

JEFFERSON COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT
260 S. KIPLING, LAKEWOOD, CO 80226 Phone: 239-7075

INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT NO. 14683

Site Address: DOUGLAS MTN. DR. 2415

Issued to: Randy and Kelli Diede

Legal Description: Lots 39 and 40, Filing 1, Douglas Mountain Ranch

System Designed for 4 Bedroom Single Family Dwelling

Tank Size: 1250 gal. (min)

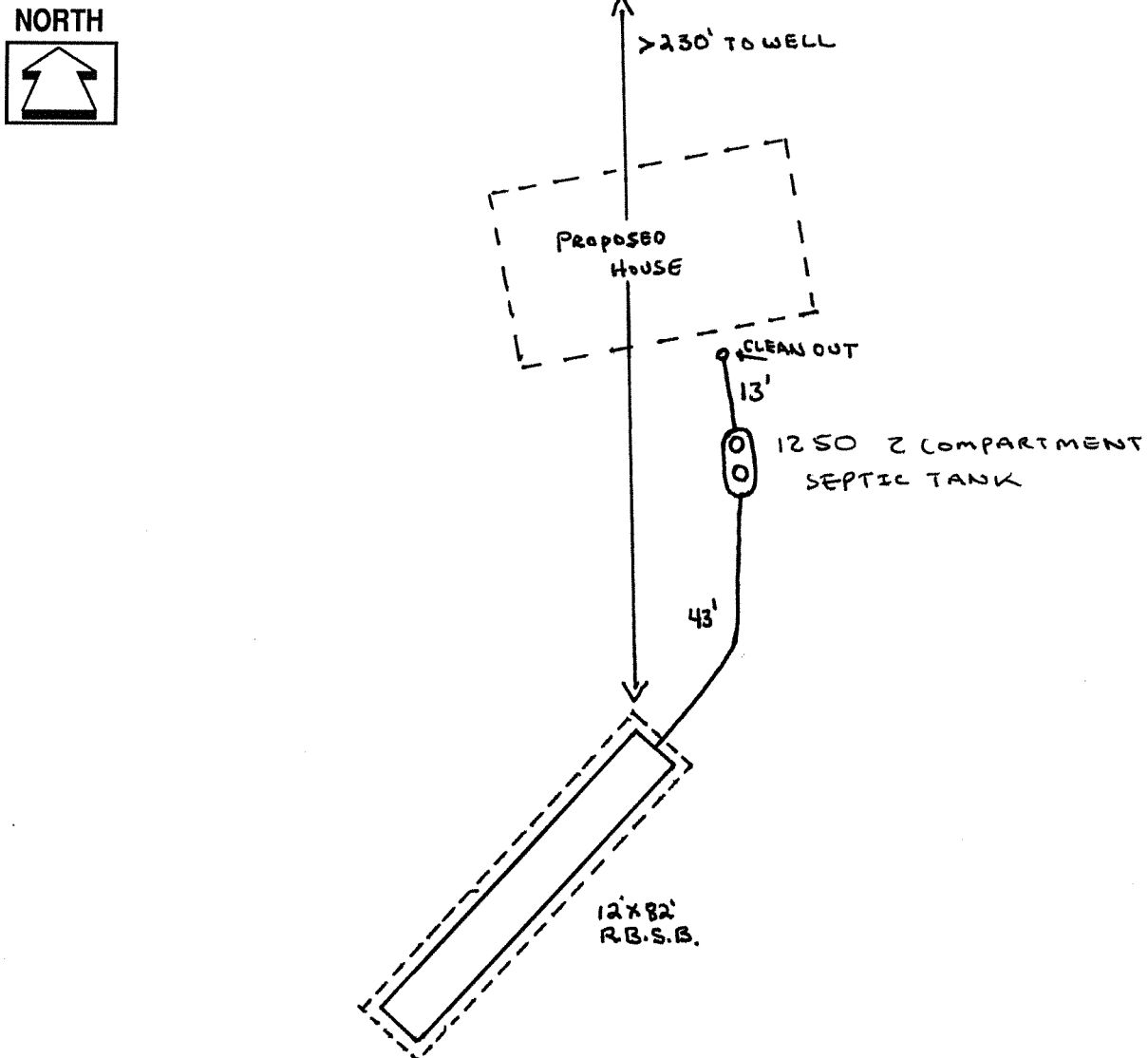
Absorption Bed Size: 984 sq. ft. (min)

INSPECTOR: *[Signature]*

FINAL

APPROVAL DATE: 04/06/93

SYSTEM AS INSTALLED



**JEFFERSON COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT
260 SOUTH KIPLING LAKEWOOD, CO 80226
PHONE: (303) 239-7075 FAX: 239-7076**

TO SCHEDULE SEPTIC SYSTEM INSPECTIONS CALL 239-7070

PERMIT FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM NO. 14683

Permit Issued to: Randy and Kelli Diede
816 Washington Avenue
Golden, CO 80401

Location of system: Lots 39 and 40, Filing 1, Douglas Mountain Ranch 2415 DOUGLAS MTN DR

System designed for: 4 Bedroom Single Family Dwelling

Tank size: 1250 gal (min) Absorption area: 984 sq ft (min)

The installation of this system is governed by the regulations of the Jefferson County Department of Health and Environment, as amended. Your attention is called to the following:

Maintain 200 foot minimum separation between all wells and septic on or off-site, existing or proposed.

A preliminary inspection is required upon completion of the 6 foot excavation.

A liner as specified by the engineer shall be provided on the lower side and both ends of the 6 foot excavation; a berm shall be placed above the absorption bed to divert drainage; all disturbed areas shall be re-seeded.

Install dosing siphon per engineer's design.

No acceptance of the system will be made without final inspection by this Department.

Permit issued: February 10, 1993 and expires **ONE YEAR FROM THIS DATE**

APPROVED BY MARK B. JOHNSON, M.D. DIRECTOR OF HEALTH

This sewage disposal system was installed by Rumstetter and has been inspected and accepted for use by a representative of the Jefferson County Department of Health and Environment. The owner assumes all responsibility in case of failure or other inadequacy of this sewage disposal system.

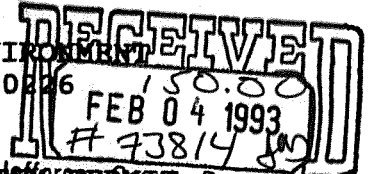
INSPECTOR: [Signature]

DATE: 04/06/93

JEFFERSON COUNTY DEPARTMENT OF HEALTH AND ENVIRONMENT

260 South Kipling Street, Lakewood, CO 80426

Phone: 232-6301 Fax #239-7076



APPLICATION FOR INDIVIDUAL SEWAGE DISPOSAL SYSTEM PERMIT
Jefferson County Department of Health and Environment

(☒) NEW () REPAIR () RENEWAL () ADDITION

Name of Owner: Randy and Kelli Diede Phone: 469-8997

Mailing Address of Owner: 816 Washington Avenue, Golden, CO 80401

Name of Applicant: SAME

Mailing Address of Applicant:

Location of Proposed System (Legal Description):

Lots 39 and 40, Filing 1, Douglas Mountain Ranch

Street Address:

Size of Property: 10 acres

Type of Structure: (☒) Single Family Dwelling No. of Bedrooms 4
() Other

Water Supply: (☒) Private well () Public

Type of proposed Individual Sewage Disposal System: MOUNTAIN SEPTIC

The following data must be provided with this application:

1. Soil test data.
2. Sewer system design for systems in mountain areas and certain other areas.
3. A plot plan showing relevant features.
4. A geologic report if the separation distance between any well and absorption field is between 100 and 200 feet.
5. Adjacent property information.

Application Fee: NEW PERMIT/ADDITION - \$150.00
 REPAIR - \$ 75.00
 RENEWAL - \$ 75.00

Permit to be mailed to (☒) Owner () Applicant () Picked Up

PERMIT MUST BE ISSUED BEFORE A BUILDING PERMIT CAN BE OBTAINED.

Application for an individual sewage disposal system permit is hereby submitted. The individual sewage disposal system will be constructed and installed in accordance with the regulations governing individual sewage disposal systems in Jefferson County. I hereby acknowledge that the above information is true and that false information will invalidate this application or subsequent permit.

Randy Diede
Signature of Owner or Authorized Agent

2/4/93
Date of Application

E. O. CHURCH, INC.
CONSULTING GEOLOGICAL ENGINEER

925 E. 17th AVENUE • DENVER, COLORADO 80218 • (303) 832-9692
FAX (303) 832-3517



February 1, 1993

Randy and Kelli Diede
816 Washington Avenue
Golden, CO 80401

Subject: Subsurface Investigation & OSDS Design
Lots 39 and 40, Filing 1, Douglas Mountain Ranch
Jefferson County, Colorado
Job No. 3979

Dear Mr. & Mrs. Diede,

As requested, we have investigated subsurface conditions and prepared an Onsite Sewage Disposal System (OSDS) design for the subject site. The purpose of our investigation was to evaluate subsurface conditions and to design an OSDS for the property.

SITE CONDITIONS - The investigated site is a 10 acre parcel as indicated on Fig. 1. The subject site is located in a rural mountain area where OSDS and wells are required. The ground surface slopes moderately to steeply to the southeast. The slope at the disposal field is 36% to the southeast. There is a sparse cover of trees and a moderate cover of native grasses and bushes at the proposed disposal field.

PROPOSED CONSTRUCTION - A 4 bedroom residence is proposed in the northern portion of the site, as indicated on Figs. 1 and 2. The sewage load for a 4 bedroom dwelling is 600 gallons per day (GPD). A garbage grinder and clothes washer are included in the design calculations. The disposal field is proposed to the southeast of the structure. The residence will be served water by an existing onsite well, located northeast of the proposed residence. The well and proposed field are greater than 200 feet from all wells and fields.

SUBSURFACE CONDITIONS - The proposed disposal field site is underlain by a thin topsoil layer, underlain to 0.5 feet by silty sand and gravel, underlain to 2.5 feet by weathered gneiss with quartz monzonitic intrusions. No free water was observed to a depth of 2.5 feet at the excavation. A gradation analysis was performed on material excavated from a test pit at the proposed field. The gradation analysis indicated the material is a sandy, silty gravel with a moderately rapid percolation rate ranging from 20 to 30 minutes per inch (MPI). The results of the gradation analysis are presented on Fig. 4. No ground water is anticipated within 10 feet of the ground surface during the spring.

RECOMMENDATIONS - The results of our investigation indicates an OSDS can be installed at the location presented on Fig. 2. The OSDS design is based on a sewage load of 600 GPD, and a percolation rate of 30 MPI with the use of a sand filter system. We recommend the installation of a 12 feet by 82 feet field, for an area of 984 square feet. The

field should be constructed similar to the details presented on Figs. 2 and 3. A 1250 gallon two compartment septic tank is required. We recommend a 3 compartment septic tank with 1250 gallons in the first 2 compartments and a dosing siphon in the third be installed. A dosing siphon will distribute effluent more evenly throughout the field and will extend the life of the field.

If the owner is anticipating future finishing of additional bedrooms in unfinished areas, we recommend the OSDS be constructed to handle the additional loading. The proposed septic tank configuration will serve a 4 bedroom home. For greater than 4 bedrooms, the septic tank must be increased in size 250 gallons for each bedroom. Each additional bedroom will require an additional 247 SF of disposal field.

Under current Jefferson County practice, it is allowable to replace Jefferson County specified sand filter material with a suitable filter material as specified by the design engineer. We believe the near surface silty sand will be suitable filter media if no particles larger than 3 inches in diameter are used in the overexcavated 4 feet below the dispersal gravel layer. We recommend the silty sand be collected from the excavation for the disposal field and other onsite excavations for use as filter media in the absorption field. Additional filter material may have to be generated from offsite if sufficient material is not found in the proposed excavations. Our office must be called to observe the filter material and authorize its use.

The owner must realize an OSDS is considerably different from a public sewer system. The owner must be aware of and assume responsibility for continued maintenance of the system. We recommend the septic tank be pumped at least every 2 years. There are daily considerations such as not putting plastic or other nonbiodegradable materials down the septic system. Water use must be carefully monitored so toilets are not allowed to run when seals malfunction. To illustrate the point, it should be noted a running toilet will consume in excess of 1,000 GPD if allowed to run. As the system is designed for 600 GPD, an excess 1000 gallon loading will flood and irreparably harm the system and stress the onsite well.

LIMITATIONS - Our investigation, layout, design and recommendations are based on data submitted. If subsurface conditions considerably different from those described in this report are encountered, we should be called to observe the subsurface conditions. If proposed construction is changed, we should be notified to evaluate the effect of the changes on the proposed sewage disposal system.

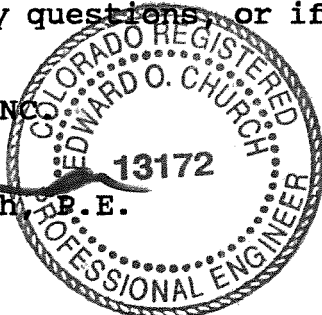
If there are any questions, or if we can be of further service, please call.

E. O. CHURCH, INC.

EOC
Edward O. Church, P.E.

EOC/jck

3 copies sent

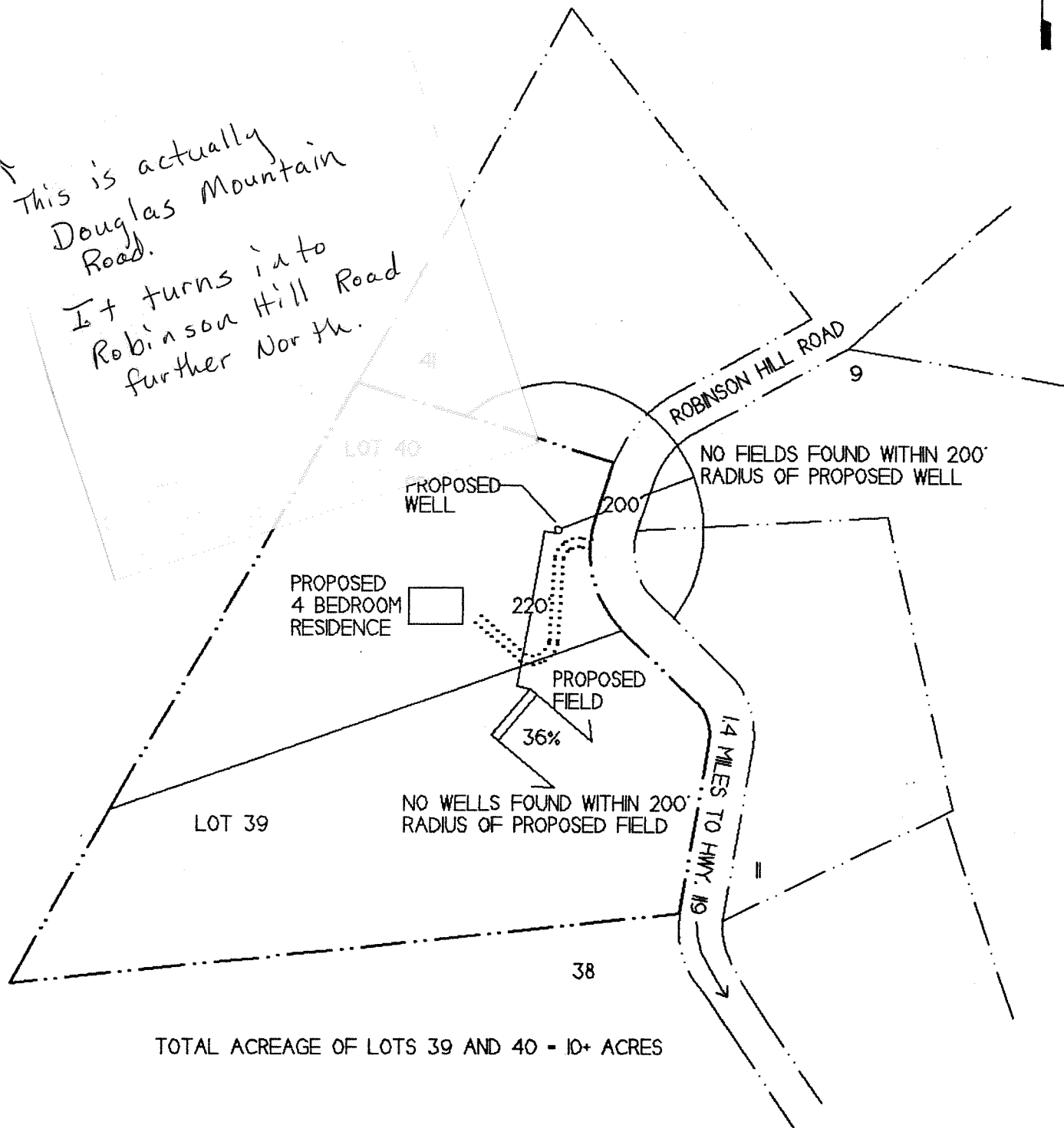


SCALE
1" = 200'

DOUGLAS MOUNTAIN RANCH, FILING 1
JEFFERSON COUNTY, COLORADO

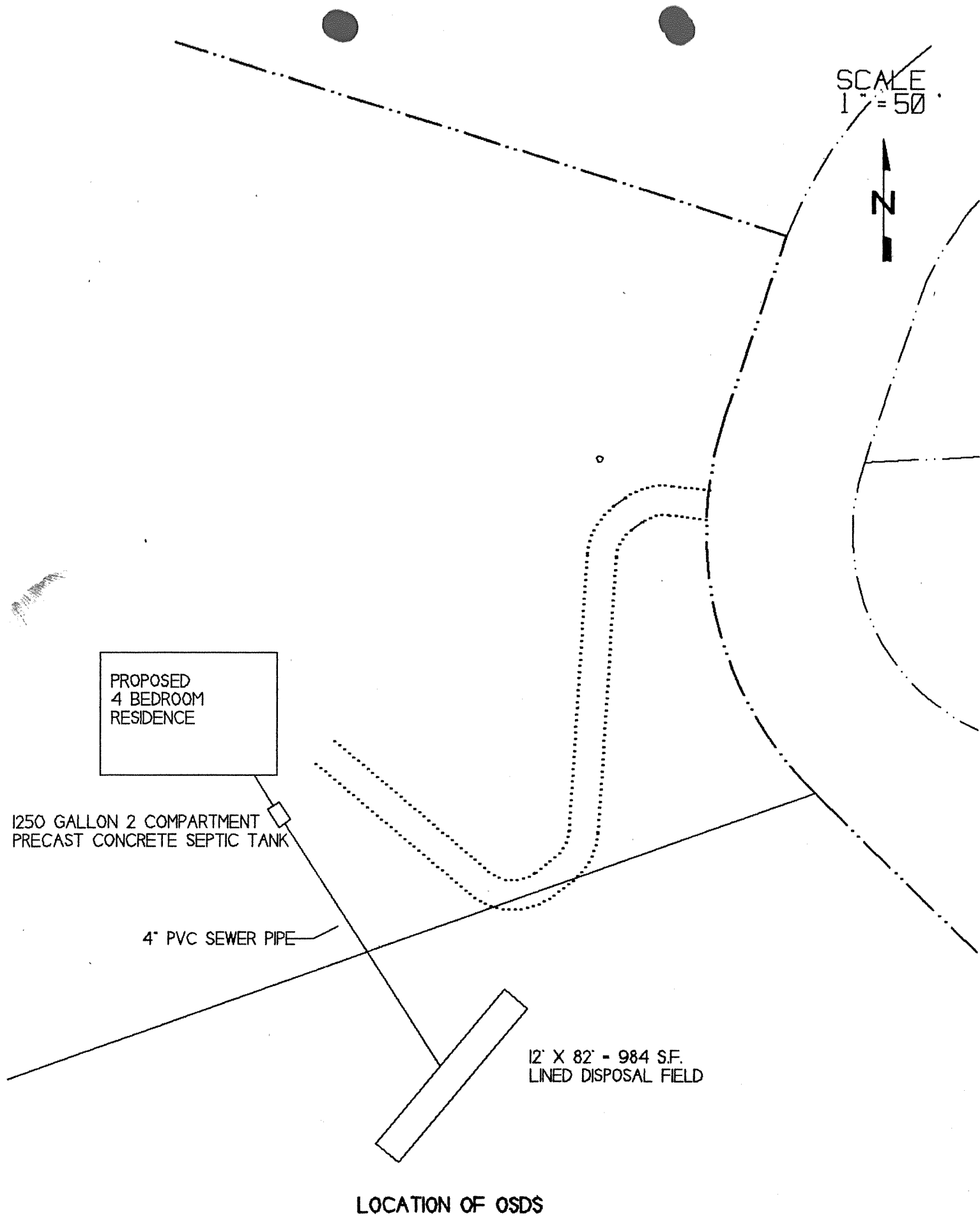


↑ This is actually
Douglas Mountain
Road.
It turns into
Robinson Hill Road
further North.

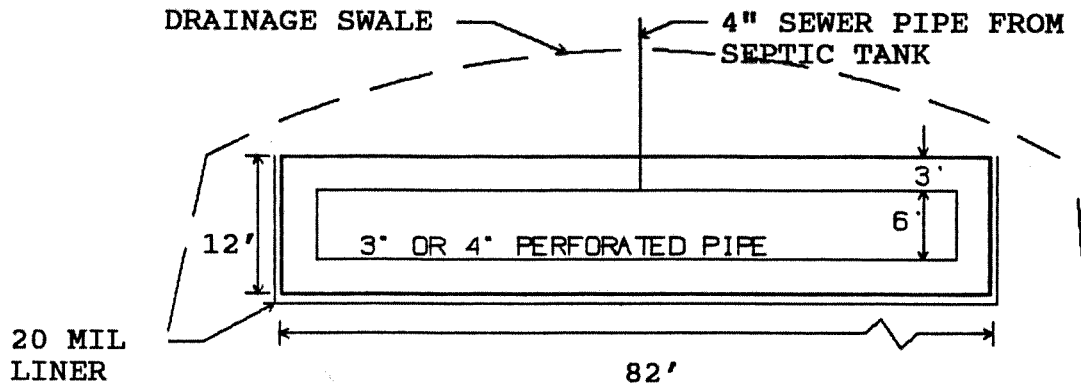


TOTAL ACREAGE OF LOTS 39 AND 40 - 10+ ACRES

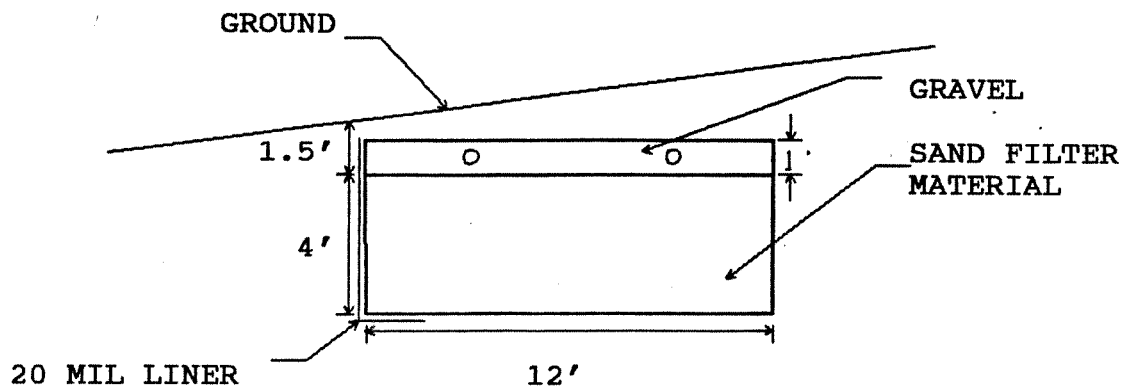
SITE PLAN



A. PLAN SECTION



B. CROSS-SECTION



C. SPECIFICATIONS

DESIGN CRITERIA:

NO. OF BEDROOMS - 4

LOAD Q - 600 GPD

PERCOLATION RATE, T -
LESS THAN 30 MPI

$$A = Q \times \sqrt{T} \times 1.5/5$$

$$A = 986 \text{ S.F.}$$

FIELD SPECIFICATIONS:

LENGTH - 82 FEET

WIDTH - 12 FEET

AREA - 984 S.F.

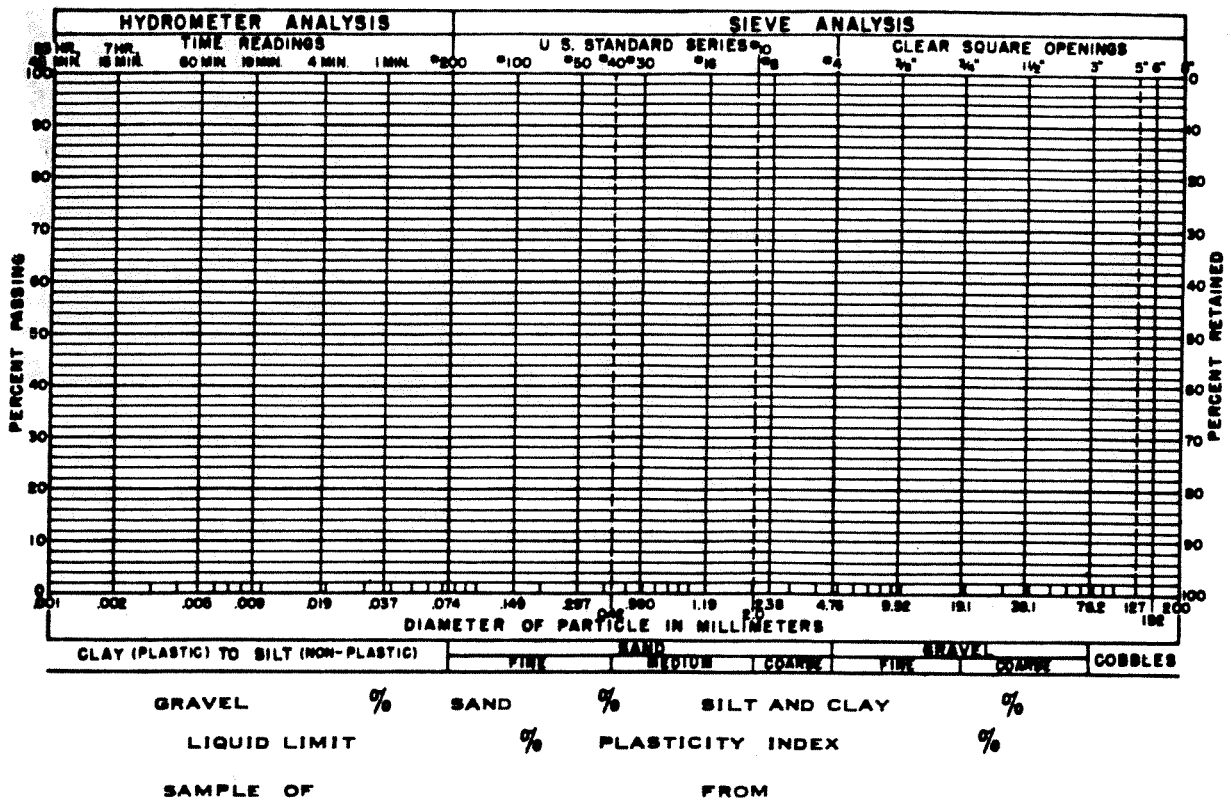
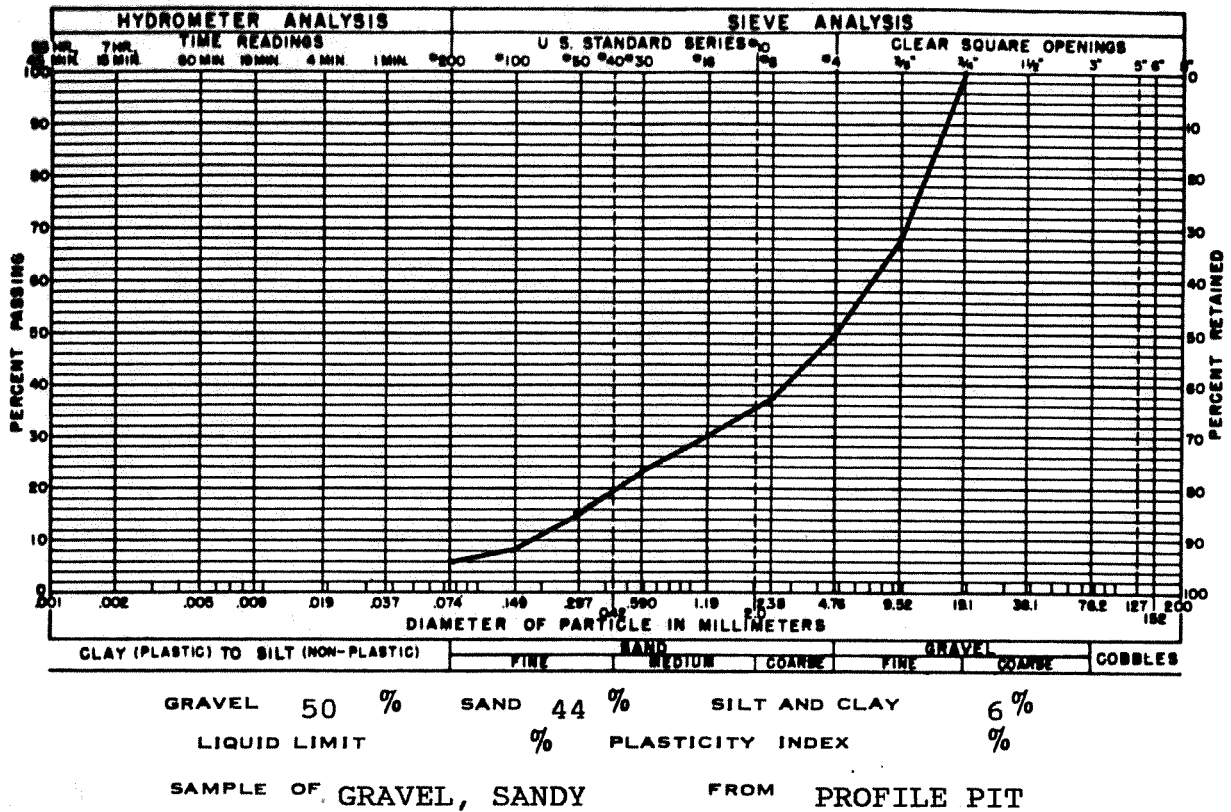
SAND FILTER MATERIAL
- JEFFCO SPECS.

GRAVEL - 1 1/2 INCH

TREATMENT UNIT SPECIFICATIONS:

1250 GALLON 2 COMPARTMENT PRECAST CONCRETE SEPTIC TANK.
IF ADDITIONAL BEDROOMS ARE ANTICIPATED, 250 GALLONS OF
SEPTIC TANK CAPACITY AND 247 SQUARE FEET OF DISPOSAL
FIELD SHOULD BE ADDED PER BEDROOM.

DISPOSAL FIELD DETAILS



GRADATION TEST RESULTS

JOB NO. 3979

FIG. 4

APPLICANT

WELL PERMIT NUMBER **166349**

DIV. 1 CNTY. 30 WD 7 DES. BASIN MD

Lot: 39 Block: Filing: 1 Subdiv: DOUGLAS MOUNTAIN RANCH

APPROVED WELL LOCATION
JEFFERSON COUNTY

SE 1/4 NE 1/4 Section 36
Twp 3 S RANGE 72 W 6th P.M.

DISTANCES FROM SECTION LINES

815 Ft. from North Section Line
1340 Ft. from East Section Line

RANDY DIEDE
11408 W 103RD DR
WESTMINSTER CO 80021

(303)469-8997

PERMIT TO CONSTRUCT A WELL

ISSUANCE OF THIS PERMIT DOES NOT CONFER A WATER RIGHT
CONDITIONS OF APPROVAL

- 1) This well shall be used in such a way as to cause no material injury to existing water rights. The issuance of the permit does not assure the applicant that no injury will occur to another vested water right or preclude another owner of a vested water right from seeking relief in a civil court action.
- 2) The construction of this well shall be in compliance with the Water Well Construction and Pump Installation Rules 2 CCR 402-2, unless approval of a variance has been granted by the State Board of Examiners of Water Well Construction and Pump Installation Contractors in accordance with Rule 17.
- 3) Approved pursuant to CRS 37-92-602(3)(b)(II)(A) as the only well on a residential site of 10 acres described as lot 39 and lot 40, Douglas Mountain Ranch Subdivision, Jefferson County.
- 4) The use of ground water from this well is limited to ordinary household purposes inside a single family dwelling and the watering of the user's noncommercial domestic animals. The ground water shall not be used for irrigation or other purposes.
- 5) The maximum pumping rate shall not exceed 15 GPM.
- 6) The return flow from the use of the well must be through an individual waste water disposal system of the non-evaporative type where the water is returned to the same stream system in which the well is located.
- 7) This well shall be constructed not more than 200 feet from the location specified on this permit.

M.M. 9-18-92

OWNER'S COPY

APPROVED
MAM

Hal D. Simpson
State Engineer

Receipt No. 0343520

DATE ISSUED SEP 21 1992

M.A. Mally
By EXPIRATION DATE SEP 21 1994

INDIVIDUAL SEWAGE DISPOSAL
SYSTEM WORKSHEET

LEGAL

L39840 F1 Doug Mtn R.

TECHNICAL REVIEW

- | | |
|--|---|
| ☒ MEETS MIN LOT SIZE <u>10ac</u> | ☒ ENGINEERING MEETS ISDS REGULATIONS |
| ☒ ADJACENT DEVELOPMENT OK | ☒ GEOLOGICAL REPORT ACCEPTABLE OR N/A |
| ☒ PARCEL LEGALITY FORM OK | ☒ SLOPE <30% OR () PROPERLY DESIGNED |

FIELD REVIEW

- ☒ SOIL TESTS OK ☒ DISTANCES OK () SLOPE OK OR ☒ ENGINEERED

PERMIT CONDITIONS

☒ 4 BDRMS () _____ TANK SIZE (gal) 1250 ABS AREA (ft²) 984

- | | | |
|--|--------------|--|
| ☒ WELLS200 | () WtrSwr | () OLDTANK |
| () REDUCTNS _____ | () PROPERTY | () PRIVY |
| _____ | () LineWell | () OTHER1 _____ |
| _____ | () TankWell | _____ |
| () ETWELLS | () DRYGULCH | () OTHER2 _____ |
| () ABANDWELL _____ | () SURFACE | _____ |
| ☒ PRELIM <u>156</u> FT | () ALARM | () OTHER3 _____ |
| ☒ SLOPECON | () LIFTSTN | _____ |
| () ROADCUT | () SUBMIN | ☒ ENGR Dosing Siphon |
| () FRENCH | () CONTAMIN | () TEMPRPR _____ |

FIELD NOTES AND APPROVALS

NOTES WELL IS IN, >230' TO PROPOSED ONSITE FIELD

SITE INSPECTED BY

DATE

FINAL REVIEW BY

DATE

[Signature]

2/09/93

[Signature]

2/10/93

JEFFERSON COUNTY CERTIFICATE OF WATER AND SEWER SERVICE AVAILABILITY

NOTE TO APPLICANT: A building permit shall not be issued without this Certificate properly signed by the District or Agency involved. See reverse side for facilities requiring Health Department plan review.

2415 Douglas Mountain Dr 2/4/93
Job Address Date

Douglas Mountain Ranch, Filing #1 Lots 39 + 40

Legal description

Residential

Use of Building

Randy + Kelli Dierde

Owner

13777 W. Asbury Dr

Address

Lakewood Co. 80228

SEWER

☐ SEWER SERVICE AVAILABLE

☒ SEWER SERVICE NOT AVAILABLE

Individual sewage permit 14683

Name of Sanitation District

COMMENTS OR CONDITIONS 4 BEDROOM SINGLE FAM.

DWELLING

I hereby certify the availability of service listed above:

Agent for Sanitation District

Date

[Signature]
Reviewed by Jeffco Health or Zoning

02/09/93
Date

WATER

☐ WATER SERVICE AVAILABLE

☒ WATER SERVICE NOT AVAILABLE

Colorado well permit 166349

Name of Water District

COMMENTS AND CONDITIONS SINGLE FAMILY DWELLING +

NON COMMERCIAL DOMESTIC ANIMALS

I hereby certify the availability of service listed above:

Agent for Water District

Date

[Signature]
Reviewed by Jeffco Health or Zoning

02/08/93
Date