

Date Received RECEIVED NOV 30 2010 ADEC Kenai Area Office	State of Alaska Department of Environmental Conservation Documentation of Construction	ADEC Review Date and Initial 12/9/10
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Part I. General Information

Legal Description	KACHEMAK ESTATES SUB WEAVER ADDN, LOT 2-A, BLOCK 6, HOME		Tax ID # (optional)
Submitted By	<input checked="" type="checkbox"/> Registered Engineer <input type="checkbox"/> Approved Homeowner <input type="checkbox"/> Certified Installer No.		
Installer Mailing Address & Phone	KACHEMAK BAY CONSTRUCTION, TOM PATTON 39340 BRENMARK RD, HOMER, AK (907) 299-0025		

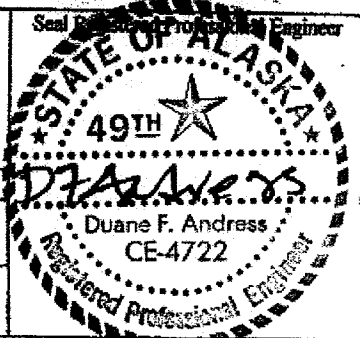
Part II. Wastewater Disposal

Onsite Wastewater System Serves	<input checked="" type="checkbox"/> Single Family # of bedrooms <u>4</u> <input type="checkbox"/> Duplex Total # of bedrooms _____ <input type="checkbox"/> Small Commercial Facility with Estimated Design flow of less than 500 gpd. -- show calcs below		
	<input checked="" type="checkbox"/> New System <input type="checkbox"/> Repair Existing System		
System Installed By	<input type="checkbox"/> Certified Installer <input checked="" type="checkbox"/> Registered Engineer <input checked="" type="checkbox"/> Inspection by a Registered Engineer <input type="checkbox"/> Approved Homeowner (attach approval letter)		Installation Notification Date <u>11/22/2010</u> Date Installed <u>11/15/2010</u>
Septic Tank	Size <u>1250</u> # of Compartments <u>2</u> Manufacturer <u>D & W</u>		
Type of Soil Absorption System	<input type="checkbox"/> Deep Trench <input type="checkbox"/> Shallow Trench <input type="checkbox"/> Seepage Pit <input checked="" type="checkbox"/> Bed <input type="checkbox"/> Mound		
Soils	Classification <u>SM</u> Rating - sq ft/bedroom <u>125</u>		
Dimensions	Absorption Area <u>15' x 40' = 600 S.F.</u>	Thickness/Depth of Distribution Rock <u>12"</u> Size of Rock <u>3/4" - 1 1/2"</u>	
Perc Test Results	Minutes per inch <u>1.2</u> Sq. Ft. per bedroom <u>125</u>	Performed By <u>CAS ADDRESS, P.E.</u> (Attach results by sealed/signed registered engineer)	
Ground Cover Over	Septic Tank <u>2' + 2" INSUL</u> Absorption Area <u>2' + 2" INSUL</u> Sewer Pipes <u>2' + 2" INSUL</u>		
Cleanout Pipes/Caps	Foundation Cleanout <u>YES</u> Septic Tank <u>YES</u> Monitor Tubes <u>YES</u>		
Separation Distances from septic tank or absorption area, whichever is closest, to all nearby			
Public drinking water sources within 200 feet <u>N/A</u>		Private drinking water sources within 100 feet <u>N/A</u>	
Nearest water bodies (see 18 AAC 72.020(b)) <u>N/A</u>		Lot Line <u>10' ±</u>	
Separation Distances from On Lot Sewer Lines to Drinking Water Sources - Public <u>N/A</u> Private <u>> 100'</u>			
Separation Distances from Bottom of Distribution Rock to Groundwater Table <u>1'</u>		Bedrock <u>1'</u>	
Separation Distance from Absorption Area to Slope exceeding 25% <u>> 50'</u>			

Comments/Recommendations/Criteria used to size commercial facility:

I certify that the above information, and that provided in Section III, is correct:

Signature <u>D.F. ADDRESS</u>	Printed Name <u>D.F. ADDRESS</u>
Title, Reg/Cert No, Inst No. <u>CE4722</u>	Date <u>11/22/2010</u>



NOTE: Must be signed by a Certified Installer, DEC staff or Approved Homeowner. If engineering seal bears printed name, registration number and is signed, these blocks need not be completed for engineered submittals.

Pegasus Engineering *civil/structural/environmental*

June 18, 2010

PERCOLATION TEST RESULTS/DRAINFIELD DESIGN CALCS

Property Owner: Thomas Gummer
Parcel Number: 17429119
Legal Description: Kachemak Estates S/D, Lot 2-A, Block 6, Homer, AK

Percolation Test: A soils percolation test for the referenced property was conducted by Gus Andress, P.E. and assisted by Kachemak Bay Construction, on June 17, 2010. Groundwater seepage was detected 8 feet below grade. Impermeable soils were also encountered at 8 feet below grade. A series of soils percolation tests was conducted at a depth of 1.5 feet below grade. The soils encountered between 1 and 5 feet were light brown silty sands with some fines. These soils were moist but did not form casts when rolled in the hand and were classified as (SM).

The percolation rate was observed to be 1.1 minutes/inch.

From Table C, ADEC Wastewater Disposal Regulations, 18 AAC 72, July 11, 2002, p. 34, for a percolation rate between 1-5 min/inch the application rate = 1.2 gpd/ft². The required square footage per bedroom = 150/1.2 = 125 sf/bedroom.

Drainfield (SAS) Design Criteria: Based on SM classified soils to a depth of 5 feet the soil absorption system will be a shallow bed. The bottom of the bed will be no deeper than 2 feet below grade in order to meet the minimum vertical separation of 6 feet to impermeable soils.

Required area for 4-br residence = (4 BR)(125 sf/br) = 500 sf of drainfield
Actual shallow bed area = 15' wide x 40' long = 600 sf > 500 ft. O.K.

Blue board insulation was installed over the sewer rock because less than 4 feet of natural cover was placed over the sewer rock.

Pegasus Engineering


Gus Andress, P.E.



4971 Thompson Drive
Homer, AK 99603

226-2476 office
399-0331 cell
Email: biocyclealaska@gei.net

SOIL LOG AND PERCOLATION TEST

TEST HOLE # 1

LEGAL DESCRIPTION:

WEAVER ADDN
KACHEMAK ESTATES S/D, LOT 2.A,
BLOCK 6, HOMER, AK

WAS GROUND WATER OBSERVED: YES

WHAT DEPTH: 8'

DATE OBSERVED: 6/17/2010

PERCOLATION TEST RESULTS:

DEPTH (FT.) SOIL DESCRIPTION

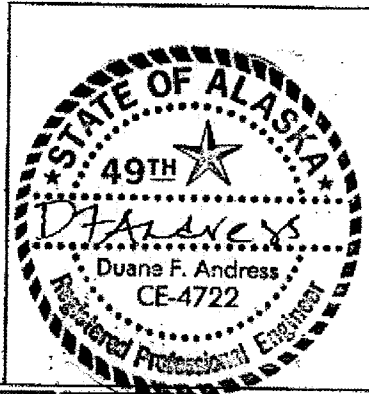
0		LOAM, ROOTS, ORGANICS
1		LT. TAN SANDY/ SILT W/ FINES, MOIST, NO CASTS OR BALLS FORMED IN HANDS (SM)
2		
3		
4		
5		BLUE CLAY W/ SILT/SAND FINES, CRUMBLED. (SC)
6		
7		COAL SEAM
8		BLUE CLAY
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

TIME (min.)	TIME ELAPSED (min.)	FLOAT HEIGHT (inches)	FLOAT DROP (inches)	PERC RATE (min/in)
1401	—	5		
1403	2	0	5"	4.1
1404	—	5		
1408	4	0	5"	0.8
1410	—	5		
1415	5	0	5"	1.0
1417	—	5		
1422	5	0	5"	1.0
1423	—	5		
1427	4	0	5"	0.8
1430	—	5		
1436	6	0	5"	1.2

PERCOLATION RATE: 1.2

PERCOLATION HOLE DIAMETER: 8"

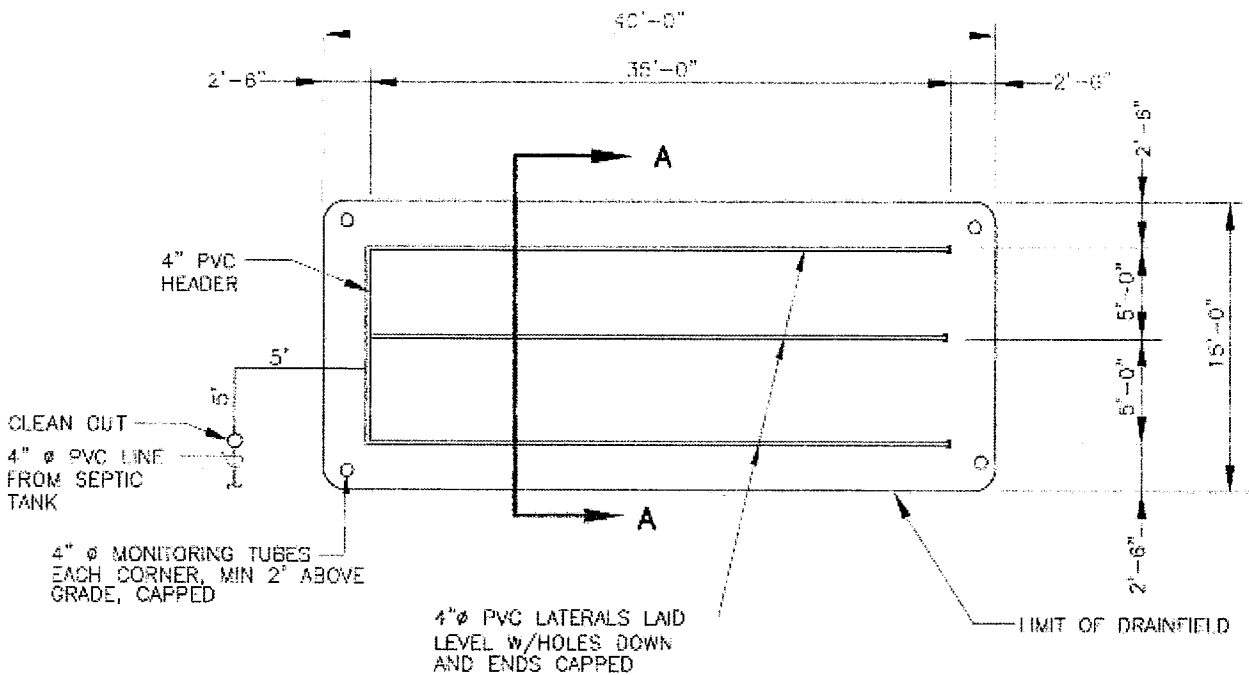
PERCOLATION TEST DEPTH: 24"



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 4971 THOMPSON DR
 HOMER, AK 99603
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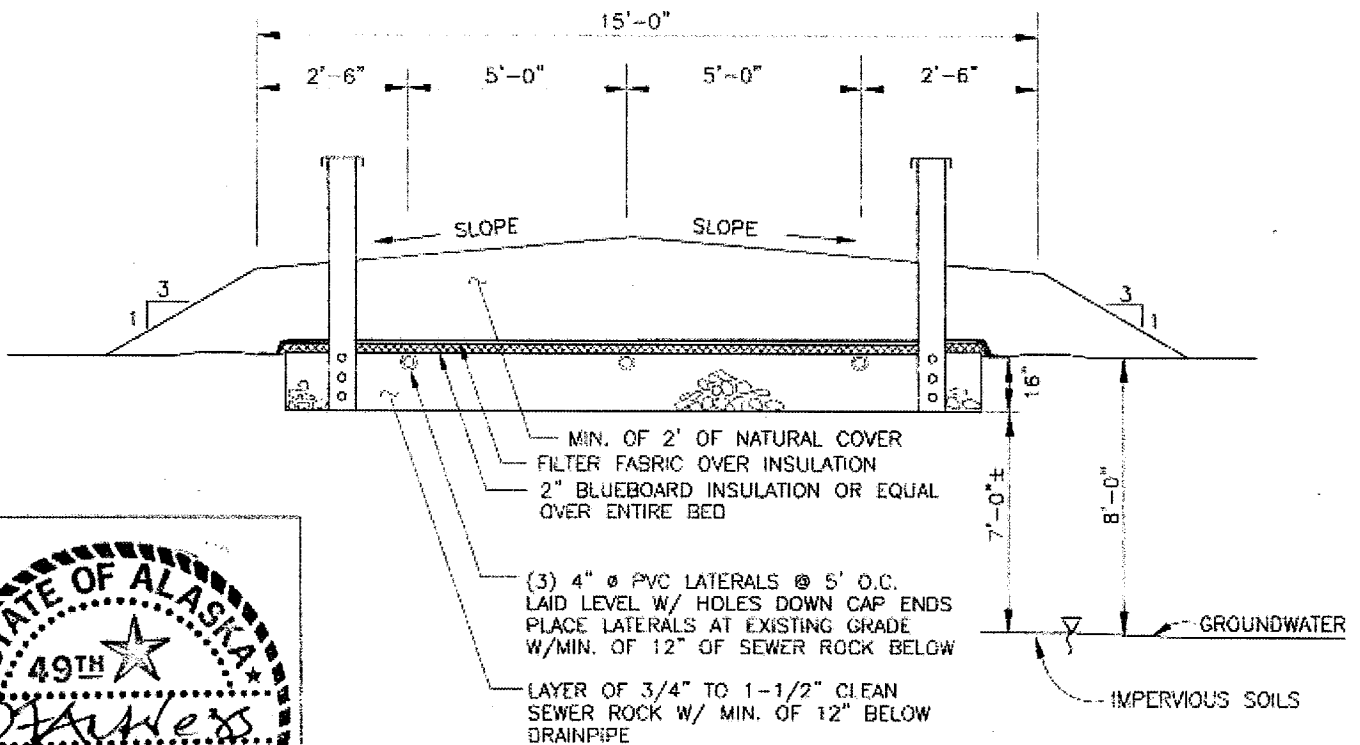
SUMMER RESIDENCE
 HOMER, AK

DATE: 6/18/2010



**AS-BUILT
DRAWING**

SHALLOW BED LAYOUT



SECTION A-A



PEGASUS ENGINEERING
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**DRAINFIELD LAYOUT
GUMMER RESIDENCE**
KACHEMAK ESTATES SUB WEAVER ADDN
LOT 2-A, BLOCK 6
HOMER, AK

SCALE: NTS
DATE: 11/27/2010
SHEET: 2 OF 2
DWG. NAME: GUMMER.DWG