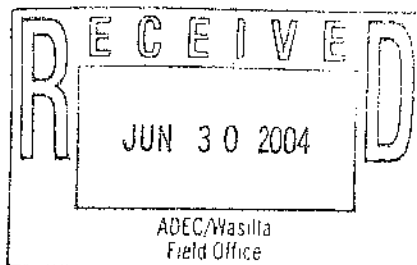


ERDMAN & ASSOCIATES
Consulting Engineers / Water Testing Laboratory

5200 Dunbar Drive
Wasilla, AK 99654

Phone 907-376-6989
Fax 907-373-2157



April 21, 2004

Mr. Ronald Schrank
c/o John Paoletti - Alaska Realty & Investments
PO Box 4356
Palmer, AK 99645

Re: L4/B3 Devon Wood Div. #1; Documentation of New Septic Tank;
E&A Project #04035

Mr. Schrank,

On April 20, 2004, we verified the installation of a new septic tank at the referenced property, as recommended in our letter of April 19, 2004.

Documentation of the new tank installation is attached. Please call if you have any questions or need additional information.

Sincerely,

Michael R. Erdman, P.E.

ERDMAN & ASSOCIATES
Consulting Engineers/Water Testing Laboratory
5200 Dunbar Drive Wasilla, AK 99654
376-6989

**ON-SITE WATER AND SEWER SYSTEM
DOCUMENTATION OF CONSTRUCTION**

I. GENERAL INFORMATION

Legal Description of the Location

Lot 4, Block 3 Devon Wood Div. #1

Installer

John Paoletti

Mailing Address

City, State, Zip Code

Submitted by:

- ☐ Certified Installer
☐ Approved Homeowner
☒ Registered Engineer

Wastewater System Serves:

- ☒ Single Family 4 Bedrooms
☐ Duplex Bedrooms
☐ Small Commercial (<500 gpd)

II. WATER SUPPLY SYSTEM

Source of Water and Containment (Check all that Apply)

- ☐ Well (Drilled or Driven) ☐ Surface (Identify)
☐ Roof Catchment ☐ Other (Identify)
☐ Holding Tank

Type of Water Supply System

- ☐ SF/Duplex
☐ Public

Well Data

Is the height of the well casing more than 12" above the ground? ☐ Yes ☐ No

Is a sanitary seal or well cap installed on the well casing? ☐ Yes ☐ No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing? ☐ Yes ☐ No

Is well wire enclosed in conduit? ☐ Yes ☐ No

Date Drilled

Depth of Well (Feet)

Static Water Level (Feet)

Yield (If available)

Pump Rate (If available)

Separation Distance from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot

Sewer Lines on Lot

Absorption Area on Lot

Closest Septic/Holding Tank on Adjacent Lot

Closest Sewer Lines on Adjacent Lot

Closest Edge of an Absorption Area on Adjacent Lot

If toxic materials are stored on the property, including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides, indicate distance from contaminants to well casing:

On Lot

On Adjacent Lot

Water Sample Taken by: (Name)

Sampler is:

- ☐ Buyer ☐ Engineer
☐ Banker ☐ Government Official

Address

Water Sample Results

Attach Copy

☐ Satisfactory - Date

☐ Unsatisfactory - Date

Comments/Recommendations:

The above information is correct to the best of my knowledge and belief. This report does not constitute a warranty of any kind.

Signature

Typed/Printed Name

Michael R. Erdman, P.E.

Title

CE 6252

Date

4/21/04

III. WASTEWATER DISPOSAL	Legal Description: Lot 4, Block 3 Devon Wood Div. #1
<input checked="" type="checkbox"/> Septic Tank w/ Conventional Soil Absorption System	<input type="checkbox"/> Small Commercial System - Estimated Flow 500 gpd
Criteria used to estimate wastewater flow: EPA DESIGN MANUAL	

☐ NEW SYSTEM ☒ REPAIR TO EXISTING SYSTEM (New Septic Tank Only)

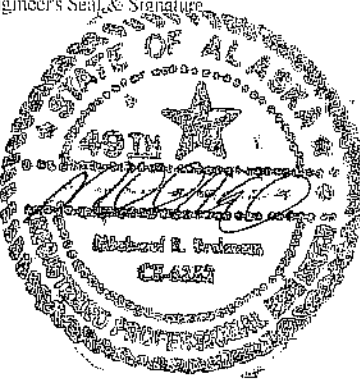
Name of Installer	John Paoletti			Date	4/20/04
System Installed:	<input checked="" type="checkbox"/> With Inspection by a Registered Engineer				
Septic Tank:	Material:	Manufacturer:	Size (gal):	Number of Compartments:	
	Steel	Greer	1,250	2	
Type Soil Absorption System	Dimensions/Size Soil Absorption System		Grading/Size/Thickness of Distribution Material:		
Soil Classification:		Soil Rating:			
Percolation Test Results (Attach Copy of Report)		Percolation Test Performed By:			
Minimum Ground Cover over Septic Tank:	Minimum Ground Cover over Absorption Area:	Minimum Ground Cover over Sewer Pipes:	Cleanout Pipes/Caps Installed		
> 4 Feet	> 4 Feet	> 4 Feet	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Separation Distances from ST/SAS to:		Separation Distances from Bottom of Distribution Rock to:			
Public Water Source	> 200 Feet	Water Bodies	> 100 Feet	Groundwater Table	> 4 Feet
Private Water Source	> 100 Feet	Lot Line	See As-Built Survey	Bedrock/Impermeable Layer	> 6 Feet
Separation Distance from Absorption Area to Slope Exceeding 25%		> 50 Feet			

Comments/Recommendations

Adequacy test had shown previously existing septic tank was leaking. Old tank was excavated and removed. New tank was installed in same location. No other changes were made.

This report is based upon limited inspections during construction, and upon information and/or photographs provided by installer. System appears to meet applicable ADEC regulations and requirements.

The above information is correct to the best of my knowledge and belief. This report does not constitute a warranty of any kind.

Engineer's Seal & Signature	Typed/Printed Name	Title, Reg./Cert No.	Date
	Michael R. Erdman, P.E.	CE6252	4/21/04

DEC
James W. Rowland, P.E.
Palmer, AK 99645

September 28, 1999

Loren Dodds
600 Golden Hills Drive
Wasilla, AK 99654

LETTER OF VERIFICATION

Re: Lot 4, Block 3, Devon Wood, Division #1
Single Family On-Site Water & Wastewater Disposal System Documentation

You have requested verification that the wastewater disposal system for the four (4) bedroom, single-family, dwelling on this property was designed and installed in conformance with the current ADEC regulations and policies.

An appropriately sized soil absorption system was designed for this dwelling based upon the in situ soil conditions. This system was installed in compliance with all current ADEC regulations and specifications. The enclosed record documents were prepared based upon information obtained from field observations. The data is reasonable and represents that the wastewater disposal system was installed in general conformance with current Alaska Administrative Code, Title 18, Chapter 72 Wastewater Disposal.

The location of the wastewater disposal system, relative to property lines or any easements, is shown on the enclosed certified as-built survey.

The water system had an average flow rate of 30 gpm on a test conducted by Pioneer Pacific on April 15, 1998. A water sample tested satisfactory for Coliform bacteria.

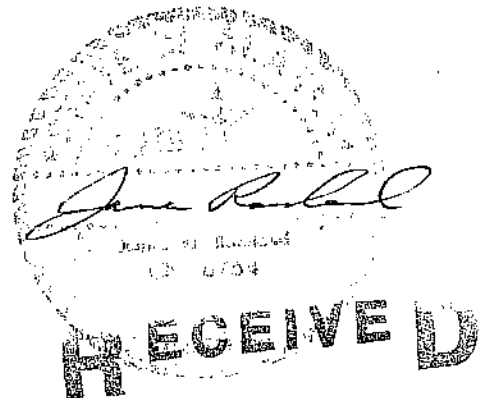
All performance data presented under this letter is based upon the testing performed on the dates shown. I can not warrant or guarantee the future performance or the installation of either the wastewater disposal system or the water system. I can only state that the water system appears to be adequate and that the wastewater absorption system was properly installed.

If you have any questions or desire any further information, please feel free to contact Denali North at any time.

Sincerely,



James W. Rowland, P.E.
CE 6754



OCT - 5 1999

DEPARTMENT OF

STATE OF ALASKA
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

APPLICATION FOR ON-SITE WATER AND SEWER
SYSTEM APPROVAL
OR
DOCUMENTATION OF SYSTEM INSTALLATION

Date Received

WO# 98-256

I. GENERAL INFORMATION

Legal Description of the Location

DEVON WOOD, DIVISION #1
Lot 4, Block 3

Applicant Name:

Loren Dodds

Applicant is: (Check one)

☐ Bank

☒ Owner/builder

☐ Certified Installer, No. _____

☐ Engineer

Mailing Address

600 Golden Hills Drive

Type of Residence:

☒ Single Family

☐ Multi-Family

Total Number Bedrooms

4

City, State, Zip Code

Wasilla, Alaska 99654

Telephone:

376-1801

Send Approval to:

☐ Applicant

☒ Other (Give Name & Address)

Denali North 847 W. Evergreen Ave.
Palmer, Alaska 99645

II. WATER SUPPLY SYSTEM

Source of Water and Containment (Check all that Apply)

☒ Well (Drilled or Driven)

☐ Roof Catchment

☐ Holding Tank

☐ Surface (Identify) _____

☐ Other (Identify) _____

Type of Water Supply System

☒ Private

☐ Public (Serves more than one family)

Treatment of Water (Check all that Apply)

☐ None

☐ Filtration

☒ Other: unknown

☐ Chlorination

☐ Mineral Removal

Well Data

Is the height of the well casing more than 12" above the ground?

☒ Yes

☐ No

Is a sanitary seal or well cap installed on the well casing?

☒ Yes

☐ No

Is drainage directed away from or around the casing within a radius of 10 feet of the well casing?

☒ Yes

☐ No

Is well wire enclosed in conduit?

☒ Yes

☐ No

Date Drilled

* 4/15/98

Depth of Well (Feet)

* 100'

Static Water Level (Feet)

* 61'

Yield (If available)

* 30gpm

Pump Rate (If available)

unknown

Separation Distance from the Well Casing to each of the Following Sources of Contamination:

Septic/Holding Tank on Lot

100+'

Sewer Lines on Lot

25+'

Absorption Area on Lot

100+'

Closest Septic/Holding Tank on Adjacent Lot

100+'

Closest Sewer Lines on Adjacent Lot

25+'

Closest Edge of an Absorption Area on Adjacent Lot

100+'

If toxic materials are stored on the property, including fuel tanks, paints, lubricants and other petroleum based materials, pesticides, fungicides or herbicides, indicate distance from contaminants to well casing:

None Visible

25+'

Within

25+'

Water Sample Taken By: (Name)

Denali North

Sampler is:

☐ Buyer

☒ Engineer

Address

847 W. Evergreen Avenue Palmer, AK 99645

☐ Banker

☐ Government Official

Water Samples Results:

Attach Copy

☒ Satisfactory 9/23/99

☐ Unsatisfactory - Date

Comments/Recommendations:

* Indicates information taken from Well Log.

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

Signature

Typed/Printed Name

Title

Date

James W. Rowland

CE 6754

9-28-99

III. WASTEWATER DISPOSAL		Legal Description: Lot 4, Block 3 DEVON WOOD, DIVISION #1	
<input checked="" type="checkbox"/> Septic Tank/Absorption System		<input type="checkbox"/> Package Treatment (Specify Brand Name or Process)	
<input type="checkbox"/> Holding Tank - Specify	<input type="checkbox"/> Capacity of Tank	Where Waste is Disposed	Frequency of Pumping
<input checked="" type="checkbox"/> Septic Tank Outfall Discharged To: subsurface		<input type="checkbox"/> Other (Specify): (Outhouse Incinerator, etc.)	

☒ NEW SYSTEM

Name of Installer John Henry		Date Installed 9/7/98	
<input checked="" type="checkbox"/> Owner/Builder <input type="checkbox"/> Certified Installer No. <input type="checkbox"/> Other:		Septic Tank Type/Manufacturer Steel/Anch. Tank	
Septic Tank Size (Gallons) 1,250	Number of Compartments 2	Soil Type and Rating 335 S.f./bdrm	
Type Soil Absorption System Deep Trench	Dimensions/Size Soil Absorption System 112' x 6' ED	Type/Quantity Backfill Material Used for Soil Absorption System 3/4-1 1/2" septic rock/95cy	
Percolation Test Results (Attach Copy of Report) 40 mpi		Percolation Test by: (Name) Denali North	
Minimum Ground Cover over Absorption Area 4+ Feet	Minimum Ground Cover over Septic Tank 4+ Feet	Cleanout Pipes/Caps Installed on Septic Tank <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Separation Distance To: 100+ Feet	Water Supply Source on Lot Nearest Water Supply Source on Adjacent Lot 100+ Feet	Nearest Body of Water 100+ Feet	Water Table/Bedrock 4/6+ Feet Lot Line 10+ Feet

Comments/Recommendations

Denali North inspected the installation of the new soil absorption system to verify that it complies with ADEC regulations and specifications. Denali North does not warrant or guarantee the future performance or the installation of the components.

On 9/22/99 Denali North verified system has not been used.

Cleanout is located outside of the foundation.

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

Signature 	Typed/Printed Name James W. Rowland	Title, Reg./Cert No., Inst. No. CE 6754	Date 9-28-99
---	--	--	-----------------

NOTE: Must be signed by a Certified Installer, Professional Engineer, DEC staff, or approved Owner/Builder

☐ EXISTING SYSTEM

Name of Installer		Date Installed	
<input type="checkbox"/> Owner/Builder <input type="checkbox"/> Certified Installer No. <input type="checkbox"/> Other:		Septic Tank Type/Manufacturer	
Septic Tank Size (Gallons)	Number of Compartments	Soil Type and Rating	
Type Soil Absorption System	Dimensions/Size Soil Absorption System	Type/Quantity Backfill Material Used for Soil Absorption System	
Adequacy Test results (Attach Copy of Report) <input type="checkbox"/> Pass <input type="checkbox"/> Fail		Adequacy Test Performed by: (Name)	
		Date Septic Tank Pumped (Attach Copy of Receipt)	
Minimum Ground Cover over Absorption Area Feet	Minimum Ground Cover over Septic Tank Feet	Cleanout Pipes/Caps Installed on Septic Tank <input type="checkbox"/> Yes <input type="checkbox"/> No	Cleanout Pipes/Caps Installed on Absorption System <input type="checkbox"/> Yes <input type="checkbox"/> No
Separation Distance To: 1 Feet	Water Supply Source on Lot Nearest Water Supply Source on Adjacent Lot Feet	Nearest Body of Water Feet	Water Table/Bedrock Feet Lot Line Feet

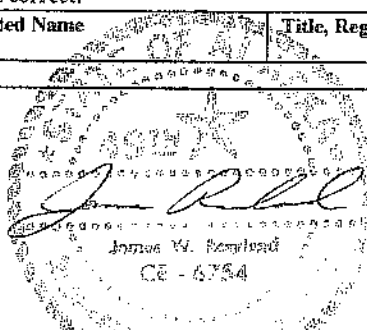
Comments/Recommendations

Cleanout is located of the foundation.

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

Signature	Typed/Printed Name	Title, Reg./Cert No.	Date
-----------	--------------------	----------------------	------

NOTE: Must be signed by a Professional Engineer.



SEAL
Registered Professional
Engineer

Name LAREN DODDS

Address _____

Completed date: APR 15 1998

DENALI NORTH

P.O. Box 870086
Wasilla, Alaska 99687

SOIL LOG

PERCOLATION TEST

☒ SOIL LOG

☒ PERCOLATION TEST

4 BEDROOMS

JOB NUMBER: 98-256

PERFORMED FOR: _____

DATE PERFORMED: 9-5-98

LEGAL DESCRIPTION: DEVONWOOD D#1 L-4 B-3

DEPTH (FEET)	SOIL DESCRIPTION	SLOPE	SITE PLAN
1	0-05 OL. MC		
2	05-24 Silty Sandy Soil REDISH BROWN		
3	Brownish RED		
4	22-42 SAND w/ SLIGHT TRACE OF SILT		
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16	Grayish Brown		
17	Silty SANDY GRAVEL		
18	Slightly DAMP		
19	42-122 Rock 2" 8"		
20			

Reading	Date	Gross Time	Net Time	Depth to Water	Net Drop
1	9-5-98	7:58	START	6"	START
2		8:28	30min	5 1/2"	1/2"
3		8:58	"	5 1/4"	3/4"
4		9:28	"	5 1/4"	3/4"
5		9:58	"	5 1/4"	3/4"

PERCOLATION RATE 40 (minutes/inch)

TEST RUN BETWEEN 5 FT AND 6 FT

COMMENTS: Soil Rating 335 SQFT/BDPM

PERFORMED BY: Wayne Whaley

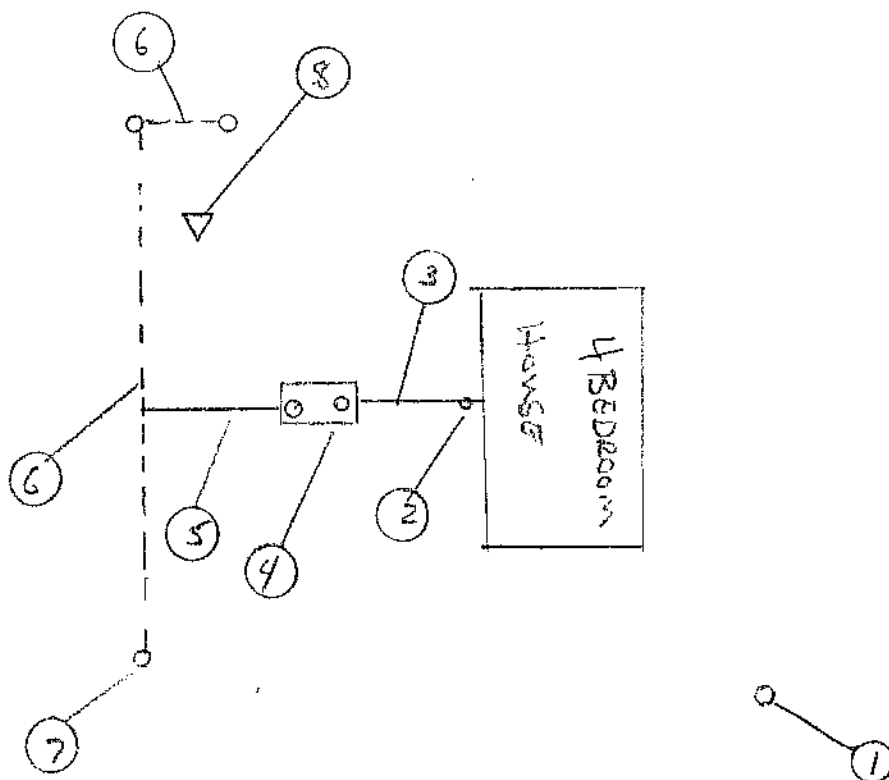
CERTIFIED BY: JWR

DATE: 9/28/99

NOTE: NOT TO SCALE

LEGEND

- 1) WELL
- 2) Foundation Clean out
- 3) 4" DIA. Sch. 40 ABS SEWER LINE AT 2% GRADE
- 4) 1250 GAL. STEEL 2 COMP ANCHORAGE SEPTIC TANK
- 5) 4" DIA. SCH 40 ABS DISCHARGE LINE AT 1% GRADE
- 6) 4" PVC PERF PIPE LADID Level
- 7) 11000 LITRE TYP.
- 8) TEST HOLE



CUCILLE ST

DENALI NORTH
P.O. BOX 870086
Wasilla, AK 99687
373-1110

SOIL ABSORPTION SYSTEM

DEEPTREACH

DATE

WO#

DRAWN BY:

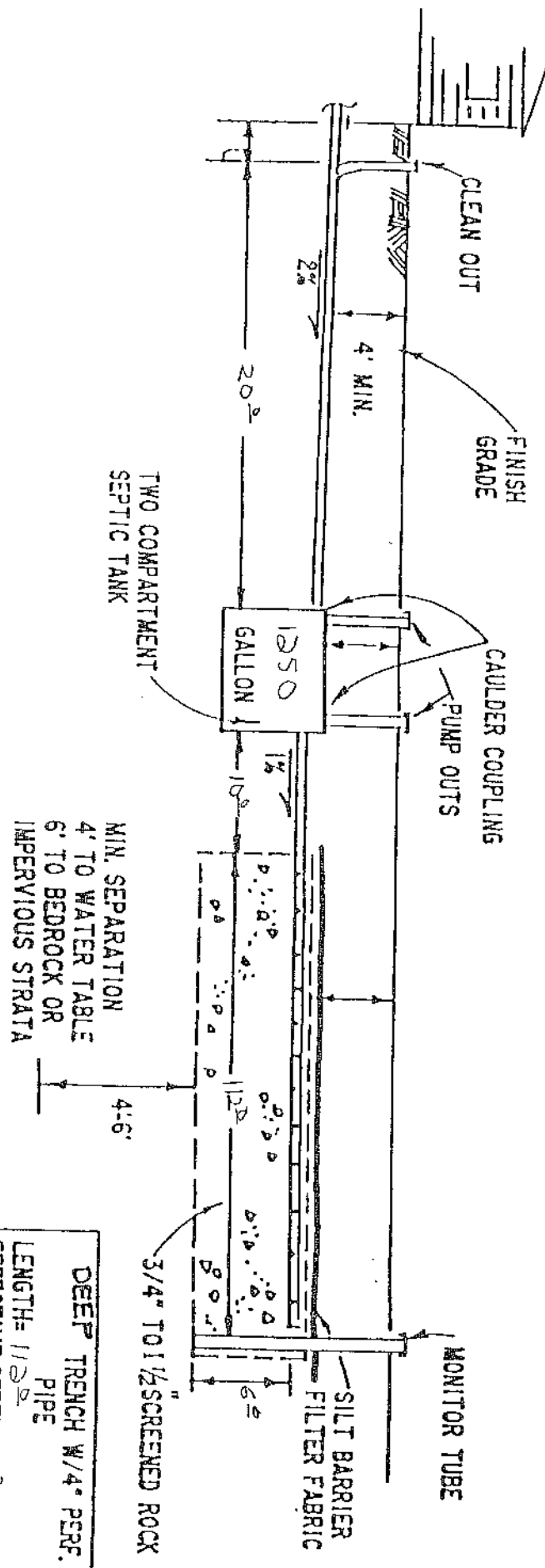
LEGAL DESCRIPTION

9-7-98

98-256

S.W

DEVON WOOD DIV # L-4 B-3



DEEP TRENCH W/4" PERF. PIPE
 LENGTH= 110'
 EFFECTIVE DEPTH= 6'

WASTEWATER SYSTEM PROFILE

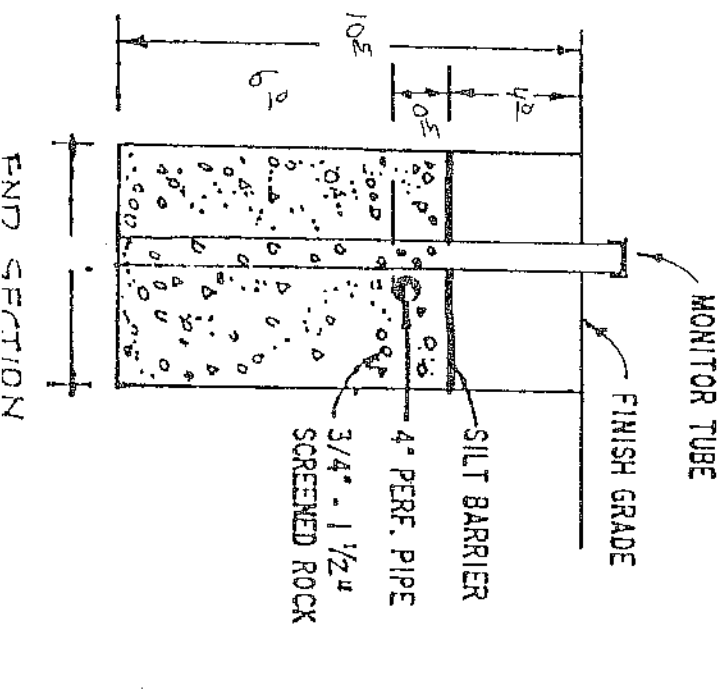
N.T.S.

1. ALL STAND PIPES AND LEACH LINE ENDS ARE TO BE CAPPED.
2. DISTRIBUTION PIPES, SEPTIC TANK AND TRENCH BOTTOMS TO BE INSTALLED LEVEL.
3. AVOID SMEARING OF TRENCH SIDE WALLS IN FINER SOILS.

DEEP TRENCH SOIL ABSORPTION SYSTEM

Donali North 847 W. EVERGREEN PALMER, AK. 99645

Y3 DUNDUND #1 98-256



END SECTION