

**Glacier View  
Heights**

**Block A**

**Lot 8 REM**

**#050-501-16**



**GARNESS ENGINEERING GROUP, Ltd**  
ENGINEERING • SALES • CONSULTING



January 7, 2022

Municipality of Anchorage  
Development Service Department  
On-Site Water & Wastewater Program  
4700 Elmore Rd. P.O. Box 196650  
Anchorage, AK 99519-6650  
(907) 343-7904

**Ref: Glacier View Heights S/D; Block A, Lot 8 REM (22909 Eagle River Rd, Eagle River, AK)  
Memo concerning converting CAT III AWWTS to CAT II AWWTS septic system**

To whom it may concern:

The permitted septic system was installed on the referenced property in 2007 and started up shortly after the installation. ARM Septic Services, LLC recently checked the monitoring tubes in the drainfield and found the deep trench to be at 55% full (48" of liquid depth in 7.23 feet of effective depth) and has remained at this level since 2018 (see attached ARM emails). In order to simplify the operation and maintenance of the system, we are proposing that this unit be permanently configured as a CAT II system. Our justifications are as follows:

The receiving soil has a percolation rate of 2.2 minutes per inch. Given this percolation rate, a 4.0 gpd/sq.ft. application rate is required for a Cat II system.

The residence on this property has a total of 3-bedrooms, so 112.5 sq./ft. of absorption area is required for CAT II effluent (450 gpd / 4.0). In short, the drainfield meets Cat II sizing requirement for 3-bedrooms. The Inspection Report shows a 3.0 gpd/sq.ft. application rate, which is conservative, so it should not need to be amended.

At this time we request that your department approve a CAT II configuration to be used at the referenced property. Upon your concurrence, ARM Septic Service, LLC., will remove the actuator from the ball valve or leave the valve in the open position, and place a CAT II sticker on the control panel.

Sincerely,

Jeffrey A. Garness, P.E., M.S.  
President

*This system is approved to be converted to a CAT II system.*  
*Del Wainwright*  
*MOA*  
*3/6/24*



**Municipality of Anchorage**  
**Development Services Department**  
 Building Safety Division  
 On-Site Water & Wastewater Program, 4700 Bragaw St.  
 P.O. Box 196650 Anchorage, AK 99519-6650  
 www.ci.anchorage.ak.us (907) 343-7904



**On-Site Wastewater Disposal System and/or Well Inspection Report**

Permit Number: SW070057

PID Number: 050-501-16

Name: **SCOTT MACLEAN**

Wastewater System:  New  Upgrade

Address: **22909 EAGLE RIVER RD. \* EAGLE RIVER, AK 99577**

**ABSORPTION FIELD**

Phone: **(907) 269-6778** No. of Bedrooms: **3**

Deep Trench  Shallow Trench  Bed  Mound  Other \*\*\*

**LEGAL DESCRIPTION**

Soil Rating: **3** CPD/Sq. Ft. Total Depth from original grade: **10' MAX.** Ft.

Block: **A** Lot: **8** Subdivision: **GLACIER VIEW HEIGHTS**

Depth to pipe bottom from original grade: **SEE DWG.** Ft. Gravel depth beneath pipe: **7.02** Ft.

Township: **-** Range: **-** Section: **-**

Fill added above original grade: **SEE DWG.** Ft. Gravel length: **15** Ft.

WELL:  New  Upgrade

Gravel width: **2.5** Ft. Number of lines: **1** Distance between lines: **-** Ft.

Classification (Private, A,B,C): **EXISTING WELL** Cased To: (BROCK) **FL.**

Total absorption area: **210** SQ. Ft. Pipe material: **D-3034/F-810/SCH. 40 PVC**

Driller: **EXISTING WELL** Date Drilled: **FL.** Static Water Level: **FL.**

Installer: **GREEN GENERAL** Date Installed: **9/10-12/2007**

Yield: **GPU** Pump Set At: **FL.** Coating Height Above Ground: **FL.**

**TANK**

**SEPARATION DISTANCES**

Septic  Holding  S.T.E.P.  Other \*\*\*

From	To	Septic Tank	Absorption Field	Lift Station	Holding Tank	Public/Private Sewer Lines
Well		*145'+	*135'+	*145'+	-	25'+
Surface Water		100'+	100'+	100'+	-	-
Lot Line		5'+	**1'	5'+	-	-
Foundation		5'+	10'+	5'+	-	-
Curtain Drain		←	NONE KNOWN	→		

Manufacturer: **ANCHORAGE TANK** Capacity in gallons: **1500**

Material: **STEEL** Number of compartments: **2**

**LIFT STATION**

Size in gallons: **184** Manufacturer: **\*\*\*QUANICS**

Pump on level at: **17"** Pump off level at: **17"** High water alarm at: **36"**

Pump Make & Model: **PP-SE-12T** Electrical inspections performed by: **RIISING SON ELECTRIC**

Remarks: **\*WAIVER GRANTED (SEE ATTACHED LETTER)**

**BENCH MARK**

**\*\*WR#070019 \*\*\*A QUANICS AEROCELL SYSTEM**

Location and Description: **LID ON AEROCELL POD**

**OLD SEPTIC TANK AND CRIB PUMPED, CRUSHED, AND COMPLETELY ABANDONED**

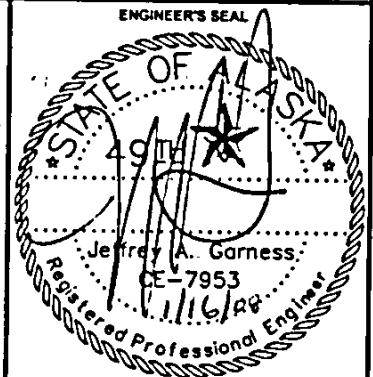
Assumed Elevation: **99.94** Ft.

Inspections performed by: GEG, Ltd. Dates: 1st 9/10/2007  
 2nd 9/11/2007  
 3rd 9/12/2007

**Development Services Department Approval**

Conditional approval: \_\_\_\_\_ Date: \_\_\_\_\_

Reviewed and approved by: Jeffrey W. Park Date: 6-4-08  
 (Rev. 4/06)

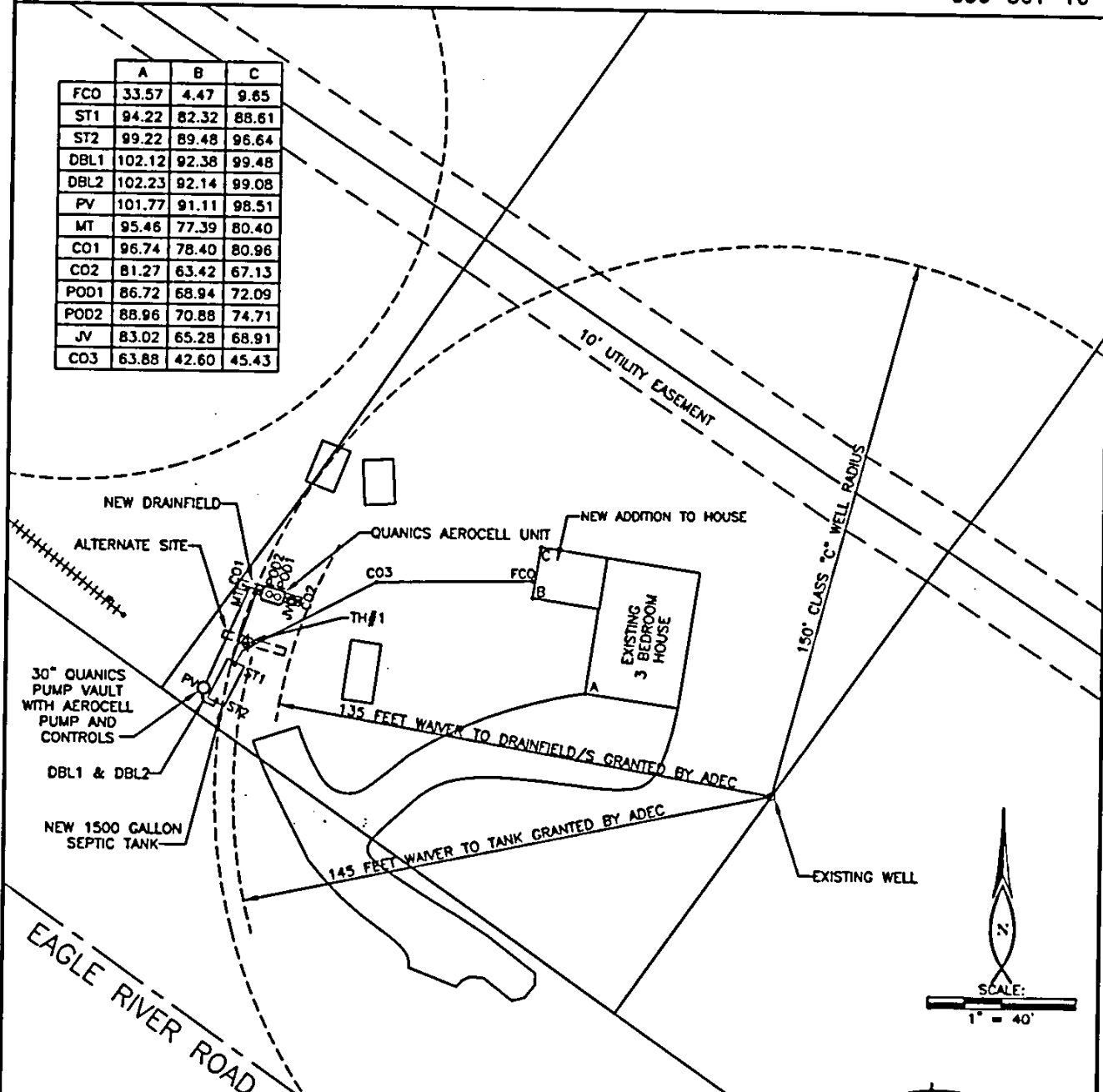


PERMIT NUMBER:  
SW070057

# AS-BUILT DRAWING

PARCEL ID NUMBER:  
050-501-16

	A	B	C
FCO	33.57	4.47	9.65
ST1	94.22	82.32	88.61
ST2	99.22	89.48	96.64
DBL1	102.12	92.38	99.48
DBL2	102.23	92.14	99.08
PV	101.77	91.11	98.51
MT	95.46	77.39	80.40
CO1	96.74	78.40	80.96
CO2	81.27	63.42	67.13
POD1	86.72	68.94	72.09
POD2	88.96	70.88	74.71
JV	83.02	65.28	68.91
CO3	63.88	42.60	45.43

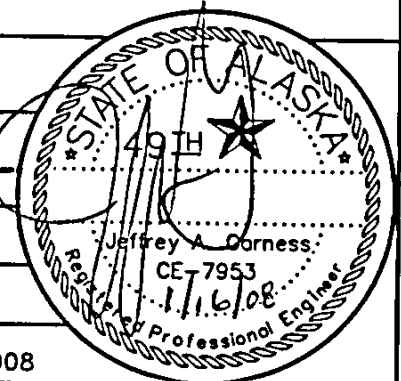


## GARNESS ENGINEERING GROUP, Ltd.

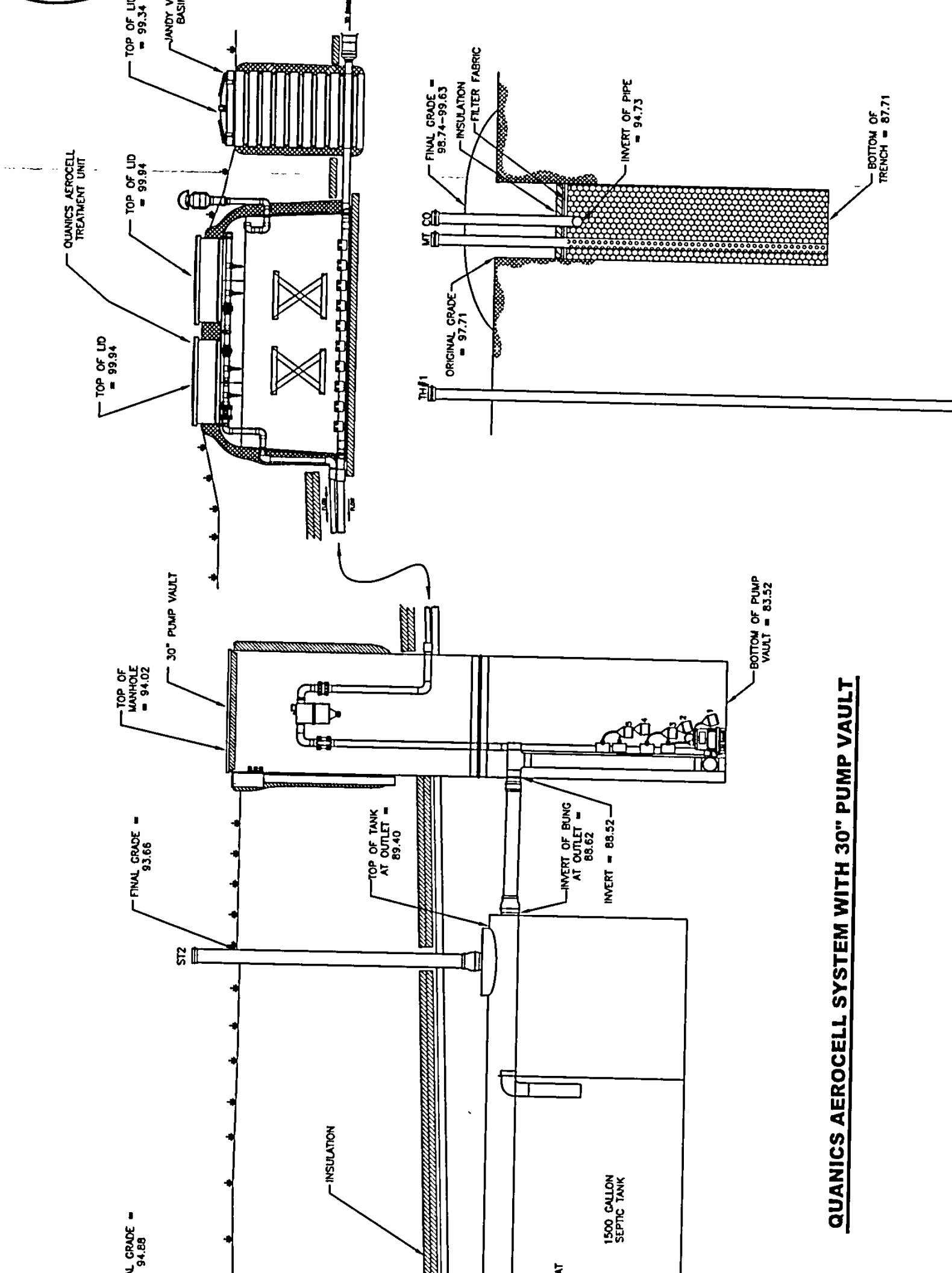
CONSULTANTS & GENERAL CONTRACTORS

3701 E. TUDOR ROAD, SUITE 101 • ANCHORAGE, AK 99507 • PHONE (907)337-8179 • FAX (907)338-3248 • WEBSITE: www.garnessengineering.com

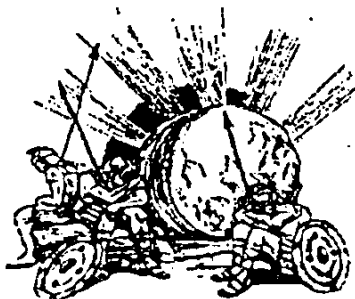
PREPARED FOR: <b>SCOTT MACLEAN</b>	PHONE NUMBER: <b>269-6778</b>	PAGE NUMBER: <b>2 OF 3</b>
LEGAL DESCRIPTION: <b>GLACIER VIEW HEIGHTS; LOT 8, BLOCK A</b>		DRAWN BY: <b>J.L.M.</b>
TYPE OF WORK: <b>AS-BUILT OF SEPTIC SYSTEM UPGRADE</b>		DATE: <b>1/15/2008</b>



(Rev. 01/05)



**QUANTICS AEROCELL SYSTEM WITH 30" PUMP VAULT**



Rising Son Electric, Inc.  
14916 Woodland Drive  
Eagle River, AK 99577  
(907) 622-6777

November 30, 2007

Scott McClane  
22909 Eagle River Road  
Eagle River, AK 99577

Re: Lot 8 Blk A Glacier View Heights - 22909 Eagle River Road - Eagle River, AK 99577

Dear Mr. McClane:

The lift station at the above referenced property has been wired in accordance with NEC and State/Local codes.

Thank you.

Sincerely,

*Kevin S. Hornbuckle*  
*by Chana M. Hornbuckle*

Kevin S. Hornbuckle, Owner  
Administrator License Number 1284  
Specialty Contractor License Number 27285

cc: file

MUNICIPALITY OF ANCHORAGE  
Development Services Department  
On-Site Water & Wastewater Program  
4700 South Bragaw Street  
P.O. Box 196650, Anchorage, AK 99519-6650  
(907) 343-7904

9/10/07 1700  
9/11/07 1000

**ON-SITE WASTEWATER DISPOSAL SYSTEM PERMIT**  
**Upgrade**

Date Issued: May 09, 2007  
Expiration Date: May 08, 2008

Permit Number: SW070057 Parcel ID: 050-501-16  
Legal Description: GLACIER VIEW HEIGHTS BLK A LT 8 REM  
Design Engineer: 0855 GARNES ENGINEERING GROUF Site Address: 022909 EAGLE RIVER RD  
Owner Name: SCOTT MACLEAN Lot Size: 22575 SQ. FT.  
Owner Address: 22909 EAGLE RIVER ROAD Total Bedrooms: 3 Permit Bedrooms: 3  
EAGLE RIVER , AK 99577-

This permit is for the construction of:

Disposal Field  Septic Tank  Holding Tank  Privy  Private Well  Water Storage

All construction must be in accordance with:

1. The attached approved design.
2. All requirements specified in Anchorage Municipal Code Chapters 15.55 and 15.65 and the State of Alaska Wastewater Disposal Regulations ( 18AAC72 ) and Drinking Water Regulations ( 18AAC80 ).
3. The engineer must notify DSD at least 2 hours prior to each inspection. Provide notification by calling (907) 343-7904 ( 24 hours ). ( Not required for a Water Supply Permit only ).
4. From October 15 to April 15, a subsurface soil absorption system under construction during freezing weather must be either:  
A. Open and closed on the same day.  
B. Covered, sealed, and heated to prevent freezing.

Received By: Senja Garnes Date: 5/10/07  
Issued By: Deb Wicks Date: 5/9/07



**Municipality of Anchorage**  
**Development Services Department**  
 Building Safety Division  
 On-Site Water and Wastewater Program  
 4700 Bragaw Street  
 P.O. Box 196650 Anchorage, AK 99519-6650  
 www.ci.anchorage.ak.us  
 (907) 343-7904



**Waiver Review Worksheet**

WR#: 070019 PID#: 050-501-16 HA/Permit# SW 070057

Date Received: May 9, 2007

Legal Description: **Glacier View Heights, Block A Lot 8**

Engineer:

**Jeffrey Garness, P.E.**  
**Garness Engineering Group**  
**3701 E. Tudor Road, Suite 101**  
**Anchorage, AK 99507**

Applicant: **Scott Maclean**

Waiver Requested: **1' lot line waiver and slope waiver**

Criteria:	Geology	Points:
	A. Water Table	
	B. Soil Sorption	
	C. Permeability	
	D. Water Table Gradient	
	E. Horizontal Separation	

Total:

.....

Waiver is Granted:   X   Waiver is *not* Granted: \_\_\_\_\_

List Conditions or Reasons for above: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_

Date: May 9, 2007

By: Deb Wockenfuss  
 Name of Reviewer

.....

Rec#: 79433 Amount: \$175 Date Paid: 5/9/2007



# Municipality of Anchorage



P.O. Box 196650 • Anchorage, Alaska 99519-6650 • Telephone (907) 343-8301 • Fax (907) 343-8200  
4700 Bragaw Street • Anchorage, Alaska 99507  
www.muni.org

Mayor Mark Begich

## Building Safety Division

May 9, 2007

**Jeffrey Garness, P.E.**  
**Garness Engineering Group**  
**3701 E. Tudor Road, Suite 101**  
**Anchorage, AK 99507**

**Subject: Waiver Request for Glacier View Heights, Block A Lot 8**  
**Waiver Request WR#: 070019**  
**Parcel ID # 050-501-16**  
**SW 070057**

**Dear Jeffrey Garness, P.E.:**

Your request for a waiver of the required 10 feet horizontal separation from the absorption field to the property line has been approved. The approved separation distance is 1:0 foot. In addition, a waiver for a field closer than 50' to a slope greater than 25% is approved.

This waiver approval applies to the existing absorption field to property line separation only. Any future upgrade to the on-site wastewater disposal system will require all separation distances be met or another approval from this department.

If there are any further concerns or questions regarding this waiver, please call our office at 343-7904.

Sincerely,

Deb Wockenfuss  
Civil Engineer  
On-Site Water & Wastewater Program

*Community, Security, Prosperity*



**Municipality of Anchorage  
Development Services Department**



Building Safety Division  
On-Site Water & Wastewater Program  
4700 Bragaw St.  
P.O. Box 196650  
Anchorage, AK 99519-6650  
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(907) 343-7904

**ON-SITE SEWER/WELL PERMIT APPLICATION  
FOR A SINGLE FAMILY DWELLING**

Parcel I.D. 050-501-16  
 Property owner(s) SCOTT MACLEAN Day phone 269-6778  
 Mailing address 22909 EAGLE RIVER ROAD \* EAGLE RIVER, AK  
 Site address \_\_\_\_\_ Zip Code 99577  
 Legal description (Sub'd, Block & Lot) GLACIER VIEW HEIGHTS SUBDIVISION: LOT 8, BLOCK A.  
 Legal description (Township, Section & Range) N/A  
 Lot Size 22,575 Sq.Ft. Number of Bedrooms 3

**THIS APPLICATION IS FOR (  all that apply):**

- Absorption Field
- Septic Tank
- Holding Tank
- Privy
- Private Well
- Water Storage

**THIS APPLICATION IS AN:**

- Initial
- Upgrade
- Renewal

I certify that the above information is correct. I further certify that this application is being made for a Single Family Dwelling and is in accordance with applicable Municipal codes.

GARNES ENGINEERING GROUP, Ltd.  
~~(Signature of property owner or authorized agent)~~

Permit/Rush Fees: 460.00 Waiver Fees: 175.00  
 Date of Payment: 5-4-07 Date of Payment: 5/4/07  
 Receipt Number: 79433 DM Receipt Number: 79433



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**GARNESS ENGINEERING GROUP, Ltd.**  
CONSULTANTS & GENERAL CONTRACTORS

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May 2, 2006

Municipality of Anchorage  
Development Service Department  
On-Site Water & Wastewater Program  
4700 Bragaw Street  
P.O. Box 196650,  
Anchorage, Ak 99519-6650  
(907) 343-7904

**Ref: Proposed Septic Upgrade for Glacier View Heights Subdivision; Lot 8, Block A,**

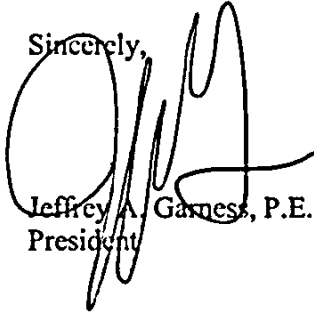
To whom it may concern:

The existing 3 bedroom house is served by a private well and septic system. We are proposing that a new 1500 gallon septic tank, a 30" or 36" Quanics pump vault with Aerocell floats/controls, a Quanics Aerocell treatment unit with Jandy valve assembly, and a deep trench type drainfield be installed. One test hole was excavated on the property by S&S engineering. The drainfield will be designed around the 30 foot radius of this test hole. Waivers have been granted (see attached) from A.D.E.C. for the class "C" well located on the adjacent property to the proposed septic upgrade. Comments regarding the design are summarized as follows:

- 1. SOILS:** See the attached logs which shows the soil classifications, groundwater monitoring, and the percolation test results.
- 2. DRAINFIELD DESIGN:** See attached design drawing for drainfield specifications.
- 3. SURFACE WATERS:** There are no surface waters within 100 feet of the proposed septic system.
- 4. TOPOGRAPHY:** As can be seen on the attached design drawing the average topography below the drainfield is approximately a 5 percent slope running northeast to southwest. There is a slope approximately 40 feet downhill of the testhole that is approximately 40 percent. We request a 35 foot waiver to this slope that is greater than 25 percent. (see attached slope detail drawing)
- 5. LOT LINE WAIVER:** We request a 1 foot lot line waiver from the west and south lot line to the proposed drainfields, septic tank, and pump vault. The septic system on the adjacent lot is 10+ feet from the lot line. We are unaware of any adverse impacts with the granting of this waiver.

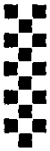
We are unaware of any adverse impacts this installation would have on adjacent wells or septic systems. If you have any questions, please contact us at 337-6179. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. Garness', written over the typed name.

Jeffrey A. Garness, P.E., M.S.  
President

*NOTE: Attached is a site plan drawing, a design drawing, one soil log, which are all part of the design package for this septic system. (Contact G.E.G. Ltd. for 7 page construction specification letter.)*



# STATE OF ALASKA

SARAH PALIN, GOVERNOR

## DEPT. OF ENVIRONMENTAL CONSERVATION

555 CORDOVA  
ANCHORAGE, AK 99501  
Phone: (907)269-7519  
Fax: (907) 269-3487  
<http://www.state.ak.us/dec/>

### DIVISION OF WATER WASTEWATER DISCHARGE PROGRAM

May 1, 2007

Jeffrey A. Garness, P.E.  
Garness Engineering Group, Ltd.  
3701 E. Tudor Road, Suite 101  
Anchorage, Alaska 99507-1259

Re: Glacier View Heights Subdivision, Block A, Lot 8-Eagle River-Waivers of separation Distances to the Replacement Field Deep Trench Type and new Scat Aerocell treatment system-ADEC Plan Tracking Number 1326

Dear Mr. Garness:

On January 29, 2007 we received a waiver request for a single family (3 bedroom) home served by a Class "C" Public Water Well. This waiver request is made to reduce the separation distance from the Class "C" source well on Lot 7 of Block A, Glacier View Heights and the replacement field and the septic tank portion of a new treatment unit to be installed under your firm's observation and approved by the Municipality of Anchorage's On-site Wastewater Program on Lot 8, Block A, Glacier View Subdivision.

Recent drinking water samples did not detect any nitrate as nitrogen. The well logs in the area indicate confining layers of clay and gravel material throughout the depth of the well log until gravel is reached near the 165 foot depth. The engineer has designed an advance SCAT Aerocell type treatment be used which is expected to reduce the nitrate to 20 mg/l before disposal into the deep trench type soil absorption system.

Based upon the engineer's recommendation, the separation distances are reduced as follows:

- The 150 foot separation distance from the Class "C" source well on Lot 7 to the new 1,000 gallon two compartment septic tank is reduced to 145 feet.
- The 150 foot separation distance from the same Class "C" source well to the new deep trench type soil absorption system is reduced to 135 feet.

The Department reduces the separation distances per 18 AAC 72.060. Should a threat to public health be associated with this site the waivers may be rescinded.

This approval does not imply the granting of additional authorizations nor obligate any state, federal or local regulatory body to grant required authorizations.

Any person who disagrees with this decision may request an adjudicatory hearing in accordance with 18 AAC 15.195- 18 AAC 15.340 or an informal review by the Division Director in accordance with 18 AAC 15.185. Informal review requests must be delivered to the Division Director, 555 Cordova Street, Anchorage, Alaska 99501, within 15 days of receiving the decision.

Adjudicatory hearings requests must be delivered to the Commissioner of the Department of Environmental Conservation, 555 Cordova Street, Anchorage, Alaska 99501, within 30 days of the decision. If a hearing is not requested within 30 days, the right to appeal is waived.

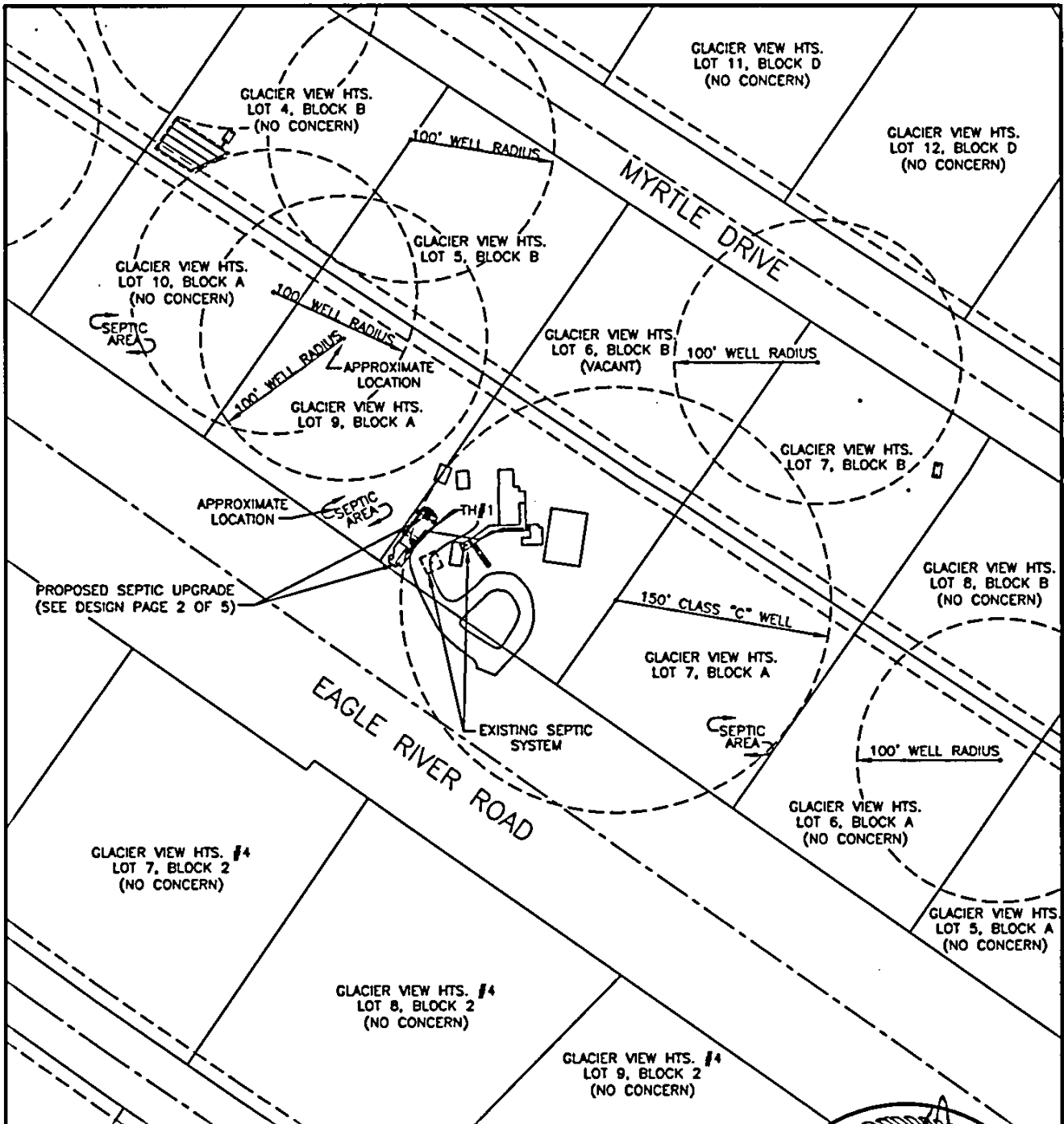
Thank you for your cooperation. If you have any questions please do not hesitate to contact me at 269-7519.


Respectfully,

A handwritten signature in cursive script that reads "William R. Rieth".

William R. Rieth, P.E.  
Environmental Engineer

cc: William Smyth, WW



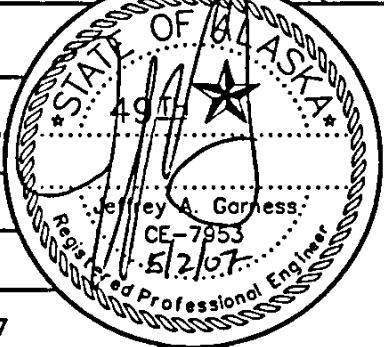


## GARNESS ENGINEERING GROUP, Ltd.

CONSULTANTS & GENERAL CONTRACTORS

3701 E. TUDOR ROAD, SUITE 101 • ANCHORAGE, AK 99507 • PHONE (907)337-6179 • FAX (907)338-3248 • WEBSITE: www.garnessengineering.com

PREPARED FOR: <b>SCOTT MACLEAN</b>	PHONE NUMBER: <b>907-269-6778</b>	PAGE NUMBER: <b>1 OF 5</b>
LEGAL DESCRIPTION: <b>GLACIER VIEW HEIGHTS SUBDIVISION; LOT 8, BLOCK A</b>		DRAWN BY: <b>C.J.G.</b>
TYPE OF WORK: <b>SITE PLAN FOR PROPOSED SEPTIC SYSTEM UPGRADE</b>		DATE: <b>5/2/2007</b>



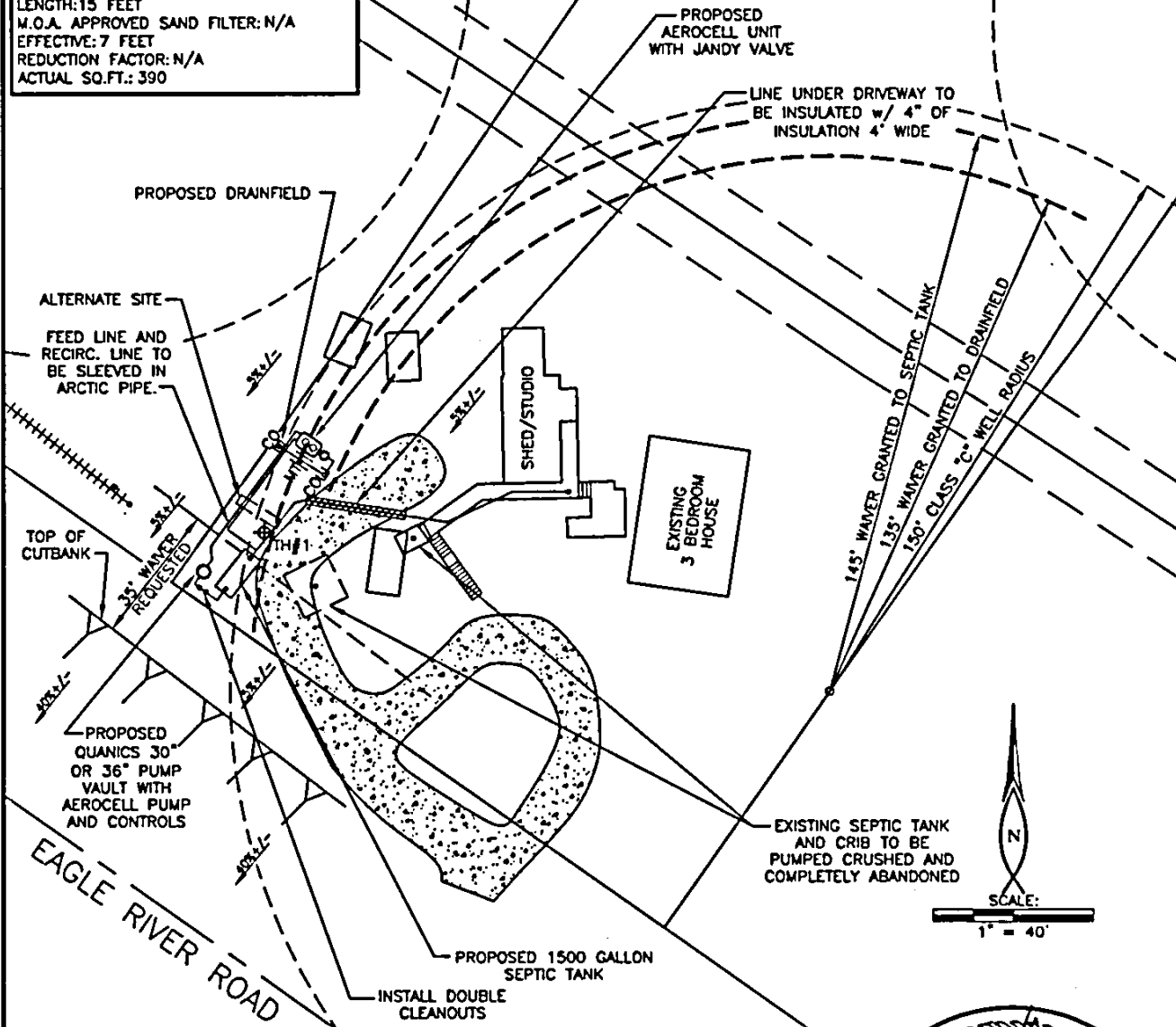
(Rev. 01/05)

**DESIGN CRITERIA:**  
 NUMBER OF BEDROOMS: 3  
 GALLONS PER DAY (GPD): 450  
 PERCOLATION RATE/S: 2.2 MIN./INCH  
 PROPOSED APPLICATION RATE: 3  
 MINIMUM DRAINFIELD SQ.FT.: 150

**DRAINFIELD DESIGN:**  
 MAXIMUM DEPTH: 10 FEET  
 WIDTH: 2.5 FEET  
 LENGTH: 15 FEET  
 M.O.A. APPROVED SAND FILTER: N/A  
 EFFECTIVE: 7 FEET  
 REDUCTION FACTOR: N/A  
 ACTUAL SQ.FT.: 390

NOTE: THE CONTRACTOR SHALL HAVE THE 135' WELL RADIUS, THE 145' WELL RADIUS, THE WEST, AND SOUTH LOT LINES FLAGGED BY A REGISTERED LAND SURVEYOR PRIOR TO CONSTRUCTION.

GEG, LTD. HAS A 7 PAGE SPECIFICATION LETTER THAT PERTAINS TO THIS DESIGN. TO OBTAIN A COPY OF THE LETTER CONTACT GEG. BY PROCEEDING FORWARD WITH THIS INSTALLATION, THE ENGINEER, WELL DRILLER, CONTRACTOR AND PROPERTY OWNER AGREE THAT THEY HAVE READ THESE SPECIFICATIONS AND AGREE TO ACCEPT THE TERMS AND CONDITIONS OUTLINED.



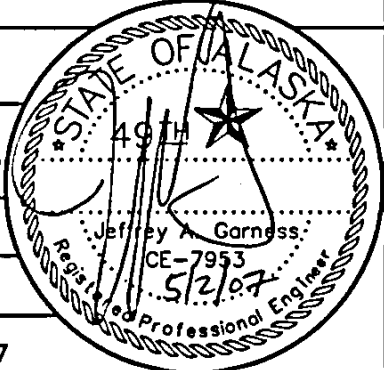
**GARNESS ENGINEERING GROUP, Ltd.**  
 CONSULTANTS & GENERAL CONTRACTORS

3701 E. TUDOR ROAD, SUITE 101 • ANCHORAGE, AK 99507 • PHONE (907)337-6178 • FAX (907)338-3244 • WEBSITE: www.garnessengineering.com

PREPARED FOR: <b>SCOTT MACLEAN</b>	PHONE NUMBER: <b>269-6778</b>	PAGE NUMBER: <b>2 OF 5</b>
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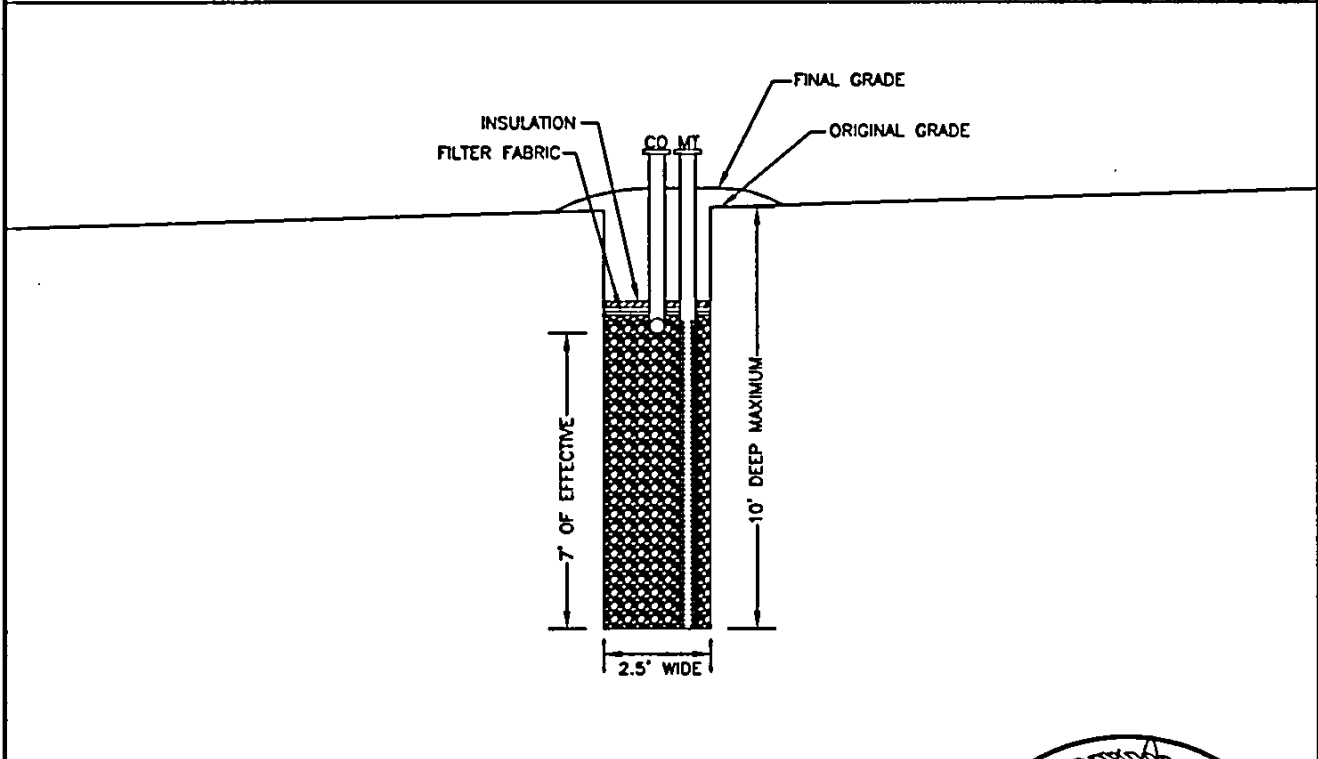
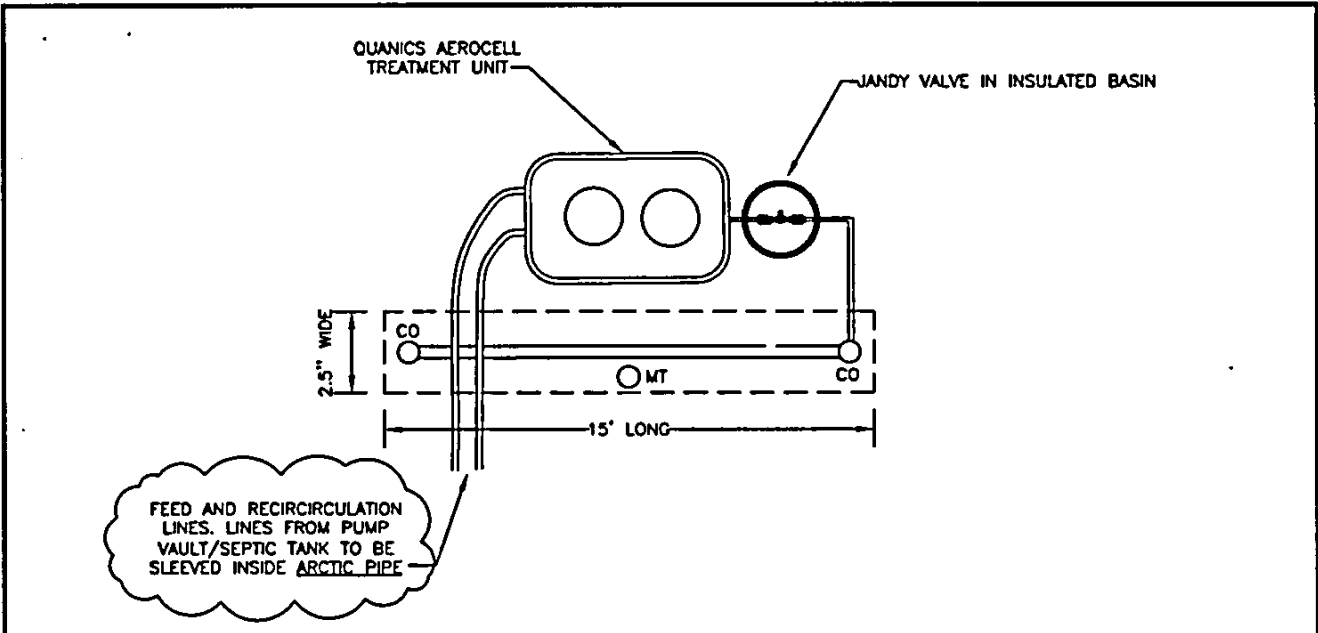
LEGAL DESCRIPTION: <b>GLACIER VIEW HEIGHTS SUBDIVISION; LOT 8, BLOCK A,</b>	DRAWN BY: <b>C.J.G.</b>
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TYPE OF WORK: <b>DESIGN FOR PROPOSED SEPTIC SYSTEM UPGRADE</b>	DATE: <b>5/2/2007</b>
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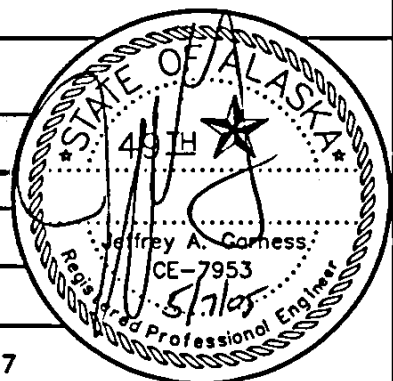
(Rev. 01/05)



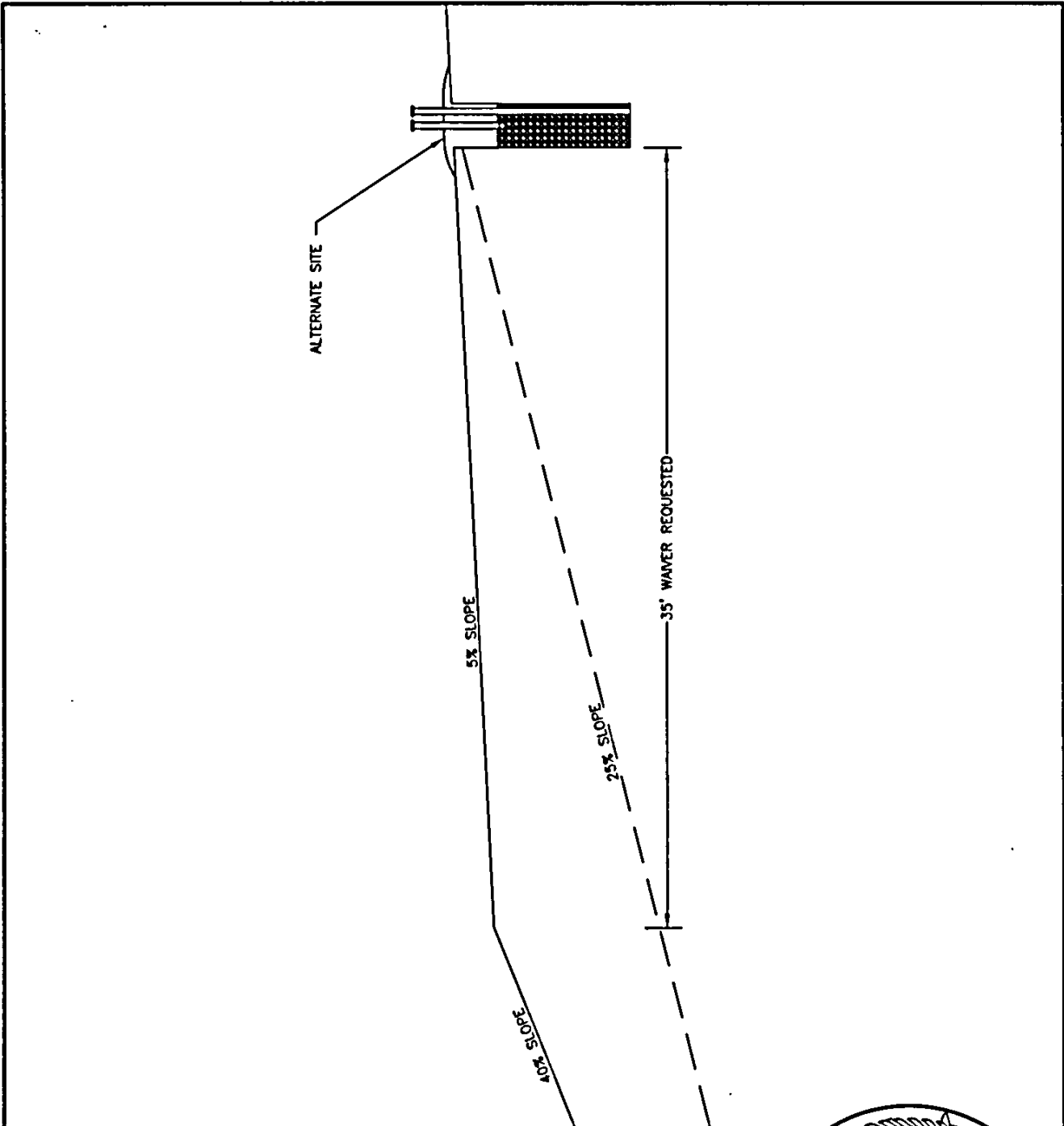


  
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3701 E. TUDOR ROAD, SUITE 101 • ANCHORAGE, AK 99507 • PHONE (907)337-6179 • FAX (907)336-3244 • WEBSITE: [www.garnessengineering.com](http://www.garnessengineering.com)

PREPARED FOR: <b>SCOTT MACLEAN</b>	PHONE NUMBER: <b>907-269-6778</b>	PAGE NUMBER: <b>4 OF 5</b>
LEGAL DESCRIPTION: <b>GLACIER VIEW HEIGHTS SUBDIVISION; LOT 8, BLOCK A,</b>		DRAWN BY: <b>C.J.G.</b>
TYPE OF WORK: <b>DETAIL DRAWING OF PROPOSED DRAINFIELD</b>		DATE: <b>5/2/2007</b>



(Rev. 01/05)

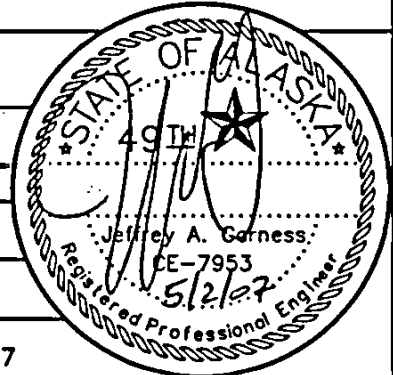


**GARNESS ENGINEERING GROUP, Ltd.**

CONSULTANTS & GENERAL CONTRACTORS

3701 E. TUDOR ROAD, SUITE 101 • ANCHORAGE, AK 99507 • PHONE (907)337-6178 • FAX (907)338-3246 • WEBSITE: [www.garnessengineering.com](http://www.garnessengineering.com)

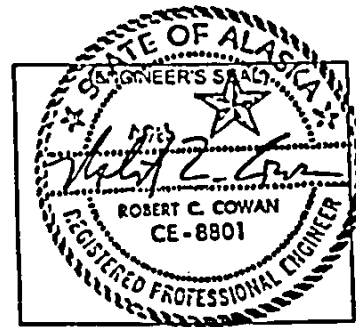
PREPARED FOR: <b>SCOTT MACLEAN</b>	PHONE NUMBER: <b>269-6778</b>	PAGE NUMBER: <b>5 OF 5</b>
LEGAL DESCRIPTION: <b>GLACIER VIEW HEIGHTS SUBDIVISION; LOT 8, BLOCK A,</b>		DRAWN BY: <b>C.J.G.</b>
TYPE OF WORK: <b>DETAIL DRAWING OF SLOPE</b>		DATE: <b>5/2/2007</b>



(Rev. 01/05)

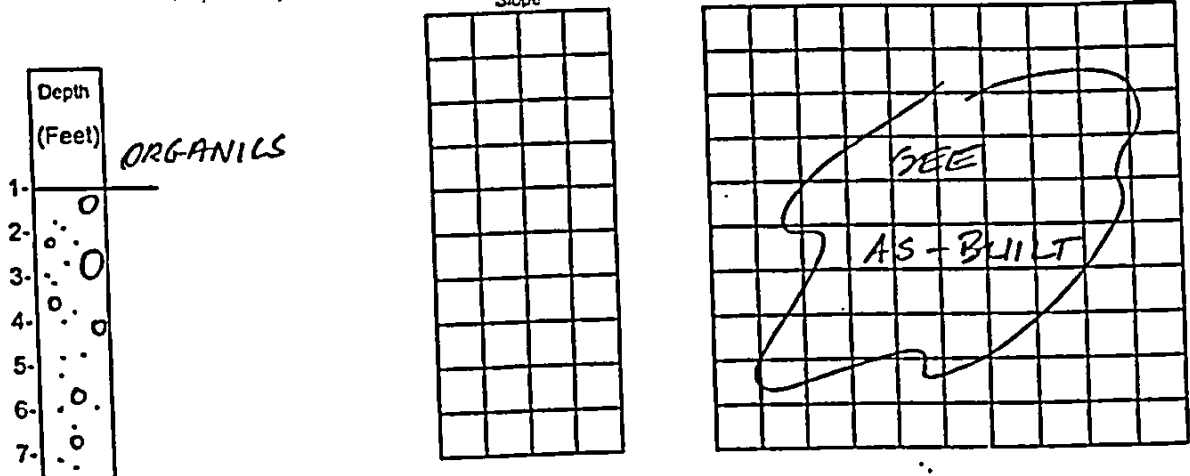


Municipality of Anchorage  
 Development Services Department  
 Building Safety Division  
 On-Site Water and Wastewater Program  
 4700 South Bragow St  
 P.O. Box 196650 Anchorage, AK 99519-6650  
 www.ci.anchorage.ak.us  
 (907) 343-7904

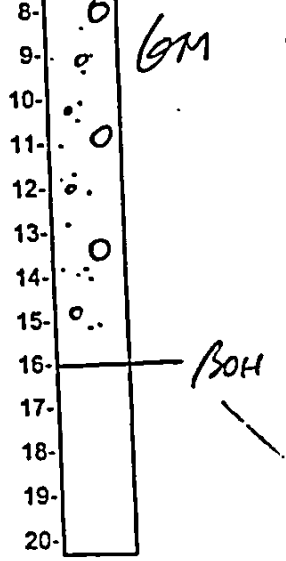


### Soils Log - Percolation Test

Performed For: Boulevard Date Performed: 2/18/04  
 Legal Description: LOT 8; BLOK A; Township, Range, Section: GLACIER VIEW HTS  
 Site Plan



WAS GROUND WATER ENCOUNTERED? NO  
 IF YES, AT WHAT DEPTH? -  
 Depth to Water After Monitoring? DRY  
 Date: 2/25/04



Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
<u>Pressure</u>	<u>2/21/04</u>	<u>0</u>	<u>0</u>	<u>6"</u>	<u>-</u>
		<u>10</u>	<u>10</u>	<u>11 1/2"</u>	<u>5 1/2"</u>
		<u>20</u>	<u>10</u>	<u>11"</u>	<u>5"</u>
		<u>30</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>40</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>50</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>60</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>

PERCOLATION RATE 2.7 (minutes/foot) PERC HOLE DIAMETER 6"  
 TEST RUN BETWEEN 7 FT AND 8 FT

COMMENTS \_\_\_\_\_  
 PERFORMED BY: SAS ENGINEERING John L. Cowan CERTIFY THAT THIS TEST WAS  
 PERFORMED IN ACCORDANCE WITH ALL STATE AND MUNICIPAL GUIDELINES IN EFFECT ON THIS DATE. DATE: 3/30/04

**ON FILE @ MOA**



# GREATER ANCHORAGE AREA BOROUGH

Department of Environmental Quality  
3330 C Street  
Anchorage, Alaska 99503

## INSPECTION REPORT ON-SITE SEWAGE DISPOSAL SYSTEM

NAME BRAD, Dickey MAILING ADDRESS ST RT BOY 194 E.R. PHONE 694-9234  
LOCATION Mile 4.8 E.R. ROAD. LEGAL DESCRIPTION LOT 8, GLACIER VIEW HTS S/D.

### SEPTIC TANK:

DISTANCE FROM WELL 120' MANUFACTURER SWWST MATERIAL PLASTIC NUMBER OF COMPARTMENTS 1  
INSIDE LENGTH \_\_\_\_\_ INSIDE WIDTH \_\_\_\_\_ LIQUID DEPTH \_\_\_\_\_ LIQUID CAPACITY 4000 GALLONS.

### SEEPAGE PIT:

SYSTEM INSTALLED BY WALLACE

NUMBER OF PITS 1 DIAMETER \_\_\_\_\_ OR WIDTH 12' LENGTH 12' DEPTH 6'  
LINING MATERIAL Cement Rings RIB SIZE: \_\_\_\_\_ DIAMETER \_\_\_\_\_ DEPTH \_\_\_\_\_ DISTANCE FROM: WELL 130'  
BUILDING FOUNDATION 100' NEAREST LOT LINE 30' TOTAL EFFECTIVE ABSORPTION AREA (WALL AREA) 208 SQ. FT.  
ADDITIONAL ABSORPTION \_\_\_\_\_

### WELL:

TYPE DRILLED CONSTRUCTION STANDARD DEPTH 220' DISTANCE FROM:  
BUILDING FOUNDATION 60 NEAREST LOT LINE ON LINE NEAREST SEWER LINE N/A SEPTIC TANK 120 SEEPAGE SYSTEM 130'  
CESSPOOL N/A OTHER SOURCES \_\_\_\_\_  
APPROVED \_\_\_\_\_ DISAPPROVED \_\_\_\_\_ REMARKS \_\_\_\_\_

DISTANCES: \_\_\_\_\_

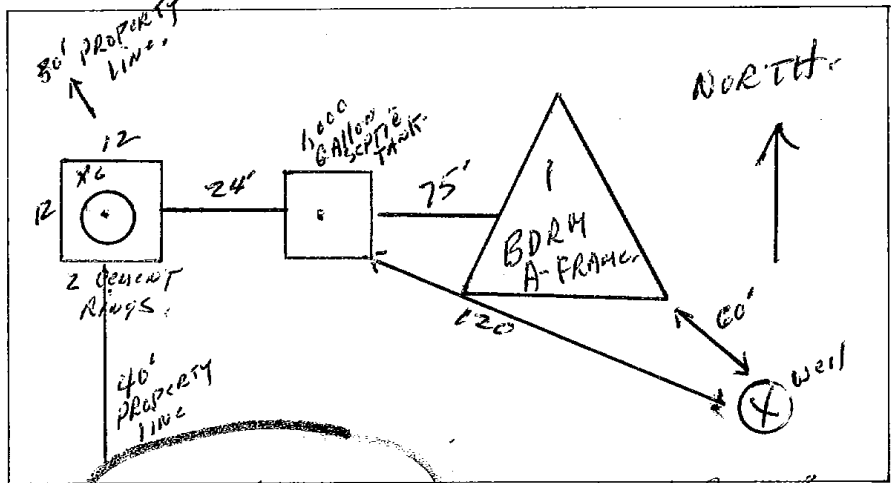
INSTALLED BY: M+W

PIPE MATERIAL: All CAST IRON

LOT SLOPE: \_\_\_\_\_

REMARKS: SOIL TEST 9/15/75  
CONST. TEST LAB.  
150' BDRM. TO 10' DEEP.

DIAGRAM OF SYSTEM



DATE 9/22/75 APPROVED Fred Beatty

G.A.A.B.



# GREATER ANCHORAGE AREA BOROUGH

DEPARTMENT OF ENVIRONMENTAL QUALITY  
3330 "C" STREET ANCHORAGE, ALASKA 99503  
TELEPHONE 274-4561

PERMIT NO. \_\_\_\_\_

## SEWAGE DISPOSAL SYSTEM — APPLICATION AND PERMIT

NAME OF APPLICANT Brad Dickey MAILING ADDRESS St Rt Box 194 PHONE 694-9239  
 INSTALLATION LOCATION 14, 4.8 Eagle River Road  
 LEGAL DESCRIPTION Lot 8 Glacier View Sub  
 INSTALLATION OF: SEPTIC TANK  SEEPAGE PIT  DRAIN FIELD \_\_\_\_\_ OTHER \_\_\_\_\_  
 TYPE AND SIZE OF FACILITY TO BE SERVED 1 Bedroom Single Family Dwelling  
 FINANCED THROUGH \_\_\_\_\_ TO BE INSTALLED BY Wallace  
 SOIL TEST RESULTS pending NOTE: THIS PERMIT IS NOT VALID WITHOUT SOIL TEST  
 COMPLETION DATE ANTICIPATED \_\_\_\_\_

FINAL INSPECTION: 24 HOUR NOTICE REQUIRED. BACKFILLING OF ANY SYSTEM WITHOUT FINAL INSPECTION BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY AUTHORITY WILL BE SUBJECT TO PROSECUTION.

SEPTIC TANK SIZE 1000 TYPE Concrete SEEPAGE AREA SIZE Soil test TYPE Seepage pit

### MINIMUM DISTANCES, REQUIREMENTS

FOUNDATION TO SEPTIC TANK 5'  
 FOUNDATION TO SEEPAGE PIT 20', DRAIN FIELD \_\_\_\_\_  
 SEPTIC TANK TO SEEPAGE PIT WALL 15'  
 SEPTIC TANK \_\_\_\_\_, SEEPAGE PIT 20', DRAIN FIELD \_\_\_\_\_  
 TO NEAREST LOT LINE.  
 WELL TO SEPTIC TANK 100', SEEPAGE PIT 120'  
 DRAIN FIELD \_\_\_\_\_, ALSO CONSIDER AREA WELLS.  
 WATER MAIN TO SEPTIC TANK \_\_\_\_\_, SEEPAGE PIT \_\_\_\_\_  
 DRAIN FIELD \_\_\_\_\_  
 SEPTIC TANK, 100', SEEPAGE PIT 100', DRAIN FIELD \_\_\_\_\_  
 TO RIVER, LAKE, STREAM.

CAST IRON INTO AND OUT OF SEPTIC TANK AND INTO CRIB CROSSING GAP OF EXCAVATION 5 FEET INTO UNDISTURBED SOIL.

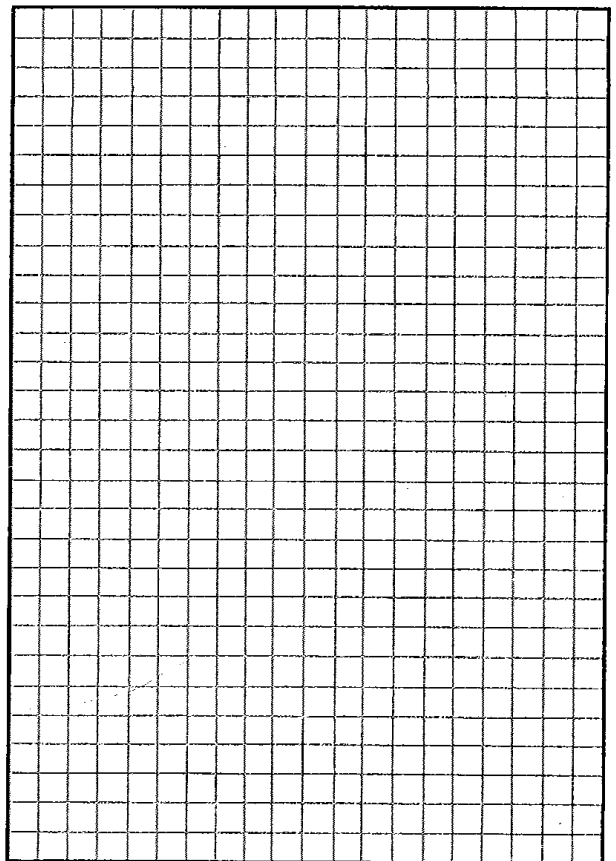
4 INCH DIAMETER CAST IRON SIPHON PIPES ON SEPTIC TANK AND SEEPAGE PIT FITTED WITH AIRTIGHT REMOVABLE CAPS.

### GRAVEL BACKFILL

CONFORM TO BOROUGH REGULATIONS REGARDING INSTALLATION.

John R. Lee  
 G.A.A.B.  
 OR  
 LICENSED DESIGNER

### DIAGRAM OF SYSTEM



I CERTIFY THAT I AM FAMILIAR WITH THE REQUIREMENTS OF GREATER ANCHORAGE AREA BOROUGH ORDINANCE NO. 28-68 AND THAT THE ABOVE DESCRIBED SYSTEM IS IN ACCORDANCE WITH SAID CODE.

DATE 4/25/75 APPLICANT'S SIGNATURE [Signature]



**WOODWARD-LUNDGREN & ASSOCIATES, INC.**  
CONSULTING ENGINEERS AND GEOLOGISTS  
AN AFFILIATE OF WOODWARD-CLYDE CONSULTANTS

Raymond Lundgren  
Lloyd S. Cluff  
George E. Hervert  
B.A. Vallerga  
William T. Black

3201 Spenard Road  
Anchorage, Alaska 99503  
(907) 272-2407

June 5, 1973  
Job No. A12109-8

Mr. David Dorland  
P.O. Box 49  
Eagle River, Alaska 99577

Dear Mr. Dorland:

Test Pit and Percolation Test  
Lots 8 & 9 Glacier View Heights  
Eagle River, Alaska

At your request, the undersigned inspected and logged the vertical soil profile of two excavations (proposed septic tank and percolation pit excavations) at the subject site on June 3, 1973 and performed a percolation test at the location(s) shown in the attached Figure 1. The soil profile is presented as Figure 2.


The results of the percolation test (data on Fig.2) is as follows:

<u>Soil Tested</u>	<u>Percolation Rate, minutes per inch</u>
Medium to coarse grain sand and gravel with cobbles and boulders	5

In accordance with the design charts in "Manual of Septic-Tank Practice" by U.S. Department of Health, Education, and Welfare, the above rate requires 125 square feet of absorption area per bedroom. Due to boulders observed in the tank excavation, it is recommended that this value be increased by 20 percent and a value of 150 square feet of absorption area per bedroom be used for design. Accordingly, the maximum rate of sewage application (gallons per square foot per day) is 2.2.

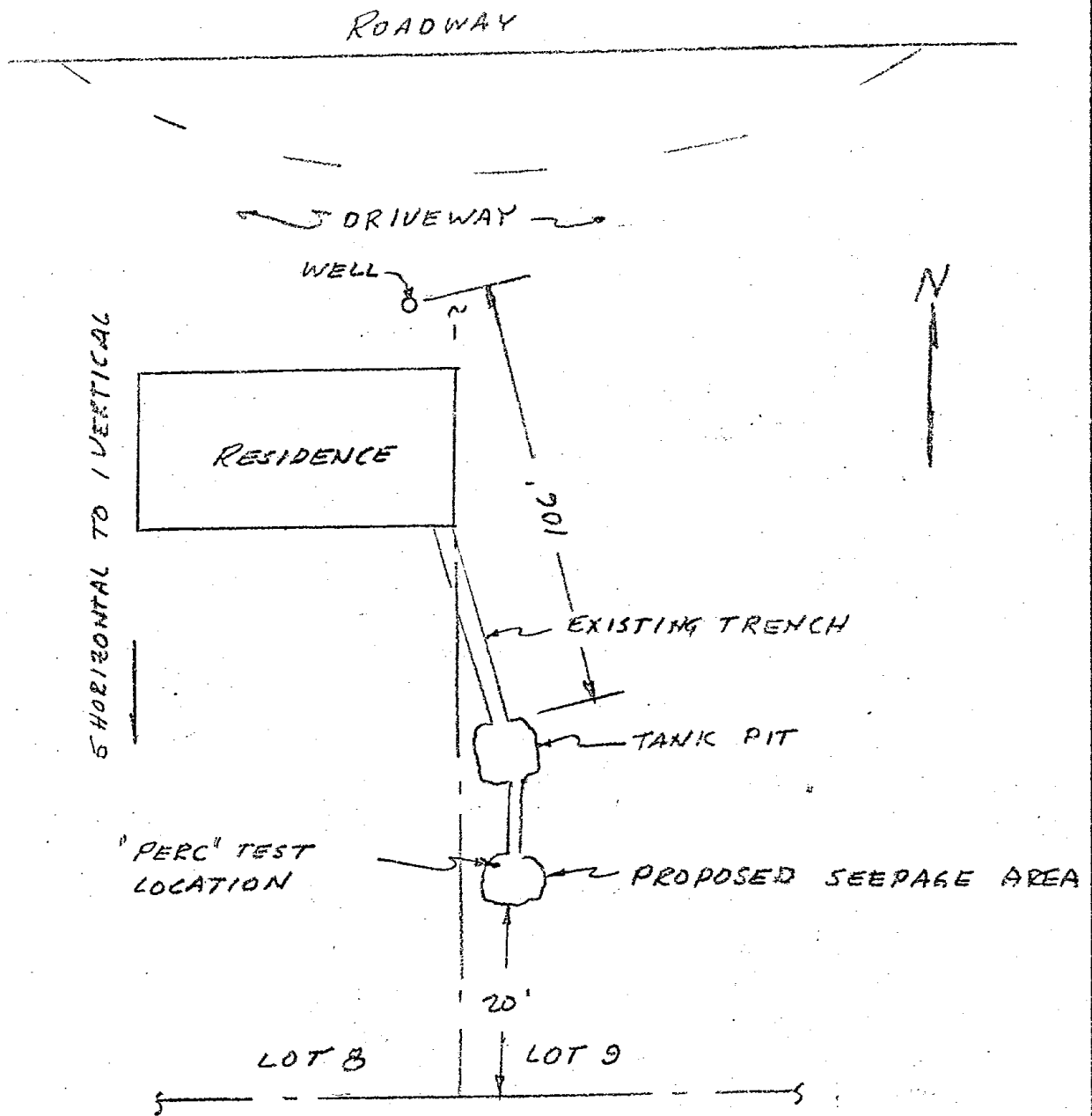
If we can be of any further service to you, please call.

Very truly yours,  
WOODWARD-LUNDGREN & ASSOCIATES

  
Rodney P. Kinney, P.E.  
Chief Engineer

RPK:nck

OAKLAND - SAN JOSE - SAN FRANCISCO - ANCHORAGE, ALASKA



NOTE: DIMENSIONS PROVIDED BY OWNER

SITE PLAN FIG. 1  
 NO SCALE  
 LOTS 8 & 9  
 GLACIER HEIGHTS SUB'DVN.

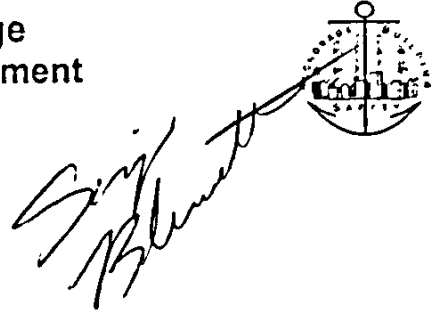
PROJECT <i>DORLAND RESIDENCE</i>		PROJECT NO. <i>A 12109-8</i>	
LOCATION <i>LOTS 8 &amp; 9 GLACIER VIEW HEIGHTS</i>		ELEVATION AND DATUM —	
DRILLING AGENCY —		DATE STARTED —	DATE FINISHED —
DRILLING EQUIPMENT <i>BACKHOE</i>		COMPLETION DEPTH <i>PIT - 6' TANK - 9'</i>	ROCK DEPTH —
SIZE AND TYPE OF BIT —		NO. SAMPLES <i>2</i>	DIST. <i>2</i> UNDIST. —    CORE —
CASING —		WATER LEVEL —	FIRST —    COMPL. —    24 HR. —
CASING HAMMER:	WEIGHT —	DROP —	
SAMPLER —		FOREMAN —	
SAMPLER HAMMER:		Geologist <i>RK</i>	
SAMPLER HAMMER:	WEIGHT —	DROP —	

DEPTH, FEET	SAMPLES							SAMPLE DESCRIPTION color, moisture, particle size, consistency	SOIL GRAPH	DEPTH, FEET	REMARKS (drilling fluid, depth of casing, casing blows, fluid loss, bit condition, crowd, rpm, etc.)	DATE & TIME
	No. LOC.	Type	Recov. Feet	Penetr. Resist. Bl./in.	% Ice	Temp.						
1							2-4" HUMUS		1	BORDERLINE est. 225 ±		
2							SILT & FINE SAND WITH SOME GRAVEL		2			
3	1	SACK					GRADING TO SILTY GRAVEL		3	est. 190-200		
4							SANDY GRAVEL WITH SOME SILT AND OCCASIONAL COBBLES		4			
5							MEDIUM TO COARSE GRAIN SAND & GRAVEL WITH COBBLES & BOULDERS TO 3'φ		5			
6	2	SACK							6	DEPTH OF TEST (NO COBBLES OR BOULDERS)		
7							BOTTOM OF PIT EXCAVATION		7	TIME, MIN.    DROP, IN. *		
8									8	0    —		
9							BOTTOM OF TANK EXCAVATION		9	3    1/2		
10									10	6    1		
										8 1/2    1 1/2		
										10    2		
										15    3		
<p>NOTE: 1. DRY AT TIME OF INSPECTION (6-3-73)</p> <p>2. WELL LOG INDICATES STATIC WATER LEVEL @ 35' @ WELL LOCATION.</p> <p>3. BASED ON ADJACENT WELL INFORMATION, IT IS ASSUMED THAT THE FREE GROUND WATER LEVEL SLOPES STEEPER THAN GROUND SURFACE.</p>												



**Municipality of Anchorage  
Development Services Department**

Building Safety Division  
On-Site Water & Wastewater Program  
4700 Bragaw Street  
P.O. Box 196650  
Anchorage, AK 99519-6650  
www.muni.org/onsite  
(907) 343-7904



**CERTIFICATE OF ON-SITE SYSTEMS APPROVAL  
FOR A SINGLE FAMILY DWELLING**

Parcel I.D. 050-501-16

COSA# 090384

Expiration Date: 1-28-10

**1. GENERAL INFORMATION**

Complete legal description GLACIER VIEW HEIGHTS; BLOCK A, LOT 8

Location (site address) 22909 EAGLE RIVER ROAD \*EAGLE RIVER, AK

Current Property owner(s) SCOTT MACLEAN Day phone C/O AGENT

Mailing address 22909 EAGLE RIVER ROAD \*EAGLE RIVER, AK

Lending agency \_\_\_\_\_ Day phone \_\_\_\_\_

Mailing address \_\_\_\_\_

Real Estate Agent BARBARA CRITTENDEN W/ PRUDENTIAL Day phone 242-2227

Mailing address 16635 CENTERFIELD DRIVE \*EAGLE RIVER, AK 99577

*Unless otherwise requested, COSA will be held by DSD for pickup.*

**2. NUMBER OF BEDROOMS:** 3

**3. TYPE OF WATER SUPPLY:**

**TYPE OF WASTEWATER DISPOSAL:**

- Individual Well
- Individual Water Storage
- Community Class C Well
- Public Water System

- Individual On-site
- Individual Holding tank
- Community On-site
- Public Sewer

The Municipality of Anchorage Development Services Department (DSD) Issues Certificates of On-Site Systems Approval (COSA) based only upon the representations given in paragraph 4 by an independent professional civil engineer registered in the State of Alaska. Certificates of On-Site Systems Approval are required for the transfer of title (except between spouses) for properties served by a single-family on-site wastewater disposal and/or water supply system. DSD also issues COSAs upon request to homeowners. Certificates of On-Site Systems Approval are valid for 90 days from the date of issue for properties served by a private or Class C well and may be reissued with new water samples. (Certificates may be reissued for a period of up to one year with valid water samples.) Certificates are valid for one year for properties served by Class A or B wells or a public water system. The Municipality of Anchorage is not responsible for errors or omissions in the professional engineer's work.

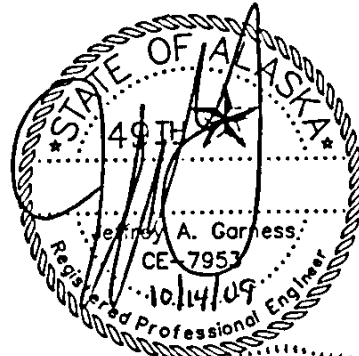
**4. STATEMENT OF INSPECTION BY ENGINEER**

As certified by my seal affixed hereto and as of the validation date shown below, I verify that my investigation, based on procedures outlined in the Certificate of On-Site Systems Approval Guidelines for this application, shows that the on-site water supply and/or wastewater disposal system is (are) safe, functional and adequate for the number of bedrooms and type of structure indicated herein. I further verify that based on the information obtained from the Municipality of Anchorage files and from my investigation and inspection, the on-site water supply and/or wastewater disposal system is(are) in compliance with all applicable Municipal and State codes, ordinances, and regulations in effect at the time of installation.

Name of Firm GARNES ENGINEERING GROUP, Ltd. Phone 337-6179  
 Address 3701 E. TUDOR ROAD, SUITE 101 \* ANCHORAGE, AK 99507  
 Engineer's Printed Name JEFFREY A. GARNES, P.E. Date 10/14/09

**Engineer's Comments:**

In conducting this evaluation, GEG, LTD. attempted to provide a thorough, conscientious engineering analysis of the system in accordance with ADEC and MOA DSD Guidelines & Regulations. The reported results described the performance of the system under the conditions encountered at the time of the test, and separation distances measured to readily identifiable features. The operational life of all wells and septic systems depend on the local soils condition, groundwater levels that may fluctuate during the year, and the water usage of the family being served by the system. These conditions are outside the control of the evaluator of the system. Satisfactory test results do not guarantee future performance of the system, nor do they guarantee that there are no hidden defects or encroachments. GEG, LTD. can therefore not provide any warranty or future estimate of how long the system will continue to meet the operational requirements of the ADEC or MOA DSD. The content of this report is for the sole benefit of the owner listed above. Any reliance upon or use of this report by any other person or party is not authorized, nor will it confer any legal right whatsoever.



**5. DSD SIGNATURE**

Approved for 3 bedrooms.  
 Disapproved.  
 Conditional approval for \_\_\_\_\_ bedrooms, with the following stipulations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Attachments:**

COSA Checklist	<input checked="" type="checkbox"/>	Arsenic Advisory	_____
Septic System Advisory	_____	Maintenance Agreements	_____
Well Flow Advisory	_____	Supplemental Engineer's Report	_____
Nitrate Advisory	_____	Other	_____

By: J. W. Post Original Certificate Date: 10-28-09



# Municipality of Anchorage Development Services Department

Building Safety Division  
On-Site Water & Wastewater Program  
4700 Bragaw Street  
P.O. Box 196650  
Anchorage, AK 99519-6650  
www.muni.org/onsite  
(907) 343-7904



## CERTIFICATE OF ON-SITE SYSTEMS APPROVAL CHECKLIST

Legal Description: GLACIER VIEW HEIGHTS; BLOCK A, LOT 8 Parcel ID: 050-501-16

### A. WELL DATA

Well type COMMUNITY CLASS "C" If A, B, or C provide PWSID# 216172 Well Log (Y/N) \_\_\_\_\_  
Date completed \_\_\_\_\_ Sanitary seal (Y/N) \_\_\_\_\_ Wires properly protected (Y/N) \_\_\_\_\_  
Total depth \_\_\_\_\_ ft. Cased to \_\_\_\_\_ ft. Casing height (above ground) \_\_\_\_\_ in.

	FROM WELL LOG	AT INSPECTION
Date of test	_____	_____
Static water level	_____ ft.	_____ ft.
Well production	_____ g.p.m.	_____ g.p.m.

### WATER SAMPLE RESULTS:

Coliform 0 colonies/100 ml. Nitrate ND mg./L. Other bacteria 0 colonies/100 ml.  
Arsenic: ND ug./L. Date of sample: 9/29/09 Collected by: GEG

### B. SEPTIC/HOLDING TANK DATA

**\*\*QUANICS ADVANCED TREATMENT SYSTEM**

Tank Type/Material SEPTIC/STEEL Date installed 9/10-12/07  
Tank size 1500 gal. Number of Compartments 2 Cleanouts (Y/N) YES  
Foundation cleanout (Y/N) YES Depression over tank (Y/N) NO High water alarm (Y/N) YES  
Date of pumping 10/7/09 Pumper JR's Pumping

### C. ABSORPTION FIELD DATA

**BELOW EXISTING GRADE**

Date installed 9/10-12/07 Soil rating (g.p.d./ft<sup>2</sup> or ft<sup>3</sup>/bdm) \*\*3 System type DEEP TRENCH  
Length 15 ft. Width 2.5 ft. Gravel below pipe 7.02 ft.  
Total depth \*11.58 ft. Eff. absorption area 210 ft<sup>2</sup> Monitoring tube YES Depression over field NO  
Date of adequacy test 9/29/09 Results (Pass/Fail) PASS For 3 bedrooms  
Fluid depth in absorption field before test 15 in. Water added 620 gal. New depth 48 in.  
Elapsed Time: 120 min. Final fluid depth 19 in. Absorption rate >= 450+ g.p.d.  
Any rejuvenation treatment (past 12 mo.) (Y/N & type) NONE KNOWN If yes, give date -

**\*\*QUANICS ADVANCED TREATMENT SYSTEM.**

**D. LIFT STATION**

Date installed 9/10-12/07 Size in gallons 184 Manhole/Access (Y/N) YES  
"Pump on" level at 17 in. "Pump off" level at 17 in. High water alarm level at 36 in.  
Datum BOTTOM OF TANK Cycles tested 3 Meets alarm & circuit requirements? YES

**E. SEPARATION DISTANCES**

SEPARATION DISTANCES FROM WELL ON LOT TO:

Septic tank/lift station on lot \*145'+ On adjacent lots \*\*\*110'+  
Absorption field on lot \*135'+ On adjacent lots \*\*\*120'+  
Public sewer main N/A Public sewer manhole/cleanout N/A  
Sewer /septic service line 75'+ Holding tank N/A  
Animal containment areas 150'+ Manure/animal excrete storage areas 150'+

SEPARATION DISTANCES FROM SEPTIC/HOLDING TANK ON LOT TO:

Building foundation 5'+ Property line 5'+ Absorption field 5'+  
Water main N/A Water service line 10'+ Surface water 100'+  
Wells on adjacent lots 100'+

SEPARATION DISTANCE FROM ABSORPTION FIELD ON LOT TO:

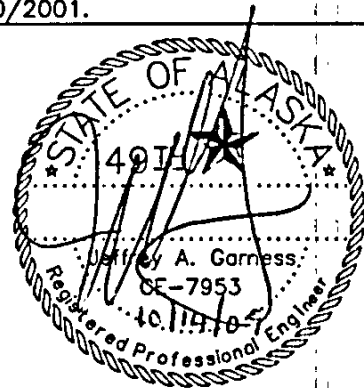
Property line \*\*1 Building foundation 10'+ Water main N/A  
Water service line 10'+ Surface water 100'+ Driveway, parking/vehicle storage 5'  
Curtain drain NONE KNOWN Wells on adjacent lots 100'+

**F. COMMENTS** \*WAIVER IN PLACE, ADEC TRACKING NUMBER #1326. \*\*WR#070019.  
\*\*\*WAIVER GRANTED PER ADEC LETTER DATED 7/30/2001.

**G. ENGINEER'S CERTIFICATION**

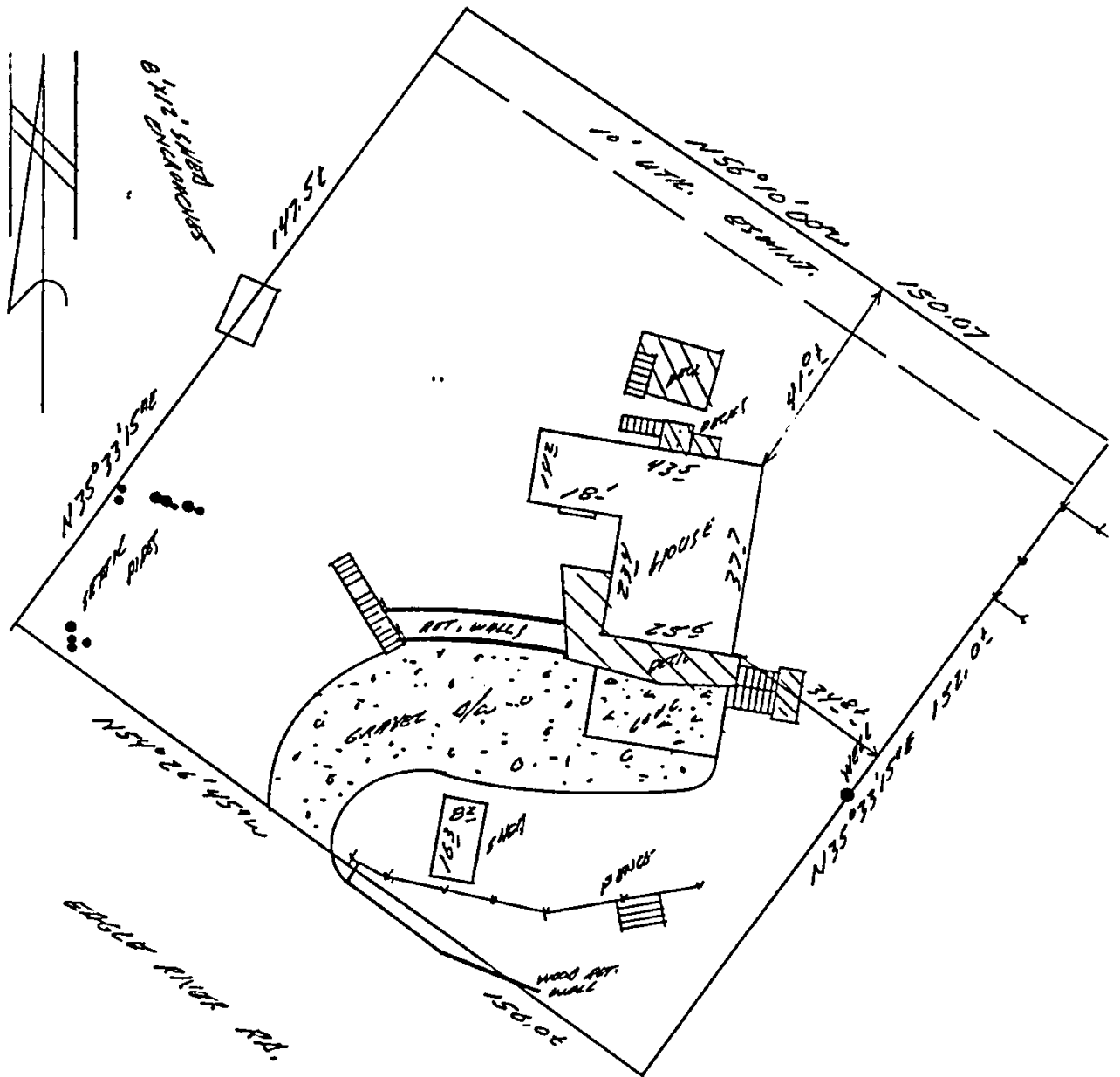
*I certify that I have determined through field inspections and review of Municipal records that the above systems are in conformance with MOA COSA guidelines in effect on this date.*

Engineer's Printed Name JEFFREY A. GARNESS  
Date 10/14/09



COSA Fee \$ 490  
Date of Payment 10-19-09  
Receipt Number 061407

Waiver Fee \$ \_\_\_\_\_  
Date of Payment \_\_\_\_\_  
Receipt Number \_\_\_\_\_

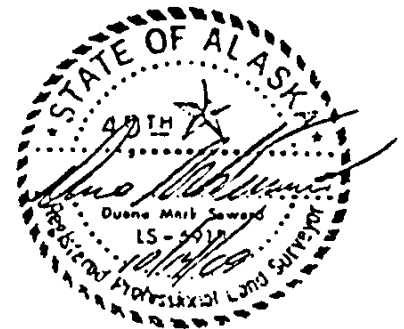


ASBUILT

SEWARD & ASSOCIATES LAND SURVEYING 694-0824

I HEREBY CERTIFY THAT I HAVE SURVEYED THE FOLLOWING DESCRIBED PROPERTY:  
 GLACIER VIEW HEIGHTS, LOT B, BK. A  
 AND THAT NO ENCROACHMENTS EXIST EXCEPT AS INDICATED. IT IS THE RESPONSIBILITY OF THE OWNER TO DETERMINE THE EXISTENCE OF ANY EASEMENTS, COVENANTS, OR RESTRICTIONS WHICH DO NOT APPEAR ON THE RECORDED SUBDIVISION PLAT. UNDER NO CIRCUMSTANCES SHOULD ANY DATA HEREON BE USED FOR CONSTRUCTION OF FENCE LINES, OR FOR ESTABLISHING BOUNDARY LINES.

SCALE:  
 1" = 30'  
 DATE:  
 10/23/09  
 GRID:  
 SW 159  
 FB:  
 119-49  
 DRAWN:  
 SLD



**Quanics™/AeroCell™**  
**Advance Wastewater Treatment Routine Maintenance Service Report**  
**2009**

Report date: October 2, 2009

Unit #:	35
Legal Description:	Glacier View Heights S/D; Lot 8, Block A
Street:	22909 Eagle River Road, Eagle River, AK
Home owners name(s):	Scott MacLean
Home owner mailing address:	22909 Eagle River Road
City, State, Zip:	Eagle River, AK 99577
Start-up date of unit:	1/07/08
Service contract current:	yes
Service contract ending date:	1/07/10

Date(s) of Routine Service: 5/30/09, fall maintenance scheduled for Oct.-Nov. 2009  
Dates of repairs/non-routine service dates: none noted from 10/08 to current date.


This report is to inform you that your **Quanics™/AeroCell™** advanced wastewater treatment system is working within normal parameters. The following items were noted during routine service:

Timers adjusted: yes, "override off" from 6 to 5 min.  
Auto dialer working (phone line connected with phone service): Yes  
Orifices cleaned: yes  
Pumping needed: No  
Floats adjusted: No  
Drain field levels: Good  
Filter cleaned: Yes

**Quanics™/AeroCell™ Service Provider:**

EMM Technical Services LLC.  
P.O. Box 672235  
Chugiak, AK 99567  
Phone/Fax 907-688-0395  
Cell 907.351.7042/907.223.0555

Thank you,

  
Jody Maus

Note: Copies of Service Report will be made available to the Municipality of Anchorage Development Services Department On-Site Water & Wastewater Program upon request.

**JRs Pumping**  
 PO Box 773415  
 Eagle River, AK 99577  
 (907) 694-6454

**Service Agreement**

Number: 029898  
 Order Date: 30-Sep-2009  
 Service Date: 07-Oct-2009 12:00  
 Technician: Bruce

**Billing Information**

Prudential Real Estate  
 16635 Centerfield Drive

Eagle River, AK 99577  
 (907) 689-6478  
 Eva's direct line

Job Description: 1500g  
 P.O. Number:

Terms: Net 30  
 Salesrep: Dawn-Dawn  
 Map Book:

Tax %: 0  
 Job Type: Repeat  
 Map Grd: 113- -

**Job Site Information**

Barbara  
 22909 Eagle River Rd

Eagle River, AK 99577  
 (907) 689-1802

Cross Streets: Eagle River Rd

Job Comments: Last Service "05/15/2008" 1500g

**\*HAS A QUANTEX SYSTEM\***

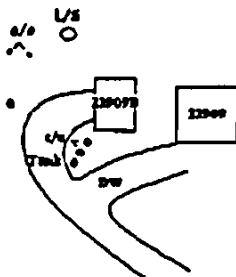
tank normal & cleaned  
 back flushed 1 time

Additional Location Comments Diagram: S:\Diagrams\16142.bmp

Brown cedar w/ blue trim  
 Septic to the back

Gallons Planned: 1500

Gal. Actual: \_\_\_\_\_



- Hose Length: 2 \_\_\_\_\_
- Double Tank:  \_\_\_\_\_
- Pump System:  \_\_\_\_\_
- Baffles Inlet:  \_\_\_\_\_
- Baffles Outlet:  \_\_\_\_\_

Service Type	Qty	Price Each	Tax?	Extension	Actual
Septic Serv 15K	1	\$210.00	No	\$210.00	_____

	NonTaxable Total	Taxable Total	Tax Total	Grand Total
Estimated Charges:	\$210.00	\$0.00	\$0.00	\$210.00

Actual Charges: \_\_\_\_\_

Customer agrees to the terms and conditions shown. THIS IS A BINDING AGREEMENT.

Signature and Title of Customer Representative \_\_\_\_\_ Date \_\_\_\_\_

Accepted by JRs Pumping \_\_\_\_\_ Date Accepted \_\_\_\_\_

For your added convenience we accept; American Express, Discover, Visa and Master Card payments over the phone.

After 30 Days account will be turned over to COLLECTIONS. \$30.00 For NSF Checks Returned.

ADVANCED WASTEWATER TREATMENT SYSTEM MAINTENANCE AND  
REPAIR AGREEMENT  
MEMORANDUM OF UNDERSTANDING  
BETWEEN MUNICIPALITY OF ANCHORAGE  
AND Megan Johnston

THIS MEMORANDUM OF UNDERSTANDING made and entered into as of this  
21 Day of October of 2009 by and between Megan Johnston  
herein the "OWNER," and the Municipality of Anchorage, herein the  
"MUNICIPALITY." In consideration of the mutual covenants contained herein, the  
parties to this Memorandum of Understanding agree as follows:

1. **ADVANCED WASTEWATER TREATMENT SYSTEMS.** Municipality grants permission to Owner to utilize and operate an Advanced Wastewater Treatment System (AWWTS), described as Quarks Awwell located at Glacier View Hts L8 B1K A, Anchorage, Alaska.
2. **Definitions.**
  - A. **Alteration.** Any change to the design or function of an AWWTS that includes the installation or removal of any parts, components or pieces not included in the original construction permit and design. Prior to performing any alterations to an AWWTS the owner must obtain a Wastewater Disposal System Construction Permit from the Municipality pursuant to Anchorage Municipal Code (hereinafter, "AMC") 15.65.
  - B. **Certificate of On-Site Systems Approval.** An approval by the Municipality of existing water and wastewater disposal systems given at the time of property sale and title transfer in accordance with AMC 15.65.

These approvals certify that the systems are adequate for the homes that they support and meet the codes that were in place at the time of system construction.

- C. **Damage.** Any man-made or natural change in a system that would inhibit the system from performing as designed.
- D. **Maintenance and Repair.** The scheduled and as needed replacement of existing parts, components and pieces of an AWWTS that were included in the original design which would allow the AWWTS to continue to perform as designed.
- E. **Permit (Construction) An On-Site Wastewater Disposal System Construction Permit** as defined by AMC 15.65.
- F. **Permit (Operating) An Advanced Wastewater Treatment System Operating Permit.** An annual permit, issued by the Municipality, that allows the Owner to operate an AWWTS, upon meeting all the requirements of this agreement, the conditions of Operating Permit, the requirements of the On-Site Wastewater System Construction Permit and all relevant provisions of AMC 15.65

3. **Fee.** Owner shall pay to Municipality an annual fee of ( ) (\$ 2,000), payable on or before the issuance of the operating permit and annually thereafter. The annual fee is due on or before the anniversary date of the approval by the Municipality of installed system.

4. **Term.** The term of this Memorandum of Understanding shall be for the life of the AWWTS.

The term begins on the date of approval by the Municipality of the installed system and shall continue while the AWWTS system is in use or operational or until the property is sold or title is transferred by owner and a new certificate of On-Site approval is issued to the new owner or transferee of the property.

5. Alterations, Installation and Removal of Additional Equipment. Owner agrees not to make any alterations, removal of parts or additions to the AWWTS without a Construction Permit from the Municipality.

6. Maintenance and Repairs.

A. Throughout the term of this Memorandum of Understanding, the Owner shall maintain AWWTS in good repair. In addition, it shall be the responsibility of the Owner during the term of this Memorandum of Understanding, and any extensions or renewals thereof, at the owner's sole expense, to pay for any and all: (1) repair(s) (2) maintenance, (3) adjustment(s), (4) replacement costs, and (5) inspection costs. Further, Owner agrees to comply with all applicable ordinance, laws, regulations, rules and orders for the AWWTS.

B. Owner agrees to provide the Municipality a written schedule of routine maintenance and repairs which have been performed on the system pursuant to the terms and conditions contained in the Owner's AWWTS Operating Permit. This schedule shall be submitted to the Municipality annually upon the renewal of the permit. The schedule of maintenance and repair contained in the Owner's AWWTS Operating Permit is: Twice A Year

C. Owner acknowledges that the fine schedule for failing to maintain and repair an AWWTS are codified in AMC 14.60.

D. Owner agrees that only maintenance, repair personnel certified by the Municipality will inspect and make any necessary maintenance, repairs or permitted alterations to the system.

E. Owner agrees to grant the Municipality reasonable access to test and inspect the AWWTS upon 24 hours written notice.

F. Owner agrees that any sale or transfer of title of the property will not occur without a new Certificate of On-Site Systems Approval.

G. Owner agrees that the relevant provisions of the standard specification guidebook for AWWTS is the governing professional guidelines for the construction, maintenance and repair of the Owner's AWWTS.

7. Nonwaiver. The failure of either party at any time to enforce a provision of this Memorandum of Understanding shall in no way constitute a waiver of the provisions, nor in any way effect the validity of the Memorandum of Understanding or any part hereof, or the right of such party thereafter to enforce each and every provision hereof.

8. Amendment.

A. This Memorandum of Understanding shall only be amended, modified or changed by a writing, executed by authorized representatives of the parties, with the same formality of this Memorandum of Understanding was executed and such writing shall be attached to this Memorandum of Understanding as an amendment.

B. For the purposes of any amendment modification or change to the terms and conditions of this contract, the only authorized representatives of the parties are:

Owner: Megan Johnston

Anchorage: Purchasing Officer

Any attempt to amend, modify, or change this contract by either an unauthorized representative or unauthorized means shall be void.

9. Jurisdiction: Choice of Law. Any civil action arising from this Memorandum of Understanding shall be brought in the Superior Court for the Third Judicial District of the State of Alaska at Anchorage. The laws of the State of Alaska shall govern the rights and obligations of the parties under this Memorandum of Understanding.

10. Severability. Any provisions of this Memorandum of Understanding declared invalid by a court of competent jurisdiction shall not invalidate the remaining provisions of the Memorandum of Understanding.

OWNER: MJE

MUNICIPALITY:

By: Megan Johnston

By: \_\_\_\_\_

Date: 10/27/09

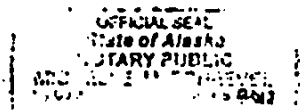
Title: \_\_\_\_\_

Date: \_\_\_\_\_

STATE OF ALASKA )  
 ) ss.  
THIRD JUDICIAL DISTRICT )

The foregoing instrument was acknowledged before me this 27 day of October, 2009, by MEGAN JOHNSTON.

Michelle S. O'Neil  
NOTARY PUBLIC FOR ALASKA  
My Commission expires: 9-5-2013





Municipality of Anchorage  
Development Services Department

Building Safety Division  
On-Site Water and Wastewater Program  
4700 South Bragaw St.  
P.O. Box 196650 Anchorage, AK 99519-6650  
www.ci.anchorage.ak.us  
(907) 343-7904



CERTIFICATE OF HEALTH AUTHORITY APPROVAL  
FOR A SINGLE FAMILY DWELLING

Parcel I.D. 050-501-16

HAA # 040109

Expiration Date: 7-20-04

1. GENERAL INFORMATION

Complete legal description Lot 8; Block A; Glacier View Heights <sup>REM</sup>

Location (site address or directions) 22909 Eagle River Rd.

Current Property owner(s) Susan Boudreau Day phone 907-697-2640

Mailing address \_\_\_\_\_

Lending agency \_\_\_\_\_ Day phone \_\_\_\_\_

Mailing address \_\_\_\_\_

Real Estate Agent Kathi Olmstead Day phone 694-4200

Mailing Address 16600 Centerfield Dr. Ste. 201 Eagle River, AK 99577

Unless otherwise requested, HAA will be held by DSD for pickup.

*Handwritten signature and date: 4/20/04*

2. NUMBER OF BEDROOMS: 2

3. TYPE OF WATER SUPPLY:

- Individual Well
- Individual Water Storage
- Community Class C Well
- Public Water System

TYPE OF WASTEWATER DISPOSAL:

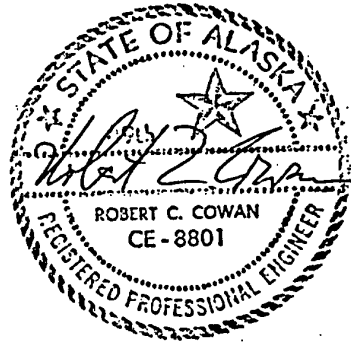
- Individual On-site
- Individual Holding tank
- Community On-site
- Public Sewer

The Municipality of Anchorage Development Services Department (DSD) Issues Certificates of Health Authority Approval (HAA) based only upon the representations given in paragraph 4 by an independent professional civil engineer registered in the State of Alaska. Certificates of Health Authority Approval are required for the transfer of title (except between spouses) for properties served by a single-family on-site wastewater disposal and/or water supply system. DSD also issues HAAs upon request to homeowners. Certificates of Health Authority Approval are valid for 90 days from the date of issue for properties served by a private or Class C well and may be reissued with new water sample results. (Certificates may be reissued for a period of up to one year with valid water samples.) Certificates are valid for one year for properties served by Class A or B wells or a public water system. The Municipality of Anchorage is not responsible for errors or omissions in the professional engineer's work.

**4. STATEMENT OF INSPECTION BY ENGINEER**

As certified by my seal affixed hereto and as of the validation date shown below, I verify that my investigation, based on procedures outlined in the Health Authority Approval Guidelines for this application, shows that the on-site water supply and/or wastewater disposal system is(are) safe, functional and adequate for the number of bedrooms and type of structure indicated herein. I further verify that based on the information obtained from the Municipality of Anchorage files and from my investigation and inspection, the on-site water supply and/or wastewater disposal system is(are) in compliance with all applicable Municipal and State codes, ordinances, and regulations in effect at the time of installation.

Name of Firm S & S Engineering Phone 694-2979  
 Address 17034 N. Eagle River Loop Ste. 204 Eagle River, AK 99577  
 Engineer's Printed Name Robert C. Cowan Date 3/30/04

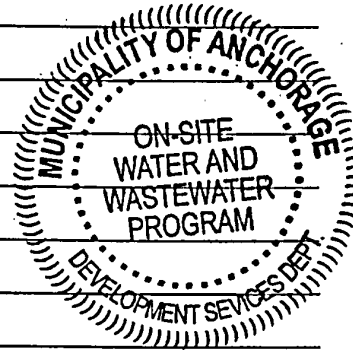


**5. DSD SIGNATURE**

Approved for 2 bedrooms.  
 Disapproved.  
 Conditional approval for \_\_\_\_\_ bedrooms, with the following stipulations:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Additional Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



**Attachments:**

HAA Checklist	<u>  X  </u>	Maintenance Agreements	_____
Septic System Advisory	_____	Supplemental Engineer's Report	_____
Well Flow Advisory	_____	Other	_____

By: Jeff W. Poet Original Certificate Date: 4-20-04



Municipality of Anchorage  
Development Services Department

Building Safety Division  
On-Site Water & Wastewater Program  
4700 South Bragaw St.  
P.O. Box 196650 Anchorage, AK 99519-6650  
www.ci.anchorage.ak.us  
(907) 343-7904



HEALTH AUTHORITY APPROVAL CHECKLIST

Legal Description: LOT 8 <sup>REM</sup> BLOCK A GLACIER VIEW HTS Parcel ID: 050-501-16

A. WELL DATA

Well type CLASS C If A, B, or C provide PWSID # 216172 Well Log (Y/N)                     

Date completed                      Sanitary seal (Y/N)                      Wires properly protected (Y/N)                     

Total depth                      ft. Cased to                      ft. Casing height (above ground)                      in.

FROM WELL LOG

AT INSPECTION

Date of test                                          

Static water level                      ft.                      ft.

Well production                      g.p.m.                      g.p.m.

WATER SAMPLE RESULTS:

Coliform 0 colonies/100 ml. Nitrate 0.100 mg./l. Other bacteria 0 colonies/100 ml.

Arsenic:                      mg./l.

Date of sample: 2/12/04  
3/15/04

Collected by: Robert Cowan / Bryan Jones

B. SEPTIC/HOLDING TANK DATA

Tank Type/Material SEPTIC / FIBERGLASS Date installed 9/22/75

Tank size 1000 gal. Number of Compartments 1 Cleanouts (Y/N) YES

Foundation cleanout (Y/N) YES Depression over tank (Y/N) NO High water alarm (Y/N) NO

Date of pumping 3/23/04 Pumper JR'S septic pumping

C. ABSORPTION FIELD DATA

Date installed 9/22/75 Soil rating 1.2 (g.p.d./ft<sup>2</sup> or ft<sup>2</sup>/bdm) System type SEEPAGE PIT

Length 12 ft. Width 12 ft. Gravel below pipe 6 ft.

Total depth 10 ft. Eff. absorption area 288 ft<sup>2</sup> Monitoring tube YES Depression over field NO

Date of adequacy test 2/12/04 Results PASS (Pass/Fail) For 2 bedrooms

Fluid depth in absorption field before test 48 1/2 in. Water added 335 gal. New depth 62 in.

Elapsed Time: 75 min. Final fluid depth 59 in. Absorption rate >= 300 g.p.d.

Any rejuvenation treatment (past 12 mo.) (Y/N & type) NOT KNOWN If yes, give date

**D. LIFT STATION**

Date installed \_\_\_\_\_ Size in gallons \_\_\_\_\_ Manhole/Access (Y/N) \_\_\_\_\_  
"Pump on" level at \_\_\_\_\_ in. "Pump off" level at \_\_\_\_\_ in. High water alarm level at \_\_\_\_\_ in.  
Datum \_\_\_\_\_ Cycles tested \_\_\_\_\_ Meets alarm & circuit requirements? \_\_\_\_\_

**E. SEPARATION DISTANCES**

SEPARATION DISTANCES FROM WELL ON LOT TO: <sup>7</sup>

Septic tank/lift station on lot 100'± On adjacent lots N/A  
Absorption field on lot 120'± On adjacent lots N/A  
Public sewer main N/A Public sewer manhole/cleanout N/A  
Sewer /septic service line 70' Holding tank N/A

SEPARATION DISTANCES FROM SEPTIC/HOLDING TANK ON LOT TO:

Building foundation 10'± Property line 10'± Absorption field 24'  
Water main 10'± Water service line 10'± Surface water 100'±  
Wells on adjacent lots 100'±

SEPARATION DISTANCE FROM ABSORPTION FIELD ON LOT TO:

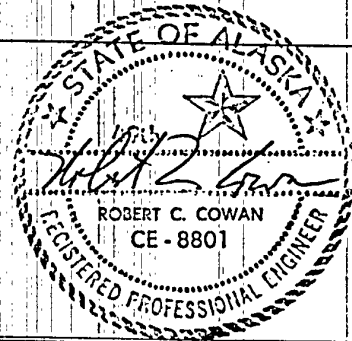
Property line 10'± Building foundation 10'± Water main 10'±  
Water Service line 10'± Surface water 100'± Driveway, parking/vehicle storage 0'  
Curtain drain NONE KNOWN Wells on adjacent lots 100'±

**F. COMMENTS**

**G. ENGINEER'S CERTIFICATION**

*I certify that I have determined through field inspections and review of Municipal records that the above systems are in conformance with MOA HAA guidelines in effect on this date.*

Engineer's Printed Name ROBERT C. COWAN  
Date 3/30/04



HAA Fee \$ 430  
Date of Payment 3-30-04  
Receipt Number 49851  
(Rev. 12/01)

Waiver Fee \$ \_\_\_\_\_  
Date of Payment \_\_\_\_\_  
Receipt Number \_\_\_\_\_



SGS Ref.# 1040749001  
 Client Name S & S Engineering  
 Project Name/# Lot 8 Block A Glacier View Hts  
 Client Sample ID Lot 8 Block A Glacier View Hts  
 Matrix Drinking Water  
 PWSID 216172

All Dates/Times are Alaska Standard Time  
 Printed Date/Time 02/19/2004 12:59  
 Collected Date/Time 02/12/2004 12:15  
 Received Date/Time 02/12/2004 17:15  
 Technical Director Stephen C. Ede  
 Released By *[Signature]*

Sample Remarks:

Parameter	Results	PQL	Units	Method	Container ID	Allowable Limits	Prep Date	Analysis Date	Init
<b>Waters Department</b>									
Nitrate-N	0.100 U	0.100	mg/L	EPA 300.0	B	(<=10)		02/13/04	JJI
<b>Microbiology Laboratory</b>									
Total Coliform	<del>11 OB W/Fecal Coli</del>		col/100mL	SM18 9222B	A	(<=1)		02/12/04	KI

*Retested 03/15/04*



SGS/CTE ENVIRONMENTAL SERVICES

200 W. POTTER DRIVE  
ANCHORAGE, ALASKA 99518  
Tel: 907-562-2343  
Fax: 907-561-5301

*RUSH*  
**RUSH**

### Drinking Water Analysis Report for Total Coliform Bacteria

READ INSTRUCTIONS ON REVERSE SIDE BEFORE COLLECTING SAMPLE

Lab Ref No.

1041340-1A



MUST BE COMPLETED BY WATER SUPPLIER

PUBLIC WATER SYSTEM ID# \_\_\_\_\_

PRIVATE WATER SYSTEM

Send Results

Send Invoice

Water System Name/Company Name <b>S &amp; S ENGINEERING</b>		Contact Name
Phone Number <b>17034 Eagle River Loop Road, No. 204</b>	Fax Number	
Mailing Address <b>Eagle River, Alaska 99577</b>		
City	State	Zip Code

#### SAMPLE COLLECTION:

For valid results, analysis must begin within 30 hrs of sample collection.

#### SAMPLE TYPE:

Date: 03 / 18 / 2004  
Month Day Year

Time: 1:55 AM  PM (circle one)

Location: Lot 8, Block A, Glacier View Heights

Collector: Bryan Jones [Signature]  
Printed Name Signature

Transported to Lab By:  Same as collector

Other: ROBERT C. COWAN [Signature]  
Printed Name Signature

- Routine
- Treated Water
- Repeat Sample
- Untreated Water
- Special Purpose

#### TO BE COMPLETED BY LABORATORY

##### Sample Receiving:

Date: 3-18-04

Time: 1525

Temp: ambient

Delivery Method: direct

Received By: [Signature]  
Printed Name Signature

Sample over 30 hours old; Results may be unreliable

48 Hour Waiver For Remote Locations

RUSH SAMPLE

Phone #: \_\_\_\_\_

Fax #: \_\_\_\_\_

Comments: \_\_\_\_\_

#### Bacteriological Water Analysis Record:

Analysis Began: 3/18/04 1630

Analyst: DC

Analytical Method:

- Membrane Filter
- MMO-MUG (PIA)

##### MMO-MUG (PIA) RESULTS:

Total Coliform: \_\_\_\_\_

E. Coli: \_\_\_\_\_

##### MEMBRANE FILTER RESULTS:

Direct Count: 0 Colonies/100ml

Verification:

Total Coliform { LTB: \_\_\_\_\_

BGB: \_\_\_\_\_

Fecal Coliform { EC: \_\_\_\_\_

- Satisfactory
- Unsatisfactory

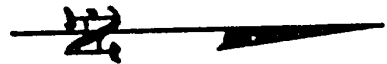
Sent to ADEC:
ANC FBK JUN
Date/Time: _____

Sent to Client:
Phoned <input type="checkbox"/> Faxed <input type="checkbox"/>
Date/Time: _____
Spoke with: _____

Reported By: [Signature]  
Signature

Date/Time: 3/19/04 1600

TNTC = Too Numerous to Count  
OB = Other Bacteria



9

6

EAGLE RIVER ROAD

50

50

SET 5/8" x 30" REBAR 149.92

ROW TAKEN 107-2-74 BK-474, PG-837

S 54°26'45"E 150.00 (REC)

149.92 (PROP)

19.38

16.2 SHED

67.7

4" C.I. STD. PIPES (TYP)

4.0 WOOD WALK

26.8 EXISTING HOUSE

15.3

14.5

12.0

0.4

3.8

4.2

4.2

8.3

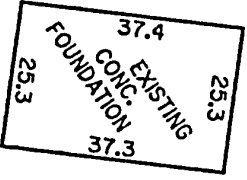
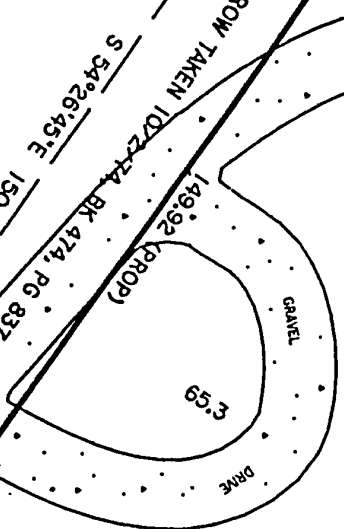
12.0

12.0

SHED 12.0

SHED 12.2

30.6 x



S 56°10'00"E 150.07 (REC)

10 FT. UTILITY EASEMENT

41.1

Well

N 35°33'15"E 172.03 (REC)

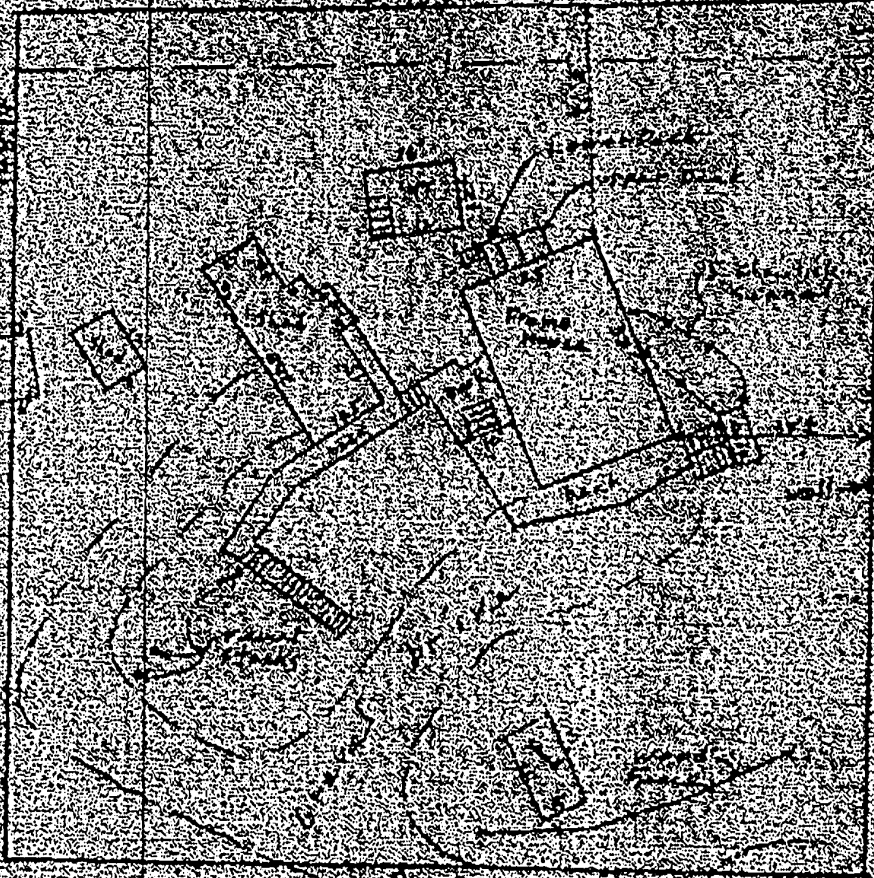
34.7

0.7

SET 5/8" x 30" REBAR 149.92

RECOV. REB (TYP)

19.18



1000' City  
1000'

Exhibit River Rd.

AS BUILT

I hereby certify that I have surveyed the following described property located at Block A  
1/2 Section 14, T14N, R14E, S4  
Chena River, Alaska

And where shown on the plan that the improvements shown are within the property lines and do not overlap or encroach on the property. I am not aware of any other improvements on the property shown on the plan and that there are no roadways, transmission lines or other public easements on said property shown as indicated herein.

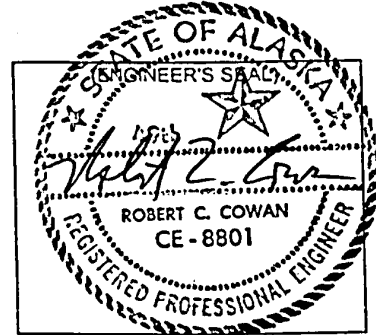
Dated at Exile River, Alaska  
 this 12th day of March, 2004

ROBERT C. JOHNSON  
 Registered Land Surveyor No. 2001-L  
 Bar 97-0455, Exile River, Alaska 99577  
 Phone 907/694-2247



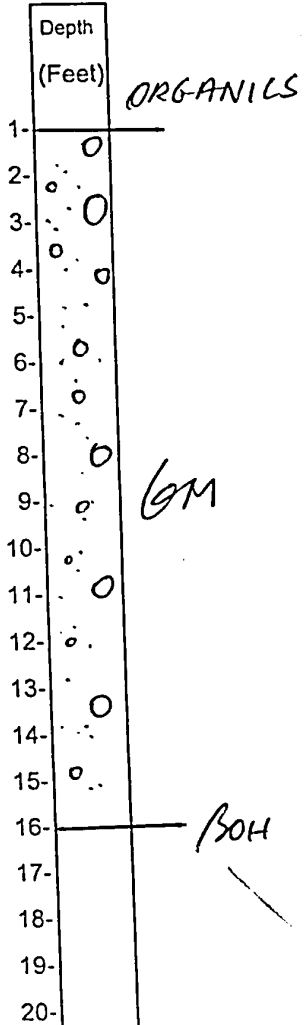
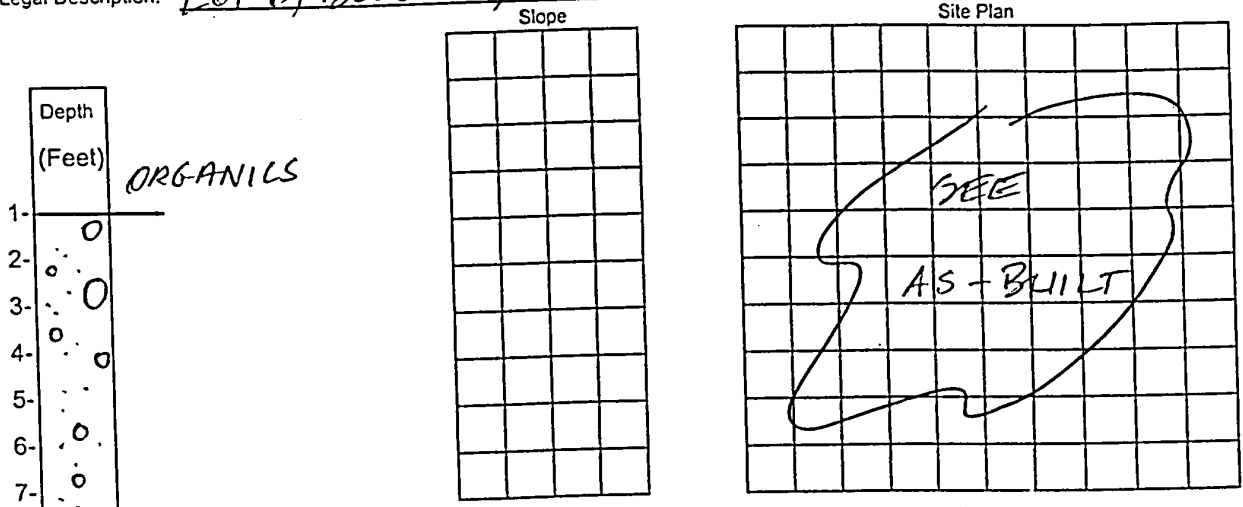


Municipality of Anchorage  
 Development Services Department  
 Building Safety Division  
 On-Site Water and Wastewater Program  
 4700 South Bragaw St.  
 P.O. Box 196650 Anchorage, AK 99519-6650  
[www.ci.anchorage.ak.us](http://www.ci.anchorage.ak.us)  
 (907) 343-7904



### Soils Log - Percolation Test

Performed For: Boulevard Date Performed: 2/18/04  
 Legal Description: LOT 8; BLOCK A; Township, Range, Section: GLACIER VIEW HTS



WAS GROUND WATER ENCOUNTERED? NO  
 IF YES, AT WHAT DEPTH? -  
 Depth to Water After Monitoring? DRY  
 Date: 2/25/04


Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
<u>Pressure</u>	<u>2/24/04</u>	<u>0</u>	<u>0</u>	<u>6"</u>	<u>-</u>
		<u>10</u>	<u>10</u>	<u>11 1/2"</u>	<u>5 1/2"</u>
		<u>20</u>	<u>10</u>	<u>11"</u>	<u>5"</u>
		<u>30</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>40</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>50</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>
		<u>60</u>	<u>10</u>	<u>10 1/2"</u>	<u>4 1/2"</u>

PERCOLATION RATE 2.7 (minutes/inch) PERC HOLE DIAMETER 6"  
 TEST RUN BETWEEN 7 FT AND 8 FT

COMMENTS

PERFORMED BY: SAS ENGINEERING John L. Cowan CERTIFY THAT THIS TEST WAS  
 PERFORMED IN ACCORDANCE WITH ALL STATE AND MUNICIPAL GUIDELINES IN EFFECT ON THIS DATE. DATE: 3/30/04



**Municipality of Anchorage  
Development Services Department**

Building Safety Division  
On-Site Water and Wastewater Program  
4700 South Bragaw St.  
P.O. Box 196650 Anchorage, AK 99519-6650  
www.ci.anchorage.ak.us  
(907) 343-7904



**ON-SITE SEWER/WELL SUBMITTAL COMMENT SHEET**

To: Bob Cowan

Legal description: Glacier View Heights Block A Lot 8 REM

The attached paperwork has been reviewed and is being returned for the following reasons:

- Original signature or stamp missing on \_\_\_\_\_
- Calculation error in design. \_\_\_\_\_
- Additional soils information needed. \_\_\_\_\_
- Water monitoring results inadequate. \_\_\_\_\_
- Discrepancy in information submitted. \_\_\_\_\_
- Topographic information missing or inadequate. \_\_\_\_\_
- Incomplete; missing 2 units on property, is this a multi-family residence?
- Incomplete; missing Absorption field adequate for only 1 bedroom.
- Additional adequacy test information needed. \_\_\_\_\_
- Water sample unacceptable. \_\_\_\_\_
- Measured/proposed distances/dimensions missing. \_\_\_\_\_
- Locations of all soils, percolation and water monitoring tests not shown. \_\_\_\_\_
- Proposed system too deep for soils information submitted. \_\_\_\_\_
- Well log required. \_\_\_\_\_
- Omission in narrative. \_\_\_\_\_
- Insufficient fill over tank or field. \_\_\_\_\_
- Other. Soil rating blank on checklist

Name of reviewer: Jeff

Please supply the necessary information and

**LEAVE THIS FORM ATTACHED TO T**

NO ADDITIONAL BUILDING USA FOR STORAGE/ART STUDIO.  
SEE ATTACHED APPRAISAL INDICATING ONE DWELLING UNIT.  
Bob Cowan 4/6/04  
SOILS TEST PROVIDED PER  
JIM CROSS TO QUINCY  
FOR 2 BEDROOMS

1. STCO  
Broken  
2. Fill in Soil  
Rating  
786-3694  
351-4010



MUNICIPALITY OF ANCHORAGE  
 DEPARTMENT OF HEALTH & HUMAN SERVICES  
 Division of Environmental Services  
 On-Site Services Section



P.O. Box 196650 Anchorage, Alaska 99519-6650  
 343-4744

CERTIFICATE OF HEALTH AUTHORITY  
 APPROVAL FOR A SINGLE FAMILY DWELLING

Parcel I.D. # 050-501-16 HAA # WA950235

1. GENERAL INFORMATION

Complete legal description: Lot 8; Block A; Glacier View Heights

Location (site address or directions) 1557 Eagle River Road

Eagle River, AK

Property owner Jack Wagner Day phone 696-3368

Mailing address HC&3 Box 1557 Eagle River Road Eagle River, AK 99577

Lending agency \_\_\_\_\_ Day phone \_\_\_\_\_

Mailing address \_\_\_\_\_

Agent \_\_\_\_\_ Day phone \_\_\_\_\_

Address \_\_\_\_\_

*Unless otherwise requested, HAA will be held for pickup.*

2. NUMBER OF BEDROOMS: \_\_\_\_\_

3. TYPE OF WATER SUPPLY:

Individual well \_\_\_\_\_

Community well XXX

Public water \_\_\_\_\_

NOTE: *If community well system, provide written confirmation from State ADEC attesting to the legality and status of system.*

4. TYPE OF WASTEWATER DISPOSAL:

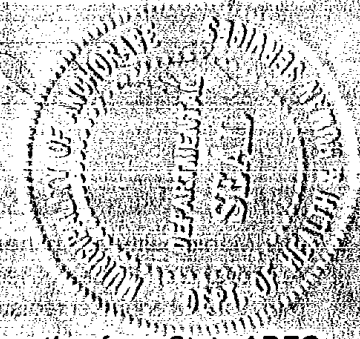
Individual on-site XXX

Holding tank \_\_\_\_\_

Community on-site \_\_\_\_\_

Public sewer \_\_\_\_\_

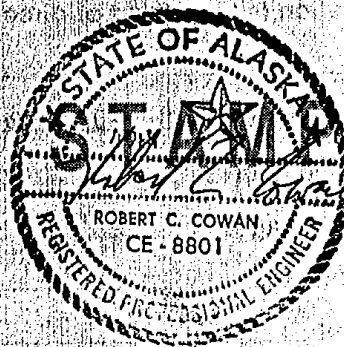
NOTE: *If community wastewater system, provide written confirmation from State ADEC attesting to the legality and status of system.*



5. STATEMENT OF INSPECTION BY ENGINEER

As certified by my seal affixed hereto and as of the validation date shown below, I verify that my investigation of this Health Authority Approval application shows that the on-site water supply and/or wastewater disposal system is safe, functional and adequate for the number of bedrooms and type of structure indicated herein. I further verify that based on the information obtained from the Municipality of Anchorage files and from my investigation and inspection, the on-site water supply and/or wastewater disposal system is in compliance with all Municipal and State codes, ordinances, and regulations in effect on the date of this inspection.

Name of Firm S & S ENGINEERING Phone 694-2979  
Address 17034 Eagle River Loop Road No. 204  
Eagle River, Alaska 99577  
Engineer's signature [Signature] Date 6/19/95



6. DHHS SIGNATURE

Approved for 1 bedrooms.  
 Disapproved.  
 Conditional approval for \_\_\_\_\_ bedrooms, with the following stipulations:  
\_\_\_\_\_  
\_\_\_\_\_

Additional Comments \_\_\_\_\_  
\_\_\_\_\_

By: [Signature] Date 7-7-95

CAUTION

The Municipality of Anchorage Department of Health and Human Services (DHHS) issues Health Authority Approval Certificates based only upon the representations given in paragraph 5 above by an independent professional engineer registered in the State of Alaska. The DHHS does this as a courtesy to purchasers of homes and their lending institutions in order to satisfy certain federal and state requirements. Employees of DHHS do not conduct inspections or analyze data before a certificate is issued. The Municipality of Anchorage is not responsible for errors or omissions in the professional engineer's work.



Municipality of Anchorage  
 Department of Health and Human Services  
**HEALTH AUTHORITY APPROVAL CHECKLIST**



Legal Description: Lot 8 Block A Glacier View Parcel I.D. \_\_\_\_\_  
 HTS

**A. Well Data**

Well type C If A, B, or C, attach ADEC letter. ADEC water system number 216172  
 Log present (Y/N) \_\_\_\_\_ Date completed \_\_\_\_\_ Driller \_\_\_\_\_  
 Total depth \_\_\_\_\_ Cased to \_\_\_\_\_ Casing height \_\_\_\_\_  
 Sanitary seal (Y/N) \_\_\_\_\_ Wires properly protected (Y/N) \_\_\_\_\_

	FROM WELL LOG	AT INSPECTION
Date of test	_____	_____
Static water level	_____	_____
Well flow	_____ g.p.m.	_____ g.p.m.
Pump level <sup>1</sup>	_____	_____

RECEIVED  
 JUN 20 1995  
 MUNICIPALITY OF ANCHORAGE  
 ENVIRONMENTAL SERVICES DIVISION

**SEPARATION DISTANCES FROM WELL TO:**

Septic/holding tank on lot 100'; On adjacent lots 100'  
 Absorption field on lot 120'; On adjacent lots 120'  
 Public sewer main N/A Public sewer manhole/cleanout N/A  
 Sewer service line 75' Petroleum tank 75'

\* WAIVED 4-21-83  
 WATER SAMPLE RESULTS:

A.D.E.C. DOES ALLOW  
 UP TO 200 C.B.'s

Coliform 0 Nitrate 0.01 Mg/L Other bacteria 12

Date of sample: 6-13-95 Collected by: **S & S ENGINEERING**  
 17034 Eagle River Loop Road No. 204  
 Eagle River, Alaska 99577

**B. SEPTIC/HOLDING TANK DATA**

Date installed 9-22-75 Tank size 1000 Compartments 1  
 Cleanouts (Y/N) Y Foundation cleanout (Y/N) Y Depression (Y/N) N  
 High water alarm (Y/N) N/A Alarm tested (Y/N) N/A  
 Date of pumping 8-11-94 Pumper JR. PUMPING

**SEPARATION DISTANCES FROM SEPTIC/HOLDING TANK TO:**

Well(s) on lot N/A On adjacent lots \*100' "C" Foundation 10'  
 To property line 10' Absorption field 21' Water main/service line 10'  
 Surface water/drainage 100'

\* WAIVED 4-21-83

**C. LIFT STATION**

Date installed \_\_\_\_\_ Manufacturer \_\_\_\_\_  
 Size in gallons \_\_\_\_\_ Manhole/Access (Y/N) \_\_\_\_\_  
 Vent (Y/N) \_\_\_\_\_ "Pump on" level at \_\_\_\_\_ "Pump off" Level at \_\_\_\_\_  
 High water alarm level \_\_\_\_\_ Cycles tested \_\_\_\_\_  
 Meets MOA electrical codes (Y/N) \_\_\_\_\_

SEPARATION DISTANCE FROM LIFT STATION TO:

Well on lot \_\_\_\_\_ On adjacent lots \_\_\_\_\_ Surface water \_\_\_\_\_

**D. ABSORPTION FIELD DATA**

Date installed 9-22-75 Soil rating (GPD/F<sup>2</sup>) 150#/BA System type SEEPAGE PIT  
 Length 12' Width 12' Gravel thickness 6' Total depth 10'  
 Total absorption area 288<sup>sq</sup>ft Cleanout present (Y/N) Y Depression over field (Y/N) N  
 Date of adequacy test 6-14-95 Results (pass/fail) PASS for 1 Bedrooms  
 Water level in absorption field before test 25" After test 23"  
 Peroxide treatment (past 12 months) (Y/N) none known If yes, give date N/A

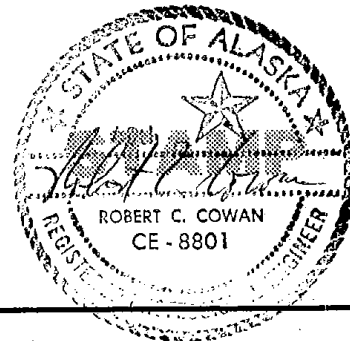
SEPARATION DISTANCE FROM ABSORPTION FIELD TO:

Well on lot N/A On adjacent lots 120" "C" Property line 20'  
 To building foundation 10" To existing or abandoned system on lot N/A  
 On adjacent lots 30" Cutbank N/A Water main/service line 60"  
 Surface water 100" Driveway, parking/vehicle storage area 50' UNDER DRIVE  
 Curtain drain none known

\* WAIVED 4-27-83  
**E. ENGINEER'S CERTIFICATION**

I certify that I have checked, verified, or conformed to all MOA and HAA guidelines in effect on the date of this inspection.

Signature Robert C. Cowan  
 Engineer's Name ROBERT C. COWAN  
 Date 6/19/95



HAA Fee \$ 300.00  
 Date of Payment 6-20-95  
 Receipt Number 1004(697)

Waiver Fee \$ \_\_\_\_\_  
 Date of Payment \_\_\_\_\_  
 Receipt Number \_\_\_\_\_



MUNICIPALITY OF ANCHORAGE  
 Department of Health & Human Services  
 DIVISION OF ENVIRONMENTAL SERVICES  
 343-4744



CERTIFICATE OF INSPECTION FOR HEALTH AUTHORITY APPROVAL OF  
 ON-SITE SEWER AND WATER FACILITY FOR SINGLE FAMILY DWELLING

Parcel I.D. # D50501-16 HAA # NA 890329

1. GENERAL INFORMATION (Must be completed prior to submittal)

(a) Legal Description (include lot, block, subdivision, section, township, range)

LOT 8; BLOCK A; GLACIER VIEW HEIGHTS

Location (address or directions)

EAGLE RIVER ROAD

(b) Property owner Devon Dickey Telephone: (home) \_\_\_\_\_ Business \_\_\_\_\_

Mailing Address 2457 Eagle River Road, Eagle River, AK. 99577

(c) Lending Institution \_\_\_\_\_ Telephone \_\_\_\_\_

Mailing Address \_\_\_\_\_

(d) Real Estate Company and Agent \_\_\_\_\_

Address \_\_\_\_\_

Telephone \_\_\_\_\_

(e) Mail the HAA to the following address: (or check here  if hold for pick up.)  
 List contact person and day phone number below:

S & S ENGINEERING  
17034 Eagle River Loop Road No. 204  
Eagle River, Alaska 99577

2. TYPE OF RESIDENCE

Single-Family  Number of bedrooms 1

3. WATER SUPPLY

Individual Well  CLASS "C" Community  Public

**Note:** If community well system, must have written confirmation from the State Department of Environmental Conservation attesting to the legality and status.

4. SEWAGE DISPOSAL

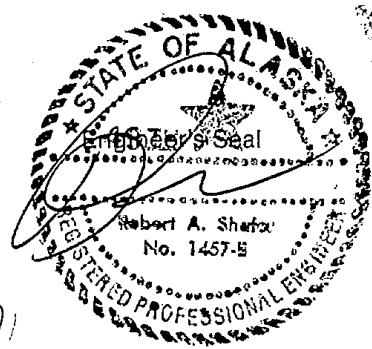
On-site  Public  Community  Holding Tank

**Note:** If community well system, must have written confirmation from the State Department of Environmental Conservation attesting to the legality and status.

5. ENGINEERING FIRM PROVIDING INSPECTIONS, TESTS, FILE SEARCH, DATA AND INFORMATION

As certified by my seal affixed hereto and as of the validation date shown below, I verify that my investigation of this Health Authority Approval shows that the on-site water supply and/or wastewater disposal system is safe, functional and adequate for the number of bedrooms and type of structure indicated herein. I further verify that based on the information obtained from the Municipality of Anchorage files and from my investigation and inspection, the on-site water supply and/or wastewater disposal system is in compliance with all Municipal and State codes, ordinances, and regulations in effect on the date of this inspection.

Name of Firm S & S ENGINEERING Telephone 694-2979  
Address 17034 Eagle River Loop Road No. 204  
Eagle River, Alaska 99577  
Date 8/24/89



6. DHHS APPROVAL

Approved for 1 bedrooms by John W. Cohen Date 9/1/89  
Approved  Disapproved  Conditional   
Terms of Conditional Approval NONE

**CAUTION**

The Municipality of Anchorage Department of Health and Human Services (DHHS) issues Health Authority Approval certificated based **only** upon the representations given in **paragraph 5** above by an independent professional engineer registered in the State of Alaska. The DHHS does this as a courtesy to purchasers of homes and their lending institutions in order to satisfy certain federal and state requirements. Employees of DHHS do not conduct inspections or analyze data before a certificate is issued. The Municipality of Anchorage is not responsible for errors or omissions in the professional engineer's work.



AUG 24 1989

Legal Description: Lot 8, Block "A" Glacier

View Heights

RECEIVED

A. WELL DATA

Well Classification CLASS "C" If A, B, C, D, E, C. Approved (Y/N) Y

Well Log Present (Y/N) Y Date Completed 9-8-71 Yield

Total Depth 206 Cased to Depth of Grouting

Static Water Level Pump Set At

Casing Height Above Ground Sanitary Seal on Casing (Y/N)

Electrical Wiring in Conduit (Y/N) Depression Around Wellhead (Y/N)

SEPARATION DISTANCES FROM WELL:

To Septic/Holding Tank on Lot \*120'; On Adjoining Lots 150'+

To Nearest Edge of Absorption Field on Lot \*130'; On Adjoining Lots 150'+

To Nearest Public Sewer Line N/A To Nearest Public Sewer Cleanout/Manhole N/A

To Nearest Sewer Service Line on Lot 25'

Water Sample Collected by S+S Engineering; Date 15 August 89

Water Sample Test Results Satisfactory - Bacteria + Nitrates

Comments \* Waive 150' well to septic tank distance to 100 ft.

\* Waive 150' well to leachfield distance to 120'

Both were granted 4-27-83

B. SEPTIC/HOLDING TANK DATA

Date Installed 9/22/75 Size 1000 No. of Compartments 1

Standpipes (Y/N) Y Air-tight Caps (Y/N) Y Foundation Cleanout (Y/N) N

Depression over Tank (Y/N) N Date Last Pumped 8-12-89

Pumping/Maintenance Contact on File (Y/N) N/A; for

Holding Tank High-Water Alarm (Y/N) N/A Temporary Holding Tank Permit (Y/N) N/A

SEPARATION DISTANCES FROM SEPTIC/HOLDING TANK:

To Water-Supply Well 120' To Building Foundation 50'

To Property Line 43 To Disposal Field 21'

To Water Main/Service Line 10'

To Stream, Pond, Lake or Major Drainage Course 100'

Comments Septic tank pumped by JIR's cesspool pumping.

**C. ABSORPTION FIELD DATA**

Soils Rating in Absorption Strata 150 #/BIR Type of System Design Seepage Pit  
 Date Installed 9/22/75 Length of Field 12'  
 Width of Field 12' Depth of Field 10'  
 Gravel Bed Thickness 6'  
 Square Feet of Absorption Area 288# Standpipes Present (Y/N) Y  
 Depression over Field (Y/N) N Date of Last Adequacy Test 15 August 89  
 Results of Last Adequacy Test Satisfactory 1 Bedroom

**SEPARATION DISTANCE FROM ABSORPTION FIELD:**

To Water-Supply Well 130' To Property Line 10'+  
 To Building Foundation 100' To Existing or Abandoned System on Lot N/A; On Adjoining Lots 100'+  
 To Water Main/Service Line 25'+ To Cutback (if present) N/A  
 To Stream, Pond, Lake, or Major Drainage Course None noted  
 To Driveway, Parking Area, or Vehicle Storage Area 25'+  
 Comments \_\_\_\_\_

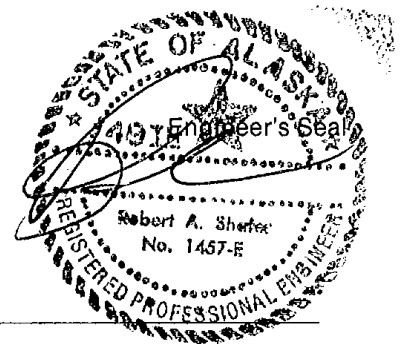
**D. LIFT STATION**

Date Installed \_\_\_\_\_ Dimensions \_\_\_\_\_  
 Size in Gallons \_\_\_\_\_ Manhole/Access (Y/N) \_\_\_\_\_  
 "Pump On" Level at \_\_\_\_\_ "Pump Off" Level at \_\_\_\_\_  
 High Water Alarm Level at N/A Vent (Y/N) \_\_\_\_\_  
 Tested for \_\_\_\_\_ Pumping Cycles during Adequacy Test. \_\_\_\_\_  
 Meets MOA Electrical Codes (Y/N) \_\_\_\_\_  
 Comments \_\_\_\_\_

**\*\*Check Permitted Bedroom Rating Against HAA Request\*\***

I certify that I have checked, verified, or conformed to all MOA and HAA guidelines in effect on the date of this inspection.

Signed \_\_\_\_\_  
 Company S & S ENGINEERING  
17034 Eagle River Loop Road No. 204  
Eagle River, Alaska 99577  
 Date 8/24/89  
 MOA No. CE 89-003



Receipt No. 21373 / 7926  
 Date of Payment 8-24-89  
 Amount: \$ 8-24-89

Receipt No. \_\_\_\_\_  
 Waiver Fee: \$ \_\_\_\_\_  
 Date of Payment \_\_\_\_\_

ANCHORAGE/WESTERN DISTRICT OFFICE  
3601 C STREET, SUITE 322  
ANCHORAGE, ALASKA 99503

563-6775

DATE: August 23, 1987

PWSID: 216172

Requested By: S&S Engineering

According to the records on file in this office, the Lot 8, Block A,  
Glacier View Heights Water System is in compliance with the  
State of Alaska Drinking Water Regulations.

Sincerely,



Cindy Thomas  
Environmental Engineer

# CONSTRUCTION AND OPERATION CERTIFICATE

ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
PUBLIC WATER SYSTEM

## APPROVAL TO CONSTRUCT

Plans for the construction of LOT 7 & 8 BLOCK 'A' GLACIER VIEW H<sub>2</sub>O  
SID (8321-FA-263) a CLASS 'D' public water system located  
in East River, Alaska, submitted in accordance with 18 AAC 80.100  
by S & S Engineers have been reviewed and are

approved.

conditionally approved (see attached conditions).

BY Bruce E. Eubank

TITLE E.E.T.I.

DATE 4-27-83

If construction has not started within two years of the approval date, this certificate is void and new plans and specifications must be submitted for review and approval before construction.

## APPROVED CHANGE ORDERS

Change (contract order no.  
or descriptive reference)

Approved by

Date

Move 150 ft Well to Septic tank distance to 100 ft

Move 150 ft Well to Leach field distance to 120 ft.

Bruce E. Eubank 4-27-83

The "APPROVAL TO OPERATE" section must be completed before any water is made available to the public.

## APPROVAL TO OPERATE

The construction of the LOT 7 & 8 BLOCK 'A' GLACIER VIEW H<sub>2</sub>O public  
water system was completed on \_\_\_\_\_ (date). The system is hereby  
granted interim approval to operate for 90 days following the completion date.

BY

TITLE

DATE

As-built plans submitted during the interim approval period, or an inspection by the Department has confirmed the system was constructed according to the approved plans. The system is hereby granted final approval to operate.

BY Bruce E. Eubank

TITLE E.E.T.I.

DATE 4-28-83





Woffley

Earle River Area  
~~3:30 AM - 10-17-75~~  
will be

GREATER ANCHORAGE AREA BOROUGH  
Department of Environmental Quality  
3330 "C" Street, Anchorage, Alaska 99503 274-4561

Date Received 10-14-75

Time of Inspection 9:30 - Beatty

Date of Inspection 10-22-75

HOLID  
FOR  
H2O  
CHECKS 10 FILE  
APPROVED  
PENDING  
H2O

REQUEST FOR APPROVAL OF  
INDIVIDUAL SEWER & WATER FACILITIES  
FOR

CONDO.

1. Approval requested by: Alaska National Bank

Mailing Address: Box 7-010 Phone: 277-5511

2. Property Owner: Devon Dieley Phone: \_\_\_\_\_

Mailing Address: RD 4.5 miles Earle River Road

3. Legal Description: Lot 8 Glacier View Heights #1

4. Location: Earle River Road

5. Type of facility to be inspected S.A.O. No. of bedrooms One

6. Well Data: EXISTING SEM-PUBLIC

A. Type DRILLED B. Depth 220'

C. Construction STANDARD D. Bacterial Analysis SATISFACTORY

7. Sewage Disposal System:

A. Installed 9/75 B. Installer CREATIVE HOUSING

C. Septic Tank: 1. Size 1,000 2. Manufacturer SUNSET PLASTIC

D. Seepage Pit: 1. Absorption Area 12x12x4 2. Material CEMENT RINGS

E. Disposal Field: Total length of lines \_\_\_\_\_

8. Distances:

A. Well to: Septic tank 100', Absorption area 120', Sewer Lines \_\_\_\_\_

Nearest lot line OUTLOT LINE, Other contamination \_\_\_\_\_

B. Foundation to septic tank 90', Absorption area \_\_\_\_\_

C. Absorption area to nearest lot line \_\_\_\_\_



GREATER ANCHORAGE AREA BOROUGH  
Department of Environmental Quality  
3330 "C" St., Anchorage, Alaska 99503 - 274-4561

REQUEST FOR APPROVAL OF  
INDIVIDUAL SEWER & WATER FACILITIES

1. Type of Inspection: CMRO \_\_\_\_\_ VA \_\_\_\_\_ FHA \_\_\_\_\_ CONV x
2. Property Owner: Devon Dickey  
Mailing Address: NHN 4.5 Miles Eagle River Rd. Day Phone: 694-9239
3. Name of Buyer: Devon Dickey  
Mailing Address: Same Day Phone \_\_\_\_\_
4. Name of Lending Institution: Alaska National Bank  
Mailing Address: Pouch 7-010 Anchorage, Ak. Phone 277-5511 - Mike
5. Name of Realtor or Agent: None  
Mailing Address: \_\_\_\_\_ Phone \_\_\_\_\_
6. Legal Description: Block A Lot 8 Glacier View Hgts #1  
Location: Eagle River Road
7. Type of Facility to be inspected: Home No. Bdrms. 1
8. Water Supply  
Type of Supply: Public Utility \_\_\_\_\_ Individual x  
If Individual, number of dwellings presently served shared  
If Individual, depth of well \_\_\_\_\_
9. Sewage Disposal System  
Type of System: Public Utility \_\_\_\_\_ Individual (on-site) x  
If Individual, date of installation New

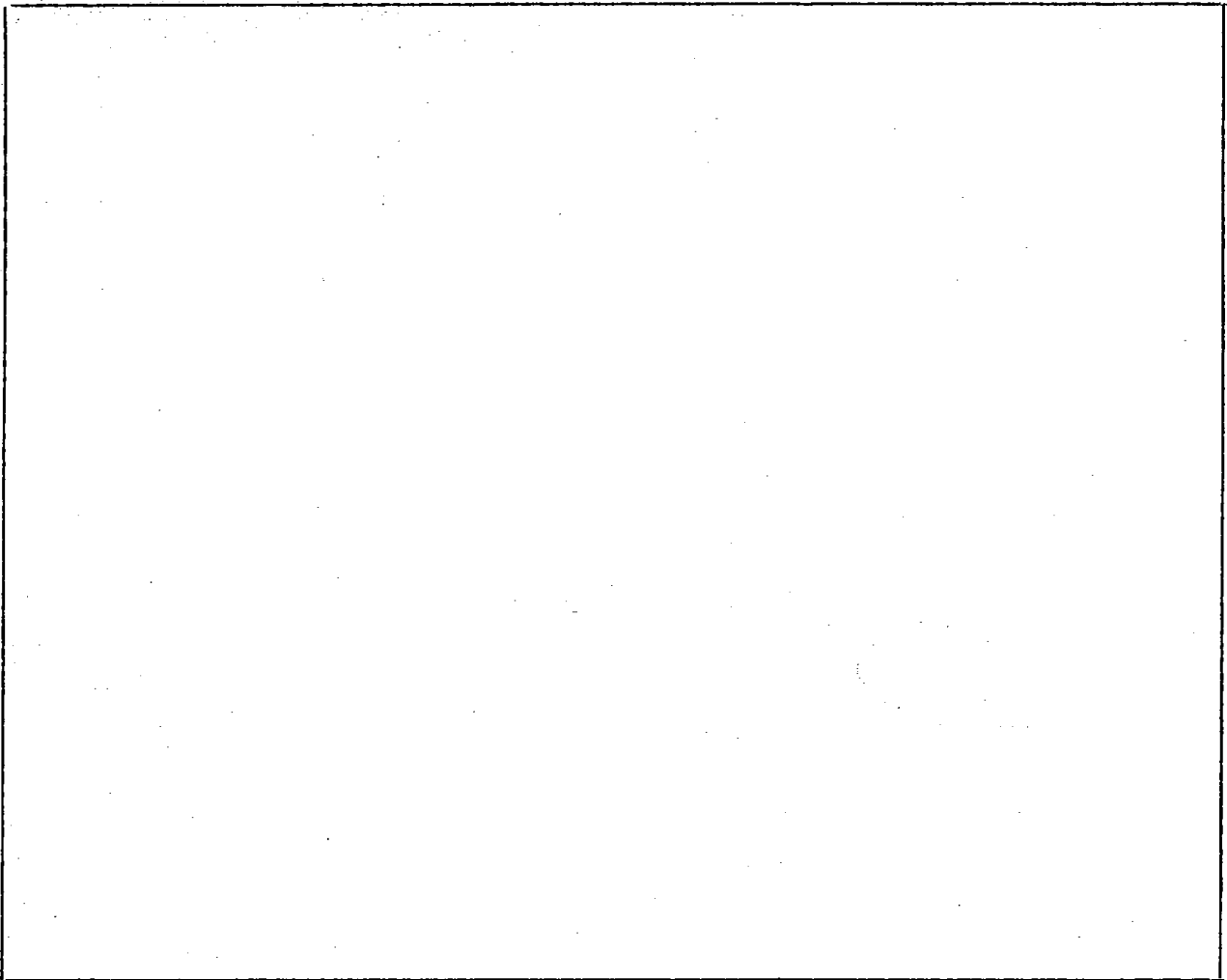
Legal Description Lot 8 Glacier View Heights #1

Comments \_\_\_\_\_

Approved 10/29/75 Disapproved \_\_\_\_\_ Date 10/28/75

Approval Valid for one year from date signed  
Greater Anchorage Area Borough, Department of Environmental Quality

DIAGRAM OF SYSTEM



I certify that the information contained in this request for approval to be a true and accurate representation of the subject sewer and water facilities and these facilities are operating satisfactorily.

SIGNED \_\_\_\_\_ Date \_\_\_\_\_