONS

- Three phase pumps are available in 200/208V, 230V, or 460V.
- Electrical alternators, for duplex systems, are available and supplied with an alarm.
- Mechanical alternators, for duplex systems, are available with or without alarm switches.
- Combination starters are available.
- Mercury float switches are available for controlling single and three phase systems.
- Double piggyback mercury float switches are available for variable level long cycle controls.
- Long cords are available in lengths of 25 - 35 - 50 feet.
- Over 130° F. (54° C.) special quotation required.

## SINGLE AND THREE PHASE UNITS

| 163 Series | | | | | | |
|---|---|---|---|---|---|---|
| Cast Iron | Volts-Phase | | Wt. | H.P. | Amps | Cord Length |
| M163 | 115-1Ph | Automatic | 75 | 1/2 | 14.0 | 20 ft. |
| N163 | 115-1Ph | Non-Auto. | 75 | 1/2 | 14.0 | 20 ft. |
| Q163 | 230-1Ph | Automatic | 75 | 1/2 | 7.0 | 20 ft. |
| S163 | 230-1Ph | Non-Auto. | 75 | 1/2 | 7.0 | 20 ft. |
| R163 | 230-3Ph | Non-Auto. | 75 | 1/2 | 3.0 | 20 ft. |
| H163 | 200/208-1Ph | Automatic | 75 | 1/2 | 8.2 | 20 ft. |
| I163 | 200/208-1Ph | Non-Auto. | 75 | 1/2 | 8.2 | 20 ft. |
| J163 | 200/208-3Ph | Non-Auto. | 75 | 1/2 | 2.2 | 20 ft. |
| G163 | 460-3Ph | Non-Auto. | 75 | 1/2 | 1.5 | 20 ft. |

| 165 Series | | | | | | |
|---|---|---|---|---|---|---|
| Cast Iron | Volts-Phase | | Wt. | H.P. | Amps | Cord Length |
| Q165 | 230-1Ph | Automatic | 80 | 1 | 9.0 | 20 ft. |
| S165 | 230-1Ph | Non-Auto. | 80 | 1 | 9.0 | 20 ft. |
| R165 | 230-3Ph | Non-Auto. | 80 | 1 | 5.0 | 20 ft. |
| H165 | 200/208-1Ph | Automatic | 80 | 1 | 10.7 | 20 ft. |
| I165 | 200/208-1Ph | Non-Auto. | 80 | 1 | 10.7 | 20 ft. |
| J165 | 200/208-3Ph | Non-Auto. | 80 | 1 | 3.8 | 20 ft. |
| G165 | 460-3Ph | Non-Auto. | 80 | 1 | 1.9 | 20 ft. |

Single phase 1 H.P. units are controlled by a float switch through a relay enclosed in the switch case. Three phase units require a control switch to operate an external magnetic or combination starter.

For information on additional Zoeller products refer to catalog on Combination Starter, FM-314; Piggyback Mercury Float Switches, FM-477; Electrical Alternator, FM-486; Mechanical Alternator, FM-495; Alarm Package, FM-5132; and Sump/Sewage Basins, FM-487.

All installation of controls, protection devices and wiring should be done by a licensed and qualified electrician. All electrical and safety codes should be followed in addition to the most recent National Electric Code (NEC), and the Occupational Safety and Health Act (OSHA).

## RESERVE POWERED DESIGN

For unusual conditions a reserve safety factor is an engineered/design part of every Zoeller pump.

Zoeller Co.
3280 Old Millers Lane
P.O. Box 16347
Louisville, Kentucky 40216
(502) 778-2731

Manufacturers of . . .
"Quality Pumps Since 1913"

1958

Acad Dwg: N:\9860[illegible]DWG\12AT0004.DWG Plotted: 9/29/99 11:08

HOUSE LOCATION SURVEY

# CASCADES ESTATES

SECTION 12A

## LOT 4

#333 SINEGAR PLACE
DRAINESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

FINAL APPROVAL

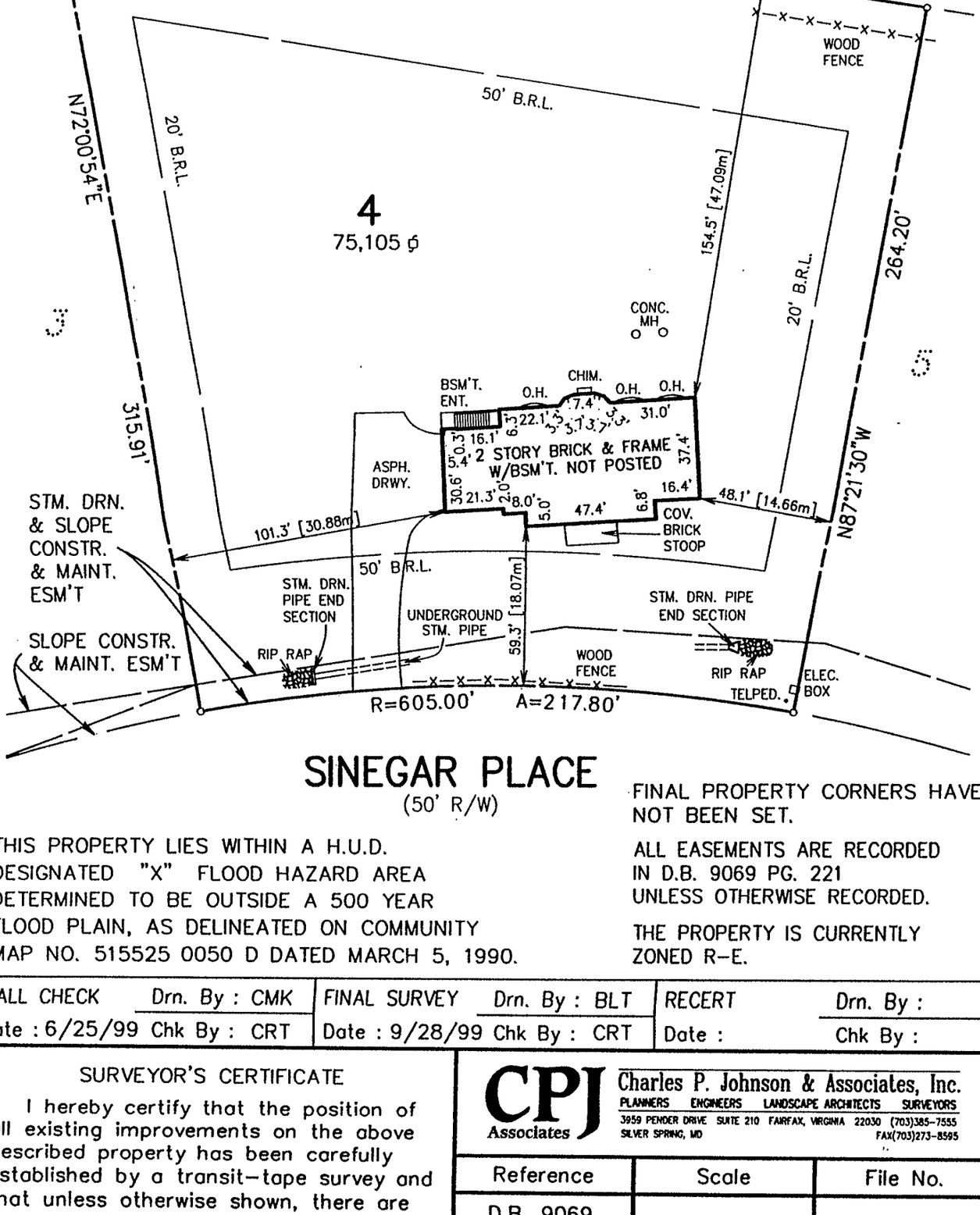
DEC 8 1999

ZONING ADMINISTRATION DIVISION
DEPARTMENT OF PLANNING AND ZONING

VIRGINIA STATE GRID NORTH

COMMONWEALTH OF VIRGINIA
9-29-99
CHARLES D. FARMER
No. 1724
LAND SURVEYOR

SENECA ROAD
ROUTE #602
(EX. 30' R/W)




# SINEGAR PLACE
(50' R/W)

FINAL PROPERTY CORNERS HAVE NOT BEEN SET.

ALL EASEMENTS ARE RECORDED IN D.B. 9069 PG. 221 UNLESS OTHERWISE RECORDED.

THE PROPERTY IS CURRENTLY ZONED R-E.

THIS PROPERTY LIES WITHIN A H.U.D. DESIGNATED "X" FLOOD HAZARD AREA DETERMINED TO BE OUTSIDE A 500 YEAR FLOOD PLAIN, AS DELINEATED ON COMMUNITY MAP NO. 515525 0050 D DATED MARCH 5, 1990.

| | | |
|---|---|---|
| WALL CHECK Drn. By : CMK | FINAL SURVEY Drn. By : BLT | RECERT Drn. By : |
| Date : 6/25/99 Chk By : CRT | Date : 9/28/99 Chk By : CRT | Date : Chk By : |

SURVEYOR'S CERTIFICATE

I hereby certify that the position of all existing improvements on the above described property has been carefully established by a transit-tape survey and that unless otherwise shown, there are no encroachments and no title report has been furnished.


CPJ Associates
Charles P. Johnson & Associates, Inc.
PLANNERS ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS
3959 PENDER DRIVE SUITE 210 FAIRFAX, VIRGINIA 22030 (703)385-7555
SILVER SPRING, MD FAX(703)273-8595


| Reference | Scale | File No. |
|---|---|---|
| D.B. 9069 PG. 221 | 1" = 50' | 98-603-72 |

VIRGINIA STATE GRID NORTH (NAD27)

SENECA ROAD ROUTE #602

(VARIABLE WIDTH)

LOT 2 PERC DATA
PERC RATE = 12 M.P.I.
DEPTH = 55"
# OF BEDROOMS = 5
L.F. REQUIRED = 468 L.F. +
234 L.F. FUTURE RESERVE
USE: 5 TRENCHES @ 46.8 L.F. EA. +
3 FUTURE RESERVE TRENCHES @ 46.8 L.F. EA.
USE: 3 TRENCHES @ 78 L.F. EA. +
2 FUTURE RESERVE TRENCHES @ 78 L.F. EA.

FDV = 384.5
DIST. BOX A = 384.3
INV. AT FIRST TRENCH = 384.1
DIST. BOX B = 382.5

1500-GALLON TANK
INV. IN = 354.5
INV. OUT = 354.3
FIN. GRADE = 354.9
SEWER INV. AT HOUSE = 355.12

1125-GALLON PUMP
INV IN. = 354.1
INV. OUT = 353.9
FIN. GRADE = 357.0

LOT 3 PERC DATA
PERC RATE = 12 M.P.I.
DEPTH = 60"
# OF BEDROOMS = 5
L.F. REQUIRED = 468 L.F. +
234 L.F. FUTURE RESERVE
USE : 6 TRENCHES @ 78 L.F. EA. +
4 FUTURE RESERVE TRENCHES @ 78 L.F. EA.

FDV = 368.5
DIST. BOX A = 368.3
INV. AT FIRST TRENCH = 368.1
DIST. BOX B = 366.5

1500-GALLON TANK
INV. IN = 362.5
INV. OUT = 362.3
FIN. GRADE = 365.0
SEWER INV. AT HOUSE = 362.9

1125-GALLON PUMP
INV IN. = 362.1
INV. OUT = 361.9
FIN. GRADE = 365.0

LOT 4 PERC DATA
PERC RATE = 20 M.P.I.
DEPTH = 64"
# OF BEDROOMS = 5
L.F. REQUIRED = 575 L.F. +
273 L.F. FUTURE RESERVE
USE : 6 TRENCHES @ 91 L.F. EA. +
4 FUTURE RESERVE TRENCHES @ 91 L.F. EA.

FDV = 392.0
DIST. BOX A = 391.8
INV. AT FIRST TRENCH = 391.6
DIST. BOX B = 391.0

1500-GALLON TANK
INV. IN = 379.5
INV. OUT = 379.3
FIN. GRADE = 382.0
SEWER INV. AT HOUSE = 380.3

1125-GALLON PUMP
INV IN. = 379.1
INV. OUT = 378.9
FIN. GRADE = 382.0

LOT 2
75,105 ♢

LOT 3
75,105 ♢

LOT 4
75,105 ♢

OAKTON (REV) 9'-BSMT. LEVEL
FF=359.57
FR=358.90
BF=349.80
LB=348.93
INV. EL.= 355.12
#325
2 CAR GAR.= 356.24

KENWOOD (REV) W.O.
FF=375.02
BF=365.00
INV. EL.= 362.9
#329
3 CAR GAR.= 373.69

KENWOOD LEVEL
FF=383.02
BF=373.00
#333
3 CAR GAR.= 381.69

R=330.00' A=76.00'
N74°31'00"E 67.64'
186.40'
N63°17'57"E
N89°19'29"E 78.40'
N68°41'07"E
R=535.00' A=64.13'
N28°10'57"W
S01°20'54"W 646.94'
N89°21'30"W 258.20'
R=605.00' L=35.48'
225.29'

SINEGAR PLACE (50' R/W)

SEPTIC FIELD LINE LIMITS

TREE SAVE AREA=1,159 SF

TREE SAVE AREA=2,444 SF

15' STM. DRG. ESM'T

16' SAN. SEW. ESM'T

4" CI/DI SCH. 40 SLEEVE

STORM DRAIN EASEMENT

SLOPE CONSTRUCTION & MAINTENANCE ESM'T

STORM DRAIN & SLOPE CONSTRUCTION MAINTENANCE EASEMENT

FIRE HYDRANT

8" D.I.P. W/M

15" RCP

15" CMP

GRAPHIC SCALE
30 0 15 30 60
SCALE : 1" = 30'

FAIRFAX COUNTY HEALTH DEPARTMENT
DIVISION OF ENVIRONMENTAL HEALTH
Approval of plat plan only. This is not a permit to install a water supply or a sewage disposal system. All exterior or proposed underground utility lines and easements must be located a minimum of 10 feet from all subsurface disposal systems. No subsurface disposal systems may be in an underground utility easement. All water service lines must be located a minimum of 10 feet from all subsurface disposal systems.
5-20-99 Date
Health Official

LOT GRADING PLAN
SECTION 12A
CASCADES ESTATE LOTS
DRANESVILLE DISTRICT
FAIRFAX COUNTY, VIRGINIA

NO. | DATE | REVISION PRIOR TO APPROVAL

Charles P. Johnson & Associates, Inc.
PLANNERS ENGINEERS LANDSCAPE ARCHITECTS SURVEYORS
3959 PENDER DRIVE, SUITE 210 FAIRFAX, VIRGINIA 22030 (703)385-7555 FAX(703)273-5595
SALEM, SPRING, MD
© 1998 CHARLES P. JOHNSON & ASSOCIATES, INC.

COMMONWEALTH OF VIRGINIA PAUL O'BRIEN SAW No. 018450 5.6.99 PROFESSIONAL ENGINEER

1. RESUBDIVIDE LOT 4 (6/01/99) MB

NO. | DATE | REVISIONS

BUILDER:
CRAFTMARK HOMES
6820 ELM STREET
SUITE 200
McLEAN, VIRGINIA 22101

DESIGN HWF | DRAFT HWF | CHECK PBJ | DATE DEC. 1998 | SCALE HORZ. 1" = 30' VERT. NONE

SHEET 1 OF 5

FILE NO.: 98-612-701

7668 SD - 01

PRINTED
MAY 11 1999
CHARLES F. JOHNSON
& ASSOCIATES