

70775

Control No.

990.00

Fee

STATE OF OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

PERMIT NO. 04-25

[X] New Construction

[] Repair

[] Other

Permit Issued To Olstedt Construction (Property Owner's Name) 7N (Township) 10W (Range) 34C (Section) 1811 (Tax Lot / Acct. No.) Clatsop (County) Sandy Ridge Lane (Road Location) Seaside (City) Connie M. Schrandt (Issued by - Signature) 2-23-04 (Date Issued)

PERMITS ARE NOT TRANSFERABLE

ALL WORK TO CONFORM TO OREGON ADMINISTRATIVE RULES, CHAPTER 340. WORK SHALL BE DONE BY PROPERTY OWNER OR BY LICENSED SEWAGE DISPOSAL SERVICE. (MAKE NO CHANGES IN LOCATION OR SPECIFICATIONS WITHOUT WRITTEN APPROVAL)

SPECIFICATIONS

EXPIRATION DATE February 23, 2005

Alternative-Bottomless TYPE OF SYSTEM Sand Filter

Willamette Graystone 2 compartment with risers

Design Sewage Flow 450 Gallons/Day

Tank Volume 1500 Gallons

Disposal Trenches []

Seepage Bed(s) [] 360

Square Feet Sand Filter

Maximum Depth 33 inches.

Minimum Depth - inches.

- Linear Feet

Equal [] Loop [] Serial []

Pressurized [X]

Minimum Distance Between Trenches -

Total Rock Depth - inches.

Below Pipe - inches.

Above Pipe - inches.

[] Rake Sidewall

Special Conditions (Follow Attached Plot Plan) Install in accordance with plans & specifications submitted 2-9-04 & 2-20-04. As-built with all notations on approved plans addressed & certification of final construction by installer along with copy of electrical permit required prior to pre-cover inspection request. PRE-COVER INSPECTION REQUIRED - CONTACT NCBO -- (503) 861-3280

CERTIFICATE OF SATISFACTORY COMPLETION

As-Built Drawing with Reference Locations

Installer Hartman Construction

As-built & certification of final construction received 6-15-04. Electrical permit received 6-17-04.

Final Insp. Date 6-16-04

[X] Inspected By Connie Schrandt

System components installed/constructed as per approved as-built.

[] Issued by Operation of Law

Pump & alarm tests ok. OK to cover system.

[] Pre-cover inspection waived pursuant to OAR 340, Division 71

This Certificate of Satisfactory Completion is valid for a period of 5 years for connection of the system to the facility for which it was constructed. After the 5 year period, rules for Authorization Notices or Alteration Permits apply, which includes paying a fee, as outlined in OAR 340-071-0205 and 340-071-0210.

In accordance with Oregon Revised Statute 454.665, this Certificate is issued as evidence of satisfactory completion of an on-site sewage disposal system at the location identified above.

Issuance of this Certificate does not constitute a warranty or guarantee that this on-site disposal system will function indefinitely without failure.

Connie M. Schrandt (Authorized Signature)

Natural Resource Specialist (Title)

6-17-04 (Date)

DEQ NCBO Warrenton (Office)

JUN 1 6 2004 (Date Received)

FINAL INSPECTION REQUEST AND NOTICE

NORTH COAST BRANCH OFFICE
WARRENTON

Pursuant to the requirements within ORS 454.665, OAR 340-71-170 and OAR 340-71-175, the system installer and/or the permittee must notify the Department of Environmental Quality (or its authorized Agent) when the construction, alteration or repair of a system for which a permit was issued is completed (except for the backfilling or covering of the installation). The Department (or Agent) has 7 days to perform an inspection of the completed construction after the official notice date, unless the Department (or Agent) elects to waive the inspection and authorizes the system to be backfilled earlier. Receipt and acceptance of this completed form by the Department (or Agent) establishes the official notice date of your request for the pre-cover inspection. Please complete all four sections of the form and return it to the office that issued the permit. Forms that are determined to be incomplete will be returned.

SECTION 1: BASIC INFORMATION.

Property Owner Olstedt Construction Permit Number 04-25 County Clatsop

Township 7N ; Range 10W ; Section 34C ; Tax Lot 1811 ; Tax Acct. # _____

Job Location Sandy Ridge Seaside

Date System Construction Completed 6-14-04 ; Date Submitted to DEQ or Agent _____

SECTION 2: MATERIALS LIST. Identify and list all materials used in the system's construction.

Orenco Pump Package

Orenco Manifold Kit 18'x20'

18" Orenco Risers

Willamette Graystone 2 compartment tank 1500 gal

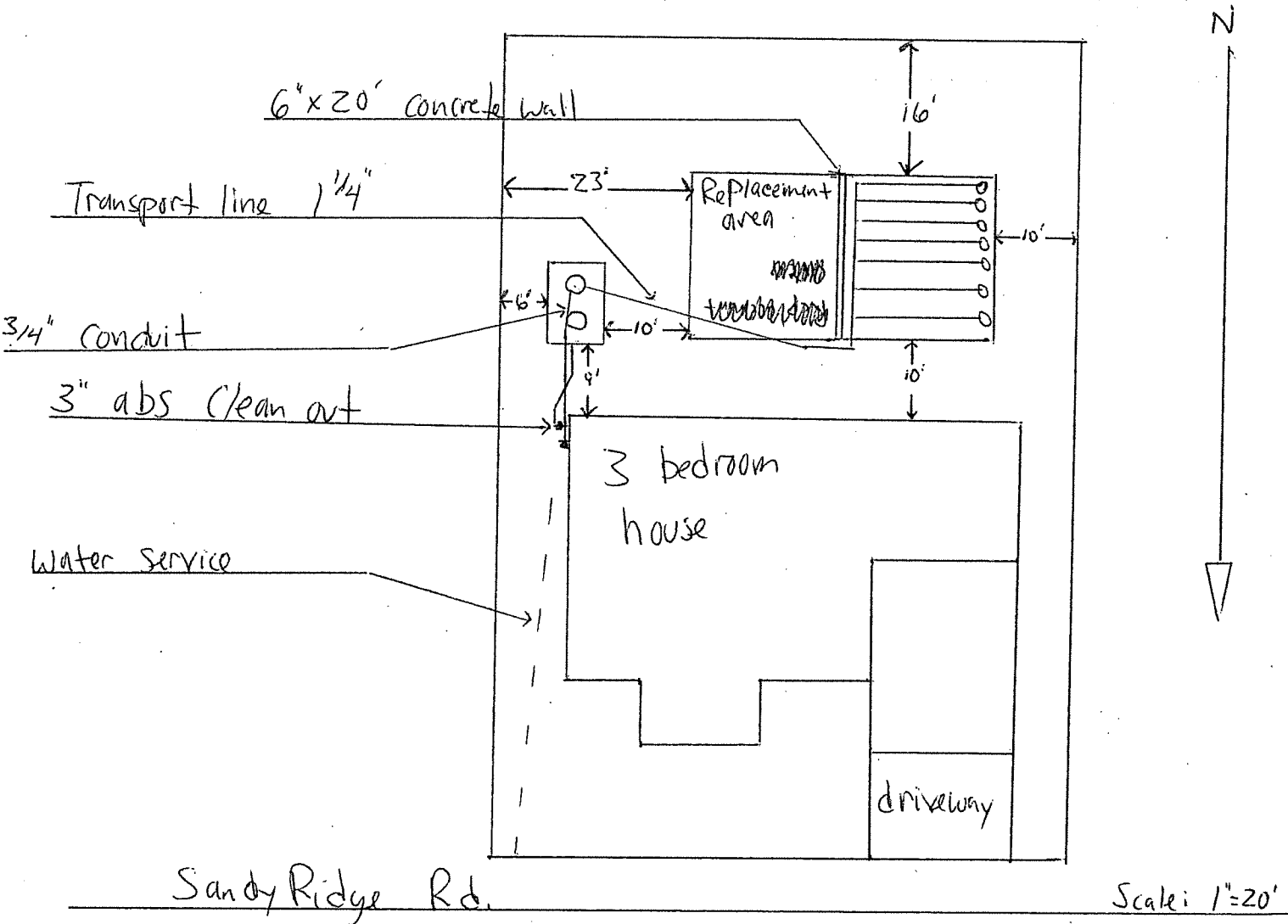
OR tyvar filter fabric

8 tons pee-gravel

10 tons 1 1/2" drain Rock

36 ton deq. sand

SECTION 3: AS-BUILT PLAN OF THE CONSTRUCTED SYSTEM. Indicate the direction of NORTH and show the locations of all wells within 200 feet of the system.



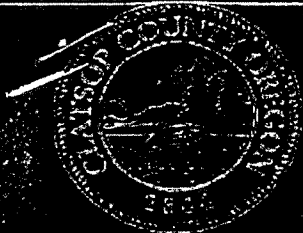
SECTION 4: CONSTRUCTION WAS PERFORMED BY:

Property Owner (Permittee)

Sewage Disposal Service Business: Hartman Construction, 38331
 (Print Full Business Name) (DEQ License Number)

I certify the information provided in this notice is correct, and that the construction of this system was in accordance with the permit and the rules regulating the construction of on-site sewage disposal systems (OAR Chapter 340, Divisions 71 and 73).

Dean Hartman, Owner, 6-15-04
 (System Installer's Signature) (Title) (Date)



Electrical Application

COMMUNITY DEVELOPMENT

Building Codes Division

800 Exchange St. Ste 100 - Astoria, OR 97103

Phone (503) 336-3697 Fax (503) 336-3666

INSPECTION REQUEST LINE (503) 336-3698

PERMIT NO: **E4-244**

LABEL NO: **401843**

DATE ISSUED: **3/22/2004**

ISSUED BY: **CC**

Address: **1371 SANDY RIDGE**
 City: **GEARHART** State: **OR**
 Directions:

1900 SQ

Plan Review will be required if the proposed electrical installation involves one or more of the following:

- Structure more than 10000 SF
- More than 320 amps continuous rating metered through a self-contained metering device for one & two family dwellings or more than 225 amp for service and 400 amp feeders for either three one & two family dwellings
- More than 600 volts nominal
- Structure more than three stories
- Four (4) or more residential units or an occupancy rating of more than 89 persons
- Chapter 5 of the National Electrical Code hazardous locations
- Manufactured Structures Park or Recreational Vehicle Park

IN ACCORDANCE WITH ORS 336.010 THE PURPOSE OF THIS PERMIT IS TO CONTAIN MERCURY SHALL BE IN ACCORDANCE WITH PROVISIONS ESTABLISHED BY THERMOSTAT MANUFACTURERS, THEIR REPRESENTATIVE OR DISTRIBUTOR OR BY DELIVERY TO STATES THAT WILL EXCLUDE THAT MERCURY DOES NOT BECOME PART OF THE SOLID WASTE SYSTEMS OR WASTEWATER.

CONTRACTOR'S INSTALLATION

Electrical Contractor: **PERMIRIE ELECTRIC**
 City: _____ State: **OR** ZIP: _____
 Date: _____ Job#: _____
 Property Owner: **OLSTEDT CONST**
 Electrical Contractor's License #: _____
 Contractor's Board Reg #: _____
 Signature of supervising electrician: _____
 License to: _____ Phone: _____

OWNER INSTALLATION

Owner's Name (print): _____
 Address: _____
 City: _____ State: **OR** ZIP: _____
 Phone: _____
 The installation is being made on property I own, which is not intended for sale, lease, rent, or exchange. I have read and understand the attached "Information Notice to Property Owners About Construction Responsibilities."
 Owner's Signature: _____

Zoning information verified? _____
 Sanitation information verified? _____

Number of inspections per permit allowed:

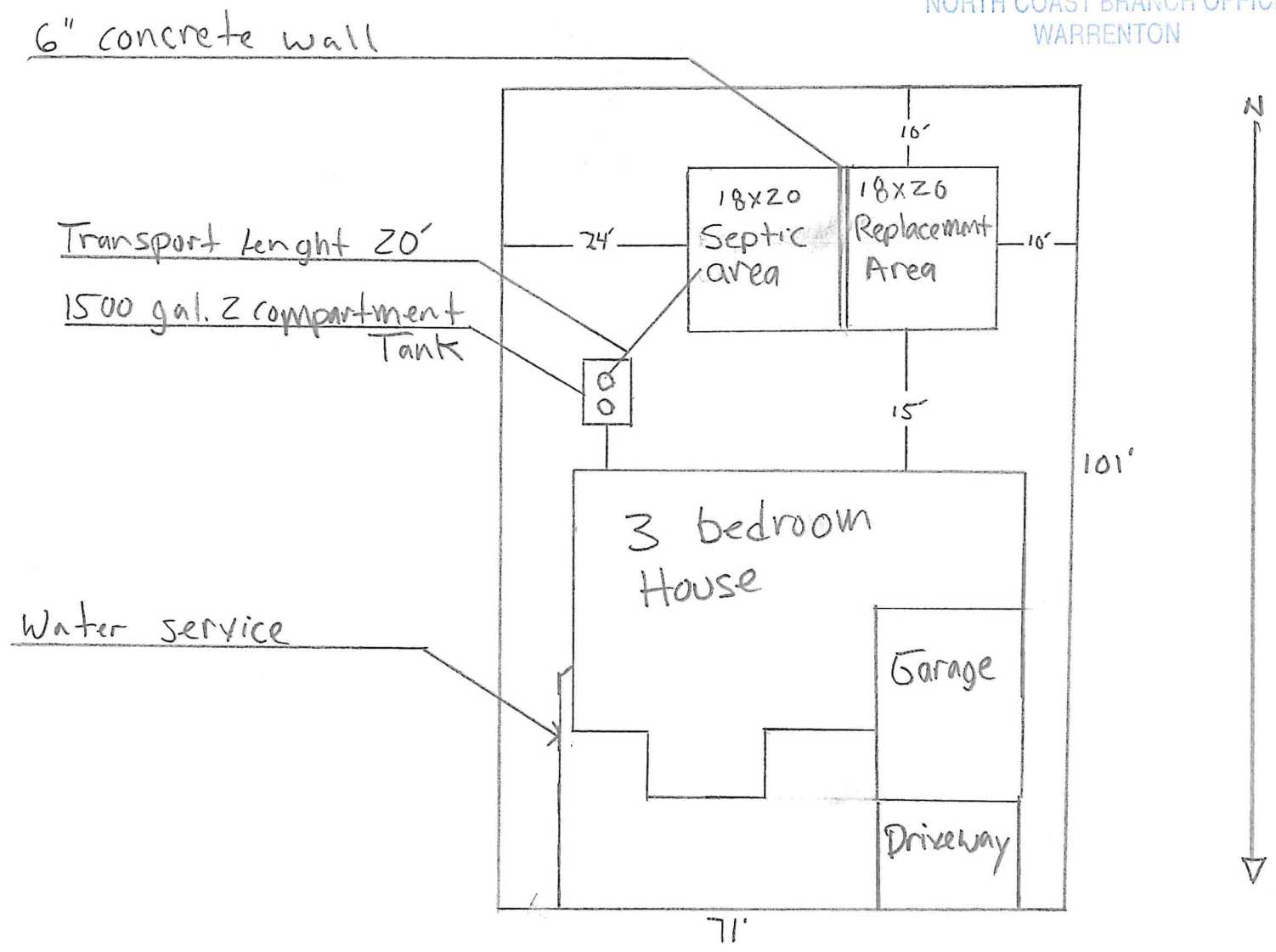
Residential per unit service included:	Items	Cost (ea)	Sum	
1000 sq ft or less	1	\$ 133.00	\$ 133.00	4
Each each 500 sq ft or portion thereof	2	\$ 24.00	\$ 48.00	
Limited Energy		\$ 31.00	\$ -	1
Manufactured Home/Modular Dwelling Service or Feeder (each)		\$ 63.00	\$ -	2
Service or Feeders: Installation				
200 amps or less		\$ 72.00	\$ -	2
225 amps to 400 amps		\$ 94.00	\$ -	2
400 amps to 600 amps		\$ 155.00	\$ -	2
600 amps to 1000 amps		\$ 204.00	\$ -	2
Over 1000 amps or volts		\$ 439.00	\$ -	2
Recessed Only		\$ 63.00	\$ -	2
Temporary Service or Feeders:				
200 amps or less		\$ 53.00	\$ -	2
225 to 400 amps		\$ 86.00	\$ -	2
400 to 600 amps		\$ 125.00	\$ -	2
Variable amps or 1000 volts less service or feeder service above				
BRANCH CIRCUITS: new, alteration or extension per panel				
a. With the purchase of service or feeder				
Each branch circuit		\$ 4.00	\$ -	
b. Without the purchase of service or feeder				
First Branch Circuit		\$ 54.00	\$ -	
Each Add'l branch circuits		\$ 4.00	\$ -	
Miscellaneous (service or feeder not included)				
Each panel or meter enclosure		\$ 63.00	\$ -	2
Each sign or notice lighting		\$ 63.00	\$ -	2
Signal circuit for a limited energy panel alteration or extension		\$ 53.00	\$ -	2
Each additional inspection over the allowable in any of the above, per inspection		\$ 61.50	\$ -	

1	Total Permit Fees	\$ 131.00
2	7% State Surcharge (line 1 x .07)	\$ 12.57
3	Plan Review Fee 25% of line 1 (if applicable)	
4	Investigative Fee equal to line 1 (if applicable)	
5	Total Fees Due	\$ 193.57
6	Bulk Label Prepaid Fee (if applicable)	\$ 25.00
7	Payment: cash ok ok	
8	Balance Owning	\$ 168.57

Permits are non-transferable or non-refundable. Permits will expire 100 days from issuance or date of last inspection.

Installer - Hartman Const
Owner - Steve Olstedt
710-345-1811 Sandy Ridge lot #11

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED
FEB 09 2004
NORTH COAST BRANCH OFFICE
WARRENTON



Sandy Ridge Rd.

APPROVED
Connie M. Schrandt
Connie M. Schrandt, W.W.S.
Lic. No. 0207760756
2/23/04

Installer - Hartman Const.

Owner - Steve Olstedt

710-340-1811 Lot # 11

DEPT. OF ENVIRONMENTAL QUALITY
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HARTMAN CONSTRUCTION
MATERIAL LIST

COAST BRANCH OFFICE
WARRENTON

PIPE & FITTING

- 1 1/4" PVC 200 PSI
- 1 1/4" PVC 200 PSI
- 4" 3034 PVC PIPE 4" 3034 PVC FITTINGS

TANKS

- WILLAMETTE GRAYSTONE 1000 GAL DOSING
- MICHAELS 500 GAL DOSING
- MICHAELS 1000 GAL SEPTIC
- WILLAMETTE GRAYSTONE 2 COMPARTMENT 1500 GAL DOSING/SEPTIC
- WILLAMETTE GRAYSTONE SINGLE COMPARTMENT 1500 GAL DOSING/SEPTIC

RISERS

- ORENCO-
- NORWESCO
- MICHAELS

PUMPS & SUPPLIES

- FRANKLIN 30 GPM
- ORENCO FLOATS AND ALARMS
- ORENCO EFFLUENT SCREEN

DRIAN MEDIA

- NASELLE SAND & GRAVEL --SAND
- JOHNSON 1 1/2" DRAIN ROCK
- JOHNSON PEE-GRAVEL
- MOHLER PEE-GRAVEL
- GLACIER NORTHWEST , INC-- SAND

FILTER FABRIC

- DUPONT SF 20
- OR TYPAR

APPROVED

Connie M. Schrandt
Connie M. Schrandt, W.W.S.
Lic. No. 0207760756
2/23/04

MEAD ENG

PO1
DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

710-34C-1811 (Lot 11)
Olstedt Construction

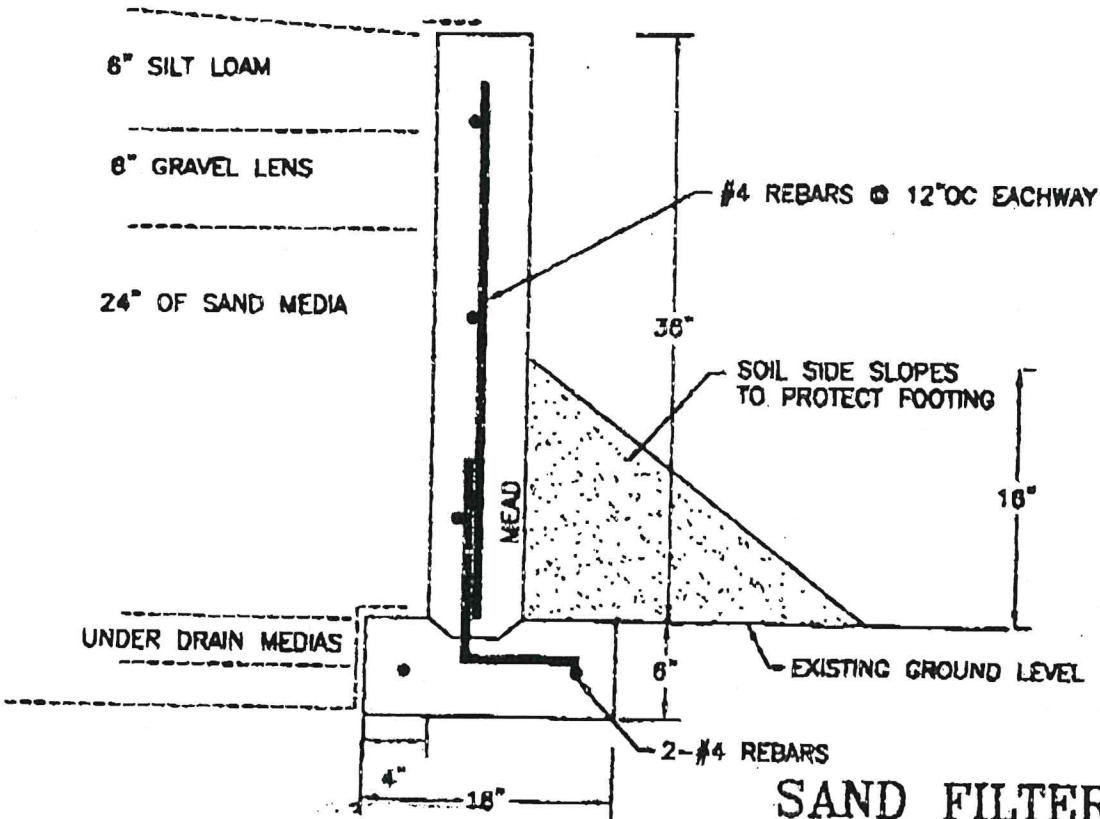
FEB 20 2004

Hartman Construction

TYPICAL CONCRETE WALL SECTION FOR A SAND FILTER

LOCAL DISTRICT BRANCH OFFICE
WARRENTON

WALL CAN BE USED FOR BOTTOMLESS SAND FILTER
AS CENTER DIVIDER WALL



SAND FILTER DIVIDER WALL SANDY RIDGE SUB. FOR OLSTEDT CONSTRUCTION

ALL CONSTRUCTION TO MEET UNIFORM BUILDING CODES
CONCRETE TO BE 2500 PSI @ 28 DAYS
REBAR TO BE GRADE 40 OR BETTER
OWNER/CONTRACTOR TO OBTAIN BUILDING
PERMIT IF REQUIRED FOR CONC WALL

PO BOX 2363
GEARHART, OREGON 97138
Ph. 503-738-3968

THIS DRAWING IS FOR THE
SOLE USE OF OLSTEDT
CONSTRUCTION FOR SANDY
RIDGE SUBDIVISION, GEARHART
OREGON AND IS NOT
TO BE USED BY ANY OTHER
CONTRACTORS WITHOUT
WRITTEN PERMISSION FROM
MEAD ENGINEERING



EXPIRES 12/31/2004

DATE: 19 FEB 2004

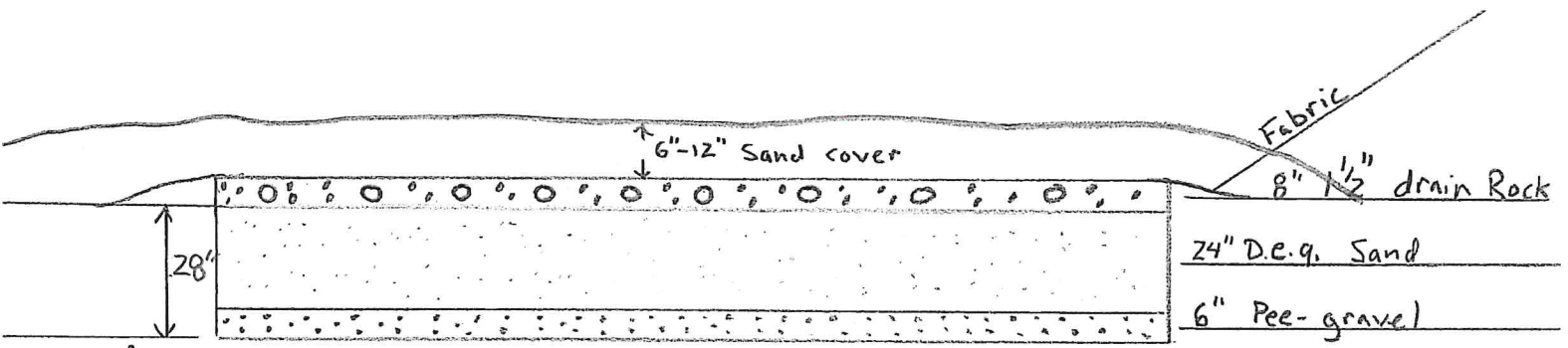
Mead
Engineering
Resources Inc

90331 HAWKINS ROAD
WARRENTON, OREGON 97146
Ph. 503-861-2604

APPROVED
Connie M. Schrandt
Connie M. Schrandt, W.W.S.
Lic. No. 0207760756
2/23/04

Installer - Hartman St.
Owner - Steve Olstedt
710-346-1811 Lot # 11

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NORTH COAST BRANCH OFFICE
WARRENTON



Note: Max depth of 33"
approved

APPROVED
Connie M. Schrandt
Connie M. Schrandt, W.W.S.
Lic. No. 0207760756
2/23/04



Orengo Systems[®]
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

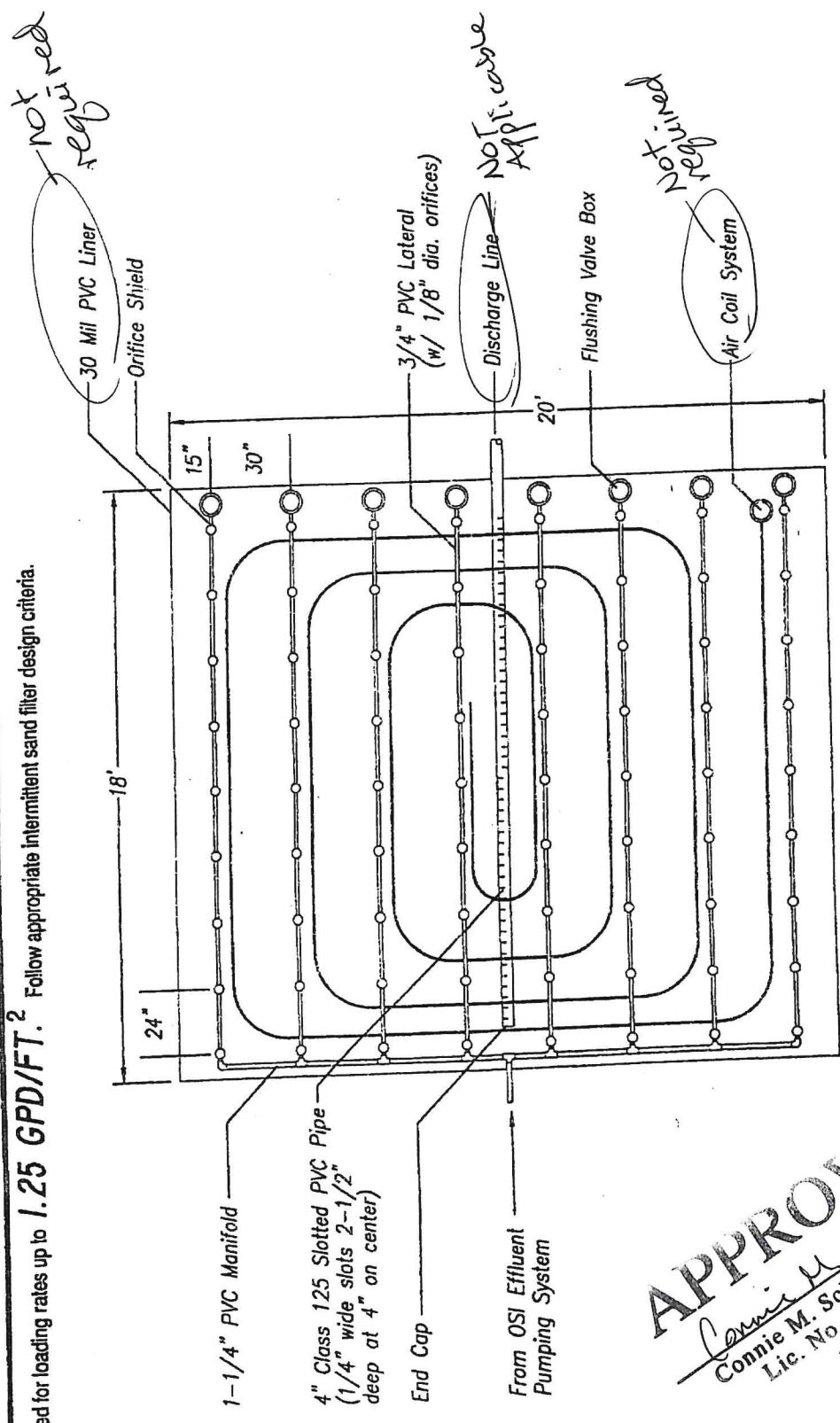
TELEPHONE:
(541) 459-4449
FACSIMILE:
(541) 459-2884

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FEB 09 2004
NORTH COAST BRANCH OFFICE
WARRENTON

EDW-ISF-2018L-
Rev. 1 0 17/08

20'x18' Intermittent Sand Filter* with Gravity Discharge

* Configured for loading rates up to 1.25 GPD/FT.² Follow appropriate intermittent sand filter design criteria.



TOP VIEW - 20'X18' GRAVITY DISCHARGE SAND FILTER
SCALE: 1/8" = 1'

Note: See additional details on
EDW-ISF-S-3

APPROVED
Connie M. Schrandt
Lic. No. 0207760756
2/23/04

Trustee: Hartman Const.
Owner: Steve Olstedt
710-34E-1811 Lot # 11



Orifice Systems
Incorporated

812 ARMY AVE
SOUTH BEND, IN 46601

PHONE: 317-333-1111

FAX: 317-333-1111

WEBSITE: www.orificesystems.com

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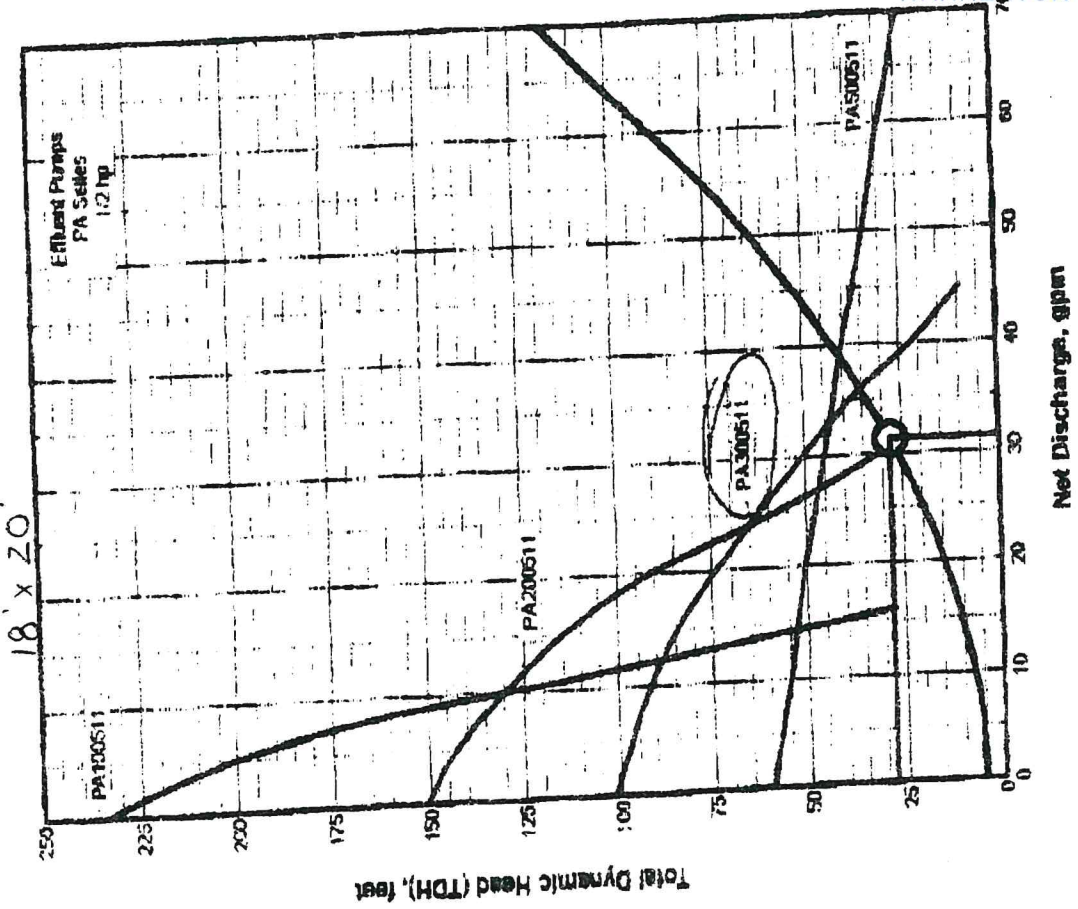
FEB 09 2004

NORTH COAST BRANCH OFFICE
WARRENTON

Contractor: Hartman Const.

Pump Selection for a Pressurized System

**DEAN HARTMAN
BOTTOMLESS SANDFILTER**



Input Parameters	Value
Orifice Size	1/4 inches
Residual Head at Last Orifice	5.8 feet
Orifice Spacing	2.00 feet
Number of Lateral per Cell	8
Lateral Length	17.0 feet
Lateral Line Size	0.75 inches
Lateral Pipe Class/Schedule	40
Distributing Valve Model	None
Manifold Length	10.0 feet
Manifold Line Size	1.25 inches
Manifold Pipe Class/Schedule	40
LIR to Manifold	6.0 feet
Transport Length	20.0 feet
Transport Line Size	1.25 inches
Transport Pipe Class/Schedule	40
Discharge Assembly Size	1.25 inches
Flow Meter	None
Add-on Friction Losses	10.0 feet

Calculations	Value
Minimum Flow Rate per Orifice	0.43 gpm
Number of Orifices per Zone	72
Total Actual Flow Rate	31.3 gpm
Number of Lanes per Zone	8
Flow Differential 1st and Last Orifice	1.7 %
LIR to Manifold	6.0 feet
Residual Head at Last Orifice	5.8 feet
Head Loss in Laterals	0.2 feet
Head Loss Through Distributing Valve	0.8 feet
Head Loss in Manifold	0.3 feet
Head Loss in Transport Pipe	2.4 feet
Head Loss Through Discharge	4.9 feet
Head Loss Through Flow Meter	0.8 feet
Head Loss Through Friction Losses	10.0 feet
Total Flow Rate	31.3 gpm
TDH	27.9 feet

APPROVED
 Connie M. Schrandt
 Connie M. Schrandt, W.W.S.
 Lic. No. 0207760756
 2/23/04

SIEVE pea gravel

DEPT. OF ENVIRONMENTAL QUALITY
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FEB 09 2004

NORTH COAST BRANCH OFFICE
 WARRENTON

MOHLER SAND & GRAVEL

503-368-5157 OFFICE / SHOP
 503-368-5166 FAX-House
 503-368-5158 FAX-Shop
 36435 HWY. 101 N
 NEHALEM, OR 97131

**PEA GRAVEL SPECIFICATIONS
 ANALYSIS DATE: 04/24/02**

SIEVE SIZE	WEIGHT RETAINED	% RETAINED	% PASSING	SPEC'S
1/2	0	41.80		
1/4	827	34.53	82.6	18-100
4	1037	24.16	57.8	5-75
10	2254	16.2	3.9	< 24
16	94	68.0	1.6	< 2
100	83	5.0	0.1	< 1
PAN	5			

Installer - Hartman Const.
Owner - Steve Olstedt
710-345 1811 Lot # 11

APPROVED
Connie M. Schrandt
 Connie M. Schrandt, W.W.S.
 Lic. No. 0207760756
 2/23/04

Installer - Hartman Const
 Owner - Steve Oistedt
 710-345-1811 Lot # 11

FEB 09 2004

FIELD WORK SHEET FOR AGGREGATE

PROJECT NAME (SECTION): _____ CONTRACT NO. _____
 HIGHWAY: _____ COUNTY: _____ P.A. NO. _____
 CONTRACTOR OR SUPPLIER: Naselle Rock & Asphalt Co. SOURCE NAME: Naselle Quarry
 PROJECT MANAGER: _____ SOURCE NO.: WA-025-2 MATERIAL SIZE: _____ TO BE USED IN: _____ E.T. NO.: _____ REPORT NO.: _____
 DATE: 10-3-02 TIME: 10:20A.M. TEST NO.: 1
 SAMPLED AT: Pile
 DAILY PRODUCTION AT TIME OF SAMPLE: _____
 AMOUNT REPRESENTED BY TEST: TON CY
 AMOUNT INCORPORATED: _____
 AMOUNT REJECTED: _____
 SIEVE ANALYSIS: WET DRY

SIEVE SIZE	SPECS.	RETAINED			PASS			RETAINED			PASS		
		WEIGHT	%	%	WEIGHT	%	%	WEIGHT	%	%	WEIGHT	%	%
3/8"	100	8		100									
#4	95-100	2.5		100									
#8	80-100	146.4	15	85									
#16	45-85	344.9	36	64									
#30	15-60	488.7	51	49									
#50	3-15	814.3	86	14									
#100	4.0max	936.1	98.4	1.6									
FAN		866.2		948.0									
INITIAL WT.	951.1		100				100					100	
10-0/100		/		/			/					/	
40-0/100		/		/			/					/	
200-0/100		/		/			/					/	
RACTURE	Percent Finer Than #200												
ELONG.	Lost by Washing: 0.72%												
WOODWASTE													
SAND EQUIV.													
FRIABLE													
CV													

CIRCLE ALL FAILING RESULTS

FM

SAND-EQUIVALENT TESTS		TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Time of test										
1 Height of Rod (sand)	(inches)									
2 Height of suspended clay material	(inches)									
Sand Equivalent = $\frac{\text{Line 1}}{\text{Line 2}} \times 100$										
Average*										

*Take average of three tubes when sand equivalent is falling or within 5 points of failing and report as a single test Report a fractional SE value as the next highest whole number. Example SE=41.2+42. Ex SE=(42+44+41)/3=42.3=43.

PREPARED AND TESTED BY: John E. Walker

REMARKS - LIST TIME AND EXTENT OF DELAYS, PLANT CHANGES, ETC.
 This sieve analysis was done in accordance with ASTM C-136, Standard Methods for sieve analysis of fine and coarse aggregate and in conjunction and accordance with ASTM C-117, Standard Test Method for materials finer than #6, 200 sieve in mineral aggregate by washing.

HIGHWAY DIVISION EMPLOYEE
 CONTRACTOR EMPLOYEE
 OTHER (EXPLAIN)

REVIEWED BY CONTRACTOR: _____
 REVIEWED BY PROJECT MANAGER: _____

APPROVED

Connie M. Schrandt
 Connie M. Schrandt, W.W.S.
 Lic. No. 0207760756
 2/23/04

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

OLSTEDT CONSTRUCTION, INC.
PO BOX 2363
GEARHART, OREGON 97138
503-738-3968
FAX 503-738-3973

FEB 20 2004

NORTH COAST BRANCH OFFICE
WARRENTON

FACSIMILE TRANSMITTAL SHEET

TO: Dave Johns	FROM: Steve Olstedt
FAX NUMBER 861-3259	DATE: February 20, 2004
COMPANY: DEQ	TOTAL NO. OF PAGES INCLUDING COVER: 2
PHONE NUMBER: 503-738-3968	SENDER'S REFERENCE NUMBER:

RE:
Concrete Wall Plans – Dave, you can use either
of the plans

URGENT FOR REVIEW PLEASE COMMENT PLEASE REPLY PLEASE RECYCLE

NOTES/COMMENTS:

HLB & Associates
INCORPORATED

160 Laneda Ave. - PO Box 219
Manzanita, OR 97130
tel. (503) 368-5394
fax (503) 368-5847

Title : Olstedt 4' tall Retaining Wall
Job # : ...New...
Description...
4' tall wall for Sand Filter Barrier Wall

Page: _____
Date: FEB 13, 2004

Retain Pro 8.1c, 20-Jan-2004, (c)1995-2004

This Wall in File: M:\Misc App\RetainPro61\olstedt sand fi

Registration #: RP-1131105

Cantilevered Retaining Wall Design

Code: 1997 UBC

Criteria	
Retained Height	= 4.00 ft
Wall height above soil	= 0.00 ft
Slope Behind Wall	= 0 00 : 1
Height of Soil over Toe	= 6.00 in
Water height over heel	= 0.0 ft
Wind on Stem	= 0.0 psf

Soil Data	
Allow Soil Bearing	= 1,200.0 psf
Equivalent Fluid Pressure Method	
Heel Active Pressure	= 32.0 psf/ft
Toe Active Pressure	= 30.0 psf/ft
Passive Pressure	= 370.0 psf/ft
Soil Density	= 110.00 pcf
Footings/Soil Friction	= 0.300
Soil height to ignore for passive pressure	= 0.00 in

Footings Dimensions & Strengths	
Toe Width	= 0.83 ft
Heel Width	= 1.42
Total Footing Width	= 2.25
Footing Thickness	= 9.00 in
Key Width	= 0.00 in
Key Depth	= 0.00 in
Key Distance from Toe	= 0.33 ft
f_c	= 2,500 psi
F_y	= 60,000 psi
Footing Concrete Density	= 150.00 pcf
Min. As %	= 0.0018
Cover @ Top	= 2.00 in
@ Btm.	= 3.00 in

Surcharge Loads	
Surcharge Over Heel	= 0.0 psf
Used To Resist Sliding & Overturning	
Surcharge Over Toe	= 0.0 psf
Used for Sliding & Overturning	

Lateral Load Applied to Stem	
Lateral Load	= 0.0 #/ft
Height to Top	= 0.00 ft
Height to Bottom	= 0.00 ft

Adjacent Footing Load	
Adjacent Footing Load	= 0.0 lbs
Footing Width	= 0.00 ft
Eccentricity	= 0.00 in
Wall to Fig CL Dist	= 0.00 ft
Footing Type	Line Load
Base Above/Below Soil at Back of Wall	= 0.0 ft

Axial Load Applied to Stem	
Axial Dead Load	= 0.0 lbs
Axial Live Load	= 0.0 lbs
Axial Load Eccentricity	= 0.0 in

Design Summary	
Wall Stability Ratios	
Overturning	= 2.84 OK
Sliding	= 1.75 OK
Total Bearing Load	= 1,002 lbs
...resultant ecc.	= 4.05 in
Soil Pressure @ Toe = 845 psf OK	
Soil Pressure @ Heel = 45 psf OK	
Allowable = 1,200 psf	
Soil Pressure Less Than Allowable	
ACI Factored @ Toe	= 1,015 psf
ACI Factored @ Heel	= 54 psf
Footing Shear @ Toe	= 4.0 psi OK
Footing Shear @ Heel	= 7.1 psi OK
Allowable	= 85.0 psi
Sliding Cases (Vertical Component NOT Used)	
Lateral Sliding Force	= 337.6 lbs
less 100% Passive Force	= 289.1 lbs
less 100% Friction Force	= 300.7
Added Force Req'd	= 0.0 lbs OK
... for 1.5 : 1 Stability	= 0.0 lbs OK

Stem Construction		Top Stem
Design height	H =	Stem OK 0.00
Wall Material Above "H"	=	Concrete
Thickness	=	6.00
Rebar Size	=	# 4
Rebar Spacing	=	18.00
Rebar Placed at	=	Edge
Design Data		
$f_c/FB + f_a/F_a$	=	0.253
Total Force @ Section	lbs =	403.6
Moment... Actual	ft-# =	545.1
Moment... Allowable	=	2,155.6
Shear... Actual	psi =	9.0
Shear... Allowable	psi =	85.0
Lap Splice if Above	in =	31.20
Lap Splice if Below	in =	6.00
Wall Weight	=	75.0
Rebar Depth 'd'	in =	3.75
Masonry Data		
f_m	psi =	
F_s	psi =	
Solid Grouting	=	
Special Inspection	=	
Modular Ratio 'n'	=	
Short Term Factor	=	
Equiv. Solid Thick.	=	
Masonry Block Type	=	Medium Weight
Concrete Data		
f_c	psi =	2,500.0
F_y	psi =	60,000.0

Footing Design Results		
	Toe	Heel
Factored Pressure	= 1,015	54 psf
Mu' : Upward	= 311	78 ft-#
Mu' : Downward	= 70	437 ft-#
Mu. Design	= 241	359 ft-#
Actual 1-Way Shear	= 4.05	7.07 psi
Allow 1-Way Shear	= 85.00	85.00 psi
Toe Reinforcing	=	None Spec'd
Heel Reinforcing	=	None Spec'd
Key Reinforcing	=	None Spec'd

Other Acceptable Sizes & Spacings
Toe: Not req'd, $M_u < S * Fr$
Heel: Not req'd, $M_u < S * Fr$
Key: No key defined

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED
FEB 19 2004
NORTH COAST BRANCH OFFICE
WARRENTON

HLB & Associates
INCORPORATED

160 Laneda Ave. - PO Box 219
Manzanita, OR 97130
tel. (503) 368-5394
fax (503) 368-6847

Title : Distdtd 4' tall Retaining Wall
Job # : ...New... Dsgnr: rgl
Description...
4' tall wall for Sand Filter Barrier Wall

Page: _____
Date: FEB 13, 2004

This Wall In File: M:\Misc Apps\RetainPro81\olstedt sand fil

Retain Pro 6.1c. 20-Jan-2004, (c)1985-2004

Registration #: RP-1131105

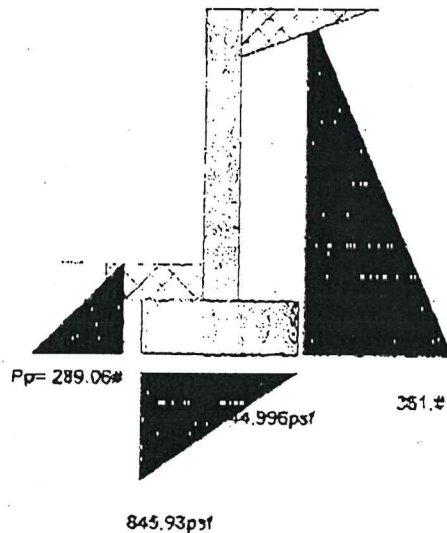
Cantilevered Retaining Wall Design

Code: 1997 UBC

Summary of Overturning & Resisting Forces & Moments

ItemOVERTURNING.....			RESISTING.....		
	Force lbs	Distance ft	Moment ft-#		Force lbs	Distance ft	Moment ft-#
Heel Active Pressure =	361.0	1.58	571.6	Soil Over Heel =	403.3	1.79	722.6
Toe Active Pressure =	-23.4	0.42	-9.8	Sloped Soil Over Heel =			
Surcharge Over Toe =				Surcharge Over Heel =			
Adjacent Footing Load =				Adjacent Footing Load =			
Added Lateral Load =				Axial Dead Load on Stem =		0.00	
Load @ Stem Above Soil =				Soil Over Toe =			
				Surcharge Over Toe =	45.8	0.42	19.1
				Stem Weight (g) =			
				Earth @ Stem Transitions =	300.0	1.08	325.0
				Footing Weight =			
				Key Weight =	253.1	1.13	284.8
				Vert. Component =			
					108.0	2.25	243.1
				Total =	7,110.3 lbs	R.M. =	1,594.6
Total =	337.6	O.T.M. =	561.8				
Resisting/Overturning Ratio =			2.84				
Vertical Loads used for Soil Pressure =		1,002.3 lbs					

Vertical component of active pressure NOT used for soil pressure



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NORTH COAST BRANCH OFFICE
WARRENTON

HLB & Associates
INCORPORATED

160 Laneda Ave. - PO Box 219
Manzanita, OR 97130
tel. (503) 368-5394
fax (503) 368-5847

Title : Olstedt 4' tall Retaining Wall
Job # : ...New... Dsgnr rgl
Description....
4' tall wall for Sand Filter Barrier Wall

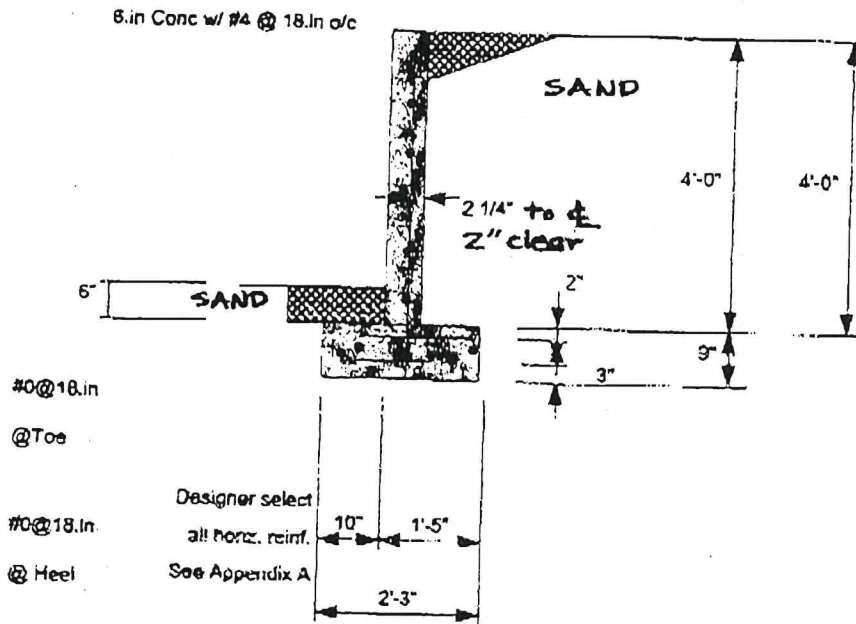
Page: _____
Date: FEB 13, 2004

Retain Pro 6.1c, 20-Jan-2004, (c)1989-2004
Registration #: RP-1131105

This Wall in File: M:\Misc Apps\RetainPro61\olstedt sand fil

Cantilevered Retaining Wall Design

Code: 1997 UBC



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NORTH COAST BRANCH OFFICE
WARRENTON

FOUNDATION WALL DESIGN for: OLSTEDT SAND FILTER

Design by: HLB & Associates, Inc.
 PO Box 219, Manzanita, OR 97130
 Tel:(503)368-5394, FAX:(503)368-5847

FOUNDATION WALL REINFORCEMENT DETAILS

Date: 17-Feb-04
 File: WALLRENF.XLS

FOOTING, Longitudinal Reinforcement

Wall ID	Footing Dimensions		Steel Percentage	0.18% min.
4' high wall	Width	2.25 ft.	Area	1.69 sq. ft.
	Depth	9.00 in.	A s req'd	0.44 sq. in.
	Rebar Size #	4 bar	0.2 sq. in.	A s ea. bar
	Amount req'd	3 ea.		
	A supplied	0.60 sq. in.	0.2469%	O.K.

RETAINING WALL REINFORCEMENT DETAILS

Date: 17-Feb-04
 File: WALLRENF.XLS

Steel Area Req'd:

Horiz. Vertical
 Masonry 0.07% 0.13%
 Concrete 0.20%

STEM Longitudinal Reinforcement

0.20% min.

4' high	Wall Width	6 in.	A s req'd	0.144 sq.in./ft
	Rear Face	0		
	Rebar Size #	4 bar	A s actual	0.15 sq.in./ft
	Spacing o.c.	16 in.	No reinf. required in front face	O.K.

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NORTH COAST BRANCH OFFICE
 WARRENTON

STATE OF OREGON
 DEPARTMENT OF ENVIRONMENTAL QUALITY
 NORTH COAST OFFICE
 65 N. Highway 101, Suite G
 Warrenton, OR 97146
 (503) 861-3280

FOR OFFICE USE ONLY
 Date Rec'd 2-9-04
 Date Completed 2-23-04
 Required Fee \$ 990.00
 Receipt No. 110824
 Control No. 70725

FOR APPLICANT'S USE - (PLEASE PRINT)

0.23 AC
 Lot Size (Acreage or Dimensions)

Steve Olstedt

(Property Owner's Name)

(Applicant's Name if Different from Owner)

Legal Description of Property 7N 10W 34C 18N Clatsop
 (Township) (Range) (Section) (Tax Lot/Acct. No.) (County)
 For Parcels in Platted Subdivisions, Indicate Sandy Ridge 11
 (Subdivision Name) (Lot Number) (Block Number)

Proposed Facility

Water Supply

Single Family Residence 3 (Number of Bedrooms)
 Other _____ (Specify)
 Public (Community System)
 Private _____ (Indicate: Well, Spring, Etc.)

Installer - Hartman Const

Existing Facility

Owner - Steve Olstedt

Single Family Residence _____ (Number of Bedrooms)
 Other _____ (Specify)

710-340-1811 Lot # 11

APPLICATION FOR:

- | | |
|--|---|
| <input type="checkbox"/> Site Evaluation Report | <input type="checkbox"/> Authorization Notice |
| <input checked="" type="checkbox"/> Permit to Construct On-Site Sewage Disposal System | Purpose of Authorization Notice |
| <input type="checkbox"/> Permit to Repair On-Site Sewage Disposal System | <input type="checkbox"/> Connect to an existing system not currently in use |
| <input type="checkbox"/> Permit for Alteration of On-Site Sewage Disposal System | <input type="checkbox"/> Replace one mobile home with another or a house |
| <input type="checkbox"/> Permit Renewal | <input type="checkbox"/> Replace or rebuild a house |
| <input type="checkbox"/> Existing System Report | <input type="checkbox"/> Addition of one or more bedroom |
| <input type="checkbox"/> Plan Review | <input type="checkbox"/> Personal hardship |
| <input type="checkbox"/> Other (Specify) _____ | <input type="checkbox"/> Temporary housing |
| | <input type="checkbox"/> Other (Specify) _____ |

This application will be returned if it is not filled out completely and accompanied by the appropriate fee and attachments required in the guidance packet. Your site must be prepared according to instructions in the guidance packet before action can be taken on this application.

By my signature, I certify that the information I have furnished is correct, and hereby grant the Department of Environmental Quality and its authorized agent permission to enter onto the above described property for the purpose of this application.

Dean Hartman
 (Signature)

1-27-04
 (Date)

Authorized Representative
 Licensed Installer
 License No. 38331

Owner's Mailing Address

Applicant's Mailing Address (if different)

Steve Olstedt
P.O. Box 2363
Warrenton OR 97138
 Phone 503-738-3968

Phone _____ IW\WC8\WC8690 (7-19-91)

Installer - Hartman Const.
Owner - Steve Olstedt
710-34-1811 Lot # 11

DEPARTMENT OF ENVIRONMENTAL QUALITY
LAND USE COMPATIBILITY STATEMENT (LUCS)
For On-Site Sewage Disposal System Permits

SECTION 1: TO BE FILLED OUT BY APPLICANT

1. Name of Applicant Steve Olstedt Telephone (503) 738-3468
Mailing Address P.O. Box 2363

2. Property Information:
City Gearhart State OR Zip 97138
County Clatsop

Township 7N Range 10W Section 34C Tax Lot # 1811

Property Address _____

Subdivision name if applicable Sandy Ridge Block _____ Lot 11

3. This proposal is for:
 An individual single family residence
 Other (If other, describe type of development, business or facility and the provided services or products) _____

4. Check type of permit or approval you are requesting:
 On-Site Construction-Installation permit for new construction, repairs or alterations (circle one)
 Non-Water carried facility requests, i.e. pit privies/vault toilets for camp grounds
On-Site Authorization Notices for:
 Replacement of dwelling
 Bedroom addition
 Other change in land use involving potential sewer flow increases

SECTION 2: TO BE FILLED OUT BY COUNTY OR CITY PLANNING OFFICIAL

5. The facility proposal is located: Inside city limits Inside the UGB outside UGB
If inside the UGB, the facility is subject to:
 City jurisdiction, or
 County jurisdiction, or
 Shared city/county jurisdiction.

6. Is a public notice and hearing required? yes no Hearing Date _____

7. The business or facility complies with all applicable local land use requirements: yes no
Comments: _____

Signatures: (both county and city planning officials may need to sign if use is within a UGB)

Planning Official (county)	Print Planning Official's Name	Title	Phone	Date
	D.J. McNally	CA	738-5501	2-9-04
Planning Official (city)	Print Planning Official's Name	Title	Phone	Date



Oregon

John A. Kitzhaber, M.D., Governor

Department of Environmental Quality
Northwest Region North Coast Branch Office
65 N Highway 101, Suite G
Warrenton, OR 97146
(503) 861-3280
FAX (503) 861-3259

July 15, 2003

Steve Olstedt
Olstedt Construction, Inc.
P.O. Box 2363
Gearhart, OR 97138

IMPORTANT DOCUMENT – PLEASE READ CAREFULLY
-This is not a construction permit-

RE: Site Evaluation Results – Site Approvals With Conditions
T7N, R10W, S34C; Tax Lot Nos. 1800 & 1900, Clatsop County
Sandy Ridge Subdivision, Proposed Parcels 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15

Dear Steve Olstedt:

The above-described properties were evaluated for suitability of on-site sewage disposal systems on the following date(s): June 5, 2003. Based on the evaluation, the following on-site sewage disposal systems are approved for **Lots 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15:**

Initial system: Bottomless Sand Filter
Replacement system: Bottomless Sand Filter

Details of the site evaluation are included in the Site Evaluation Report that is enclosed. The Site Evaluation Report also includes more specific information and further conditions of site approval.

Next Step – Applying for a Construction/Installation Permit

When you are ready to proceed with system construction, contact this office to get a permit application package. The permit must be issued by DEQ before you can start construction.

Request for Site Evaluation Report Review or Request for Variance

If you believe that an error was made in the evaluation of your property, you may apply for a Site Evaluation Report Review within 30 days of the site evaluation report issue date at a cost of \$440. If you would like to apply for a Variance from one or more of the On-Site Sewage Disposal rules, you may apply for a Variance at a cost of \$1340. If you are interested in either of these actions, please contact the undersigned for more details before you proceed.

Best wishes on a successful project. If you have any other questions about this report, please feel free to call me at (503) 861-3280.

Sincerely,

Connie M. Schrandt

Connie M. Schrandt
Natural Resource Specialist

Enc: Site Evaluation Report

**Site Evaluation Report
For On-Site Sewage Disposal System Suitability**

Site Location: T7N, R10W, S34C; Tax Lot Nos. 1800 & 1900, Clatsop County
Sandy Ridge Subdivision, Proposed Lots 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15

Applicant: Steve Olstedt

Date(s) of Site Evaluation: June 5, 2003

DEQ Onsite Specialist: Connie M. Schrandt

Date of Report: July 15, 2003

General Description of Site Evaluations

Sewage contains disease-causing organisms and other pollutants that can cause adverse impacts to human health and the environment. An on-site sewage disposal system must treat and dispose of sewage in a way that will not cause a public health hazard, contaminate drinking water supplies, or pollute public waters.

Proper treatment in an on-site system begins with primary treatment in the septic tank. The septic tank separates the solid particles in sewage from the liquid. The liquid that comes out of the septic tank is called effluent. The effluent may then be dispersed in the soil for further treatment or discharged into a secondary treatment device such as a sand filter or aerobic treatment unit prior to dispersal in the soil. For proper treatment, the effluent must slowly infiltrate into the underlying soil. Dissolved wastes and bacteria in the effluent are trapped or adsorbed to soil particles or decomposed by microorganisms. This process removes disease-causing organisms, organic matter, and most nutrients. Effluent that comes to the ground surface (through poor soils or other problems with the system) can be a possible health hazard because it may still contain some disease-causing organisms. Soil that drains too quickly may not give the effluent enough treatment and may result in groundwater contamination.

The purpose of the evaluation was to locate suitable soils in an area that is large enough for both the initial drainfield area and the replacement drainfield area. The criteria used for this site evaluation can be found in Oregon Administrative Rules (OAR) 340-071.

Soil test pits and other site features were evaluated during the site visits on June 5, 2003. For each lot, the following features were evaluated:

- Soil types - how well they drain and other evidence of good soil structure for treatment
- Depth to groundwater
- Wells located on the site or adjacent sites.
- Slopes, escarpments, ground surface variations, topography
- Creeks or springs on the site or adjacent properties
- Whether the soils have been disturbed
- Setbacks from property lines, buildings, water lines, and other utilities
- Other site features that could affect the placement of the on-site system.



Approved Systems

Based on the evaluation of the site and soil conditions, the following on-site sewage disposal systems are approved for **Lots 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15**:

Initial System:	System Type: Bottomless Sand Filter Minimum Septic Tank Size: 1000 gallons Minimum Dosing Tank Size: 500 gallons Distribution Method: Low Pressure Minimum Filter Bottom Area: 360 square feet Maximum Filter Depth: Varies *
Replacement System:	Same as for Initial System.

* Maximum filter depths, as measured from the highest point of elevation within the approved area on each lot, are as follows:

Lots 2, 3, 4 & 12 - 36 inches
Lot 13 - 31 inches

Lots 1 & 11 - 33 inches
Lots 5, 14 & 15 - 28 inches

Attached are the Field Worksheets and Plot Plans that show the approved areas and other details of the site evaluation on each lot.

Site Limitations

Many sites have limitations that will affect either the location of the on-site sewage system or the type of system that can be allowed. The following describes the limitations found in this evaluation.

Clatsop Plains Special Considerations

Rule Requirement: OAR 340-071-0400(5)

Description: For properties within the area generally known as the Clatsop Plains and *of less than one acre*, the approved on-site system shall be either a sand filter system or a pressurized distribution system with a design sewage flow not to exceed 450 gallons per day.

Site Conditions Observed: **Lots 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15** are each less than one acre in size.

Permanent groundwater level is too close to the ground surface

Rule requirement: OAR 340-071-0290(2)(b)(A). For approval of low-pressure distribution systems, a minimum separation of 48 inches is required between the bottom of the disposal trenches (or seepage bed) and the upper level to which permanent groundwater is expected to rise. A bottomless sand filter system can be approved on sites with a minimum separation of 24 inches between the bottom of the filter and the upper level of permanent groundwater.

Description: Treatment of sewage occurs in the soils around the drainfield area. If groundwater comes in contact with the sewage before it has been adequately treated in the soils, there are two concerns: 1) very little treatment occurs in saturated soils – the presence of air is required for good treatment; and 2) sewage may be “forced” to the surface where it poses a potential public health hazard. “Permanent groundwater” refers to a water table or saturated zone that exists year-round.



Site conditions observed: The required 48-inch separation described in the rule cannot be met on **Lots 1, 2, 5, 11, 13, 14 & 15** due to shallow groundwater levels, as determined by augering from the bottom of the test pits and measuring the depth to conditions associated with saturated soils and groundwater. Only bottomless sand filter systems can be considered for these lots.

Setback from property lines and building foundations

Rule requirement: Table 1, OAR 340-071. 10' setback required.

Description: The required property line setback allows construction of the system without trespass or damage to neighboring properties. The foundation line setback prevents too much liquid from causing the soil under the building to settle and potentially damage the building.

Site Conditions Observed: Although soil conditions on **Lots 3, 4 & 12** may be adequate for low-pressure distribution systems with respect to permanent groundwater levels, the size and configuration of these lots in relation to development plans and maintaining required setbacks are such that only bottomless sand filter systems will be considered. Less disposal area is required for sand filter system approval.

Additional Conditions of Site Approval

1. **Lots 1, 2, 3, 4, 5, 11, 12, 13, 14 & 15** are each approved for the type of on-site sewage disposal system described above. Peak sewage flow into each system is limited to a maximum of 450 gallons per day, with an average sewage flow of not more than approximately half of the peak sewage flow. This is normally sufficient to serve a single-family dwelling with a maximum of four bedrooms. Premature failure of the treatment system may occur if either of these flow limits are exceeded. If for some reason domestic household water use is expected to exceed these flows, it may be advisable to increase the size of the treatment system.
2. Any alteration of natural soil conditions (i.e. cutting or filling) in the acceptable area may void this approval.
3. Both the initial and replacement disposal areas are to be protected from traffic, cover, development or other potential disturbance of natural soil conditions.
4. The area must not be subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, roads, driveways and building down spouts.
5. This approval is given on the basis that each lot described above will not be further partitioned or subdivided.

These site approvals are valid until each system is constructed in accordance with a DEQ construction permit. Technical rule changes shall not invalidate these approvals, but may require use of a different kind of system. If there is a technical rule change affecting these site approvals, the Department will attempt to notify in writing the current property owner as identified by the county assessor's records. The site approval runs with the land and will automatically benefit subsequent owners.

Attachment: Field Worksheets and Plot Plans



FIELD WORKSHEET

Tax reference T7N R10W S34C, T7E R18N + 1900-Lots 5 & 11 Clatsop Co Evaluator CUS DCI
 Applicant District - Sandy Ridge Subd. Date 6-5-03 Parcel Size 10000 sq ft (excl. 10')

	Depth (in.)	Texture	Soil Matrix Color and Redoxymorphic Features, %Coarse Fragments, Roots, Pores, Structure, Layer Limiting Effective Soil Depth, etc.	
Pit 1 st 5	<u>0-5</u>	<u>rocky fill</u>	<u>2.5Y 4/4-3</u>	1
	<u>5-62</u>	<u>fs</u>	<u>2.5Y 5-4/3</u>	
Pit 2	<u>0-6</u>	<u>fs</u>	<u>10YR 7/2, ↑ organics</u>	2
	<u>6-52</u>	<u>↓</u>	<u>2.5Y 5-4/3</u>	
	<u>52-58</u>	<u>↓</u>	<u>2.5Y 5-4/2</u>	
Pit 3 st 11	<u>0-24</u>	<u>fs</u>	<u>10YR 7/2, ↑ organics</u>	3
	<u>24-57</u>	<u>↓</u>	<u>2.5Y 5-4/3</u>	
	<u>57-72</u>	<u>↓</u>	<u>2.5Y 5-4/2, augered to standing water @ 72" bgs</u>	

Pit 2 - similar to Pit 1, Lot 5

Landscape Notes Stabilized dune-cleared, graded -adj. wetlands
 Slope 0-2% Aspect W Groundwater Type Permanent

Other Site Notes: Sand filter to be 100 ft. from groundwater, 50 ft. from surface water and 10 ft. from foundations, property lines and utility lines. Septic Tank/Dosing Tank to be 50 ft. from any groundwater or surface water and 5 ft. from foundations, property lines and utility lines. Note - layers of black sands (10YR 7/2) must be removed prior to installation of sand filter systems

SYSTEM SPECIFICATIONS

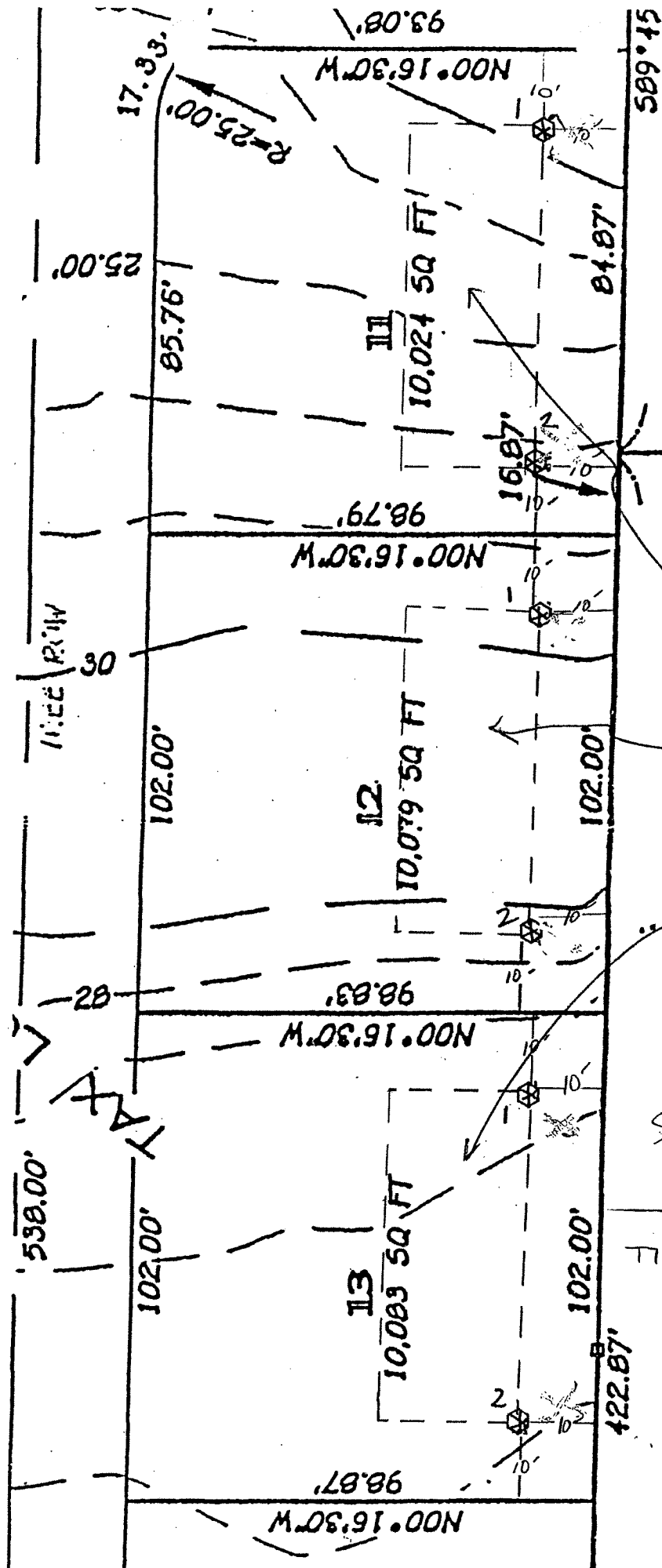
Type System: **BOTTOMLESS SAND FILTER** Design Flow: 450 gpd
 System Size (bottom surface area): 360 sq. ft. OR 20 x 18 container
 Septic Tank Size (Min. Required): 1000 gallons Dosing Tank Size (Min. Required): 500 gallons

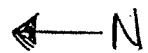
Bottom of sand filter not to exceed 28 (Lot 5) inches below ground surface

- Special Conditions: 33 (Lot 11)
- Watertight maintenance risers required on Septic Tank and Dosing Tank; 2 compartments may also be required.
 - A detailed site development plan of proposed system construction (located within area of approved test holes) is required with permit application. The plan must show proposed system placement as it relates to existing and/or proposed structures, wells, waterways, roads and parking areas.
 - Honor all required setbacks (OAR 340-071, Table 1) and required separation distances.
 - Disposal areas to be kept free of cover, traffic, development or other potential disturbance of soil conditions described.

We recommend a DEQ licensed sewage disposal business prepare plans for DEQ construction/installation permit and install/repair/alter system following permit issuance. Please call 503-861-3280 if you have questions.

Physical staking of initial & replacement disposal areas may be required for field inspection prior to issuance of construction/installation permits.



 N
 (not to scale - distances approximate)

Acceptable Areas for On-site Sewage Disposal (Initial & Replacement Sand Filters)

Sandy Ridge Subdivision
 Lots 11, 12 & 13

T1W-R10W-S34C; T1E's
 1800 & 1900
 Clatsop Co.

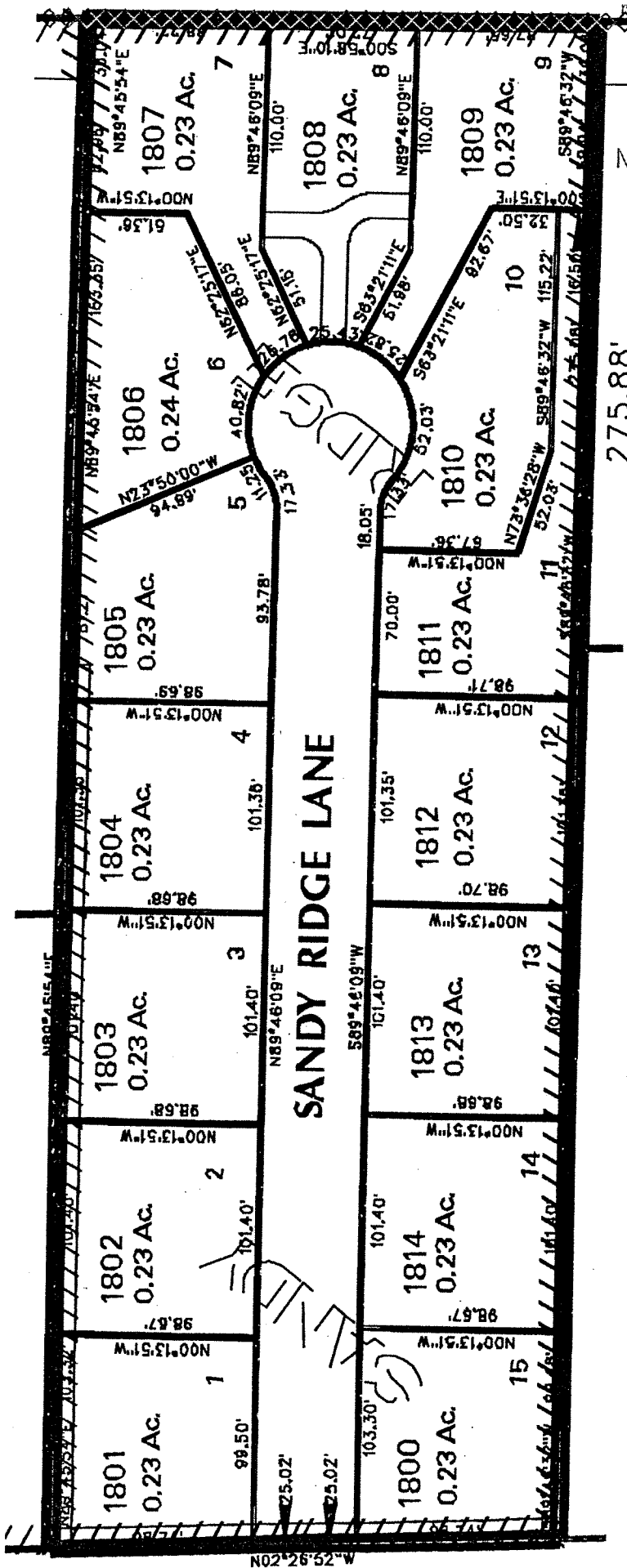
6/5/03 CMS & DCI

710-34c

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JUL 15 2003

NORTH COAST BRANCH OFFICE
WARRENTON



775.88'

SANDY RIDGE LANE