

STATE OF ALASKA

Frank Murkowski, Governor

DEPT. OF ENVIRONMENTAL CONSERVATION

DIVISION OF WATER WASTEWATER DISCHARGE PROGRAM

43335 Kalifornsky Beach Rd., Ste. 11
Soldotna, AK 99669
PHONE: (907) 262-5210
FAX: (907) 262-2294
<http://www.state.ak.us/dec/>

March 9, 2005

Mr. David Boone
c/o Wince-Corthell-Bryson
Consulting Engineers
P.O. Box 1041
Kenai, Alaska 99611

Re: Conditional Approval to Construct a Community Onsite Wastewater Treatment and Disposal System: Lot 5 Natalie Wood Subdivision, Homer, Alaska. ADEC Plan Tracking Number 4625.

Dear Mr. Boone:

The Department has reviewed the engineering plans submitted for the referenced project. Conditional approval is hereby given to construct the proposed engineered system on the referenced property and a Certificate to Construct is enclosed. The system consists of a 1,000 gallon septic tank followed by a 10' X 60' bed soil absorption system. The system serves three seasonally used recreational cabins with a total estimated wastewater flow of 338 gallons per day.

This approval is contingent upon compliance with the following conditions:

- 1) Please verify prior to constructing the system that the required separation distance of 100 feet between the septic tank/drainfield and all surface waters is maintained. Submit verification with the record drawings within 90 days of completing construction of the system.
- 2) The system must be constructed within 2 years of the date of this letter. If the applicant fails to construct, alter, install, or modify the system within two (2) years after the date that the department issues an approval to construct, the approval is void, and plans must be resubmitted for department review and approval.
- 3) This approval is contingent upon compliance with the conditions of Wastewater Disposal Regulations, 18 AAC 72.235, *Construction Certification*. The noted section of the regulations requires that a "*Certification of Construction*" be completed and submitted to the Department within ninety (90) days of completion of construction. Record drawings must indicate any changes or deviations from the approved plans. A "*Certification of Construction*" form is enclosed for your use.
- 4) This approval is contingent upon your receipt of any other state, federal or local authorizations which are required for your project. You are required to obtain all other necessary authorizations before proceeding with your project.
- 5) You are advised that if this development will require placing fill in wetlands or working in a stream, river, or lake, permits from the U.S. Army Corps of Engineers and the Alaska



State of Alaska
Department of Environmental Conservation



Certification of Construction for Domestic Wastewater Systems

Instructions:

1. Within 90 days after the construction, installation, or modification of a project is completed, the owner, the contractor(s) responsible for constructing the project, and a registered engineer responsible for construction inspection, complete and sign this form declaring that the project was constructed in accordance with the most recent Department-approved plans, or in accordance with the attached as-built drawings.
2. If a project is being completed in phased construction, a map shall be attached showing that portion of the project being declared completed on the date stated in the Owner's section. Completion of each phase of a project must be declared completed. Additional Certification of Construction forms are available from any Department of Environmental Conservation Office.

.....
please type or print, except for signature

Section A-Owner's Section

Name and brief description of the project: _____

Name of Owner: _____ ADEC Project No: _____

Address: _____

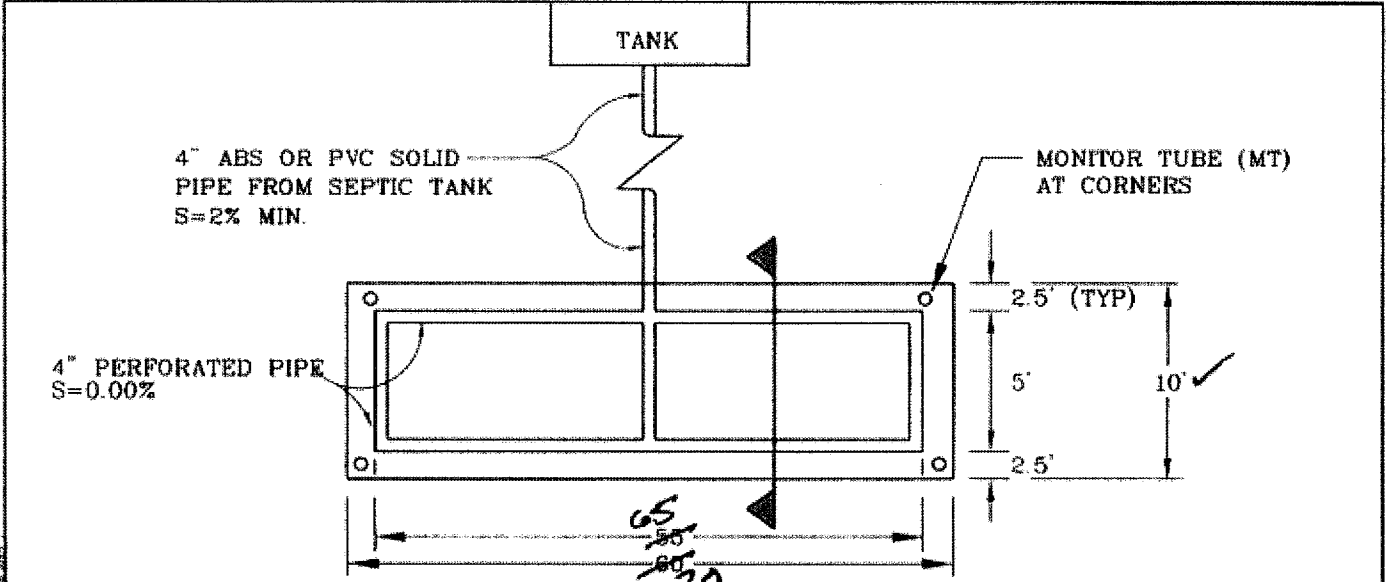
City State Zip

Date Project Completed: _____

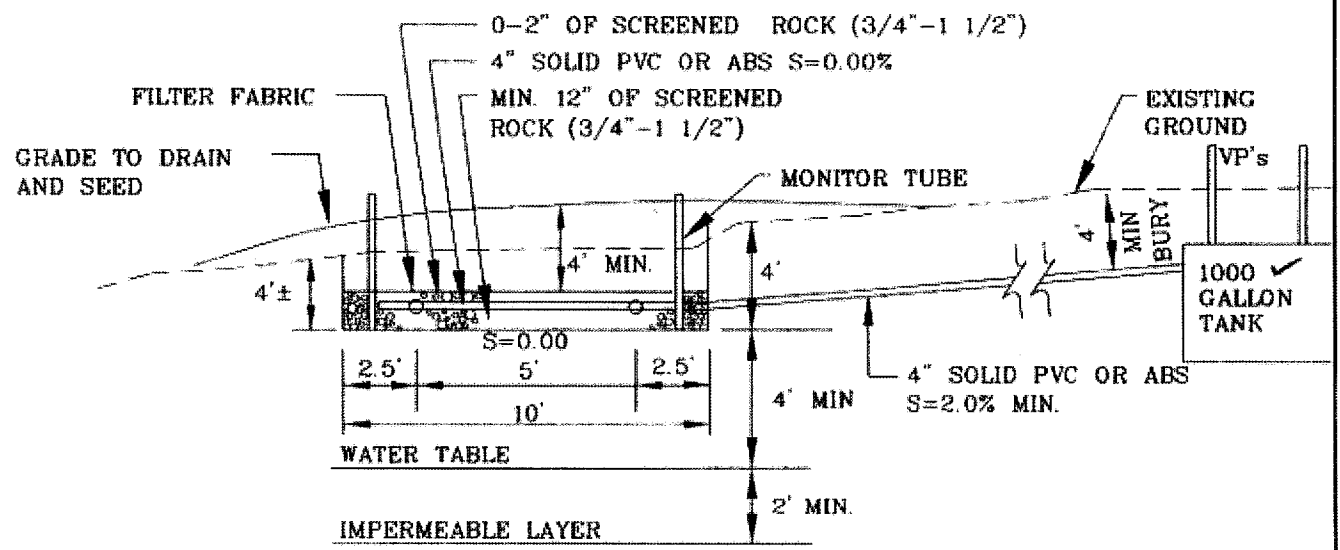
I certify that I am the owner of the above-referenced project. I further certify that this project was constructed in accordance with the latest plans submitted to and approved by the Alaska Department of Environmental Conservation (ADEC), or in accordance with the attached as-built drawings. I understand that I may be required to take remedial measures to correct any construction which was completed without prior ADEC approval, which departs from the approved plans, and which is found to be inconsistent with the applicable requirements of ADEC Wastewater disposal regulations (18 AAC 72).

signature of owner (please sign in ink)

Date



SECTION DETAIL
N.T.S.

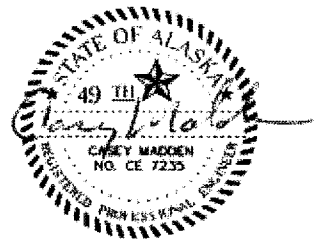


SOIL ABSORPTION BEDS
N.T.S.

MATERIAL SPECIFICATIONS

- SOLID PIPE- CAST IRON, 4 INCH
ABS SCHEDULE 40
PVC ASTM D3034
HDPE ASTM F810
DUCTILE IRON, CLASS 50
- COUPLINGS- CAULDER, FERNCO OR EQUIVALENT
- PERFORATED PIPE- PVC 1500 LBS CRUSH STRENGTH RECOMMENDED
ASTM 3350 OR EQUIVALENT
- FILTER FABRIC- TYPAR 3401, MIRAFI 140 N OR EQUIVALENT
- SEPTIC ROCK- 3/4" TO 3" FOR DEEP TRENCH AND PITS
3/4" TO 1 1/2" FOR SHALLOW DESIGNS
- INSULATION- DOW STYROFOAM III (BLUE BOARD OR EQUAL)


RECEIVED DRAWING
4-18-06
Carey Madsen



LOT 5 NATALIE WOODS SUBDIVISION		
SEPTIC DETAIL		
WINCE-CORTHELL-BRYSON CONSULTING ENGINEERS P.O. BOX 1041 KENAI ALASKA 99611 (907)283-4872 FAX (907)283-4878		
SCALE: AS SHOWN	DRAWN: SM	JOB #: 2004-041
DATE: Jan 10, 2005	CHECKED: CM	LOCATION: S:\2004\041

STATE OF ALASKA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF MINING, LAND & WATER
WATER WELL LOG

Drilling Started: 5/11/05 Completed: 5/20/05

City/Borough:	Subdivision:	BLOCK	LOT	Property Owner Name & Address: <u>Dave Brown Boone</u>
Meridian	Township	Range	Section	1/4 of 1/4 of 1/4 of 1/4
BOREHOLE DATA: (from ground surface) Depth Material: Type, Color & wetness From To				Drilling method: <input type="checkbox"/> Air rotary, <input checked="" type="checkbox"/> Cable tool <input type="checkbox"/> Other _____
				Well use: <input type="checkbox"/> Public supply, <input type="checkbox"/> Domestic, <input type="checkbox"/> Other _____
<u>Top Soil</u> 0 1				Depth of hole: <u>52</u> ft. Casing stickup: <u>2</u> ft
<u>Brown Silt</u> 1 9				Casing type: <u>Steel</u> Thickness <u>1/4</u> inches
<u>Sand / Gravel</u> 9 13				Casing diameter: <u>6</u> inches Casing depth <u>48</u> ft
<u>Boulders</u> 13 30				Liner type: _____ Diameter: _____ inches Depth: _____ ft
<u>Gray Silt Clay</u> 30 46				Notes: _____
<u>Soft Sand Stone</u> 46 52				Static water (from top of casing): <u>6</u> ft on <u>5/20/05</u>
				Pumping level & yield: <u>12</u> feet after <u>2</u> hours at <u>40</u> gpm
				Recovery rate: <u>40</u> gpm, Method of testing: <u>Pump/bail</u>
				Development method: <u>bail/pump</u> Duration: <u>2</u>
				Well intake opening type: <input type="checkbox"/> Open end <input type="checkbox"/> Open hole, Other <input type="checkbox"/>
				<input type="checkbox"/> Screened; Start: _____ ft, Stopped _____ ft
				Screen type: _____ Slot/mesh size _____
				<input type="checkbox"/> Perforated; Start: _____ ft, Stopped _____ ft
				Start: _____ ft, Stopped _____ ft
				Gravel packed <input type="checkbox"/> Yes <input type="checkbox"/> No From _____ ft to _____ ft
				Note: _____
				Grout type: <u>Bentonite</u> Volume <u>250 lb</u>
				Depth; from <u>0</u> ft, to <u>30</u> ft
				Pump intake depth: _____ ft
				Pump size _____ hp Brand name _____
				Was well disinfected upon completion? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
				Method of disinfection: _____
				Driller comments/ disclaimers: <u>Iron 1.5,</u>
				<u>Hardness 5.5, PH 6</u>
				Well driller name: <u>Vandehy Well Drilling</u>
				Company name: _____
				Mailing address: <u>39690 Sterling Hwy</u>
				City: <u>Homer AK 99603</u>
				Phone number: (_____) <u>907-235-8821</u>
				license# <u>29089</u> 
				Drillers signature: _____
				Date: _____

Alaska state law requires that a copy of this well log be forwarded to the Department of Natural Resources within 45 days (AK statutes 38.05.020, 38.05.035, 41.08.020, 46.15.020 and AK regulations 11 AAC 93.140). Fees are acceptable.

Alaska DNR, Division of Mining, Land and Water,
 550 W 7th Avenue, Suite 1020
 Anchorage, AK 99501-3562

Phone (907)269-8639 and fax (907)269-8947

If the well is within city limits, the City of Anchorage requires that a copy of this well log be forwarded to the city within 60 days and another copy of this log be forwarded to the owner of the property, on which the well is located, within 30 days.

City Permit Number: _____

Date of Issue: _____

Parcel Identification Number: _____

Is well located at approved permit location? Yes or No



WINCE
CORTHELL
BRYSON
CONSULTING ENGINEERS

CLIENT: DAVE BOONE

PAGE:

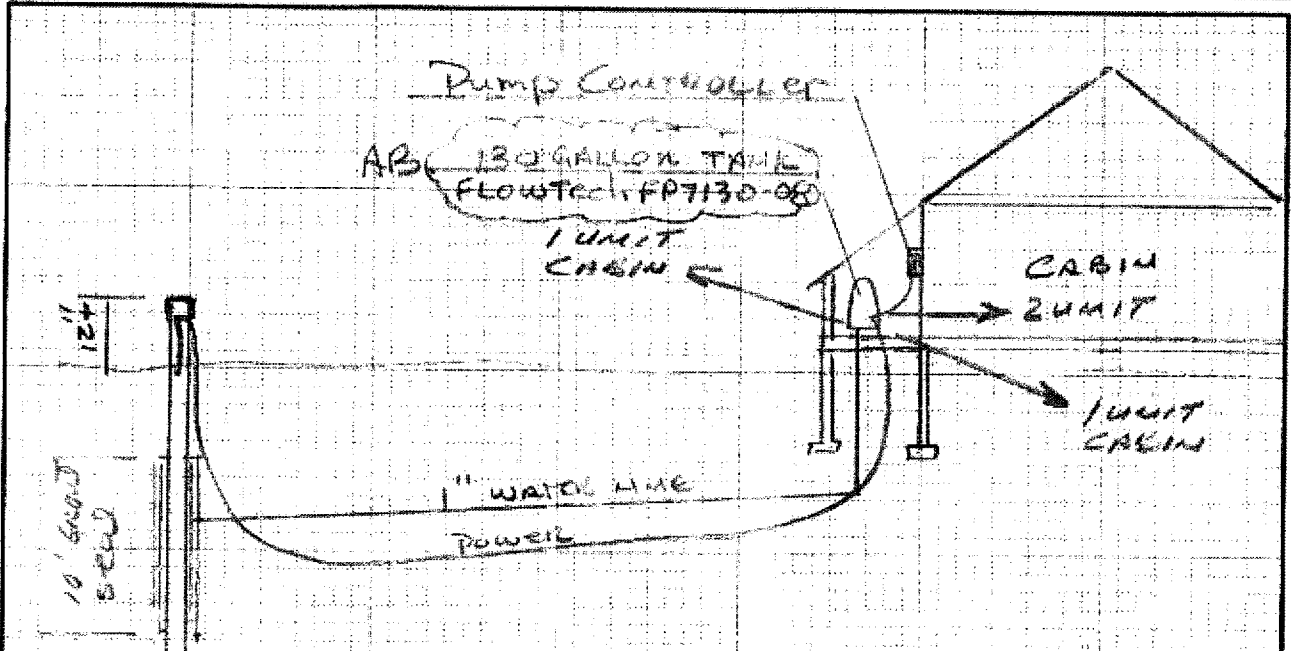
PROJECT: LOT 5 NATALIE WOODS

JOB NO. 04-041

PREPARED BY: CM

DATE: 1-16-05

CLASS C WELL SCHEMATIC



FIXTURE COUNT (4 BEDROOM UNITS)

- 4 TOILETS x 2 = 8
- 4 LAV'S x 1 = 4
- 4 KITCHEN SINKS x 2 = 8
- 4 TUBS/SHOWERS x 2 = 8

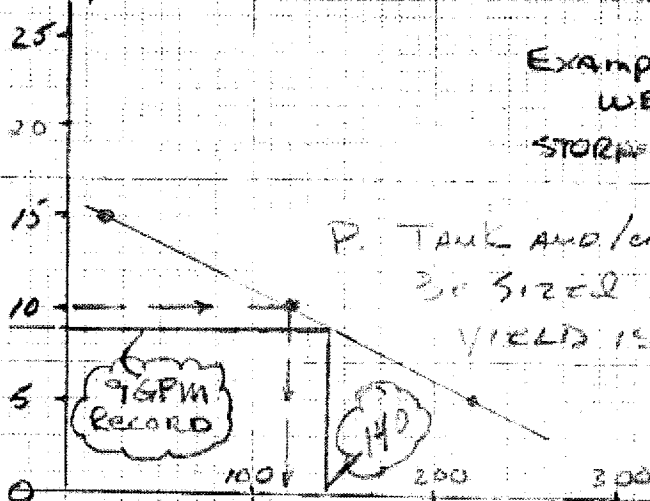
32 → 21.5 gpm PEAK

20 MINUTE PEAK DEMAND @ 75% OCCUP'Y

Example:
WELL @ 10 gpm
STORAGE = 120 GAL'S

AB
9 gpm FROM WELL LOG

WELL YIELD



P. TANK AND/OR STORAGE TO 30 SIZED ARTESIAN WELL YIELD IS DETERMINED

RECORD STORAGE = 140 GALLONS