Board of Commissioners Meeting
November 19, 2019 - 5:00 PM
63 Four Corners Rd. Jefferson County Transit

PUD REGULAR BOARD MEETING

1. CALL TO ORDER

00:00:45 2. AGENDA APPROVAL

00:01:45 3. GENERAL PUBLIC COMMENT: This public comment period is for any items not specifically listed on the current Agenda or for items listed on the Consent Agenda. The Chair will also permit public comments on the other agenda items as they come up during the meeting. The Chair may place time limits on public comments to allow the meeting to be conducted in an efficient and orderly manner. (**15 min**)

00:15:30 4. APPROVAL AND ADOPTION OF THE CONSENT AGENDA: Items listed below have been distributed to the Commissioners in advance for study and will be enacted by one motion. If separate discussion is desired on an item, that item may be removed from the Consent Agenda and placed on the Regular Agenda, at a specific time, at the request of any of the Commissioners.

4.1 APPROVAL OF MINUTES
Draft minutes: 10/14/19; BOC Special Meeting Communications
10/15/19; BOC Regular Meeting
10/16/19; BOC Special Meeting Opt out

4.2 APPROVAL OF VOUCHERS
4.2.1 Voucher certification form with supporting warrant register and payroll form
4.2.2 BOC approval of voucher approval form

4.3 ACTION ITEMS
4.2.3 Write-offs for October 2019

4.4 PUD CALENDAR

END OF CONSENT AGENDA

00:15:45 5.0 COMMISSIONER REPORTS

01:06:20 6.0 GENERAL MANAGER REPORT

7.0 ACTION ITEMS REQUIRING BOARD DISCUSSION

01:22:00 10/16/19 Minutes pulled from agenda
01:28:20 7.1.1 CAB Candidate Renewal Recommendations
01:30:25 7.1.2 Opt out Resolution 2019-29
02:40:00 7.1.3 Meadows Sewer Agreement
02:50:30 7.1.4 Segregation of Assessment for Sewer 2019-30
02:52:35 7.1.5 CFC Finance
02:59:13 7.1.6 NoaNet Update
03:14:50 Approval of Meadows Agreement

03:15:30 8. SIGNING OF DOCUMENTS
03:23:13 9. EXECUTIVE SESSION: Review of Public Employee pursuant to RCW 42.30.110 (g)
03:23:54 second executive session
03:24:36 10. ADJOURN

PUBLIC UTILITY DISTRICT NO. 1
of Jefferson County

October 15, 2019

Board of Commissioners
Regular Meeting

Draft Minutes

The Regular Meeting of the Public Utility District No. 1 of Jefferson County (PUD) was called to order by the President of the Board of Commissioners (Board or BOC) at 5:00 p.m. on October 15, 2019, at the Jefferson Transit Conference Room, 63 Four Corners Road, Port Townsend, Washington, 98368. Present:

Commissioner Jeff Randall. President
Commissioner Kenneth Collins, Secretary
Commissioner Dan Toepper, Vice President

Kevin Streett, General Manager
Joel Paisner, General Counsel
Mike Bailey, Financial Services Manager
Bill Graham, Interim Water OP Supervisor
Jimmy Scarborough, Interim Elec. Engineer Supervisor
Samantha Harper, Water Superintendent
Will O'Donnell, Communications Manager
Bill Kolden, Interim Human Resources Manager
Annette Johnson, Executive Assistant/Records Officer
Don McDaniel, Consultant

Recording Secretary Cammy Brown

1. CALL TO ORDER:

Commissioner Jeff Randall called the regular meeting of the PUD Board of Commissioners for October 15, 2019, to order at 5:00 p.m.

INTRODUCTIONS: Commissioner Jeff Randall started the meeting asking for voluntary introductions from the commissioners and staff.

2. AGENDA APPROVAL:

MOTION: Commissioner Kenneth Collins made a motion to approve the agenda as presented. Commissioner Dan Toepper seconded the motion. Motion carried unanimously.

3. GENERAL PUBLIC COMMENT: Commissioner Jeff Randall presented the guidelines for members of the public to submit their comments. Topics abbreviated.

- Appreciation to a PUD employee for prompt response and follow up phone call.

4. APPROVAL AND ADOPTION OF THE CONSENT AGENDA:

MOTION: Commissioner Kenneth Collins made a motion to approve and adopt the Consent Agenda as amended. Commissioner Dan Toepper seconded the motion. Motion carried unanimously.

4.1 APPROVAL OF MINUTES:

No draft minutes to approve at this meeting.

4.2 APPROVAL OF VOUCHERS

4.2.1 Voucher certification form with supporting warrant register and payroll form.
4.2.2 BOC approval of voucher approval form.

VOUCHER CLAIM FORMS FOR INVOICES PAID:

WARRANTS	AMOUNT	DATE
Accounts Payable: #121220 to #121274	$ 564,582.24	10/03/2019
Payroll Checks: # 70654 to # 70658	$ 9,197.10	10/04/2019
Payroll Direct Deposit	$ 106,186.63	10/04/2019
TOTAL INVOICES PAID	**$ 679,965.97**	

WIRE TRANSFERS PAID	AMOUNT	DATE

USDA/RUS Loan	$ 1,525,042.17	06/26/2019
USDA/RUS Loan	$ 1,524,783.98	09/27/2019
Peterson Lake	$ 14,328.62	10/02/2019
GRAND TOTAL	**$3,744,120.74**	

4.3 ACTION ITEMS

4.3.1 Write-offs for September 2019.
4.3.2 Safeway store Conduit and Vault Installation Bid.

4.4 PUD CALENDAR.

END OF CONSENT AGENDA.

5. COMMISSIONER REPORTS:

Commissioner Dan Toepper:

10/10 Met with General Manager Kevin Streett.
10/14 Attended PUD Communications workshop.
10/16 Will attend PUD Opt-Out Workshop.
10/17 Will attend JeffCom meeting.
10/17 Will meet with General Manager Kevin Streett
10/17 Reminder that the Great Washington Shakeout is at 10:17 a.m.
10/23 Will attend employee luncheon.
10/23 May attend Climate Action Committee meeting.

Commissioner Kenneth Collins:

10/09 Participated in NoaNet Board meeting by phone.
10/14 Attended PUD Communications workshop.
10/16 Will attend PUD Opt- Out Workshop.
10/17 Will attend WPUDA Budget Committee meeting.
10/21 Will meet with the General Manager Kevin Streett.
10/22 to
10/25 Out of town.
10/29 to
10/31 Will attend Board meeting of Energy Northwest.
11/04 Will meet with General Manager Kevin Streett.

Commissioner Jeff Randall:

10/14 Attended PUD Communications workshop.
10/14 Attended CAB meeting. There was a presentation by Tom Thiersch on OPMA (Open Public Meeting Act).
10/16 Will attend Special BOC meeting – Opt-Out.
10/22 to
10/24 Will attend Infrastructure Assistance Coordinating Council conference in Wenatchee.
10/25 Will attend Career Day at the Port Townsend High School. PUD will be there.
10/30 Announcement: North Olympic Peninsula Electrified Transit and Transportation meeting, 10:00 a.m. Port Angeles County Courthouse.
11/06 to
11/08 Will attend Public Power Council (PPC) meeting in Portland.
11/13 to
11/15 Will attend WPUDA Conference.

PUBLIC COMMENT:

- Comment: Request to whoever is attending the Career Day at the Port Townsend High School to let the young women know that they can climb power poles, etc. too.

6. GENERAL MANAGER REPORT. General Manager Kevin Streett gave a report. Topics abbreviated.

- Designating a particular day of the week to hold meetings. A single meeting a week – get them prescheduled. Criteria would be set a month in advance. It may eliminate three meetings in one week.

PUBLIC COMMENT:

- **Question:** Would public notice of no meeting happen?
  Response: Wouldn't be posted if no meeting.

Human Resources Interim Director Bill Kolden gave an update on employee hires and status of positions.

Commissioner Kenneth Collins requested that resumes be forwarded to BOC.

7. ACTION ITEMS REQUIRING BOARD DISCUSSION:

7.1.1 Budget Adoption Resolution 2019-23 approval: General Manager Kevin

Streett made a presentation and went over Resolution 2019-23. There was some discussion. Staff is comfortable with resolution and budget.

PUBLIC COMMENT:

- Appreciation expressed for information on budget.
- Comment:. PUD is increasing its non-performing assets by 2.4 million.
- Comment: Notes don't specify certain things. Need to look at adjusting water rates.

MOTION: Commissioner Jeff Randall made a motion to approve Resolution No. 2019-023 a resolution of the Board of Commissioners of Public Utility District No. 1 in Jefferson County adopting a budget for the calendar year 2020. Commissioner Kenneth Collins seconded the motion. Motion carried unanimously.

7.1.2 CAB Work Plan. Chair of the Work Plan Sub-Committee Gary Rowe gave a report. Topics included in Work Plan are Broadband, Governance, Low-Income, Meter Replacement, Electrical Vehicle Infrastructure and Carbon Footprint/Climate Change. The commissioners were in agreement that the list is sufficient as is.

PUBLIC COMMENT:

- CAB has quite a few sub-committees already.
- Suggestion for the commissioners to be specific in instructions to CAB on what they want.
- CAB needs as much direction as possible on priorities.
- Work of Governance Sub-committee concluded.
- Question: Should there be a role on how the Strategic Plan is finalized and what input should the CAB have in this process? Response: This was a recommendation made by WPUDA that CAB take a look at the Strategic Plan.
- Meter replacement – CAB is waiting to hear from BOC.

7.1.3 Email Retention. Executive Assistant and Records Officer Annette Johnson gave a presentation. A policy needs to be developed and a management program needs to be in place. There is more research that needs to be done by the staff. Commissioners encouraged staff to continue to do the research.

PUBLIC COMMENT:

- Comment: Surprised at how little is done on emails. Talk with other agencies. What

about partnering up with other inter-local governments?

7.1.4 Resolution 2019-28 adding Sam Harper to Check Signing. General Manager Kevin Streett submitted Resolution 2019-28 adding Water Superintendent Samantha Harper to be a signer on the register.

MOTION: Commissioner Jeff Randall made a motion to approve Resolution 2019-28 of the Board of Commissioners of the Jefferson County Public Utility District No. 1 of Jefferson County, Washington designating signers for all checking accounts for the PUD. Commissioner Kenneth Collins seconded the motion. Motion carried unanimously.

7.1.5 Resolution 2019-27 Commissioners' inputted hours for pension reporting. General Manager Kevin Streett gave a report. This resolution is replacing an older resolution. There is a new process.

MOTION: Commissioner Dan Toepper made a motion to adopt Resolution No. 2019-27, a resolution of the Board of Commissioners of Public Utility District No. 1 of Jefferson County, Washington requiring commissioners to record time for pension reporting purposes. Commissioner Kenneth Collins seconded the motion. Motion passed unanimously.

Additional report from CAB: Chair Larry Dennison announced that the CAB will have election of officers in December. Three CAB members' terms are up. List of timelines was given to the BOC.

CAB Chair Larry Dennison showed appreciation to CAB members Russ Michel for the work he has done on the Governance Sub-committee, to Gary Rowe for the work he has done and acknowledgment of Tom Thiersch's assistance.

8. SIGNING OF DOCUMENTS: The signing of documents was done in open public meeting format.

9. ADJOURNMENT:

Commissioner Jeff Randall declared the October 15, 2019, Regular Meeting of the Board of Commissioners of the Jefferson County Public Utility District No. 1 adjourned at 7:08 p.m.

Minutes prepared by
Recording Secretary Cammy Brown

Approved:

_____ _____
Commissioner Kenneth Collins, Secretary Date

Attest:

_____ _____
Commissioner Jeff Randall, President Date

_____ _____
Commissioner Daniel Toepper, Vice President Date

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PUBLIC UTILITY DISTRICT NO. 1
of Jefferson County

October 14, 2019

Board of Commissioners
Special Meeting
Review of PUD Communications

Draft Minutes

The Special Meeting of the Public Utility District No. 1 of Jefferson County (PUD) was called to order by the President of the Board of Commissioners (Board or BOC) at 10:00 a.m. on October 14, 2019, at the Chimacum Fire Hall, 9193 Rhody Drive, Chimacum, Washington, 98325. Present:

Commissioner Jeff Randall. President
Commissioner Kenneth Collins, Secretary
Commissioner Dan Toepper, Vice President
Kevin Streett, General Manager
Mike Bailey, Financial Services Manager
Annette Johnson, Executive Assistant/Records Officer
Will O'Donnell, Communications Manager
Don McDaniel, PUD Consultant
Bill Graham, Interim Water OP Supervisor
Samantha Harper, Water Superintendent

Recording Secretary Cammy Brown

CALL TO ORDER:

Commissioner Jeff Randall called the special meeting of the PUD Board of Commissioners for October 14, 2019, to order at 10:00 a.m. Voluntary introductions were given.

AGENDA APPROVAL:

MOTION: Commissioner Kenneth Collins made a motion to approve the agenda as presented. Commissioner Daniel Toepper seconded the motion. Motion carried unanimously.

REVIEW AND DISCUSSION OF PUD COMMUNICATIONS:

Will O'Donnell, Communications Manager made a presentation. There was considerable discussion.

PUBLIC COMMENT: Topics abbreviated.

- Newsletter format – hard to read.
- Newspaper quote – make sure it is what you said – verify.
- PUD gets a lot of free press.
- Suggestion that headline in newsletter be "attention getting".
- Suggestion to use the term "customer owner".
- Request that searches be made easier in the minutes.
- Suggestion to use an editor for newsletter.
- Suggestion to have more information on social media.
- Suggestion to put together a quarterly dashboard.
- Suggestion to print more about strategic planning in newsletter.
- Suggestion to print more about Communications Policy.
- Provide Outage map on website. How would that work?
- Set up a future workshop after first of year on dashboard.

For more details on discussions that took place at this special meeting please refer to the audio recording of the meeting at www.jeffpud.org.

ADJOURNMENT:

Commissioner Jeff Randall declared the October 14, 2019, Special Meeting of the Jefferson County Public Utility District No. 1 adjourned at 11:54 a.m.

Minutes prepared by
Recording Secretary Cammy Brown

Approved:

_____ _____

Commissioner Kenneth Collins, Secretary Date

Attest:

_____ _____

Commissioner Jeff Randall, President Date

_____ _____

Commissioner Dan Toepper, Vice President Date

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PUBLIC UTILITY DISTRICT NO. 1
of Jefferson County

October 16, 2019

Board of Commissioners
Special Meeting
Review and Discussion of
Opt-Out Meter Program

Draft Minutes

The Special Meeting of the Public Utility District No. 1 of Jefferson County (PUD) was called to order by the President of the Board of Commissioners (Board or BOC) at 10:00 a.m. on October 16, 2019, at the Chimacum Fire Hall, 9193 Rhody Drive, Chimacum, Washington, 98325. Present:

Commissioner Jeff Randall. President
Commissioner Kenneth Collins, Secretary
Commissioner Dan Toepper, Vice President
Kevin Streett, General Manager
Joel Paisner, General Counsel
Jean Hall, Customer Service Manager
Colton Worley, Substation Apprentice
Tod Eisele, Substation/Metering Tech
Annette Johnson, Executive Assistant/Records Officer
Will O'Donnell, Communications Manager
Don McDaniel, PUD Consultant
Lori Rae, Operations Administrator
Samantha Harper, Water Superintendent

Recording Secretary Cammy Brown

CALL TO ORDER:

Commissioner Jeff Randall called the special meeting of the PUD Board of Commissioners for October 16, 2019, to order at 10:00 a.m. Voluntary introductions were given.

AGENDA APPROVAL:

MOTION: Commissioner Kenneth Collins made a motion to approve the agenda as presented. Commissioner Daniel Toepper seconded the motion. Motion carried unanimously.

REVIEW AND DISCUSSION OF OPT-OUT METER PROGRAM:

General Manager Kevin Streett gave a presentation and went over the changes in the policy that were made.

PUBLIC COMMENT: (Topics abbreviated and not comprehensive).

- **Request** for additional copies of Opt-Out Policy (there was a minimal amount provided).
- **Request** for clarification on communication.
- **Question:** If it is a current metering program, why is AMI included in the definition?
- **Question:** I have an AMI meter now. In this Opt-Out policy can I request AMI be changed to an analog meter?
  Response: The customer has a choice.
- **Question:** Is there a window of time where it can close? Up to that point, there will be no more option?
  Response: At this point it is not anticipated to do that. This policy does not have a closure date.
- **Comment:** Definition of non-RF communicating. Really a mixed message.
- **Suggestion** to just put non-communicating meter and remove the RF.
- **Comments:** SMOG group put together an alternate policy. SMOG's position was reiterated. The alternate policy was handed out to all. Request was made to add smart meters.
- **Suggestion** from public that wordsmithing is time consuming.
- **Clarification** asked on residential – what about the stores downtown?
- **Question:** If you are talking about exploratory policy, can individual business cases be reviewed?
- There were questions on solar.
- **Observation:** Punitive charge for having an analog meter.
- **Question:** SMOG has referred to charge as a blended charge. Is that right?
- **Comment** that people choose to live far out. Questions "donative".
- **Question** as to whether the RF function can be turned on or off.

- **Response:** In the policy that is not an option. It doesn't fit with existing meters.
- **Comment** made that the meter not be communicative. There should be an alternative that would go to the budget plan and make it affordable for everyone.
- **Comment:** When CAB looked at this policy, they discussed this quite a bit. The policy should say that adjustments be made every so many months.
- **Comment** made about not feeling supported by PUD.
- **Comments** made on commissioners' duty to protect the public.
- **Comment** made that the PUD is listening to the body of citizens.
- **Comment** made that it is a generous cost being proposed by the PUD compared to other PUDs' opt-out policies.
- **Comment** that maybe the policy should not be called opt-out.
- **Question** as to why the customer can't get a definitive answer form the state as to why the PUD has to charge for this option.
- **Suggestion:** Mandate the cost of reading the meter.
- **Comments** made on the impact of the meter's electromagnetic effect on the body.
- **Comment:** No definitive proof of harm. No justification that RF transmitters are harmful.

General Counsel Joel Paisner gave an opinion on the monthly charge of $5.00 and not charging at all for opting out. He gave an explanation of definition of gift of public funds. There is plenty of case law, however, no precedent.

There was consensus among the commissioners that the fee of $5.00 should not be charged to someone that qualifies for low income.

For more details on discussions that took place at this special meeting please refer to the audio recording of the meeting at www.jeffpud.org.

ADJOURNMENT:

Commissioner Jeff Randall declared the October 16, 2019, Special Meeting of the Jefferson County Public Utility District No. 1 adjourned at 11:54 a.m.

Minutes prepared by
Recording Secretary Cammy Brown

Approved:

_____ _____
Commissioner Kenneth Collins, Secretary Date

Attest:

_____ _____
Commissioner Jeff Randall, President Date

_____ _____
Commissioner Dan Toepper, Vice President Date

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VOUCHER CERTIFICATION FORM

I, the undersigned, do hereby certify under penalty of perjury that the materials have been furnished, the services rendered or the labor performed as described herein, that any advance payment is due and payable pursuant to a contract or is available as an option for full or partial fulfillment of a contractual obligation, and that the claim is a just and due obligation against Public Utility District No. 1 of Jefferson County, and that I am authorized to authenticate and certify to said claims, and I, the undersigned, do hereby certify under penalty of perjury that claims for employee and commissioner expenses are just and due against Public Utility District No. 1 of Jefferson County.

Signed: Mike Bailey 11/14/19

Mike Bailey, Financial Services Manager / District Auditor — Date

VOUCHER CLAIM FORMS FOR INVOICES PAID:

	WARRANTS			AMOUNT	DATE
Accounts Payable:	# 121429	to	# 121488	$ 499,660.34	10/31/2019
Accounts Payable:	# 121489	to	# 121537	$ 422,501.22	11/8/2019
Payroll Checks:	# 70664	to	# 70668	$ 9,689.05	11/1/2019
Payroll Direct Deposit:				$ 120,719.19	11/1/2019

TOTAL INVOICES PAID **$1,052,569.80**

WIRE TRANSFERS PAID	**AMOUNT**	**DATE**
Peterson Lake	$ 14,328.62	11/2/2019

GRAND TOTAL **$1,066,898.42**

VOIDED WARRANTS

121337	$ 288.17
121442	$ 30.00
121447	$ 637.50

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount	
121337	10/17/2019	CHK	10368	WILLIAM A GRAHAM	WPUDA 2019WATER WKSHP 9/25-9/27 TRVL EXP	288.17	VOID
121429	10/31/2019	CHK	10006	AFLAC	AFLAC BILL OCT 2019	410.76	
121430	10/31/2019	CHK	10016	ASPLUNDH TREE EXPERT CO	TREE TRIMMING W/E 9/21/19	5,776.92	
121431	10/31/2019	CHK	10016	ASPLUNDH TREE EXPERT CO	TREE TRIMMING W/E 9/28/19	5,776.92	
121432	10/31/2019	CHK	10042	CELLNET TECHNOLOGY INC	METER READS - SEP 2019	27,211.98	
121433	10/31/2019	CHK	10043	CENTRAL WELDING SUPPLY	255CF NITROGEN	30.81	
121434	10/31/2019	CHK	10053	COMPUNET, INC	CISCO CATALYST 3560CX 8 PORT POE IP BASE	1,594.72	
					SMARTNET SUPPORT CONTRACT	179.00	
					CISCO CATALYST 3560CX 8 PORT POE IP BASE	398.68	
					SMARTNET SUPPORT CONTRACT	44.75	
					Total for Check/Tran - 121434:	2,217.15	
121435	10/31/2019	CHK	10612	COON PLUMBING LLC	REPAIR LEAK - 310 FOUR CRNRS 7/26/19	418.90	
					REPAIR LEAK - 310 FOUR CRNRS 7/26/19	104.73	
					Total for Check/Tran - 121435:	523.63	
121436	10/31/2019	CHK	9998	RICHARD A DANDRIDGE	Credit Balance Refund	17.19	
121437	10/31/2019	CHK	9998	HARRY A DOYLE	Credit Balance Refund	48.33	
121438	10/31/2019	CHK	10078	ESCI	ESCI SAFTEY TRAINING - OCT 2019	1,905.00	
121439	10/31/2019	CHK	10090	FREDERICKSON ELECTRIC, INC	CAMERA CHNG - 210 FOUR CRNRS 9/26/19	1,084.74	
121440	10/31/2019	CHK	10094	GENERAL PACIFIC, INC	METER 2S-CL320 PRG	2,124.54	
					METER 16S-CL200 L1	4,602.20	
					Total for Check/Tran - 121440:	6,726.74	
121441	10/31/2019	CHK	10395	JEFFREY T GORDON	NWPPA 3CS CONF 10/22-10/25 TRVL EXP	263.71	
					NWPPA 3CS CONF 10/22-10/25 TRVL EXP	29.30	
					Total for Check/Tran - 121441:	293.01	
121442	10/31/2019	CHK	10368	WILLIAM A GRAHAM	WELLNESS PROGRAM REIMBURSEMENT FOR 2019	30.00	VOID
121443	10/31/2019	CHK	10104	HADLOCK BUILDING SUPPLY, INC.	UPS SHIPPING FOR ITRON WATER READS BROKE	17.05	

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
121444	10/31/2019	CHK	10384	HDR ENGINEERING INC	MISC ON CALL SVC-REYNOLDS WELL DOH PRT	620.10
					WATER SYSTEM PLAN UPDATE COLL&PM	140.00
					WATER SYSTEM PLAN UPDATE VOL#1 UPDATE	315.00
					WATER SYSTEM PLAN TASK100 DATA COLLECTIO	2,007.25
					WATER SYSTEM PLAN TASK200 VOLUME 1 UPDAT	29.03
					WATER SYSTEM PLAN TASK300 VOLUME 2 (SATE	36.58
					WATER SYSTEM PLAN TASK500 DOH APPROVAL P	8,779.13
					Total for Check/Tran - 121444:	11,927.09
121445	10/31/2019	CHK	10111	HIGHWAY SPECIALTIES LLC	READER BOARD RENTAL# 19138	1,635.00
121446	10/31/2019	CHK	10281	JEFFCO EFTPS	EMPLOYEES' MEDICARE TAX	2,939.48
					EMPLOYER'S MEDICARE TAX	2,939.48
					EMPLOYEES' FICA TAX	10,139.60
					EMPLOYER'S FICA TAX	10,139.60
					EMPLOYEES' FEDERAL WITHHOLDING	12,342.37
					EMPLOYEES' FEDERAL WITHHOLDING TAX	10,260.00
					Total for Check/Tran - 121446:	48,760.53
121447	10/31/2019	CHK	10314	JEFFERSON COUNTY HOME BUILDERS	ANNUAL JCHBA DUES 1YR 2019-2020	437.50VOID
					JEFFCO HOME SHOW 3/02/2019 BOOTH RENTAL	200.00VOID
					Total for Check/Tran - 121447:	637.50VOID
121448	10/31/2019	CHK	10532	JEFFERSON COUNTY PUD PAYROLL AC	PAYROLL DEPOSIT FOR 11/01/2019 CHECK	9,689.05
					PAYROLL DEPOSIT FOR 11/01/2019 DIR DEP	120,719.19
					Total for Check/Tran - 121448:	130,408.24
121449	10/31/2019	CHK	10129	JIFFY LUBE	OIL CHANGE FOR VEH# 209	84.83
					OIL CHANGE FOR VEH# 207	64.34
					Total for Check/Tran - 121449:	149.17
121450	10/31/2019	CHK	9999	PAUL JOHNSON	TEMP SERVICE NOT NEEDED	200.00
121451	10/31/2019	CHK	10330	KARR TUTTLE CAMPBELL	PROFESSIONAL SVC: SEP 2019	832.00
					PROFESSIONAL SVC: SEP 2019	208.00

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
					Total for Check/Tran - 121451:	1,040.00
121452	10/31/2019	CHK	10537	KITSAP SUN NEWSPAPER	INVITE TO BID 310 FOUR CRNRS WO#18258	715.40
121453	10/31/2019	CHK	10136	LES SCHWAB TIRES	NEW TIRES FOR VEH# 205	966.39
121454	10/31/2019	CHK	10142	MASON COUNTY PUD #1	ELECTRIC ELEC - OCT-19	167.59
					BPA RD-PUMP ELEC - OCT-19	87.83
					WILLIAMS CT ELEC - OCT-19	37.26
					Total for Check/Tran - 121454:	292.68
121455	10/31/2019	CHK	10777	DREW MCKNIGHT	WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	67.50
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	7.50
					Total for Check/Tran - 121455:	75.00
121456	10/31/2019	CHK	10667	NORTHWEST OPEN ACCESS NETWORK	LOC DRAW NOTICE	85,256.41
121457	10/31/2019	CHK	10167	OFFICE DEPOT	OFFICE SUPPLIES - 210 MOD, 310 TRI,DOUB&	26.86
					OFFICE SUPPLIES - 210 MOD, 310 TRI,DOUB&	74.50
					OFFICE SUPPLIES - 210 MOD, 310 TRI,DOUB&	85.50
					OFFICE SUPPLIES - 210 MOD, 310 TRI,DOUB&	5.46
					OFFICE SUPPLIES - 210 MOD, BOOKCASES	195.55
					OFFICE SUPPLIES - OPEARTIONS	64.07
					OFFICE SUPPLIES - 310 TRIPLE WIDE	16.03
					OFFICE SUPPLIES - 310 TRIPLE WIDE	1.78
					OFFICE SUPPLIES - OPEARTIONS	65.54
					OFFICE SUPPLIES - 210 MOD, BOOKCASES	367.86
					OFFICE SUPPLIES - 210 MOD, HUTCH QTY3 C	-287.05
					OFFICE SUPPLIES - 210 MOD, CHAIRMT,FILEC	369.46
					OFFICE SUPPLIES - 210 MOD, CHAIRMT,FILEC	49.04
					OFFICE SUPPLIES - 310 TRIPLE WIDE	50.36
					OFFICE SUPPLIES - OPEARTIONS	11.07
					OFFICE SUPPLIES - 310 TRIPLE WIDE	5.60
					OFFICE SUPPLIES - ANNEX	11.09
					OFFICE SUPPLIES - ANNEX	10.42

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					OFFICE SUPPLIES - ANNEX	0.66
					OFFICE SUPPLIES - 210 MOD, CART	81.74
					OFFICE SUPPLIES - ANNEX, WAREHOUSE & OPS	124.17
					OFFICE SUPPLIES - ANNEX, WAREHOUSE & OPS	73.01
					OFFICE SUPPLIES - 210 MOD	26.15
					OFFICE SUPPLIES - 210 MOD	6.54
					OFFICE SUPPLIES - 310 TRIPLE WIDE	16.21
					OFFICE SUPPLIES - 310 TRIPLE WIDE	1.03
					Total for Check/Tran - 121457:	1,452.65
121458	10/31/2019	CHK	10170	OLYMPIC EQUIPMENT RENTALS	GLOVE MECHANIC & STIHL BAR&CHAIN	31.70
					WO#29001- GLOVES & DEEP WOOD	22.98
					YELLOW TOOL	3.24
					SPARLING WELL - HONDA GENERATOR	1,591.35
					STIHL - BAR& CHAIN & HP OIL 6PK	125.47
					CHAIN LINK #41 C	4.24
					COYLE - ROAD REPAIR TRAILER RNTL	49.05
					TRUCK #101 - STIHL WRENCH&CHAIN	52.91
					TOOLS - HANDLE FLX & USB CORD	15.57
					Total for Check/Tran - 121458:	1,896.51
121459	10/31/2019	CHK	10171	ON LINE INFORMATION SERVICES	ONLINE UTILITY EXG REPORT - SEP 2019	266.20
121460	10/31/2019	CHK	10175	PACIFIC UNDERWRITERS CORP	NOTARY BOND FOR ACCT EMPL THRU 2023	45.00
					NOTARY BOND FOR ACCT EMPL THRU 2023	5.00
					NOTARY BOND FOR ACCT EMPL THRU 2023	45.00
					NOTARY BOND FOR ACCT EMPL THRU 2023	5.00
					LIFE - NOV 2019	80.20
					LTD - NOV 2019	1,117.23
					Total for Check/Tran - 121460:	1,297.43
121461	10/31/2019	CHK	10191	POLLARDWATER	LEAK DETECTOR FOR CUST RENTAL	2,866.42
121462	10/31/2019	CHK	10193	PORT TOWNSEND LEADER	LEGAL: INVITE TO RE-BID 8/07 WO#18258	208.26

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					EMPL AD: HUMAN RESOURCES MANGER/COORDINA	27.00
					LEGAL: BUDGET MTG NOTICE	13.60
					MAGAZINE 2016 IRE 1/4PG 9/11/19	220.00
					PT LUDLOW SATURATION 2019 DISPLY 9/18	360.00
					LEGAL: BUDGET MTG NOTICE	3.40
					MAGAZINE 2016 IRE 1/4PG 9/11/19	55.00
					PT LUDLOW SATURATION 2019 DISPLY 9/18	90.00
					Total for Check/Tran - 121462:	977.26
121463	10/31/2019	CHK	10195	PRECISION FIBER, INC	FIBER SPLICING-NETWORK BUILDNG 8/19-8/21	866.22
					FIBER SPLICING-NETWORK BUILDNG 8/19-8/21	-71.52
					FIBER SPLICING 8/27-8/29/2019	850.18
					FIBER SPLICING 8/27-8/29/2019	-70.20
					Total for Check/Tran - 121463:	1,574.68
121464	10/31/2019	CHK	10197	PRINTERY COMMUNICATIONS	DIG SLIPS DG00100-DG00350	264.95
					DIG SLIPS DG00100-DG00350	66.24
					BUSINESS CARDS FOR GIS	114.86
					Total for Check/Tran - 121464:	446.05
121465	10/31/2019	CHK	10480	PROTHMAN	INTERIM HR DIRECTOR SVC 10/05-10/18/19	7,585.64
					INTERIM HR DIRECTOR SVC 10/05-10/18/19	842.85
					Total for Check/Tran - 121465:	8,428.49
121466	10/31/2019	CHK	10471	RICOH USA , INC.- DALLAS	4CORNERS (MODULAR) RENT 10/18-11/17/19	69.66
					4CORNERS (MODULAR) RENT 10/18-11/17/19	17.42
					ANNEX-COPIER RENT 10/19-11/18/19	50.88
					ANNEX-COPIER RENT 10/19-11/18/19	47.83
					ANNEX-COPIER RENT 10/19-11/18/19	3.05
					Total for Check/Tran - 121466:	188.84
121467	10/31/2019	CHK	10210	RICOH USA, INC	PRINTING IMAGES 4CRNRS(TRIPLMOD) SEP-19	160.38
					PRINTING IMAGES 4CRNRS(TRIPLMOD) SEP-19	40.09
					PRINTING IMAGES 4CRNRS(IT MOD 7287) SEP-	39.53

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					PRINTING IMAGES 4CRNRS(IT MOD 7287) SEP-	9.88
					PRINTING IMAGES ANNEX SEP-19	18.78
					PRINTING IMAGES ANNEX SEP-19	17.64
					PRINTING IMAGES ANNEX SEP-19	1.13
					PRINTING IMAGES ANNEX SEP-19	299.59
					PRINTING IMAGES ANNEX SEP-19	281.60
					PRINTING IMAGES ANNEX SEP-19	17.98
					PRINTING IMAGES 4 CRNRS SEP-19	470.33
					PRINTING IMAGES 4 CRNRS SEP-19	117.58
					Total for Check/Tran - 121467:	1,474.51
121468	10/31/2019	CHK	10565	JIMMY SCARBOROUGH	NISC ENGINEER&OPS RDS 10/21-10/22 TRVL E	78.00
121469	10/31/2019	CHK	10219	SHOLD EXCAVATING INC	EXCAVATOR; L&M-210 FOUR CRNRS 8/28-8/29	5,924.87
					EXCAVATOR; L&M-6062 HWY 20 9/8-9/12	3,832.60
					EXCAVATOR;L&M - 276 CLEVELAND ST 9/10	833.85
					FILL HOLE BY SIGN - 310 FOUR CRNRS 10/03	341.17
					KILISUT HARBOR PROJECT WTRLINE 7/01/19	6,710.00
					KILISUT HARBOR PROJECT WTRLINE 7/01/19	877.00
					CRUSHED GRANITE 3/4" MINUS FOR WO#19138	17.44
					EXCAVATOR; L&M - CLEVELAND ST 8/22/19	2,021.95
					Total for Check/Tran - 121469:	20,558.88
121470	10/31/2019	CHK	10542	SHORT STOP TRUCK REPAIR LLC	REPLACE SPARK PLUGS VEH# 120	426.34
121471	10/31/2019	CHK	10778	JAKE SWAN	WELLNESS PROGRAM REIMBURSEMENT FOR 2019	65.06
121472	10/31/2019	CHK	10576	TCF ARCHITECTURE, PLLC	ARCH-CONSTRCTN AMEND#2 SEP-19	418.00
					ARCH-CONSTRCTN BIDDING SEP-19	600.00
					Total for Check/Tran - 121472:	1,018.00
121473	10/31/2019	CHK	10727	TITAN ELECTRIC, INC	DOCK WORK# 18185 2/06/19	137.05
					DOCK WORK# 18454 2/07/19	588.81
					DOCK WORK# 18467 2/06/19	548.18
					DOCK WORK# 18487 2/05/19	588.81

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					DOCK WORK# 31805 2/14/19		588.81
					DOCK WORK# 31824 2/13/19		588.81
					SNOW STORM WORK# 19050 2/09-2/10/19		3,856.64
					STORM WORK# 19050 2/11/19		663.88
					DOCK WORK 2/04-2/14/19		202.88
					DOCK WORK 2/12/19		588.81
					SNOW STORM-ADDITIONAL CREW 2/04/19		1,446.24
					DOCK WORK# 19086 WKEND 8/03-8/31/19		21,196.29
					DOCK WORK# 19183 WKEND 8/03-8/31/19		10,125.90
					DOCK WORK# 19240 WKEND 8/03-8/31/19		1,275.09
					DOCK WORK# 19263 WKEND 8/03-8/31/19		1,190.33
					DOCK WORK# 19309 WKEND 8/03-8/31/19		4,874.36
					DOCK WORK# 19810 WKEND 8/03-8/31/19		3,370.97
					DOCK WORK# 31838 WKEND 8/03-8/31/19		1,190.33
					DOCK WORK# 31907 WKEND 8/03-8/31/19		2,778.48
					DOCK WORK# 9005 WKEND 8/03-8/31/19		1,984.41
					DOCK WORK$ 19067 WKEND 8/03-8/31/19		12,384.42
					DOCK WORK# 19086 WKEND 8/03-8/31/19		8,504.94
					DOCK WORK# 19183 WKEND 8/03-8/31/19		793.31
					DOCK WORK# 19309 WKEND 8/03-8/31/19		4,334.55
					DOCK WORK-HOTEL/TOOL WKEND 8/03-8/31/19		2,349.38
						Total for Check/Tran - 121473:	86,151.68
121474	10/31/2019	CHK	10251	UGN - JEFFERSON COUNTY	UNITED GOOD NEIGHBORS EE		10.00
121475	10/31/2019	CHK	10255	USA BLUEBOOK	CHEMICAL PUMP REPAIR PARTS		128.10
					CHEMICAL PUMP REPAIR PARTS		126.55
						Total for Check/Tran - 121475:	254.65
121476	10/31/2019	CHK	10256	UTILITIES UNDERGROUND LOCATION	LOCATES - SEP 2019		94.17
					LOCATES - SEP 2019		87.72
						Total for Check/Tran - 121476:	181.89

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121477	10/31/2019	CHK	9999	TOM VAIL	DESIGN CHANGE FOR WO# 18408		6,153.00
121478	10/31/2019	CHK	10402	PAMELA A VREEKEN	NWPPA 3CS CONF 10/22-10/25 TRVL EXP		230.40
					NWPPA 3CS CONF 10/22-10/25 TRVL EXP		25.60
						Total for Check/Tran - 121478:	256.00
121479	10/31/2019	CHK	10260	WA STATE DEFERRED COMPENSATION	PL DEFERRED COMP EE 11/01/19		13,669.89
					PL DEFERRED COMP ER 11/01/19		4,828.33
						Total for Check/Tran - 121479:	18,498.22
121480	10/31/2019	CHK	10267	WA STATE SUPPORT REGISTRY	PL CHILD SUPPORT EE 11/01/19		899.15
121481	10/31/2019	CHK	10496	WELLS FARGO VENDOR FIN SERV	COPIER RENTAL 4 CRNRS OCT-19		68.87
					COPIER RENTAL 4 CRNRS OCT-19		109.67
					COPIER RENTAL 4 CRNRS OCT-19		43.36
					COPIER RENTAL 4 CRNRS OCT-19		33.16
					COPIER RENTAL 4 CRNRS OCT-19		15.87
					COPIER RENTAL 4 CRNRS OCT-19		12.47
					COPIER RENTAL 211 CHIMACUM OCT-19		196.74
					COPIER RENTAL 211 CHIMACUM OCT-19		184.95
					COPIER RENTAL 211 CHIMACUM OCT-19		11.81
						Total for Check/Tran - 121481:	676.90
121482	10/31/2019	CHK	10680	WELLSPRING FAMILY SERVICES	EAP SVC - SEP 2019		52.92
121483	10/31/2019	CHK	10274	WESTBAY AUTO PARTS, INC.	GEAR LUBE		7.18
					VEH# 407-SOCKET,ADPT&PLUG		92.33
					STOCK, VEH# 407 & VEH#123 - DIESEL CAN &		46.74
					STOCK, VEH# 407 & VEH#123 - DIESEL CAN &		34.94
						Total for Check/Tran - 121483:	181.19
121484	10/31/2019	CHK	10403	MAUREEN A WHIPPY	MILEAGE FOR MAIL/COURIER RUN 9/16-9/30		40.68
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX		67.50
					MILEAGE FOR MAIL/COURIER RUN 9/16-9/30		4.52
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX		7.50

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					Total for Check/Tran - 121484:	120.20
121485	10/31/2019	CHK	10653	WILDFLOWER	5 SUBSTATIONS: MOWING AUG 2019	1,559.25
121486	10/31/2019	CHK	10502	CAROL WOODLEY	RENT BILLING AT ANNEX - NOV 2019	1,400.00
121487	10/31/2019	CHK	10278	WPUDA	2019 NOV ASSOCIATION MEETINGS	36.00
					2019 NOV ASSOCIATION MEETINGS	9.00
					MONTHLY DUES - OCT 2019	4,656.80
					MONTHLY DUES - OCT 2019	1,164.20
					2019 FALL MANAGERS COMMITTEE MTG 10/30-1	28.00
					2019 FALL MANAGERS COMMITTEE MTG 10/30-1	7.00
					Total for Check/Tran - 121487:	5,901.00
121488	10/31/2019	CHK	10767	EMPLOYMENT SECURITY DEPARTMEN	FLA TAX - 3RD QUARTER 2019	882.83
121489	11/08/2019	CHK	10762	BATTERY POWER SOLUTIONS LLC	BATTERY SYSTEM-NEW NETWORK BUILDING	20,133.04
121490	11/08/2019	CHK	10623	CARL H. JOHNSON & SON EXCAVATIN	EXCAVATING - E BEACH RD&DISNEY RD 9/04	1,689.50
					EXCAVATING - 871 BLACK BEAR RD 10/14/19	1,607.75
					Total for Check/Tran - 121490:	3,297.25
121491	11/08/2019	CHK	10043	CENTRAL WELDING SUPPLY	255CF NITROGEN	30.81
121492	11/08/2019	CHK	10052	CITY OF PORT TOWNSEND	PERMIT TYPE: MIP-PMT 442 SIMS WAY WO#190	240.50
121493	11/08/2019	CHK	10051	CITY OF PORT TOWNSEND-UTILITY	KEARNEY SUBST - OCT 2019	5.00
					KEARNEY SUBST - OCT 2019	170.25
					Total for Check/Tran - 121493:	175.25
121494	11/08/2019	CHK	10332	KENNETH COLLINS	PPC,GM,WPUDA&ETC MTGS OCT-19 TRVL EXP	513.97
					PPC,GM,WPUDA&ETC MTGS OCT-19 TRVL EXP	128.49
					Total for Check/Tran - 121494:	642.46
121495	11/08/2019	CHK	10068	DISCOVERY BAY GROUP, LLC	CONSULTING SERVICE OCT 2019	2,500.00
					CONSULTING SERVICE OCT 2019	2,500.00
					Total for Check/Tran - 121495:	5,000.00
121496	11/08/2019	CHK	10083	EXCEL UTILITY CONSTRUCTION	ROAD PUSH&TRENCH- E MARROWSTONE 10/17/19	-206.26

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					ROAD PUSH&TRENCH- E MARROWSTONE 10/17/19	2,498.09
					Total for Check/Tran - 121496:	2,291.83
121497	11/08/2019	CHK	10094	GENERAL PACIFIC, INC	FIBER LINE MARKER	434.42
					FIBER TEST STATION	804.09
					SOLVENT WIPES	929.20
					Total for Check/Tran - 121497:	2,167.71
121498	11/08/2019	CHK	10774	ALEX GERRISH	WELLNESS PROGRAM REIMBURSEMENT FOR 2019	200.00
121499	11/08/2019	CHK	10454	GLOBAL RENTAL COMPANY INC	AT37-G SINGLEMAN BUCKET RENTAL VEH# 407	2,732.50
					DOUBLEMAN BUCKET TRUCK# 130 PURCHASE	137,421.75
					Total for Check/Tran - 121499:	140,154.25
121500	11/08/2019	CHK	10368	WILLIAM A GRAHAM	WELLNESS PROGRAM REIMBURSEMENT FOR 2019	30.00
					WPUDA 2019WATER WKSHP 9/25-9/27 TRVL EXP	288.17
					Total for Check/Tran - 121500:	318.17
121501	11/08/2019	CHK	10104	HADLOCK BUILDING SUPPLY, INC.	WO#21949 - TB NW MIX	26.15
					BYWATER - PVC FSE, BOX COVER&CNNTR	14.78
					TREATMENT PLANT - FLASHLIGHT 800 LUMEN&H	39.40
					BYWATER - CON WIRE, NEEDLE,BUSH&ETC	44.57
					MODULAR PUD SIGN - WOOD & CONCRETE	29.56
					BYWATER - WH GPT AUO PRIMAR,GROMMET&STRA	15.77
					Total for Check/Tran - 121501:	170.23
121502	11/08/2019	CHK	10111	HIGHWAY SPECIALTIES LLC	SIGN RNTL HWY19 9/24-9/30 WO9008	70.85
121503	11/08/2019	CHK	10314	JEFFERSON COUNTY HOME BUILDERS	ANNUAL JCHBA DUES 1YR 2019-2020	437.50
121504	11/08/2019	CHK	10314	JEFFERSON COUNTY HOME BUILDERS	JEFFCO HOME SHOW 3/02/2019 BOOTH RENTAL	200.00
121505	11/08/2019	CHK	10126	JEFFERSON COUNTY PUBLIC WORKS	SOLID WASTE - DISPOSAL FROM WAREHOUSE	49.78
121506	11/08/2019	CHK	10320	ANNETTE JOHNSON	PURMS OPS MTG 10/31/19 TRVL EXP	106.72
					PURMS OPS MTG 10/31/19 TRVL EXP	26.68
					Total for Check/Tran - 121506:	133.40

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121507	11/08/2019	CHK	10286	L & J ENTERPRISES	EXCAVATING - 210 4CRNRS 2FALLNTREES 8/12	54.00
121508	11/08/2019	CHK	10543	LANDMARK EXCAVATING AND DOZER	EXCAVATING - SWANSONVILLE RD WO#19083	107,795.16
121509	11/08/2019	CHK	10725	MAGELLAN ADVISORS, LLC	BROADBAND INFRSTRCTR STR SEP 2019	4,156.25
					BROADBAND INFRSTRCTR TRVL EXPS 9/25	674.97
					Total for Check/Tran - 121509:	4,831.22
121510	11/08/2019	CHK	10140	MAGNUM POWER, LLC	TYLER STREET BORE-MOB WORK STOP WO#18021	602.28
					BORING - TYLER ST & WA ST 1/29-2/28	6,812.50
					Total for Check/Tran - 121510:	7,414.78
121511	11/08/2019	CHK	10655	RUSSELL MILLER	NISC E&O SUPP RDSHW 10/21-10/22 TRVL EXP	78.00
121512	11/08/2019	CHK	10333	MOSS ADAMS LLP	PROF SVC: CONSULTING AUG 2019	3,971.97
					PROF SVC: CONSULTING AUG 2019	441.33
					Total for Check/Tran - 121512:	4,413.30
121513	11/08/2019	CHK	10771	MOUNTAIN STATES PIPE & SUPPLY CO	WATER ERTS - 100WP+PULSE INTEGRL QTY72	-459.92
					WATER ERTS - 100WP+PULSE INTEGRL QTY72	5,570.09
					Total for Check/Tran - 121513:	5,110.17
121514	11/08/2019	CHK	10309	NISC	RECURRING INVOICE SEP 2019	1,085.84
					RECURRING INVOICE SEP 2019	206.01
					RECURRING INVOICE SEP 2019	1,711.66
					RECURRING INVOICE SEP 2019	490.43
					RECURRING INVOICE SEP 2019	490.43
					RECURRING INVOICE SEP 2019	8,867.03
					RECURRING INVOICE SEP 2019	1,001.74
					RECURRING INVOICE SEP 2019	53.34
					RECURRING INVOICE SEP 2019	1,627.47
					RECURRING INVOICE SEP 2019	282.39
					RECURRING INVOICE SEP 2019	10.16
					AMS INVOICE SEP 2019	2,408.47
					AMS INVOICE SEP 2019	5,379.26

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					AMS INVOICE SEP 2019		780.18
					AMS INVOICE SEP 2019		734.58
					AMS INVOICE SEP 2019		602.12
					AMS INVOICE SEP 2019		1,344.81
					AMS INVOICE SEP 2019		195.04
					AMS INVOICE SEP 2019		183.64
					MISC SEP 2019		184.80
					MISC SEP 2019		155.99
					MISC SEP 2019		1,350.00
					MISC SEP 2019		46.20
					MISC SEP 2019		39.00
					MISC SEP 2019		150.00
						Total for Check/Tran - 121514:	29,380.59
121515	11/08/2019	CHK	10165	NW LABORERS-EMPLOYERS TRUST FU	MEDICAL PREMIUM EXEMPT DEC 2019		13,770.00
					MEDICAL PREMIUM LABORERS DEC 2019		14,110.00
						Total for Check/Tran - 121515:	27,880.00
121516	11/08/2019	CHK	10631	WILL O'DONNELL	APPA CONF 10/27-10/30 TRVL EXP		310.30
					APPA CONF 10/27-10/30 TRVL EXP		77.57
					NWPPA CONF 9/16-9/18/19 TRVL EXP		85.28
					NWPPA CONF 9/16-9/18/19 TRVL EXP		21.32
						Total for Check/Tran - 121516:	494.47
121517	11/08/2019	CHK	10167	OFFICE DEPOT	OFFICE SUPPLIES - 210 MOD & OPERATIONS		370.58
					OFFICE SUPPLIES - 210 MOD & OPERATIONS		54.47
					OFFICE SUPPLIES - 210 MOD & OPERATIONS		13.89
					OFFICE SUPPLIES - OPERATIONS		22.17
					OFFICE SUPPLIES - 310 TRIPLE WIDE		13.40
					OFFICE SUPPLIES - 310 TRIPLE WIDE		0.86
					OFFICE SUPPLIES - 210 MOD, DESK		228.89
					OFFICE SUPPLIES - 210 MOD, HUTCH QTY3		777.52
						Total for Check/Tran - 121517:	1,481.78

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121518	11/08/2019	CHK	10549	PENINSULA LEGAL SECRETARIAL SER	TRANSCRIPTIION SVC 10/22-10/30/19	576.00
					TRANSCRIPTIION SVC 10/22-10/30/19	144.00
					Total for Check/Tran - 121518:	720.00
121519	11/08/2019	CHK	10188	PLATT ELECTRIC SUPPLY	STOCK-1/2" REDUCED WALL STEEL CONDUIT	62.02
					STOCK-1 1/2" EMT CONDUIT	140.41
					STOCK-1 1/2" RIGID CONDUIT, SCH40	120.04
					STOCK-1" PVC E90* LBOW, SCH 40	23.87
					STOCK-1" PVC FEMALE TERMINAL ADAPTER	11.64
					STOCK-1" UNISTRUT STRAP	13.01
					STOCK-1/2" EMT SET SCREW CONNECTOR	22.93
					STOCK-2 1/2" PVC BOX ADPATER	7.10
					STOCK-2 1/2" RIGID CONDUIT, SCH40	11.92
					STOCK-2 1/2" UNISTRUT STRAP	4.23
					STOCK-2" EMT CONDUIT	164.80
					STOCK-2" RIGID CONDUIT	230.77
					STOCK-3/4" DIE CAST TWO SCREW CONNECTOR	14.42
					Total for Check/Tran - 121519:	827.16
121520	11/08/2019	CHK	10203	PURMS JOINT SELF INSURANCE FUND	HEALTH & WELFARE OCT 2019	21,619.94
121521	11/08/2019	CHK	10751	RAINBOW SWEEPERS, INC	ASPHALT REPAIR - 800 BLK FOUR CRNRS 9/23	763.00
121522	11/08/2019	CHK	10540	JEFF RANDALL	IACC&ELECTTRNS MTGS OCT-19 TRVL EXP	232.19
					IACC&ELECTTRNS MTGS OCT-19 TRVL EXP	58.05
					Total for Check/Tran - 121522:	290.24
121523	11/08/2019	CHK	10471	RICOH USA , INC.- DALLAS	4CORNERS (MODULAR) RENT 11/18-12/17/19	69.66
					4CORNERS (MODULAR) RENT 11/18-12/17/19	17.42
					ANNEX-COPIER RENT 11/19-12/18/19	50.88
					ANNEX-COPIER RENT 11/19-12/18/19	47.83
					ANNEX-COPIER RENT 11/19-12/18/19	3.05
					Total for Check/Tran - 121523:	188.84

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
121524	11/08/2019	CHK	10706	SBA STRUCTURES, LLC	TOWER SITE RNTL MAYNARD HILL - NOV 2019	1,518.38
121525	11/08/2019	CHK	10216	SECURITY SERVICES NW, INC.	NIGHT PAYMENT PICKUP - OCT 2019	1,776.26
					NIGHT PAYMENT PICKUP - OCT 2019	197.36
					ANSWERING SVC - NOV2019	1,999.36
					ANSWERING SVC - NOV2019	1,999.36
					ANSWERING SVC - NOV2019	999.68
					Total for Check/Tran - 121525:	6,972.02
121526	11/08/2019	CHK	10219	SHOLD EXCAVATING INC	TIE IN PRJT - TYLER ST 3/20-5/02/19	4,880.40
					TIE IN PRJT - TYLER ST - ADD'L TAX	57.15
					Total for Check/Tran - 121526:	4,937.55
121527	11/08/2019	CHK	10542	SHORT STOP TRUCK REPAIR LLC	NEW BATTERY/NIGHT SWITCH VEH# 123	2,264.01
					OIL CHANGE VEH# 103	466.02
					OIL CHANGE VEH# 101	784.08
					Total for Check/Tran - 121527:	3,514.11
121528	11/08/2019	CHK	10227	SOUND PUBLISHING INC	LEGAL: INVITE TO RE-BID 9/11 WO#18258	391.90
					EMPL AD: HUMAN RESOURCES MANGER/COORDINA	177.47
					EMPL AD: HUMAN RESOURCES MANGER/COORDINA	19.72
					Total for Check/Tran - 121528:	589.09
121529	11/08/2019	CHK	10733	DAN TOEPPER	BOC,GM,COMM,MOP&ETC MTGS OCT-19 TRVL EXP	84.91
					BOC,GM,COMM,MOP&ETC MTGS OCT-19 TRVL EXP	21.23
					Total for Check/Tran - 121529:	106.14
121530	11/08/2019	CHK	10247	TOYOTA LIFT NORTHWEST	OIL CHANGE & BATTERY-FORKLIFT# 110	639.44
					OIL CHANGE FORKLIFT# 127	457.79
					Total for Check/Tran - 121530:	1,097.23
121531	11/08/2019	CHK	10524	TRI-CITY CONSTRUCTION COUNCIL	SERVICE FEE 4TH QTR 2019	642.08
					SERVICE FEE 4TH QTR 2019	160.52
					Total for Check/Tran - 121531:	802.60
121532	11/08/2019	CHK	10252	ULINE	CABLE SEALS	154.83

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference		Amount
					WAREHOUSE LABELS		32.16
						Total for Check/Tran - 121532:	186.99
121533	11/08/2019	CHK	10620	UPS	SHIPPING USBANK PMT		16.76
					SHIPPING USBANK PMT		1.86
						Total for Check/Tran - 121533:	18.62
121534	11/08/2019	CHK	10615	US BANK	ROUTER BITHDPE PIPE		113.06
					LMU LINESMAN RODEO 9/25-9/29 TRVL EXP		1,111.04
					TOOL-QUICK DRAW CARIBINERS		108.95
					EMERGENCY - STORM FOOD		76.95
					PPE CLIMBING GEAR NEWHIRE		1,139.03
					PPE SUSPENDERS		102.99
					BKGRND CK FLEET&WAREHOUSE HELPER		66.01
					BKGRND CK METERREADER		66.01
					ACCT#4546 JOHNSON.A OCT-19		2.61
					COFFEE ITEMS		25.06
					WELLNESS EVENT ITEMS		20.93
					ACCT#4546 JOHNSON.A OCT-19		0.65
					COFFEE ITEMS		6.27
					WELLNESS EVENT ITEMS		5.23
					APPRENTICESHIP TRN: PRIN OF TRANSFORMER		399.00
					BYWATER WELL #1 - HANDHELD CONTROLER		69.09
					SNAGSTEAD- STORAGE RACKS IN MAP ROOM		326.38
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		307.46
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		87.97
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		15.32
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		15.32
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		76.87
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		21.99
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		3.83
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP		3.83

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
					WATER FILTER FOR 210 MOD	130.75
					WTRTRTMT OP #1&#2 CERT EXAM CLASS	315.00
					ACCT#4579 THARALDSEN.E OCT-19	14.16
					TRAILER ADAPTER RENTAL TRK# 407	10.85
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	195.34
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	195.34
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	21.70
					WPUDA CSR ROUNDTABLE 10/03-10/04 TRVL EX	21.70
					WPUDA CONFS & IACC CON TRVL EXP	107.44
					WPUDA CONFS & IACC CON TRVL EXP	166.94
					WPUDA CONFS & IACC CON TRVL EXP	307.46
					WPUDA CONFS & IACC CON TRVL EXP	136.93
					WPUDA CONFS & IACC CON TRVL EXP	15.32
					WPUDA CONFS & IACC CON TRVL EXP	15.32
					WPUDA CONFS & IACC CON TRVL EXP	26.86
					WPUDA CONFS & IACC CON TRVL EXP	41.74
					WPUDA CONFS & IACC CON TRVL EXP	76.87
					WPUDA CONFS & IACC CON TRVL EXP	34.23
					WPUDA CONFS & IACC CON TRVL EXP	3.83
					WPUDA CONFS & IACC CON TRVL EXP	3.83
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP	307.46
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP	206.74
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP	76.87
					WPUDA & PPC MTGS SEP-19&OCT-19 TRVL EXP	51.68
					PHONE CHRGSUSB FOR LINE CREW QTY2	15.24
					PHONE CHRGUSB FOR LINE CREW QTY1	5.44
					HARD DRIVES FOR BACKUP SERVER	570.24
					AMAZONWEBSVC - HOSTS FILES FOR WEBSITE	0.66
					HARD DRIVES FOR BACKUP SERVER	142.56
					AMAZONWEBSVC - HOSTS FILES FOR WEBSITE	0.16
					EMERGENCY - STORM FOOD	55.46

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference		Amount
					WPUDA FALL FIN MTG 10/02-10/03 TRVL EXP		97.67
					WPUDA FALL FIN MTG 10/02-10/03 TRVL EXP		10.85
					STRAW BALE		13.07
					PERMIT# PRE19-00031 CHIM CREEK BRIDGE		736.10
					WPUDA 2019WATER WKSHP 9/25-9/27 TRVL EXP		256.22
					SHIPMENT TO EVERGREEN FOR REBATES LETTHE		9.80
					WPUDA 2019WATER WKSHP 9/25-9/27 TRVL EXP		128.11
					WPUDA 2019WATER WKSHP 9/25-9/27 TRVL EXP		122.24
					KALA PT- ALTERNATING RELAY FOR SEWER PUM		241.42
					CUST SVC MOVE TO 210 ON FACEBOOK		29.41
					NWPPA CONF 9/16-9/18/19 TRVL EXP		141.48
					NWPPA CONF 9/16-9/18/19 TRVL EXP		6.40
					NWPPA CONF 9/16-9/18/19 TRVL EXP		9.12
					NWPPA CONF 9/16-9/18/19 TRVL EXP		12.08
					NWPPA CONF 9/16-9/18/19 TRVL EXP		13.20
					NWPPA CONF 9/16-9/18/19 TRVL EXP		11.84
					NWPPA CONF 9/16-9/18/19 TRVL EXP		35.37
					NWPPA CONF 9/16-9/18/19 TRVL EXP		1.60
					NWPPA CONF 9/16-9/18/19 TRVL EXP		2.28
					NWPPA CONF 9/16-9/18/19 TRVL EXP		3.02
					NWPPA CONF 9/16-9/18/19 TRVL EXP		3.30
					NWPPA CONF 9/16-9/18/19 TRVL EXP		2.96
						Total for Check/Tran - 121534:	9,333.51
121535	11/08/2019	CHK	10328	VERIZON CONNECT NWF INC.	VEH GPS ELEC - OCT 2019		352.07
					VEH GPS WATER - OCT 2019		165.69
					INSTALLED GPS UNIT IN VEH# 211		70.86
					NO SHOW FEE REGARDING VEH# 211		70.86
						Total for Check/Tran - 121535:	659.48
121536	11/08/2019	CHK	10258	VERIZON WIRELESS, BELLEVUE	ACCT# 664208192-00001 QB9/16-10/15/19		29.89
					ACCT# 664208192-00001 QB9/16-10/15/19		278.17

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference	Amount
					ACCT# 664208192-00001 QB9/16-10/15/19	104.18
					ACCT# 664208192-00001 QB9/16-10/15/19	56.58
					ACCT# 664208192-00001 QB9/16-10/15/19	178.47
					ACCT# 664208192-00001 QB9/16-10/15/19	13.55
					ACCT# 664208192-00001 QB9/16-10/15/19	15.63
					ACCT# 664208192-00001 QB9/16-10/15/19	18.68
					ACCT# 664208192-00001 QB9/16-10/15/19	129.34
					ACCT# 664208192-00001 QB9/16-10/15/19	29.89
					ACCT# 664208192-00001 QB9/16-10/15/19	101.18
					ACCT# 664208192-00001 QB9/16-10/15/19	31.58
					ACCT# 664208192-00001 QB9/16-10/15/19	148.10
					ACCT# 664208192-00001 QB9/16-10/15/19	63.48
					ACCT# 664208192-00001 QB9/16-10/15/19	18.68
					ACCT# 664208192-00001 QB9/16-10/15/19	85.47
					ACCT# 664208192-00001 QB9/16-10/15/19	46.88
					ACCT# 664208192-00001 QB9/16-10/15/19	116.25
					ACCT# 664208192-00001 QB9/16-10/15/19	72.64
					ACCT# 664208192-00001 QB9/16-10/15/19	139.63
					ACCT# 664208192-00001 QB9/16-10/15/19	312.54
					ACCT# 664208192-00001 QB9/16-10/15/19	5.21
					ACCT# 664208192-00001 QB9/16-10/15/19	24.50
					ACCT# 664208192-00001 QB9/16-10/15/19	18.15
					ACCT# 664208192-00001 QB9/16-10/15/19	34.92
					ACCT# 664208192-00001 QB9/16-10/15/19	52.09
					SCADA CRADLEPOINT DEVICE QB9/20-10/19	890.69
					WIFI IN TRUCKS QB9/20-10/19/19	200.05
					WIFI IN SRVR ROOM QB9/20-10/19/19	80.01
					WIFI IN TRUCKS QB9/20-10/19/19	200.05
					WIFI IN SRVR ROOM QB9/20-10/19/19	20.00
					SCADA CRADLEPOINT DEVICE QB9/20-10/19	111.72
					Total for Check/Tran - 121536:	3,628.20

Accounts Payable
Check Register

10/29/2019 To 11/11/2019

Bank Account: 1 - 1ST SECURITY - AP

Check / Tran	Date	Pmt Type	Vendor	Vendor Name	Reference		Amount
121537	11/08/2019	CHK	10403	MAUREEN A WHIPPY	MAIL RUN MILEAGE OCT 2019		73.46
					MAIL RUN MILEAGE OCT 2019		8.16
						Total for Check/Tran - 121537:	81.62

Total Payments for Bank Account - 1 :	(107)	922,161.56
Total Voids for Bank Account - 1 :	(3)	955.67
Total for Bank Account - 1 :	(110)	923,117.23
Grand Total for Payments :	(107)	922,161.56
Grand Total for Voids :	(3)	955.67
Grand Total :	(110)	923,117.23

JEFFERSON COUNTY PUD NO 1

ISSUED PAYROLL CHECKS
PAY DATE:11/1/2019

Empl	Position	Check #	Date #	Amount
2000	WATER DISTRIBUTION MANAGER II	70664	11/1/2019	1,652.03
2001	WATER DISTRIBUTION MANAGER II	70665	11/1/2019	2,402.54
3032	CUSTOMER SERVICE REP	70666	11/1/2019	1,134.26
2003	WATER TREATMENT PLANT OPERATOR III	70667	11/1/2019	2,216.86
2004	WATER TREATMENT PLANT OPERATOR III - LEAD	70668	11/1/2019	2,283.36
				9,689.05

JEFFERSON COUNTY PUD NO 1

DIRECT DEPOSIT PAYROLL
PAY DATE: 11/1/2019

Empl	Position	Pay Date	Net Pay
4006	COMMISSIONER DIST 1	11/01/2019	932.80
4004	COMMISSIONER DIST 2	11/01/2019	979.88
4008	COMMISSIONER DIST 3	11/01/2019	723.74
3034	COMMUNICATIONS MANAGER	11/01/2019	1,965.25
3002	CUSTOMER SERVICE COORDINATOR	11/01/2019	1,195.32
3020	CUSTOMER SERVICE MANAGER	11/01/2019	2,069.47
3014	CUSTOMER SERVICE REP	11/01/2019	1,342.17
3022	CUSTOMER SERVICE REP	11/01/2019	1,284.58
3038	CUSTOMER SERVICE REP	11/01/2019	955.49
3039	CUSTOMER SERVICE REP	11/01/2019	973.32
3005	EXECUTIVE ASSISTANT/PUBLIC RECORDS OFFICER	11/01/2019	2,212.62
3033	FINANCIAL SERVICES MANAGER	11/01/2019	2,470.14
1008	FOREMAN LINEMAN	11/01/2019	6,820.48
1012	FOREMAN LINEMAN	11/01/2019	5,570.37
1011	GENERAL MANAGER	11/01/2019	4,734.17
1042	GIS SPECIALIST	11/01/2019	2,180.12
1017	HEAD STOREKEEPER	11/01/2019	2,289.90
3008	INFORMATION TECHNOLOGY MANAGER	11/01/2019	3,112.94
3028	IT SUPPORT TECHNICIAN	11/01/2019	1,725.21
1000	LINEMAN	11/01/2019	6,284.11
1016	LINEMAN	11/01/2019	5,177.97
1020	LINEMAN	11/01/2019	6,953.57
1028	LINEMAN	11/01/2019	5,160.70
1034	LINEMAN	11/01/2019	3,584.85
1041	LINEMAN	11/01/2019	4,221.62
1018	METER READER	11/01/2019	1,326.09
1035	METER READER	11/01/2019	1,879.74
1043	METER READER	11/01/2019	1,527.72
2005	METER READER/OIT1	11/01/2019	1,321.40
1026	OPERATIONS ASSISTANT	11/01/2019	1,862.77
3004	RESOURCE MANAGER	11/01/2019	2,354.50
1003	SCADA TECH/APPRENTICE	11/01/2019	2,934.45
1015	SCADA TECH/APPRENTICE	11/01/2019	2,534.70
1027	SENIOR ENGINEER	11/01/2019	2,812.38
1037	SPECIAL PROJECTS COORDINATOR	11/01/2019	1,944.14
1031	STAKING ENGINEER	11/01/2019	1,988.86
1039	STAKING ENGINEER	11/01/2019	1,991.62
1014	STOREKEEPER	11/01/2019	2,464.60
1033	SUBSTATION TECH	11/01/2019	4,880.29
3029	UTILITY ACCOUNTANT II	11/01/2019	3,287.43
3013	UTILITY ACCOUNTANT II	11/01/2019	1,495.70
3003	UTILITY BILLING CLERK	11/01/2019	1,372.83
3027	UTILITY BILLING CLERK	11/01/2019	1,391.85
3000	UTILITY BILLING COORDINATOR	11/01/2019	1,516.96
2002	WATER DISTRIBUTION MANAGER II	11/01/2019	1,808.28
2007	WATER SUPERINTENDENT	11/01/2019	3,102.09
		TOTAL	**120,719.19**

VOUCHER APPROVAL FORM

We, the undersigned Board of Commissioners of Public Utility District No. 1 of Jefferson County hereby approve pending payments for transactions greater than $100,000, if any. The following transactions are approved from the General Fund in the amount of **$1,066,898.42** on this **19TH** day of **NOVEMBER** **2019** ;

Jeff Randall	Dan Toepper	Kenneth Collins
President	Vice President	Secretary

PENDING INVOICES OVER $100,000 TO BE APPROVED:

PAYMENTS TO BE APPROVED:

	WARRANTS				AMOUNT	DATE
Accounts Payable:	# 121429	to	# 121488	$	499,660.34	10/31/2019
Accounts Payable:	# 121489	to	# 121537	$	422,501.22	11/8/2019
Payroll Checks:	# 70664	to	# 70668	$	9,689.05	11/1/2019
Payroll Direct Deposit:				$	120,719.19	11/1/2019

TOTAL INVOICES PAID **$1,052,569.80**

WIRE TRANSFERS PAID		**AMOUNT**	**DATE**
Peterson Lake	$	14,328.62	11/2/2019

PAYMENT TOTAL **$1,066,898.42**

VOIDED WARRANTS

121337	$	288.17
121442	$	30.00
121447	$	637.50

AGENDA REPORT

DATE: November 19, 2019

TO: **Board of Commissioners**

THRU: Kevin Streett, General Manager

FROM: Mike Bailey, Financial Services Manager/District Auditor

RE: Write-off of delinquent accounts from active accounts receivable

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SUMMARY: Per Resolution 17-16, the Board of Commissioners agreed to review and approve for write off inactive account balances over 90 days in arrears that had been given 30 days' notice that their account will be referred to a collection agency.

BACKGROUND: These inactive accounts are recorded in the Active Accounts Receivable Data Base and need to be transferred to the Uncollectible Data Base in the Customer Information System. The process of writing off does not "erase" the debt unless the debt has been discharged through a bankruptcy court. The PUD's staff has attempted to collect payment on these accounts. A collection agency is better equipped to pursue collection now that these accounts have disconnected from utility service with the PUD and are over 90 days in arrears.

ANALYSIS/FINDINGS: There are 24 inactive accounts in the Active Accounts Receivable Data Base who owe the PUD $7,165.28 for utility services and who have received notice over 30 days ago that their account will be referred to a collection agency.

FISCAL IMPACT: Bad Debt Expense has already been charged in anticipation of having accounts who would fail to pay their final bill for utility services. On the PUD's Balance Sheet, Line 20. Accounts Receivable-Sales of Utility Services has been netted by an estimated Reserve for Uncollectible Accounts. To remedy the debt, these inactive accounts will pay the collection agency for the amount owed to the PUD plus a fee for the agency's professional services. Any amounts received on the written off amount, will be deposited into the PUD's Depository Bank Account and the Reserve for Uncollectible Accounts adjusted. No revenue or expense accounts are affected by this write off.

RECOMMENDATION: Transfer the 24 inactive accounts owing $7,165.28 from the Active Accounts Receivable Data Base to the Uncollectible Accounts Data Base and authorize Evergreen Financial Services to pursue collection efforts allowed by law.

ATTACHMENT: The Summary of Write-offs of Uncollectible Accounts Receivable provides an analysis of the number and amounts owed and signature of approval by the Secretary of the Board of Commissioners.

Jefferson County
Public Utility District

Board of Commissioners

Jeff Randall, District 1
Kenneth Collins, District 2
Dan Toepper, District 3

Kevin Streett, General Manager

Write-Offs of Uncollectible Accounts Receivable

On November 19, 2019 the following summary of inactive customer accounts with a past due balance of greater than $20.00 and in excess of 90 days were referred to and provided a 30-day written notice by a collection agency. Furthermore, all amounts were deemed uncollectible by the Financial Director/District Auditor regardless of the amount past due. For accounting and financial reporting purposes, write-offs of uncollectible receivables are made against the allowance for bad debt account once approved by the Board. The following accounts are requested to be written off as uncollectible:

Uncollectible Amount Range	Number of Accounts	Write-Off Amount
Less than $20	0	$ -
$20 - $100	6	$266.23
$101 - $200	3	$483.40
$201 - $500	11	$3,773.00
$501 - $1,000	4	$2,642.65
Over $1,000	0	$ -
TOTAL	**24**	**$7,165.28**

Approval, Board of Commissioners

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Kenneth Collins
Secretary

November 19, 2019

PUD CALENDAR

November 19, 2019- Regular BOC meeting (Transit) 5:00 pm

November 20, 2019 – Special Meeting with Moss Adams (Olga Darlington) Financial Policy discussion; Jefferson County Library; 1:30pm-3:30pm Humphrey Room

December 4-6- WPUDA Annual Conference

December 9, 2019- CAB meeting, Chimacum Fire Hall 2:00 pm

December 10, 2019 – Special Meeting- Executive Session 3:30 210 Four Corners; Review of a public employee

December 10, 2019- Regular BOC meeting (Transit) 5:00 pm

December 12, 2019 – Special Meeting 4th Quarter Review; Chimacum Fire Hall 10:00am-12:00pm

December 12, 2019- Special Meeting Audit Exit; Chimacum Fire Hall 1:30pm-2:30pm

DATE:	November 19, 2019
TO:	**Board of Commissioners**
FROM:	Kevin Streett, General Manager
RE:	Citizen Advisory Board Candidates

SUMMARY: In response to Board of Commissioner and staff recruitment efforts, there have been 2 individuals that have expressed interest in renewing their CAB membership. Craig Durgan and Tom Engle.

BACKGROUND: There are 3 Citizen Advisory Board members that are up for renewal at the end of 2019, 2 of which wish to renew their continuing efforts to be on the CAB.

RECOMMENDATION: Staff recommends confirmation of those CAB members who wish to renew their participation on the CAB.

Attached are their requests.

From: Tom Engel
Sent: Wednesday, November 6, 2019 7:29 AM
To: Jeff Randall
Subject: CAB

Hi Jeff,

I'd like to continue serving on the CAB when my term expires at the end of the year. If you are willing to reappoint me, I'd appreciate it.

Tom Engel

Annette Johnson

From: Craig Durgan
Sent: Thursday, October 17, 2019 11:34 PM
To: Annette Johnson
Cc: Dan Toepper
Subject: CAB membership

Hello,

I understand that my membership on the CAB expires at the end of 2019. I wish to continue as a CAB member and would like to be considered for an additional full term.

Best Regards,

Craig Durgan
Dist 3

PUBLIC UTILITY DISTRICT NO.1
OF
JEFFERSON COUNTY

RESOLUTION No. 2019-29

A Resolution of the Board of Commissioners of Public Utility District No. 1 of Jefferson County, Washington ("the PUD"), providing for an electric meter opt out program, establishing opt out rates and procedures.

WHEREAS, the Board of Commissioners for the PUD held a Special Meeting on October 16, 2019 to review policies, take testimony, and ask questions of PUD staff regarding implementing a policy that allows the PUD's residential electric ratepayers to opt out of Advanced electric meters and instead have the option to receive a mechanical meter from the PUD; and

WHEREAS, the Board of Commissioners for the PUD asked its Citizen's Advisory Committee (the "CAB") to review and develop an opt out policy related to Advanced electric meters, and to study, evaluate and provide a recommendation to the Board of Commissioners a smart meter opt-

WHEREAS, the CAB created a subcommittee to assist it in developing a recommendation to the Board of Commissioners, and the subcommittee provided an extensive review of a smart meter opt out program it determined to be appropriate for the PUD, and prepared a recommended policy for the entire CAB to consider; and

WHEREAS, the CAB received input from the PUD staff, who provided an opt out policy for the CAB to consider as part of its recommendation to the Board of Commissioners; and

WHEREAS, on July 8, 2019 the CAB voted on and approved a smart meter opt out program that it would present to the Board of Commissioners, and stated as follows:

The PUD will offer a non-transmitting meter to single phase ratepayers who wish to opt out of their current RF transmitting meter. Until the PUD calculates the actual a cost, a $5.00 monthly fee will be assessed. The actual cost will then be applied. If the ratepayer requests a subsequent meter change, charges to do so will be assessed.

and

WHEREAS, a "minority report" was also included with the CAB approved policy objecting to certain wording of the CAB approved policy as well as imposing a charge for opting out of the program; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Public Utility District No. 1 of Jefferson County, Washington that an opt out policy be established offering residential rate payers the opportunity to opt out of the Advanced electric meters

provided by the PUD, under the circumstances provided for in the policy attached to this Resolution as Exhibit A; and

Such opt out policy will be subject to review by the Board of Commissioners from time to time to evaluate its effectiveness, operations, and costs to the PUD.

ADOPTED at a regular meeting of the Board of Commissioners of Public Utility District No. 1 of Jefferson County, this 19th day of November, 2019.

_____
Jeff Randall, President

_____
Dan Toepper, Vice President

ATTEST:

_____
Kenneth Collins, Secretary

JEFFERSON COUNTY PUD
POLICY & PROCEDURE

Opt-Out Policy

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1. PURPOSE

i. To enable PUD customers to have the existing AMR meter changed to a manually read meter.

ii. All residential Customers have or will receive an AMR Meter unless they elect to Opt-Out through the Opt-Out Policy. Customers electing to Opt-Out will receive a Non-RF Communicating Digital or a Non-RF Communicating Analog Meter.

2. DEFINITIONS

a. AMI: Advanced Metering Infrastructure. AMI meters have two-way communication that collect and transmit data back to a collection system

b. AMR: Automatic Meter Reading. AMR meters have one-way communication that collect and transmit data back to a collection system.

c. Advanced Meter: A meter that includes a communicating module with the ability to collect and transmit energy consumption,

interval, voltage, and other data.

d. kWh: a composite unit of energy with 1kWh being equivalent to 1 kilowatt of power sustained for 1 hour.
e. Non-RF Communicating Digital Meter: A solid state digital meter that collects electrical usage information but has no RF communications module.
f. Non-RF Communicating Analog meter: An electromechanical meter that collects electrical usage information but has no RF communications module.
g. RF: Radio Frequency.
h. PUD: Jefferson County Public Utility District.
i. Customer: Any person, firm, corporation, government agency, or other legal entity who uses, has used, or has contracted for electrical service from the PUD.
j. Property Owner: Individual or entity, jointly or severally in possession of title for land or a building in whom all or any part of legal title is owned, in any form allowed by state law.
k. Non-Property Owner Customer (i.e., tenant): Customer who does not own title or have legal interest in the property receiving service.

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3. POLICY

Evaluation

a. The PUD reserves the right to evaluate and revise this Policy and Procedure, including charges and procedural changes, at any time.

Eligibility

a. All residential Customers receiving single-phase electric service, Rate Schedule 7, are eligible to Opt-Out of the current AMR Metering Program unless otherwise noted below.
b. Commercial, industrial, and municipal Customers are not eligible to Opt-Out of the current AMR Metering Program.
c. If a Customer is disconnected for non-pay they are not eligible to Opt-Out for a period of one (1) year.
d. If a Customer is found to have committed illegal or unauthorized current diversion, they are ineligible to participate in the Opt-Out Program.
e. Customers participating in special programs, such as net metering for solar energy production, are not eligible to Opt-Out of the current AMR Metering Program.
f. Non-Property Owners who wish to Opt-Out of the current AMR Metering Program must receive signed permission from the

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Property Owner and provide evidence of that written permission to the PUD.

g. Customers who choose to Opt-Out will not be able to take advantage of obtaining daily Customer Portal information.
h. The meter base must be on the outside of the Customer's building and accessible to the PUD to be eligible for the Opt-Out program. The Customer will agree to cooperate with the PUD to provide a reasonable location for the meter base

Opt-Out Charges

a. An Opt-Out charge of $5 per month shall be collected, through the Customers monthly bill, to cover the associated costs to the PUD for installation, operation, reads and maintenance of Non-RF Communicating Digital or Non-RF Communicating Analog Meter.
b. The $5 per month charge will be waived if the Customer has been authorized to be part of the PUD low-income program(s).

4. RESPONSIBILITIES

a. The PUD will be responsible for conducting and recording meter reads.
b. Customers who Opt-Out of the current AMR Metering Program shall maintain the PUD's

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access to the property's meter(s) to enable manual reads by the PUD. Customer failure to maintain access may result in non-compliance actions, up to and including disconnection of service.

c. The Property Owner owns the meter base (where the meter connects to the building) and is responsible for maintenance of the meter base.
d. The PUD owns the meter (all types) and is responsible for providing and maintaining a functioning meter.
e. Eligible Customers can select between a Non-RF digital meter or a Non-RF analog meter. The manufacturer, make, and model of the meter is the sole responsibility of the PUD.

5. PROCEDURE

a. Eligible Customers who wish to Opt-Out of the AMR Metering Program shall do so by submitting a completed Opt-Out application, in accordance with this Opt-Out Policy and Procedure, and PUD policies and tariffs.
b. Non-Property Owner Customers applying to Opt-Out of the current AMR Metering Program must also provide signed permission from the Property Owner along with their completed Opt-Out application.

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c. If a Property Owner and Non-Property Owner Customer disagree about whether to Opt-Out, the Property Owner's decision is final.
d. Customers who Opt-Out of the current AMR Metering Program will not pay ~~the first~~ installation fee for the first meter changeout.
e. If a Customer who has previously opted out of the current AMR Metering Program moves from their current location to a new location that has an existing AMR meter, the Customer will be required to submit a new Opt-Out application and will pay a charge of $60 to install a manually read meter.

6. APPLICATION COMPLETION

a. Incomplete applications will not be processed.

7. APPENDIX

a. Opt-Out Application Form

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AMR Meter Opt-Out Form

Customer Information	
Name on Bill:	Phone:
Mailing Address:	Account #:
Service Address:	

Customer agrees that PUD staff must have unrestricted access to the meter, i.e. no meters inside enclosures, no animal concerns, or other barriers to access.

The following charge applies for this option:

- A Monthly Manual Meter Reading Fee of $5 will be added to your monthly bill
- There is no Meter and Installation Fee for the first meter exchange.

By signing below, I agree that I am a named, authorized member on the account listed above. Further I am indicating that I want to Opt-Out of having an AMR Meter and agree to the Monthly Manual Reading Fee of $5. I understand that if the fees are unpaid, an AMR Meter will be installed at my location, and all disconnect policies will apply. I have read and understand the Opt-Out Policy. I also agree and acknowledge that the PUD's policies and tariffs regarding Opt-Out may change over time, and customer agrees to follow such policies and tariffs.

Non-Property Owners who wish to opt-out of the Metering Program must have this form signed by the legal Property Owner.

X _____

Customer Signature **Date**

X _____

Property Owner Signature **Date**

Meter selection

Non-Communicating Analog Meter ☐

Non-Communicating Digital Meter ☐

For Official Use Only:	
Date Received:	Date Meter Changed:
Manual Read Charge Added in CIS:	

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AGENDA REPORT

DATE:	November 19, 2019
TO:	Board of Commissioners
FROM:	Samantha Harper, P.E., Water Superintendent
RE:	Operation and Maintenance Service Agreement for Phase 1 of the Meadows Community On-site Septic System

SUMMARY: Staff is requesting that the Board of Commissioners (BOC) authorize the General Manager to execute an Operation and Maintenance Service Agreement for Phase 1 of the Meadows Community On-site Septic System between the PUD and the developer STO, LLC.

BACKGROUND: Olympic Greens Retirement Community originally recorded a Binding Site Plan (Auditor's File Number (AFN) 402752) in 1997. Completed in 1997, the Phase 1 Meadows Community on-site septic (OSS) was designed, approved and constructed to meet current code requirements of Jefferson County. Since the binding site plan and the construction of the Community OSS, STO, LLC. has purchased the property and has submitted a plat alteration (SUB18-00004) application with Jefferson County in order to form The Meadows Condominium No. 1 and The Meadows Condominium No. 2. STO, LLC is proposing to divide the Meadows into two phases, as shown on the attached map. Phase 1 includes all the lots currently being served by the existing large on-site septic system. Phase 1 has 21 permitted sewer connections, with eight (8) existing single-family residences (SFRs) and thirteen (13) vacate parcels. Phase 2 (future phase) will be the remaining lots, which require a new large on-site septic system to be designed, permitted, approved and installed by STO, LLC.

The Jefferson County Code Section 8.15.100(2) states that the "management of community on-site sewage systems shall be by an entity approved by [Jefferson County Public Health department.] If the lots are individually owned, the management shall in all cases be provided by a public entity…", therefore, at the request of Jefferson County Public Health department, the PUD is entering into an operation and maintenance agreement with STO, LLC. The operation and maintenance agreement before the commissioners for approval is for Phase 1 only.

ANALYSIS/FINDINGS: Staff has worked with both the property owner and Jefferson County Public Health on the terms of the operation and maintenance agreement. The agreement is structured as a service contract, as the PUD does not own the system, but is "contracted" to provide operation and maintenance of the OSS. The PUD has a single customer, the Meadows No. 1 Association, rather than each individual lot having a separate account with the PUD.

FISCAL IMPACT: Staff has set the fees to be charged to the Homeowner's Association based upon its estimate of current costs. The fee terms are outlined under the Agreement section, item no. 15. It is intended that the revenue to expense for the PUD services to balance.

RECOMMENDATION: Staff is recommending that the Board of Commissioners (BOC) to authorize the General Manager to execute an Operation and Maintenance Service Agreement for Phase 1 of the Meadows Community On-site Septic System between the PUD and STO, LLC.

Attachments:

1. Operation and Maintenance Service Agreement for Phase 1 of the Meadows Community On-site Septic System, including Appendix 1
2. Map of the Olympic Greens Binding Site Plan with the Meadows proposed phases

OPERATION & MAINTENANCE SERVICES AGREEMENT

FOR

PHASE 1 OF THE MEADOWS (FORMERLY OLYMPIC GREENS)

COMMUNITY ON-SITE SEPTIC SYSTEM

THIS OPERATION & MAINTENANCE SERVICES AGREEMENT PHASE 1 OF THE MEADOWS (FORMERLY OLYMPIC GREENS) COMMUNITY ON-SITE SEPTIC SYSTEM (this "Agreement") is made this ___ day of _____, 2019, by and between STO, LLC, a Washington limited liability company ("STO LLC"), and PUD No.1 of Jefferson County ("PUD No. 1").

RECITALS

1. STO LLC is the owner of all of the property described in the Binding Site Plan of Olympic Greens recorded under Jefferson County Auditor's File No. 402752 in Volume 1of Binding Site Plans, Pages 24-27 (the "BSP").

2. STO LLC is proposing to create two condominiums on the BSP property called The Meadows No. 1, A Condominium ("The Meadows No. 1"), Auditor's File No. _____, and The Meadows No. 2, A Condominium ("The Meadows No. 2"), Auditor's File No._____ (collectively, "The Meadows Condominiums").

3. STO LLC has recorded a Declaration of Easements and Maintenance Agreement with respect to the property in the BSP under Jefferson County Auditor's File No. 612302 (the "Easements and Maintenance Agreement") in order to provide for the management of The Meadows Common Areas (as defined therein) by the owners association for The Meadows No. 1 ("The Meadows No. 1 Association") for the benefit of owners in The Meadows Condominiums and to provide for payment or reimbursement of its costs associated with operation, maintenance, repair and replacement of the community septic sewer systems for the property in the BSP.

4. On-site Septic Systems were designed by Ryan Tillman, Tillman Engineering to serve Lots 1-10, 14, 18-19, 23-24, 35-37, 45-47 of the BSP (the "Phase 1 Meadows Community OSS" and the "Phase 1 Meadows Lots," respectively). The Phase 1 Meadow Lots will become units in The Meadows Condominiums and the Phase 1 Meadows Community OSS will be a common element of The Meadows No. 1.

5. The Phase 1 Meadows Community OSS is an extensive sewage collection, treatment and disposal system, which is described in the Operations and Maintenance Manual (the "O&M Manual"), Record Drawing and Inspection Report (March 1997), attached as APPENDIX 1, and has been installed so that sewer service shall be available to dwellings on the Phase 1 Meadows Lots.

6. The Phase 1 Meadows Community OSS have been designed, approved and

constructed to meet current code requirements of Jefferson County (collectively, SEP 96-0338, SEP 96-0339, SEP96-0340 and SEP 96-0341).

7. Jefferson County Health Department ("JCPH") has inspected and approved the constructed portions of the Phase 1 Meadows Community OSS.

8. The Phase 1 Meadows Community OSS does not include the required septic tank and pump chamber (where required) for connection of each individual lot. A septic (tank only) permit, issued by JCPH in compliance with the code at the time of application, is required for the connection of each individual lot to the Phase 1 Meadows Community OSS. Eight of the Phase 1 Meadows Lots (i.e. The Meadows No. 2) are already connected to the system and do not require new septic permits.

9. STO LLC plans to install a community on-site septic system on Lots 28 – 32 of the BSP and related improvements to provide sewer capacity for the remaining lots in the BSP (the "Phase 2 Meadows Community OSS"), which will be addressed in an addendum to this Agreement or in a separate agreement. The Phase 1 Meadows Community OSS and the Phase 2 Meadows Community OSS are collectively referred to as "The Meadows Community OSS."

10. Jefferson County Code Section 8.15.100(2) states that the "management of community on-site sewage systems shall be by an entity approved by JCPH. If the lots are individually owned the management shall in all cases be provided by a public entity…." Therefore, the PUD No. 1 will be the management entity for The Meadows Community OSS.

11. PUD No.1 has accepted responsibility of being the management entity of the Phase 1 Meadows Community OSS, as described in the Operations and Maintenance Manual.

12. STO LLC will be responsible for meeting all federal, state and local requirements, and represents and warrants to the PUD that these recitals are true and correct.

13. Upon creation of The Meadows Condominiums, the Phase 1 Meadows Community OSS shall be a common element of The Meadows No. 1 and all rights and obligations of STO LLC under this Agreement shall be assumed by The Meadows No. 1 Association, except STO LLC shall be responsible for assuring that the initial installation of septic tanks and pump chambers (if needed) on individual lots are done in compliance with current code.

AGREEMENT

NOW THEREFORE, in consideration of the premises and the covenants hereafter set forth, the parties agree hereto, as follows:

1. Existing On-site Septic System. A sewage collection, treatment and disposal system together with appurtenant facilities, with capacity and design satisfactory to the JCPH for the Phase 1 Meadows Lots were constructed under previous septic permits in 1996. The sewage collection, treatment and disposal system consist of a series of collection pipes, septic tanks, pump chambers, effluent transmission lines and drain fields together with the necessary

controls for pump operation, monitoring and malfunction alarm(s) and is hereinafter referred to collectively as the Phase 1 Meadows Community OSS.

2. Septic Tank Permits. The systems constructed under SEP96-338, SEP96-339, SEP96-340, and SEP96-341 did not include installation of the required individual septic tanks and pump chambers (if needed) for every lot. Therefore, prior to obtaining a building permit for any lot an application and design shall be submitted for an onsite sewage permit for a septic tank and pump chamber (if needed) in compliance with current code. The septic permit shall be issued prior to issuance of the associated building permit for a dwelling on that lot.

3. Right of Inspection. PUD No. 1 shall have the right to inspect the Phase 1 Meadows Community OSS during operation and maintenance and new construction; for new construction the inspection includes, but is not limited to, the connection of the individual lot effluent to the sewer main. The new construction inspection will be conducted in conjunction with the JCPH inspector and under the onsite sewage permit for a septic tank. The PUD No.1 cost for operation and maintenance are covered in the Fee section of this Agreement. For unsatisfactory work, repairs and or replacement work needed, the notification process between the PUD No.1 and The Meadows No.1 Association is outlined under the Notifications section of this Agreement.

4. Certification. PUD No.1 assumes no responsibility for any additions to or later phases of The Meadows Condominiums not in place at the time of this Agreement. Any additions to or later phases shall only be accepted by PUD No.1 after an amendment to this Operations and Maintenance Service Agreement has been mutually agreed to and executed in counter parts by each party to this Agreement.

5. Easements. STO LLC shall furnish PUD No.1 with easements running concurrent with this Agreement granting PUD No. 1 access to all necessary portions of the Phase 1 Meadows Community On-site Septic System (OSS) lying outside of dedicated public rights-of-way. STO LLC shall be responsible for recording all such easements in the land records of the Jefferson County Auditor.

6. Common Element. Upon creation of The Meadows Condominiums, the Phase 1 Meadows Community OSS shall be a common element of The Meadows No.1.

7. Warranty. Any upgrades or expansions to the Phase 1 Meadows Community OSS will be performed by STO LLC or its agent(s) and at the completion of the installation will provide a warranty (guarantee) of 20-percent of the project cost for a period of twelve (12) months from the date of acceptance. The warranty will be to the benefit of the managing entity and in an acceptable form to the PUD No. 1.

STO LLC furthermore warrants that the Phase 1 Meadows Community OSS at its design capacity will be adequate to serve the Phase 1 Meadows Lots. STO LLC further represents and warrants that the Phase 1 Meadows Community OSS and all subsequent phases have been and will be consistent with Federal, State and local laws and regulations

for similar community on-site septic system. Further, STO LLC or its successor shall maintain a reserve fund in a form acceptable to PUD No. 1 for the life of the system, refer to the Fee section of this Agreement.

8. Additions. No additional lots or service areas outside the Phase 1 Meadows Lots may be connected to the Phase 1 Meadows Community OSS without the express written approval of JCPH, PUD No.1 and STO LLC. PUD No.1 may not unreasonably refuse connections of additional lots or service areas to the Phase 1 Meadows Community OSS if sufficient surplus capacity is available.

9. Acceptance. PUD No. 1 has inspected and accepted the Phase 1 Meadows Community OSS. Phase 2 Meadows Community OSS shall be a separate agreement with PUD No.1. If upgrades or expansions are designed, approved and completed as outlined in this agreement for the Phase 1 Meadows Community OSS then the PUD No. 1 will manage the addition. Upgrades and expansion work will be required to follow the warranty process as outlined in this agreement.

10. Notifications. For any property served by the Phase 1 Meadows Community OSS, the following notifications are required:

a. When a septic issue is discovered, the lot owner or association shall call the PUD No. 1 to report an incident.

b. PUD No.1 will investigate the incident and determine if the septic issue is caused by the individual lot septic system (private) or the Phase 1 Meadows Community OSS system;

c. If private; PUD No. 1 will contact the property owner and the Meadows No. 1 Association;

d. If associated with the Phase 1 Meadows Community OSS system, the PUD No. 1 will perform the repair or replacement and invoice the Meadows No.1 Association as outlined in the Fees Section of this Agreement.

e. It is the Phase 1 Meadows No. 1 Associations responsibility to keep their contact information current with PUD No. 1

PUD No. 1 Contact:	**The Meadows No. 1 Association Contact:**
Randy Calkins	Name:
Wastewater Manager	Affiliation:
Address: 310 Four Corners Rd.	Address:
Port Townsend, WA 98368	
Phone: 360-301-0249	Phone:
Email: rcalkins@jeffpud.org	Email:

PUD No. 1 Customer Service No.:
360-385-5800

11. Operation and Maintenance. PUD No.1 will monitor, the operation and maintenance of the Phase 1 Meadows Community OSS. STO LLC will be responsible for installation, operation and maintenance of each subsequent phase of The Meadows Community OSS until it is completed and accepted, as provided above. The individual lot owners are responsible for all such individual operation and maintenance of the onsite septic tank and pump chamber (if needed) per JCPH regulations, PUD No. 1 is not responsible for individual lot septic facilities. The PUD No. 1 is responsible for maintaining the Phase 1 Meadows Community OSS, which started at the individual lot connection to the sewer main.

12. Monitoring. PUD No.1 shall monitor the Phase 1 Meadows Community OSS monthly as per the operations and maintenance manual prepared by the Designer and per JCPH requirements.

13. Reporting. PUD No.1 will provide STO LLC and The Meadows No. 1 Association with any records upon request.

14. Financial Assurance Plan. The Meadows No. 1 Association, and STO LLC prior to the creation of The Meadows Condominiums, is entering into a Financial Assurance Plan per Jefferson County Code Chapter 8.15.100(3)(b) for Major Repairs with Jefferson County (the "FAP") in order to assure payment of the Owner's financial obligations under this Agreement, which will include establishing a Security Account to cover major repairs and replacements to the Phase 1 Meadows Community OSS, including replacement of the system. The security amount shall be placed into a Reserve Account which will be in the name of PUD No. 1; however, withdrawals, except for emergencies, require the approval of the board of The Meadows No. 1 Association.

15. Fees. STO LLC or, after creation of The Meadows Condominiums, The Meadows No. 1 Association shall be responsible for the payment of fees to PUD No.1 in accordance with the following schedule:

a. Monthly fees for the operation and maintenance of the Phase 1 Meadows Community OSS is $250.00 per month. Monthly costs shall include, but are not limited to, labor, including all fringe benefits, mileage and inspection reporting fees. Monthly fees may change, subject to approved rates, changes in labor costs, all as approved by the Board of Commissioners of PUD No. 1. The monthly fee does not cover operational cost such as electrical service, water service, drainfield mowing, screen replacement and or periodic septic tank pumping. These operational costs would be paid for by the Meadows No. 1 Association. The PUD will contract a 3rd party to mow the drain field twice a year and bill on a time and material basis to the Meadows No. 1 Association. If the Meadows No. 1

Association would like the drainfield mowed more frequently, they can contract the work or mow drainfields themselves.

b. Annual Operation and Maintenance inspection will be billed on a time and material basis. PUD No. 1 reserves the right to contract a 3rd party approved septic contractor to assist or perform the annual operation and maintenance inspection. The service will include all services necessary for the annual reporting.

c. Repairs and Replacements of the Phase 1 Meadows Community OSS will be billed on a time and material basis with a 10-percent administration fee. Examples of repairs are new septic lids, monitoring report caps, etc. Examples of replacements items are pumps, electrical components, piping, etc.

d. Upgrades or expansion to the Phase 1 Meadows Community OSS will be completed by The Meadows No. 1 Association. The Meadows No. 1 Association will be responsible for obtaining and paying for all federal, state, local fees required that are associated with the upgrade and or expansion. The Meadows No. 1 Association will be required to provide a warranty as described in this Agreement prior to PUD No. 1 managing the operation and maintenance of the upgraded and or expanded system.

e. The PUD No. 1 shall be entitled to recover late fees as outlined in the current adopted version of the Jefferson County PUD No. 1 Customer Service Policy. The customer service policy document can be accessed on the PUD No. 1 website at www.jeffpud.org or obtain at the PUD No. 1 office upon request.

f. In the event of a sale of a portion of The Meadows Community OSS, PUD No. 1 is authorized to establish minimum billing amounts for each distinct 'community entity' responsible for a portion of The Meadows Community OSS.

16. Application for Sewer Service. Upon the completion of a building or dwelling unit requiring access to the Phase 1 Meadows Community OSS, STO LLC or his agent(s) shall notify PUD No. 1 in order to coordinate new construction inspection with JCPH.

17. Survival of Covenants and Binding Effect. All of the promises, covenants, terms and conditions of this Agreement shall survive the conveyance hereunder, and this agreement shall extend to and bind the successors and assigns of the respective parties hereto. STO LLC agrees to provide an acceptable form of security in favor of the PUD No. 1. In the event it fails to meet all of its obligations pursuant to this agreement. PUD No. 1 shall not assume any operations and maintenance obligations until it is has received such security acceptable to it.

18. Term. This Agreement shall remain in full force and effect until the date of notification by PUD No. 1 to STO LLC that Phase 1 Meadows Community OSS have been intercepted and connected to a general sewer system. Upon such connection, STO LLC shall be entitled to receive any amounts remaining in the Security Fund or Funds for Phase 1 Meadows Community OSS, unless any fees and costs owed to PUD No. 1 are outstanding and past due, then those shall be paid before any distribution is made to STO LLC.

19. Notices. STO LLC shall be responsible for ensuring that all initial occupants of any dwelling served by the Phase 1 Meadows Community OSS are aware of the provisions of this Agreement.

20. Subsequent Phases. Upon completion and acceptance by the PUD No. 1 of any additional approved sewage facilities associated with subsequent phases of The Meadows Condominiums, the negotiated security for that phase of The Meadows Community OSS shall be provided by STO LLC.

21. Taxes. STO LLC or, after creation of The Meadows Condominiums, The Meadows No. 1 Association shall be responsible for paying all real, personal and other taxes, if any, due on The Meadows Community OSS.

22. Termination. This Agreement may be terminated by PUD No. 1 with one month's notice, for the following reasons:

a. STO LLC or The Meadows No. 1 Association has defaulted, been deemed financially insolvent or has declared bankruptcy.

b. STO LLC or The Meadows No. 1 Association fails to make regular payments in 3 successive billing periods, or breaches any of its representations, warranties and obligations, including but not limited to maintaining security guaranteeing its performance under this agreement.

However, no such termination shall occur until and unless an approved management entity has agreed in writing to monitor, operate and maintain the Phase 1 Meadows Community OSS Septic System with no gap in such management responsibilities. In the event of termination, PUD No. 1 shall have the responsibility of finding an approved management entity to replace the PUD No. 1 and PUD No. 1 shall make all reasonable efforts to assist STO LLC in this search.

IN WITNESS WHEREOF, the parties hereto have executed this agreement this day and year first above written.

PUD No. 1 of Jefferson County:	STO LLC, as Washington limited liability company:
	By.:
Kevin Streett, General Manger	Its.

Tillman Engineering, Inc.

Olympic Greens Septic System Operation and Maintenance Manual

Ryan Tillman, P.E.
Susan Porto, R.S.
Tom Morello

March, 1997

JUL 14 1997

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INTRODUCTION

Overview

This manual has been prepared to provide details of the components of and requirements regarding the operation, maintenance, and monitoring of the Olympic Greens Community On-Site Septic Systems. The systems were designed using the applicable guidelines set forth in Chapter 246-272 WAC by the Washington State Board of Health *On-Site Sewage Systems Rules and Regulations*, guidelines set forth by the Washington State Department of Health Technical Review Committee, the Washington State Department of Ecology *Criteria for Sewage Works Designs*, U. S. EPA *Onsite Wastewater Treatment Manual* and Jefferson County Health Department policies.

The proper maintenance of an on-site septic system is crucial to eliminate premature failures, maintain proper function of the components of the system, and control unnecessary public health hazards or nuisances. Improper operation or failure to monitor the condition of the system can also have costly consequences. It is therefore in the best interest of the **System Owner** to read and understand this manual and to perform the required maintenance as per the directions set forth herein.

The duties and responsibilities of operation, maintenance and monitoring of the system will be divided between two responsible parties. The Olympic Greens Partnership, as the **System Owner,** will be responsible for operation and maintenance and will be the primary monitoring entity. Jefferson County Public Utility District #1 will be the secondary monitoring entity. Additionally, each current and/or prospective **Leaseholder** within this development must be fully informed of their responsibilities which have been outlined in the contents of this manual.

Address List

Project Developers: Olympic Greens Partnership
P.O. Box 179

Port Hadlock, WA 98339
Ph (360) 385-0480

Road and Drainage Engineer: Ryan Tillman, P.E.
Tillman Engineering, Inc.
PO Box 1375
Port Hadlock, WA 98339
Ph (360) 379-9661

Septic System Engineer: Ryan Tillman, P.E.
Tillman Engineering, Inc.
PO Box 1375
Port Hadlock, WA 98339
Ph (360) 379-9661

Septic Installer: Shold Excavating
P.O. Box 179
Port Hadlock, WA 98339
Ph. (360) 385-0480

Jefferson County Health Department: Larry Fay, Director
615 Sheridan Street
Port Townsend, WA 98368
(360) 385-9444

Monitoring: Jefferson County PUD No. 1
P.O. Box 929
Port Hadlock, WA 98339
(360) 385-5800

General Information

Legal Description: Parcel A: within the southwest quarter of the southeast quarter of Section 11, Township 29 North, Range 1 West W.M.(the west 12.5 acres of the North 3/4 less tax 29, 41 and 103; Assessor's Parcel # 901 024 001), and Parcel B: Tax 116 within Section 11, Township 29 North, Range 1 West (Assessor's Parcel # 901 024 083) Situated in Jefferson County, State of Washington. Assessor's Parcel Numbers: 901 024 001, 901 024 083

Water Supply: Water is supplied to the site by the Olympic Gravity Water System, Port Townsend Public Works Department.

Project Site: The project is located south of Ness' Corner Rd. and west of Christney Road in Port Hadlock.

Site Description: The site is an irregular shaped parcel approximately 17 acres in size composed of two contiguous parcels. The site has approximately 420 l.f. of frontage on Christney Road, a County Road. The site is currently vacant. For several years it was the source for gravel for the Cotton Concrete Plant in Port Hadlock. 2+ acres of the site is within a classified category III wetland. The topography of the site was altered as a result of the removal of gravel and also due to the recent road and utility work being done in conjunction with the development process.

The site is proposed to be platted into 53 residential sites, 2 community drainfield areas, and areas of open space and buffers. Access to the parcels will be provided by a new roadway commencing at the northeast corner of the parcel at Christney Rd. with an additional emergency access planned in the southeast corner also connecting to Christney Road.

We are proposing four community septic systems and drainfields serving 21-2 bedroom residences and divided as shown on the plan. System one will serve sites 1-10 and site 14 along the north and west portion of the development. System two will serve sites 45-47 along the south side of the development. System three will serve sites 35-37 in the central portion of the development. System four will serve sites 18, 19, 23 and 24 in the northeast corner of the development. Each individual site will require a permit from the Jefferson County Health Department to install an individual septic tank. A sewer line stub-out is provided for all the sites included in the community drainfield areas that require one (See Site Plan). In addition to the community septic systems, numerous sites within the development will be served by individual on-site septic systems that will require permits from the Jefferson County Health Department.

The development is served by the City of Port Townsend, Olympic Gravity Water System. A water commitment has been obtained from the City and the mains have been installed

Proposed septic systems for the 21 Lots are served by and accessed with easements and are described as follows:

System 1: Located as shown on the plan, this system will serve sites 1-10 and 14, each with a 2 bedroom residences proposed. This system type is a pressure trench drainfield.

System 2: Located as shown on the plan, this system will serve sites 35-37, each with a 2 bedroom residences proposed. This system type is a pressure trench drainfield.

System 3: Located as shown on the plan, this system will serve sites 45-47, each with a 2 bedroom residences proposed. This system type is a pressure trench drainfield.

System 4: Located as shown on the plan, this drainfield area will serve Lots 18, 19, 23 and 24, each with a 2 bedroom residences proposed. This system type is an unlined sand filter pressure bed drainfield.

Soil Conditions: The site is an area mapped by the SCS (pg. 45) as Hoypus gravelly sandy loam (HvC), Cassolary sandy loams (CfC), Clallam gravelly sandy loam (CmC),Belfast silty clay loam, wet variant (Bm), McMurray and Mukilteo peats (Mm) and Mukilteo peat, moderately shallow variant (Mu). Initial soil investigation of the site was conducted in March of 1994, by Susan Porto, R.S., of this office. Subsequent, in depth evaluations were conducted by Susan Porto and Tom Morello of Tillman Engineering and Linda Atkins of the Jefferson County Health Department in March and April of 1996. Further investigation of the site was conducted in September of 1996 by Tom Morello and Susan Porto, Tillman Engineering, Inc. with confirmation of the soil types and depths by Linda Atkins of the Jefferson County Health Department. Observed soil conditions across the site were not consistent. The best soils texturally were in the western portion of the site in the area designated for community drainfields 1,2 and 3. A general description of the soils within community drainfield areas 1,2 and 3 is medium sand to loamy sand with the Mukilteo and McMurray peats associated with the wetland to the west. The soils in the area designated for the system 4 drainfield are generally described as

coarse to medium gravelly sand overlain by fill of varying depths. Soils throughout the rest of the site ranged from very gravelly coarse sand to sticky, gray prominently mottled fine loam.

Location of the test holes are plotted on the attached site plan. Soil logs are attached

Vegetation: The site has been scalped of all vegetation in the area of the old pit used for gravel extraction. Wetland vegetation in the northwest corner of the site remains undisturbed with the exception of the stormwater outfall installation area. A minimum 25 foot wide buffer of vegetation is to remain around the perimeter of the property. The buffer is to be enhanced, where needed, by planting native vegetation.

System Design Information

Overview

The development is served by four community septic systems, Systems 1, 2,3 and 4, as well as individual on-site systems. Each of the community septic systems are required to have recorded easements for the transport lines and system components. System 1 is designed for a total of 11 residences, each having 2 bedrooms, utilizing a pressurized trench type septic system. System 2 is designed for a total of 3 residences, each having 2 bedrooms, utilizing a pressurized trench type septic system. System 3 is designed for a total of 3 residences, each having 2 bedrooms, utilizing a pressurized trench type septic system. System 4 is designed for a total of 4 residences, each having 2 bedrooms, utilizing an unlined sand filter pressurized bed type septic system.

These systems are divided into specific components. These components are discussed below.

Leasehold System Components

Description and specific design requirements of the **Leasehold** components are detailed below. These components shall be installed by the **System Owner** on each individual **Leasehold**.

- Collection System: Collection of waste water is achieved through the plumbing system in the residence, with a 4" outfall plumbed to the septic tank;

- The Septic Tank: Primary treatment is accomplished in the septic tank. Each **Leasehold** will be provided with its own septic tank. Siting of the septic tank is important to maintain setbacks and gravity flow from the residence. Tanks shall not be installed in areas potentially used for driving, parking, proposed outbuilding locations or where surface water may be directed. The individual septic tank shall be a two compartment tank, with a minimum liquid volume to accommodate a two bedroom residence per the current Washington State On Site Sewage System Regulations. Septic tanks shall be installed and equipped with a Zabel A 1800 Outlet Filter (or engineer approved equivalent). Risers to grade over the inlet and outlet of the septic tank shall be installed to facilitate access for pumping and maintenance of the filter.

  Prior to placement of the septic tank (and pump tank if needed), a permit shall be obtained from the Jefferson County Health Department, via submittal of an application at the Jefferson County Permit Center.

- Lift pump: In some cases, depending on the final home location, gravity from the septic tank to the collection sewer may not be feasible. A pump tank and lift pump, with appropriately sized transport pipe to the 6 inch gravity collection sewer stub or drainfield pump tank, will then be necessary. The **System Owner** must contact a licensed installer and/or the designer to assist in sizing of pump, pump tank, and to provide specifications on the control panel. All setback requirements must be maintained per WAC 246-272-09501. Pump tanks shall be installed with a riser to grade to access and maintain the pump and related equipment.

Where water line and sewer line setbacks are in conflict, construction requirements and minimum separations shall be maintained per Department of Ecology Criteria for Sewage Works Design. (see Appendix F)

Community System Components

Descriptions of the **Community System components** for Systems 1, 2, 3 and 4 are detailed below. These systems have been installed according to the plans and specifications; with modifications detailed in the as-built.(see Appendix A)

- Effluent Collection System:
  The effluent collection system consists of 4 or 6 inch sanitary sewer lines and associated clean-outs, stub outs, etc. located in the easements, as shown on the plan;

- The Pump Tanks:
  The pump tanks vary in size depending on the capacity of the system. The pump tanks and associated pumps and electrical controls for the four systems are located as shown on the as-built plan;

- Pressure Trench Drainfields:
  System 1: This drainfield is located in the community area, as shown on the as-built plan, and serves lots 1-10 and lot 14, each with 2 bedroom residences proposed. The drainfield is divided into four zones by the use of a distributing valve;

  System 2: This drainfield is located in the community area, as shown on the as-built plan, and serves Lots 45-47, each with 2 bedroom residences proposed. The drainfield is divided into two zones by the use of a distributing valve;

  System 3: This drainfield is located in the community area, as shown on the as-built plan, and serves Lots 35-37, each with 2 bedroom residences proposed. The drainfield is divided into two zones by the use of a distributing valve;

- Unlined Sand Filter Pressure Bed Drainfield
  System 4: This drainfield is located south of the main entrance and west of Christney Road, as shown on the as-built plan, and serves Lots 18,19,23 and 24, each with 2 bedroom residences proposed. The drainfield is divided into two zones by the use of a distributing valve.

COMPONENT FUNCTION AND OPERATION

Overview

Responsibility for maintenance of the septic systems is with the **System Owner**. The operation and function of each of these components are described in the following sections.

System Components

- Collection System:
  The collection of waste water begins in the home. Sinks, tubs, toilets, washing machines, and other appliances are connected by drain pipes to the building sewer. The building sewer is typically a 4 inch diameter, smooth- walled pipe that carries untreated wastewater to the septic tank. It is normally laid on a slope between two and twenty percent. Two percent is a minimum slope that keeps the water moving fast enough to keep the pipe clean. The actual design of the collection system is site specific. Maintenance of the collection system is discussed in this manual in the following section.

The Septic Tank:
To understand the treatment process that occurs in a septic tank, it is first important to know what it is that you are trying to accomplish. Household wastewater has a number of constituents that need to be reduced or eliminated prior to discharge into the environment.

A. Solids - This includes everything from dirt and grease, to toilet paper and excrement. Solids can clog the pores of soil and destroy its ability to transmit water.

B. Oxygen Demand - Normally, water carries a small amount of dissolved oxygen gas in it. However, in the wastewater generated in a

home, this oxygen is not only missing but there exists a deficiency of oxygen called OXYGEN DEMAND. This can be thought of as the amount of oxygen required to "burn" the wastes that are present. There are two parts to oxygen demand, chemical and biochemical. Chemical oxygen demand is a measure of the oxygen required to complete the process of a strong oxidation reaction, such as converting ammonia to its nitrate form. Biochemical oxygen demand is the amount of oxygen required by bacteria to digest its food, the organic matter that is present. Oxygen, which reduces oxygen demand, is critical to burning up the waste generated in the home and producing a pollution free discharge.

C. Growth Nutrients - Plant growth is a synthesis of five basic elements: carbon, hydrogen, oxygen, nitrogen and phosphorous. Carbon, hydrogen and oxygen are present all around us in chemically easy to use forms. Nitrogen makes up approximately 80 percent of the air we breathe but is in a form that is almost chemically inert and phosphorous is called growth limiting due to its relative rarity. In wastewater, nitrogen is available primarily as ammonia and is oxidized to nitrites and nitrates. Phosphorous in septic systems is a common product from soaps. A reduction of growth nutrients is important in much the same way a reduction of solids is. A growth mat of plant material, or biomass, forms in the aerobic treatment phase in a septic system. Too much plant growth inside the system can seal off the ability of soil to transmit water. Further, growth nutrients that enter surface waters cause excessive algae growth that can suffocate any organism living in the water.

D. Coliform Bacteria and other Pathogens -Fecal coliform is a bacteria that lives in human intestines and is excreted in the human feces. Pathogens, as used here, is a broad term used to indicate all other disease causing microorganisms. The reason removal of pathogens is important seems readily apparent in the elimination of a health hazard.

E. Water Volume - Water in itself can not be construed to be a health menace. Rather the menace comes from the effects created by overuse of water. Too much water can overload the soil and push water out of the surface, bringing bacteria and pathogens with it before they can decompose. Overuse can also keep the biomass from intermittent drying, greatly reducing the quality of the aerobic treatment process.

Primary treatment occurs in the septic tank. The septic tank acts primarily as a device to remove solids from the wastewater, but it also removes some phosphorous and begins the chemical digestion process. This tank is typically a reinforced concrete tank with an approximate capacity of 1000 gallons divided into two compartments by a wall or baffle. Wastewater from the building sewer enters the tank through an energy dissipater, usually a "tee", that the water hits, and is directed vertically down into the tank. Heavy solids sink to the bottom of the tank and light solids such as grease and soap scum float to the top. Here, in the absence of air, anaerobic bacteria and enzymes present in the human digestive system begin to break down the solids, producing a fine sludge in the bottom and a crusty scum on the top.

The wastewater flows in the zone between the scum and sludge toward the center of the tank. Liquids pass through the baffle and into the second half of the tank where the process is repeated. The solids are inhibited from exiting the tank by an outlet "tee" equipped with a fine mesh effluent filter. If the filter is not maintained and becomes plugged sewage may back up into the residence and/or surface around the tank or solids may escape the septic tank, be discharged into the drainfield and clog the pores of the soil.

- Lift Pump. In some cases, a pump tank may be needed on individual sites due to elevation differences that preclude a gravity flow to the sanitary sewer effluent collection line or the drainfield pump tank. The lift pump tank serves no treatment purpose, rather it conveys the effluent from the septic tank to the effluent collection sewer or drainfield pump tank. The pump operates via floats and a 'simplex' control panel with a dose counter. **(See Appendix E.)**

Effluent Collection System:

System 1: The effluent collection system for System 1 begins at the right of way stub outs for sites 1-10 and site 14. A 6 inch gravity collection sewer directs the effluent along the easements, to the pump tank. Clean-outs give access to the "ell's" in the effluent lines which direct the flow by gravity to the pump tanks which pressurize the drainfield.

System 2: The effluent collection system for System 2 begins at the right of way stub outs for sites 45-47. A 6 inch gravity collection sewer directs the effluent to the pump tanks which pressurize the drainfield.

System 3: The effluent collection system for System 3 begins at the right of way stub outs for sites 35-37. A 6 inch gravity collection sewer directs the effluent to the pump tanks which pressurize the drainfield.

System 4: The effluent collection system for System 4 begins at the right of way stub outs for sites 18, 19, 23 and 24. A 6 inch gravity collection sewer directs the effluent to the pump tanks which pressurize the drainfield.

- The Pump Tank: The effluent collection system collects the effluent from each of the lots and empties the effluent into a series of pump tanks fitted with a pump. The pump tanks serve no treatment purpose; rather they are necessary for regulating the flow of effluent to the drainfields. The pump tanks that pressurize the drainfields for each system are fitted with a single submersible pump which automatically doses the effluent, with the assistance of a distributing valve, between the various designated drainfield zones. The electrical components which control the sequential operation of the single submersible pump via a series of float switches and programmable timers is a simplexing control panel.

  A float turns on the timer when the specified level of effluent is reached in the tank. The timer controls the pump ensuring that the correct dose volume is metered out and that the correct interval between doses is maintained. The pump off float shall be set so that the level of effluent is above the top of the pump when it switches off. This ensures that the pump is always submerged in the effluent, thereby keeping it cool for increased life. The 'Alarm ON' switch is located in the tank at a level that sounds an audible and visible alarm if the water level gets too high in the tank. This is important to signal the **System Owner** in case of an over full condition indicating possible pump failure or other problems.

- Pressure Trench/Bed Drainfield. The pumps send the effluent to the drainfield zones discharging it evenly throughout, by a series of laterals with orifices. The drainfield is composed of trenches or beds with 9 inches of drain rock sized for the application. Small diameter PVC laterals with drilled orifices and orifice shields are suspended in the drain rock. When the pump is in operation, the effluent sprays upward out of the orifices, hitting the surface of the orifice shields and trickles through the drain rock and into the existing soil, percolating down through the depth of the soil layer. Most of the treatment occurred previously in the septic tank. However, the air space provided in the drain rock gives additional aerobic biological treatment to the effluent.

Further oxidation and filtration occurs in the drainfield as the polished effluent percolates down into the native soil. Again aerobic bacteria have a chance to contact materials in the effluent. At this point most pathogens will be removed and the cleansing job continues in further reducing the oxygen demand and converting nitrates to nitrogen gas. Again, dosing enhances the drying effects which in turn enhance oxidation, lowering the oxygen demand.

Disposal of the remaining water is accomplished after the wastewater has left behind the majority of its pollutants. Most of the water initially flows down through the native soil, spreading out and percolating down. Some water is taken up by plants and dispersed by evapotranspiration and some is wicked to the surface by capillary action and evaporates.

COMPONENTS MAINTENANCE

Overview

The responsibility for proper operation and maintenance of the septic systems rests with the **System Owner**.

The **System Owner** shall operate and maintain all components of the system. However, **Leaseholders** will make a large impact on the system maintenance requirements by how they utilize their facilities.

Leaseholder Maintenance Considerations

The care and maintenance of the system is not just occasional tasks and procedures, rather it is a lifestyle. When malfunctions occur, you can count on expensive repairs and a lot of inconvenience. Primary concerns are related

to the collection system and septic tank/pump tank monitoring, however, familiarity with the entire maintenance process is important for complete understanding. Considerations are as follows:

- Collection System:. The primary consideration for collection is to reduce input to the septic system.

1. Reduction of water

A. Use low discharge/water usage fixtures and appliances. Low volume toilets can be selected at most building supply houses, as can reduced flow shower nozzles and faucets.

B. Use washing machines with the ability to run partial loads at reduced water levels. Even better are front loading washers and washers that recycle the wash water.

C. Never discharge the contents of hot tubs, Jacuzzi tubs or water beds into the system. The system is not designed to handle such a large influx of water. Not only is the volume very great, but the speed that it enters the septic tank could wash sediments through to the distribution system. In addition, these units involve the use of high concentrations of anti-bacterial agents which destroy the necessary balance of organisms that function in the septic tank.

D. Avoid long faucet discharges while waiting for cold water to get cold, hot water to get hot, brushing teeth, etc.

E. Eliminate all leaks and drips immediately.

F. Maintain the water supply pressure at 40 psi or less. Lower pressure means lower flows.

G. Divert all roof drainage and any surface water away from the septic tank.

2. Reduction of Solids

A. Never use a garbage disposal. Food waste can not be tolerated in any amount more than incidental.

B. Always use a sink strainer basket and outlets to bathtubs and showers that eliminate hair, food, paper or other wastes.

C. Never dispose of solids in the system. Especially damaging are kitchen grease, tampons, sanitary napkins, Kleenex, paper towels, cloth, and disposable diapers. They do not decompose and can chemically alter the balance in the system.

D. Never use septic tank additives. Products that claim to have enzymes or bacteria that break down solids have a side effect that is potentially disastrous to your system. Research has shown that some of these products suspend solids in the wastewater, thereby transporting them to the drainfield. All your system needs to work efficiently is provided naturally by the human digestive tract and bacteria in the soil.

3. Reduction of Growth Nutrients and other Chemicals

A. The reduction of growth nutrients is primarily limited to reducing phosphorous through the use of low phosphate soaps, especially for clothes washing and dish washing.

B. A second strategy for reducing soap discharge may come from modifying the water supply. Iron filters and water softeners can reduce the amount of soap needed to produce a lather, thereby reducing the amount of phosphorous entering the system.

C. Chemicals of any nature should not be disposed of in the septic system. Especially bad are fertilizers because they add nitrogen and phosphorous, pesticides and herbicides as they add acids and alkalis, chlorine, cleaners, thinners, and any petroleum derivative or product. These chemicals can kill the bacteria that are at work in the system, and when that happens the whole system can and will fail. Minimal amounts of chlorine bleach in the washer are acceptable.

System Owner Maintenance Requirements

The **System Owner** is responsible for the proper operation, inspection, and maintenance of all of the components of the system, as described earlier. If the **Leaseholders** have done their best to feed and care for the system, operation and maintenance of the system should be minimal. The installer shall provide manufacturers recommendations for operation and maintenance of components. See the address list for installers name, phone number and address. The following checks shall be conducted every year for the life of the system.

System Owner Maintenance Duties

The primary concerns for **System Owner's** maintenance are related to septic and pump (lift) tanks, effluent collection, distribution-duplexing pumps to the drainfields, and the pressure trench/bed drainfields. Duties and responsibilities are as follows:

- The Septic Tank. As previously mentioned, you should minimize the disposal of solids into the system. Although some breakdown of solids does occur in the septic tank, it is necessary to periodically pump the tank to remove the accumulation of sludge and scum from the tank.

  The sludge, scum and outlet filter in the tank shall be inspected every year until an adequate monitoring frequency can be established. It should be clear that the dimensions stated below for depths of sludge and scum are minimums to be maintain. The consequence of washing sludge and scum into the drainfield can be severe and it is necessary that the tank be pumped prior to reaching these levels. Tanks shall be pumped at least every 5 years by a licensed pumper.

Book keeping required

Forms for documenting inspection dates and results are in **Appendix C.** These forms shall be completed yearly and submitted to the PUD for recording. There are two options for this inspection: A licenses septic tank pumper can be hired to complete the monitoring, pumping, cleaning and reporting or the **System Owner** can conduct these tasks, with the exception of pumping and cleaning of the tank. The following process of inspection is for the **System Owner,** should he choose to do the work:

1. Sludge Inspection

Use a long stick wrapped with a rough white towel that is lowered to the bottom of the tank through the top of the outlet riser. After several minutes the sludge depth will show as the level that particles adhere to the cloth. The tank should be pumped if the sludge is within 8 inches of the bottom of the outlet "tee" or baffle.

2. Scum Inspection

The scum level in the tank shall be measured with a stick or other device, normally equipped with a hinged flap. The stick is forced through the scum layer and withdrawn, noting the height of resistance indicating the bottom of the scum. The tank should be pumped if the scum layer is within 3 inches of the outlet.

3. Tee and Baffle Inspections

The condition of inlet, outlet and baffle devices must be inspected and repairs made if needed. These devices are usually constructed out of a PVC plastic pipe "tees". The tee on the inlet side of the tank reduces turbulence, enabling efficient settling in the first compartment of the tank. The tee on the outlet is fitted with a filter and prevents scum and sludge from exiting the tank, eliminating premature clogging of the system. There is also a baffle wall that separates the two compartments of the tank. This wall is a concrete partition with a PVC plastic "tee" poured in place during tank construction. All "tees" must be intact, firmly in place, and free of obstruction.

The Zabel filter installed in the outlet tee must be inspected and cleaned as needed to prevent a backup of the effluent into the residence or surfacing above the tank. The filter can be removed from the outlet baffle using the plastic handle. The fine mesh screen should be sprayed with a hose until clear of particulate matter.

4. Visual Inspections

Inspecting the surface of the ground around the tanks and over the drainfield can be an indicator as to proper function of these components. If the ground remains wet for extended periods, grasses over the area appear "fertilized" or growth is excessive, note these observations in your report form.

5. Water Usage Monitoring

Each lot is designed with maximum daily sewage flow at 240 gallons per day. Tracking your daily sewage flow using your water meter readings isn't entirely accurate because all the water that is used at your residence doesn't necessarily go into the septic system, i.e. watering the lawn, washing the car, or filling a hot tub. However, average usage can be determined using several months of water use records from the water meter especially during winter months. Your septic system is designed for peak use at 240 gallons per day, if your usage exceeds 80% of this volume or approximately 190 gallons in a day, it is time for you to conserve water and follow the suggestions above to reduce your water usage.

- Lift Pump and Tank (if applicable)

The lift pump and tank have mechanical and electrical components which will need to be inspected. Manually check the operation of the High Water Alarm Float, (the upper most float), and the On/Off floats. The pump run indicator and alarm sounding should correspond properly with the operation of the pump. The pump should deliver between 60-90 gallons per dose or cycle. This can be checked by adding water to the tank until the floats operate automatically turning on and off the pump. Measure the difference of the water level in the tank between the "on" level and the "off" level and multiply by equivalent gallons per inch (most 1000 gallon tanks are approximately 22 gallons per inch). If necessary, adjust the float setting by either shortening or lengthening the float tether. Check the electrical parts, wires and conduits for corrosion and/or damage.

The control panel shall have a dose counter, which cycles every time the pump comes on, providing an additional method of water use monitoring. Document the number of cycles on the forms provided in Appendix C every 2 months as specified in the monitoring forms.

Pump maintenance should follow the manufacturers recommendations provided by the pump installer.

- Effluent Collection System

  Periodically inspect for leaks, loose fittings and pipe integrity.

- Pump Tanks and Pumps

  1. Pump Tank Inspections

     A. Inspect the pump tanks for sludge build up. Record the sludge level, pumping date and other comments on the inspection forms provided.

     B. The plumbing should be inspected to detect plugs, leaks or other problems. Plumbing problems should be apparent during pump operation. (see pump section below)

     C. The high water alarm and, if applicable, low water alarm can be tested by manually lifting the upper float and lowering the bottom float while checking for the appropriate alarm activation. Never ignore a high or low water alarm; if it is activating incorrectly it should be fixed or replaced. It is the last safeguard to tell you something is wrong.

D. The proper float placement, pump run time and dose should be checked using the procedure outlined below in the pump section

E. Pump run indicator lights should correspond properly with operation of the pumps.

F. A check of all electrical parts and conduits for corrosion should be noted in the forms provided in Appendix D. Each control panel shall be supplied with dose counters which indicate the number of cycles for each pump. This number should be noted every 2 months and checked against the number at the time of as-built for determining proper dosing. The 2 pumps which dose system 1 are designed to activate 6 times per day, per pump, in order to dose the 4 zones, 3 times each. The single pumps that dose systems 2 and 3 are designed to activate 6 times per day, in order to dose the 2 zones per system, 3 times each. . The pump that doses system 4 is designed to activate 8 times per day, in order to dose the 2 zones, 4 times each.

G. Visually inspect the area around the pump tanks to ensure that all surface water is diverted away.

H. Lastly, but perhaps most important, is to make sure that the tank covers are secure so that there is no possibility of entry by children.

2. Pumps to the Drainfields

The pumps are arranged in different configurations for the various systems. The pump system for system 1 is a simplex system comprised of 1 pump dosing to a distributing valve that doses the individual zones. Dose volume for each zone is 225 gallons with 4 doses per day. Total design flow per day for the 4 zones is 2640 gallons. The pump systems for systems 2 and 3 are simplexing systems each pump pumping to distributing valves that dose the individual zones in the drainfields. Dose volume for each zone in the 2 systems is 100+/- gallons with 4 doses per day. Total design flow per day, for the 2 zones per system is 720 gallons. The pump system for system 4 is a simplex system comprised of 1 pump pumping to a distributing valve that doses the individual zones in

the drainfield. Dose volume for each zone in the system is 120 gallons with 4 doses per day. Total design flow per day, for the 2 zones is 960 gallons. All systm operations of the pumps are controlled via a simplexing control panel, the float switch mechanisms and timers. Pump operations and the systems piping may be checked by running the pump manually and automatically from the control panel in the following sequence:

A. Remove the inspection cover from the ports over the distal upward orifice in each of the laterals. Manually operate each pump to measure the height to which effluent sprays when the pump is manually turned on at the control panel and compare it to the spray height when the system was installed. Decreased height may indicate plugged lines or valves. Increased height may indicate plugged orifices, and intermittent discharge may indicate a partially obstructed polyethylene screen around the pump, problems with the floats or the pump itself. Be sure to activate the pump enough times to cycle through all of the zones served by the distribution valve.

B. The proper operation of the floats and timers can be checked by manually switching them to observe proper operation of the pumps. A small light in the timer will turn on when the timer is activated. A pamphlet regarding the timer operation is included in the information provided by the installer. One set of floats is wired to the two pumps in the duplexing system, with the control panel controlling the sequence of pump operation. It is critical to make sure that the correct dose is pumped as specified. Each zone is designed to receive a specified amount of effluent per dose. (see discussion on pumps above) Too large a dose resulting from timers being set incorrectly or malfunctioning can cause a premature failure to the drainfield. Dose volumes can be checked by measuring the effluent level from the top of the tank to the surface of the effluent at the time the timer switches the pump on. Time the dose and remeasure the effluent level at the time the pump turns off. When you subtract the on level from the off level you will then know the drawdown in inches. Compare this drawdown dose and timing with those documented at the time of the as built design. (See Appendix A for As-Builts) The drawdown measurement and timing should not have changed. If

changes in measurement of the dose volume is more than 1", then the floats should be reset to deliver the specified dose volume.

- Pressure Trench Drainfield Maintenance
  After construction, the drainfield should be planted to aid in evaporating water and oxygenating the soil. All vegetation should be kept trim and manageable. Mowing of drainfield shall be as needed to maintain vegetation, perhaps as often as weekly during the summer months. If lower maintenance landscaping is accomplished with vegetation other than grasses, rhododendrons and the like are preferred because they are not water-seeking

  The drainfield must be protected from any activity that could harm its function. The drainfield is not appropriate as a place for storage, buildings, decks, etc. Never allow digging by animals. Never allow livestock access to the drainfield or nearby areas.

  Be observant for increased runoff from uphill of the system. Divert all surface water runoff away from the drainfield. The dryer the system, the better. Erosion and slope stability should be carefully watched. Planting the area correctly can minimize erosion.

  It is critical to note "wet spots" or water surfacing from the system. Water surfacing means the native soil is overloaded or possibly clogged.

System Owner Maintenance Records

Fill out the maintenance forms provided in Appendix C. The above inspections must be performed and forms completed yearly. A copy of the form shall be submitted to the PUD and one form shall be retained by the **System Owner** for future reference. This form must be submitted to the PUD yearly and no less than every 2 years to avoid the PUD from taking on the responsibility and billing the **System Owner** for the costs.

FAILURES AND EMERGENCIES

System Owner Responsibilities

The information below is pertinent to the **Leaseholder** to enhance understanding of system problems and to serve as a conduit for informing the **System Owner** if failures are observed that the **System Owner** would not otherwise be aware of. Documentation of repairs must be made and forwarded to the PUD.(See Appendix C)

The **System Owner** shall undertake the responsibility for repairs of components.

Failures and emergencies fit into several categories:

- Plumbing and piping problems
- Pump failures
- Electrical malfunctions
- Drainfield failures

With any type of failure it is critical that the **Leasholder** stop using the system until the problems are corrected and the system is again functioning properly. With all failures, continued use results in either further damage, a health hazard, or a more difficult repair project.

- Plumbing and Piping Problems
  Plumbing and piping can be damaged during their life by being crushed from vehicles, torn out by backhoes, broken by freezing, if left exposed, and many other ways. In the distribution system there are several valves that can malfunction as well. Plugs must be cleared from the lines when they occur. Cleaning of the laterals can be accomplished by operation the pumps while the end caps are removed, allowing debris and sediment to be flushed out of the ends of the piping. Flushing of transports and manifolds can be accomplished in a similar manner. Access the effluent collection sewer through the clean outs as described earlier In most cases the repair of piping is a straight forward situation. Contact a licensed septic installer or designer to assist in diagnosis of problems if necessary.

- Pump failures
  Pump failure can occur if the pump overheats due to low effluent level in the pump tank. It is critical to realize that the environment that the pump operates in is quite corrosive, and no pump will stand up indefinitely. Most pump failures must be serviced by a trained pump serviceman.

- Electrical malfunctions
  If a electrical malfunction occurs in any portion of the system, alarms may activate, both visually and audibly, at the control panels. Electrical malfunctions associated with pumped sewage systems are sometimes related to improperly working floats. Again, the floats are in a very corrosive environment in the pump tank and do occasionally fail. If a float failure does occur it is important to make sure it is reset to the correct levels. Failures of the components in the control panel are rare, but are possible. Underground wires between the panel and pump tank are vulnerable to being severed by digging in the area.

- Drainfield failures
  This is the most serious of the types of failure that can occur. Immediately contact the Health Department, the Engineer, the Installer, and Jefferson County PUD. It is important that all of these parties are informed to deal with the failure in a responsible, efficient and accountable manner. In any event, do not disturb the existing drainfield. Sometimes drainfields can rehabilitate themselves given time, and even if a new drainfield must be installed the failed one may be usable as a backup or alternate. If the system has experienced a failure, it is very important to make sure that any excess effluent that is accumulated in the pump tanks is not discharged all at once to the drainfields upon restart. Either have the pump tanks pumped by a septic tank pumper or cycle the pump manually to produce the designed daily dose rate.

Appendix A System As Built

Amount of dose –
Height of spray –

AS-BUILT

INSPECTION REPORT

Inspector [illegible] **Permit #** SEP 96-[illegible]

Site Address OLYMPIC GREENS

Owners Name OLYMPIC GREENS PARTNERSHIP

Legal Description [illegible] R1W

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
SYSTEM 1	(11 LOTS) 1-10 & 14	
Septic Tank (baffles, etc.)	INDIVIDUAL [illegible]	
Pump Tank	(6) 1150 CONNECT AT BASE	3/19/97
Screen	PROPOSED ON OUTLET S.T.	
Floats	4 FLOATS SEE WIRING DIAGRAM	
Alarm	✓	5/7/97
Pump (include TDH)	GOULD WE 1512 H 1½ HP. 23V.	
Transport pipe	2"	
Manifold	2"	
Barrier Material	FILTER FABRIC	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	N/A	
Other (counter, timer)	COUNTER 68 RTM 44	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A.	
Orifice Spacing (Lat.# and Spacing)	3' 3/16	
Residual Head (Lat.# and ft. Head)	5' ALL	

Trench Width 3'

Trench Depth 20-24"

COMMENTS (changes from design or deficiencies in installation)

CONTROL PANEL LABEL #2

TIMER SET 3.0 MIN ON. - ASSUMES 756 P.M

6 HR OFF x 3 = 225 +/- G.P.D.

HYDROTECH VALVE MODEL V.6404 = 4-ZONES

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector [illegible] **Permit #** SEP96-0[illegible]

Site Address [illegible], CHRISTNEY RD

Owners Name [illegible]

Legal Description S. 2 T. 29N R 1W.

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
	SYSTEM #2 SERVES LOTS 45-46-47	
Septic Tank (baffles, etc.)	INDIV. ON SITE.	
Pump Tank	(2) [illegible]	3/19/97
Screen	PROPOSED ON OUTLET S.T.	
Floats	4 FLOATS (SEE WIRING DIAGRAM)	
Alarm	✓	
Pump (include TDH)	GOULD WEISIZ H. 1 1/2 HP 230V.	5/7/97
Transport pipe	2"	
Manifold	BLUE 2" ZONE 1 WHITE 2" ZONE 2	
Barrier Material	FILTER FABRIC	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	N/A	
Other (counter, timer)	COUNTER 65 RTM, 45	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A	
Orifice Spacing (Lat.# and Spacing)	[illegible]	
Residual Head (Lat.# and ft. Head)	5' ALL	
Trench Width		
Trench Depth		

COMMENTS (changes from design or deficiencies in installation)

ALL MANIFOLD ABOVE LATERALS

CONTROL PANEL LABEL # 4

TIMER SET 2.5 MIN — ASSUMES 6 HRS OFF. 406 G.P.D. = 100 GAL/DOSE

HYDROTECH VALVE MODEL V.6402

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector L. ATKINS **Permit #** SEP96-0340

Site Address OLYMPIC GREENS

Owners Name OLYMPIC GREENS PARTNERSHIP

Legal Description S-2 T 29N R 1 W.

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
SYSTEM 3 SERVES LOTS 35-36-37	(NO BAFFLE)	
Septic Tank (baffles, etc.)	INDIV ON EACH SITE	
Pump Tank	(2) [illegible] PUMP -	3/19/97
Screen	PROPOSED ON OUTLET OF ST.	
Floats	4 FLOATS (SEE WIRING DIAGRAGM	
Alarm	✓ WE	5/7/97
Pump (include TDH)	GOULD 1512 H 1½ HP 230V.	
Transport pipe	2"	
Manifold	Blue 2" to zone 1 White 2" to zone 2	
Barrier Material	Filter fabric	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	N/A	
Other (counter, timer)	COUNTER 71 RTM 77	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A	
Orifice Spacing (Lat.# and Spacing)	3 - 3/16	
Residual Head (Lat.# and ft. Head)	5' RES. ALL	

Trench Width _____

Trench Depth _____

COMMENTS (changes from design or deficiencies in installation)

[illegible] PANEL LABEL #3

TIMER SET 2.5MIN ON ASSUMES 40 G.P.M.

6 HRS. OFF x 2.5 = 100GPD +/-

HYDROTECH VALVE MODEL #V 6402

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector L. ATKINS **Permit #** SEP 96-C-11

Site Address CHRISTNEY RD. P.H.

Owners Name OLYMPIC GREENS PARTNERSHIP

Legal Description S 2 T 24 N R 1 W

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
SYSTEM 4. SERVICE LOTS	18-19-23-24	
Septic Tank (baffles, etc.)	INDIV. ON SITE.	
Pump Tank	(2) 1150 CITON	5/9/97
Screen	PROPOSE ON OUTLET OF S.T	
Floats	4 FLOATS (SEE WIRING DIAGRAM)	
Alarm	✓ WE	5/7/97
Pump (include TDH)	GOULD 1512 H ½ H.P. 230V	"
Transport pipe	2"	"
Manifold	2"	
Barrier Material	FILTER FABRIC	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	CITON	
Other (counter, timer)	COUNTER 42 RTM .38	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A.	
Orifice Spacing (Lat.# and Spacing)	2' 1/8" ORIFICES	
Residual Head (Lat.# and ft. Head)	7' ALL	
Trench Width	10'	
Trench Depth	42" X (2) ZONES.	

COMMENTS (changes from design or deficiencies in installation)

CONTROL PANEL LABEL #1

T MIN SET 2.5 MIN C.J ASSUMES 506 PM

6 HR OFF. X 2.5 =

HYDROTECH VALVE MODEL # V6402 1256 P.D

RECORD/ASBUILT DRAWING ATTACHED

SEWAGE DISPOSAL PERMIT
JEFFERSON COUNTY PERMIT CENTER
621 SHERIDAN STREET, PORT TOWNSEND, WA 98368 (360) 379-4450

PERMIT NUMBER:**SEP96-0338**

ISSUE DATE:02/24/97
DATE RECEIVED:10/31/96

Permit issued to CONSTRUCT, ALTER, REPAIR OR MODIFY AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN JEFFERSON COUNTY, WASHINGTON

ISSUED TO....: OLYMPIC GREENS PARTNERSHIP
P O BOX 179

PORT HADLOCK WA 98339

PARCEL NUMBER: 901024001 (Permit valid for this parcel ONLY)

LEGAL DESCRIPTION
Section: 02, Township 29 N, Range 01 West

Subdivision : Block : Lot(s):; lots 1 - 10 and lot 14, system #1

LOCATION.....: CHRISTNEY RD

DESIGNER.....: RYAN TILLMAN, PE

THIS PERMIT IS ISSUED FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED BELOW) IN ACCORDANCE WITH JEFFERSON COUNTY RULES AND REGULATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS, ORDINANCE NO. 1-83.

DATE OF EXPIRATION:**02/24/98** Linda Akes

Jefferson Co. Environmental Health Specialist.

The property owner will be responsible for the accurate location of all property lines. Any removal of or major disturbance of soil in the primary or reserve drainfield area may create site conditions that are unacceptable for the installation of a sewage disposal system. Any change in building or sewage disposal plans (including plumbing stubout location) and/or location of house or drainfield invalidates this permit unless prior approval is obtained from the Jefferson Co. Health Dept.

Issuance of a permit or renewal does not preclude the applicant from complying with all other state and local regulations.

HEALTH DEPARTMENT MUST BE CALLED FOR FINAL INSPECTION.

TYPE OF SYSTEM: PRESSURIZED TRENCH NO. OF BEDROOMS:22

-----Drainfield-------	----------Trench----------	-----Tank------
Length:220 ft.	Width:3.0 ft. Depth:24 in.	Size:6820 gal.

SPECIAL CONDITIONS MAY APPLY - SEE REVERSE

1) This community drainfield requires a management agreement with a third party guarantor with adequate funds set aside in an account to repair the system. The third party guarantor shall be the PUD #1 and will take over management and operation of the system if so directed by the Jefferson County Environmental Health Div.

2) Individual lots shall obtain a permit from Jefferson Co. to install a septic tank to serve the residence. Each tank shall have risers to grade over the inlet and outlet, The inlet riser shall be 24". AN OUTLET BAFFLE FILTER IS REQUIRED ON EACH SEPTIC TANK.

3) AS PER WAC 246-272 ALL ALTERNATIVE SYSTEMS REQUIRE MONITORING. THIS MONITORING IS PROVIDED BY AGREEMENT BETWEEN THE JEFFERSON COUNTY ENVIRONMENTAL HEALTH DIVISION AND THE JEFFERSON COUNTY PUBLIC UTILITY DISTRICT #1. THIS SEWAGE DISPOSAL SYSTEM WILL REQUIRE AN ACTIVE MONITORING CONTRACT WITH THE PUD #1 PRIOR TO FINAL APPROVAL OF THE SEWAGE DISPOSAL SYSTEM.

4) Health Dept. required to observe pressure test, 48 hour notice to be given.

5) 100 ft. setback to all wells to be maintained

6) 10 ft. setback required between water lines and effluent lines. If this setback cannot be met, the DOE Guidelines shall be followed.

7) MAXIMUM TRENCH DEPTH 24 INCHES

8) All components of the septic system are to be completely protected from vehicular traffic or mechanical disturbance. Protective barriers are required around drainfield.

9) Dose counters are required in the control panel for all drainfield components.

10) Divert all sources of drainage away from septic tank and drainfield area.

11) Any portion of transport line under a driven way is to be double cased or equivalent.

12) Asphaultic emulsion or equivalent required on septic tank and/or pump chamber.

13) Approval/issuance of a sewage disposal permit does not guarantee the approval of other development or a building permit on this site. Compliance with other Jefferson County and Washington State Codes is required.

14) Approval of this sewage disposal permit does not preclude the permit holder from complying with the Critical Areas Ordinance for other development on the site.

15) This onsite sewage system is designed for domestic strength waste water only. Disposal of any other waste streams is considered a violation of this permit.

SEWAGE DISPOSAL PERMIT
JEFFERSON COUNTY PERMIT CENTER
621 SHERIDAN STREET, PORT TOWNSEND, WA 98368 (360) 379-4450

PERMIT NUMBER:**SEP96-0339**

ISSUE DATE:02/24/97
DATE RECEIVED:10/31/96

Permit issued to CONSTRUCT, ALTER, REPAIR OR MODIFY AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN JEFFERSON COUNTY, WASHINGTON

ISSUED TO....: OLYMPIC GREENS PARTNERSHIP
P O BOX 179

PORT HADLOCK WA 98339

PARCEL NUMBER: 901024001 (Permit valid for this parcel ONLY)

LEGAL DESCRIPTION
Section: 02, Township 29 N, Range 01 West

Subdivision : Block : Lot(s):; Lots 45 - 46 - 47, system 2

LOCATION.....: CHRISTNEY RD

DESIGNER.....: RYAN TILLMAN, PE

THIS PERMIT IS ISSUED FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED BELOW) IN ACCORDANCE WITH JEFFERSON COUNTY RULES AND REGULATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS, ORDINANCE NO. 1-83.

DATE OF EXPIRATION:**02/24/98**

Jefferson Co. Environmental Health Specialist.

The property owner will be responsible for the accurate location of all property lines. Any removal of or major disturbance of soil in the primary or reserve drainfield area may create site conditions that are unacceptable for the installation of a sewage disposal system. Any change in building or sewage disposal plans (including plumbing stubout location) and/or location of house or drainfield invalidates this permit unless prior approval is obtained from the Jefferson Co. Health Dept.

Issuance of a permit or renewal does not preclude the applicant from complying with all other state and local regulations.

HEALTH DEPARTMENT MUST BE CALLED FOR FINAL INSPECTION.

TYPE OF SYSTEM: PRESSURIZED TRENCH NO. OF BEDROOMS: 6

-----Drainfield-------	----------Trench----------	-----Tank------
Length:240 ft.	Width:3.0 ft. Depth:24 in.	Size:2250 gal.

SPECIAL CONDITIONS MAY APPLY - SEE REVERSE

1) This community drainfield requires a management agreement with a third party guarantor with adequate funds set aside in an account to repair the system. The third party guarantor shall be the PUD #1 and will take over management and operation of the system if so directed by the Jefferson County Environmental Health Div.

2) Individual lots shall obtain a permit from Jefferson Co. to install a septic tank to serve the residence. Each tank shall have risers to grade over the inlet and outlet, the inlet riser shall be 24". AN OUTLET BAFFLE FILTER IS REQUIRED ON EACH SEPTIC TANK.

3) AS PER WAC 246-272 ALL ALTERNATIVE SYSTEMS REQUIRE MONITORING. THIS MONITORING IS PROVIDED BY AGREEMENT BETWEEN THE JEFFERSON COUNTY ENVIRONMENTAL HEALTH DIVISION AND THE JEFFERSON COUNTY PUBLIC UTILITY DISTRICT #1. THIS SEWAGE DISPOSAL SYSTEM WILL REQUIRE AN ACTIVE MONITORING CONTRACT WITH THE PUD #1 PRIOR TO FINAL APPROVAL OF THE SEWAGE DISPOSAL SYSTEM.

4) Health Dept. required to observe pressure test, 48 hour notice to be given.

5) 100 ft. setback to all wells to be maintained

6) 10 ft. setback required between water lines and effluent lines. If this setback cannot be met, the DOE Guidelines shall be followed.

7) MAXIMUM TRENCH DEPTH 24 INCHES

8) All components of the septic system are to be completely protected from vehicular traffic or mechanical disturbance. Protective barriers are required around drainfield.

9) Dose counters are required in the control panel for all drainfield components.

10) Divert all sources of drainage away from septic tank and drainfield area.

11) Any portion of transport line under a driven way is to be double cased or equivalent.

12) Asphaultic emulsion or equivalent required on septic tank and/or pump chamber.

13) Approval/issuance of a sewage disposal permit does not guarantee the approval of other development or a building permit on this site. Compliance with other Jefferson County and Washington State Codes is required.

14) Approval of this sewage disposal permit does not preclude the permit holder from complying with the Critical Areas Ordinance for other development on the site.

15) This onsite sewage system is designed for domestic strength waste water only. Disposal of any other waste streams is considered a violation of this permit.

SEWAGE DISPOSAL PERMIT
JEFFERSON COUNTY PERMIT CENTER
621 SHERIDAN STREET, PORT TOWNSEND, WA 98368 (360) 379-4450

PERMIT NUMBER:**SEP96-0340**

ISSUE DATE:02/24/97
DATE RECEIVED:10/31/96

Permit issued to CONSTRUCT, ALTER, REPAIR OR MODIFY AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN JEFFERSON COUNTY, WASHINGTON

ISSUED TO....: OLYMPIC GREENS PARTNERSHIP
P O BOX 179

PORT HADLOCK WA 98339

PARCEL NUMBER: 901024001 (Permit valid for this parcel ONLY)

LEGAL DESCRIPTION
Section: 02, Township 29 N, Range 01 West

Subdivision : Block : Lot(s):; LOTS 35 - 36 - 37, system #3

LOCATION.....: CHRISTNEY RD

DESIGNER.....: RYAN TILLMAN, PE

THIS PERMIT IS ISSUED FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED BELOW) IN ACCORDANCE WITH JEFFERSON COUNTY RULES AND REGULATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS, ORDINANCE NO. 1-83.

DATE OF EXPIRATION:**02/24/98**

Jefferson Co. Environmental Health Specialist.

The property owner will be responsible for the accurate location of all property lines. Any removal of or major disturbance of soil in the primary or reserve drainfield area may create site conditions that are unacceptable for the installation of a sewage disposal system. Any change in building or sewage disposal plans (including plumbing stubout location) and/or location of house or drainfield invalidates this permit unless prior approval is obtained from the Jefferson Co. Health Dept.

Issuance of a permit or renewal does not preclude the applicant from complying with all other state and local regulations.

HEALTH DEPARTMENT MUST BE CALLED FOR FINAL INSPECTION.

TYPE OF SYSTEM: PRESSURIZED TRENCH NO. OF BEDROOMS: 6

-----Drainfield-------	----------Trench----------	-----Tank------
Length:240 ft.	Width:3.0 ft. Depth:24 in.	Size:2250 gal.

SPECIAL CONDITIONS MAY APPLY - SEE REVERSE

1) This community drainfield requires a management agreement with a third party guarantor with adequate funds set aside in an account to repair the system. The third party guarantor shall be the PUD #1 and will take over management and operation of the system if so directed by the Jefferson County Environmental Health Div.

2) Individual lots shall obtain a permit from Jefferson Co. to install a septic tank to serve the residence. Each tank shall have risers to grade over the inlet and outlet, the inlet riser shall be 24". AN OUTLET BAFFLE FILTER IS REQUIRED ON EACH SEPTIC TANK.

3) AS PER WAC 246-272 ALL ALTERNATIVE SYSTEMS REQUIRE MONITORING. THIS MONITORING IS PROVIDED BY AGREEMENT BETWEEN THE JEFFERSON COUNTY ENVIRONMENTAL HEALTH DIVISION AND THE JEFFERSON COUNTY PUBLIC UTILITY DISTRICT #1. THIS SEWAGE DISPOSAL SYSTEM WILL REQUIRE AN ACTIVE MONITORING CONTRACT WITH THE PUD #1 PRIOR TO FINAL APPROVAL OF THE SEWAGE DISPOSAL SYSTEM.

4) Health Dept. required to observe pressure test, 48 hour notice to be given.

5) 100 ft. setback to all wells to be maintained

6) 10 ft. setback required between water lines and effluent lines. If this setback cannot be met, the DOE Guidelines shall be followed.

7) MAXIMUM TRENCH DEPTH 24 INCHES

8) All components of the septic system are to be completely protected from vehicular traffic or mechanical disturbance. Protective barriers are required around drainfield.

9) Dose counters are required in the control panel for all drainfield components.

10) Divert all sources of drainage away from septic tank and drainfield area.

11) Any portion of transport line under a driven way is to be double cased or equivalent.

12) Asphaultic emulsion or equivalent required on septic tank and/or pump chamber.

13) Approval/issuance of a sewage disposal permit does not guarantee the approval of other development or a building permit on this site. Compliance with other Jefferson County and Washington State Codes is required.

14) Approval of this sewage disposal permit does not preclude the permit holder from complying with the Critical Areas Ordinance for other development on the site.

15) This onsite sewage system is designed for domestic strength waste water only. Disposal of any other waste streams is considered a violation of this permit.

SEWAGE DISPOSAL PERMIT
JEFFERSON COUNTY PERMIT CENTER
621 SHERIDAN STREET, PORT TOWNSEND, WA 98368 (360) 379-4450

PERMIT NUMBER:**SEP96-0341**

ISSUE DATE:02/24/97
DATE RECEIVED:10/31/96

Permit issued to CONSTRUCT, ALTER, REPAIR OR MODIFY AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN JEFFERSON COUNTY, WASHINGTON

ISSUED TO....: OLYMPIC GREENS PARTNERSHIP
P O BOX 179

PORT HADLOCK WA 98339

PARCEL NUMBER: 901024001 (Permit valid for this parcel ONLY)

LEGAL DESCRIPTION
Section: 02, Township 29 N, Range 01 West

Subdivision : Block : Lot(s):; LOTS 18 - 19 - 23 - 24, system #4

LOCATION.....: CHRISTNEY RD

DESIGNER.....: RYAN TILLMAN, PE

THIS PERMIT IS ISSUED FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED BELOW) IN ACCORDANCE WITH JEFFERSON COUNTY RULES AND REGULATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS, ORDINANCE NO. 1-83.

DATE OF EXPIRATION:**02/24/98**

Jefferson Co. Environmental Health Specialist.

The property owner will be responsible for the accurate location of all property lines. Any removal of or major disturbance of soil in the primary or reserve drainfield area may create site conditions that are unacceptable for the installation of a sewage disposal system. Any change in building or sewage disposal plans (including plumbing stubout location) and/or location of house or drainfield invalidates this permit unless prior approval is obtained from the Jefferson Co. Health Dept.

Issuance of a permit or renewal does not preclude the applicant from complying with all other state and local regulations.

HEALTH DEPARTMENT MUST BE CALLED FOR FINAL INSPECTION.

TYPE OF SYSTEM: PRESSURIZED BED NO. OF BEDROOMS: 8

-----Drainfield-------	----------Trench----------	-----Tank------
Length:80 ft.	Width:10.0 ft. Depth:24 in.	Size:2880 gal.

SPECIAL CONDITIONS MAY APPLY - SEE REVERSE

1) This community drainfield requires a management agreement with a third party guarantor with adequate funds set aside in an account to repair the system. The third party guarantor shall be the PUD #1 and will take over management and operation of the system if so directed by the Jefferson County Environmental Health Div.

2) Individual lots shall obtain a permit from Jefferson Co. to install a septic tank to serve the residence. Each tank shall have risers to grade over the inlet and outlet, the inlet riser shall be 24". AN OUTLET BAFFLE FILTER IS REQUIRED ON EACH SEPTIC TANK.

3) AS PER WAC 246-272 ALL ALTERNATIVE SYSTEMS REQUIRE MONITORING. THIS MONITORING IS PROVIDED BY AGREEMENT BETWEEN THE JEFFERSON COUNTY ENVIRONMENTAL HEALTH DIVISION AND THE JEFFERSON COUNTY PUBLIC UTILITY DISTRICT #1. THIS SEWAGE DISPOSAL SYSTEM WILL REQUIRE AN ACTIVE MONITORING CONTRACT WITH THE PUD #1 PRIOR TO FINAL APPROVAL OF THE SEWAGE DISPOSAL SYSTEM.

4) Health Dept. required to observe pressure test, 48 hour notice to be given.

5) 100 ft. setback to all wells to be maintained

6) 10 ft. setback required between water lines and effluent lines. If this setback cannot be met, the DOE Guidelines shall be followed.

7) MAXIMUM TRENCH DEPTH 24 INCHES

8) Drainlines are to be installed along the natural contours.

9) Dose counters are required in the control panel for all drainfield components.

10) Divert all sources of drainage away from septic tank and drainfield area.

11) Any portion of transport line under a driven way is to be double cased or equivalent.

12) Asphaultic emulsion or equivalent required on septic tank and/or pump chamber.

13) Approval/issuance of a sewage disposal permit does not guarantee the approval of other development or a building permit on this site. Compliance with other Jefferson County and Washington State Codes is required.

14) TRENCH TO BE EXCAVATED TO DEPTH AS PER DESIGN AND THEN BACKFILLED WITH ASTM 33 TYPE SAND TO 24" FOR DRAINFOCK BED.

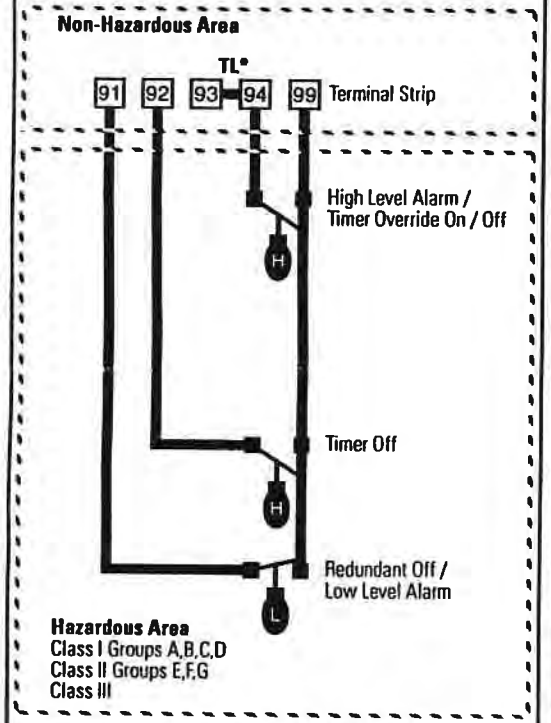
15) Approval of this sewage disposal permit does not preclude the permit holder from complying with the Critical Areas Ordinance for other development on the site.

16) This onsite sewage system is designed for domestic strength waste water only. Disposal of any other waste streams is considered a violation of this permit.

Float Arrangement Diagram

Check the appropriate box for the float arrangement used in your system.

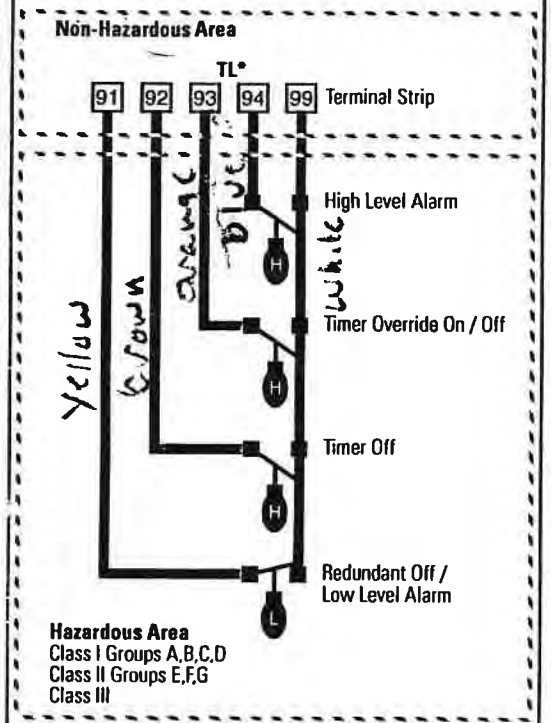
MF-2HL



***Terminal Link Rail is required (factory default). See Panel Wiring Diagram for instructions.**

For splice connections, see Splice Box Wiring Diagram **EDW-SB-S-517**

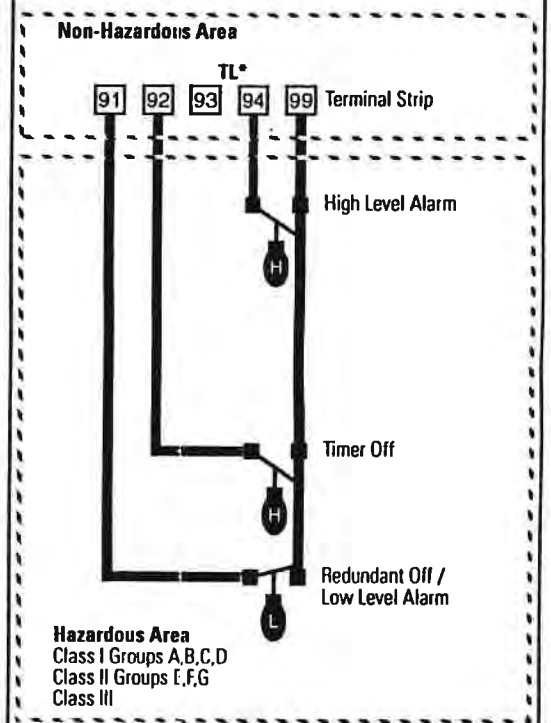
MF-3HL



***Remove pre-installed Terminal Link Rail from terminals. See Panel Wiring Diagram for instructions.**

For splice connections, see Splice Box Wiring Diagram **EDW-SB-S-518**

MF-2HL



***Remove pre-installed Terminal Link Rail from terminals. See Panel Wiring Diagram for instructions.**

For splice connections, see Splice Box Wiring Diagram **EDW-SB-S-516**

Control Panel Series

S IR2 PT RO

Drawing No.

EDW-FA-S-504

Orenco Systems Incorporated

814 AIRWAY AVENUE

SUTHERLIN, OREGON

97479-9012

TELEPHONE:

(541) 459-4449

FACSIMILE:

(541) 459-2884

EDW-FA-S-504
Rev 1.1 ©12/16/96

Installation Manual

Intrinsically Safe Control Panel
S2 IR2 PT RO
Manual# EIN-CP-IR-508

Orenco Systems®
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

TELEPHONE:
(541) 459-4449

FACSIMILE:
(541) 459-2884

This Manual Contains:

Description	Document Number
1. Installation Instructions	EIN-CP-IR-1
2. Stahl Installation Instructions	EIN-CP-IR-3
3. Septic Tank Electrical Equipment Class 1 Division 1	EDA-CP-IR-2
4. Septic Tank Electrical Equipment Notes	EDA-CP-IR-6
5. Panel Wiring Diagram	EDW-WD-S-508
6. Float Arrangement Diagram	EDW-FA-S-504
7. Splice Box Wiring Diagram	EDW-SB-S-516
8. Splice Box Wiring Diagram	EDW-SB-S-517
9. Splice Box Wiring Diagram	EDW-SB-S-518
10 . Testing Instructions	EIN-CP-IR-2

Installation Instructions

Stahl Intrinsically Safe Controls

Orenco Systems®
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

TELEPHONE:
(541) 459-4449

FACSIMILE:
(541) 459-2884

Before Installing Panel

1. ***Read all instructions before proceeding with the installation. Improper installation may void warranties.***

2. Inspect your order for completeness and inspect each component for shipment damage. If something is missing or damaged, you will need to contact your supplier to obtain replacements.

3. Check to be sure the instructions and items supplied comply with state and local regulations.

4. A qualified electrician must be employed to install and service the panel and ancillary wiring. The equipment must be installed in compliance with the National Electric Code, state and local codes. Intrinsically safe wiring and explosion proof fittings must be installed according to NEC sections 500-516. The control panel uses Stahl intrinsically safe sensors. Please refer to the Stahl Installation guide for notes on installing the circuits.

Placement of the Control Panel

5. Install the electrical control or alarm panel within view of the tank. The panel should be attached to a post, or to an exterior wall. Panels that contain motor contactors should not be mounted to an exterior wall unless the mounting method includes sound deadening. If possible, position the panel in the shade and protect from weather. Very hot or cold temperatures can cause variations in the performance of the electrical components. Locate the panel at a convenient height (usually about five feet above the ground) and where it will be accessible for maintenance. ***Note: Panel must be situated in a non-hazardous area, where there is no chance that an explosive atmosphere will exist at any time.***

Install Floats and Pumps

6. Install the electrical splice boxes for the floats and pump(s) before installing the actual floats and pumping equipment. The splice boxes are installed in the grommets provided near the top of the access riser. Please refer to Drawing "Septic Tank Electrical Equipment: Class I Division 1" for a typical installation.

7. Install the floats. Thread the float cords through the cord grips into the PVC splice box, leaving adequate lengths of electrical cord coiled inside the riser to allow easy removal of the float assembly. Tighten the cord grips *by hand not by tool,* then check the tightness of the cord grips by tugging on each cord. A cord is secure and the connection watertight when the cord grip is tight enough to prevent slippage. Adequate lengths of cord should be left within the splice box to allow for easy removal for future disconnecting and re-splicing.

8. Run the wires from the control panel to the splice box. The wires can be brought through a conduit, or direct buried using a suitable direct-burial wire. The conduit that enters the splice box must be sealed with a conduit seal. A conduit seal should be used even if the wires are direct-buried, to prevent the infiltration of water into the splice box. The number of wires required depends on the control panel, and the number of floats used. This can

be determined by consulting the Splice Box Wiring diagram appropriate for the control panel and float arrangement that you are using. Wire should be sized at 14 AWG for the float wires.

Note: These wires will be connected to an intrinsically safe circuit. Under no circumstances should intrinsically safe wiring and non-intrinsically safe wiring be run in the same conduit or mixed in the junction box unless they are separated by a distance of 2 inches (50.8 mm) and secured, or a grounded metal barrier .

Wires should be color coded, or otherwise marked to aid in wiring the control panel. Drawing ETD-CP-FF-3 lists recommended colors for each of the wires. Wire colors could be either the color of the wire's insulation, or the color of a tag or electrical tape.

9. All splices made in the splice box should be done using waterproof wire nuts or butt connectors and heat shrink tubing. The splices **must** be waterproof! Splices that are not waterproof may cause a malfunction of the pump controls if water should leak into the splice box. Please refer to Drawing EIN-SB-SB-1 for instructions on making waterproof splices. Please refer to the appropriate Splice Box Wiring diagram for instructions on how to connect the floats together.

10. Install the pump(s). In a Class I, Division 1 wet well, the pump cords must be connected to an explosion proof junction box. The cords themselves must be connected to a UL listed explosion proof cord connector, or an explosion proof plug and receptacle. The wires can be brought through a conduit, or direct buried using a suitable direct-burial wire. The conduit that enters the splice box must be sealed with a conduit seal. A conduit seal should be used even if the wires are direct-buried, to prevent the infiltration of water into the splice box.

The number of wires required depends on the number of pumps used. Please refer to the chart at the end of these instructions to determine the proper size for the pump wires. To calculate the wire size, take into consideration the length and size of the branch circuit wires from the service entrance panel to the pump control panel. Wire that is undersized can cause an excessive voltage drop and poor pump performance. ***Note: These wires will be carrying high voltage, and must not be mixed with intrinsically safe wiring.***

Connect the Control Panel

11. Connect the wires coming from the floats to the intrinsically safe relay terminals in the control panel. Please refer to the appropriate Float Arrangement diagram, or Splice Box Wiring diagram for the correct terminal connections.

12. Connect the wires coming from the pump(s) to the pump terminals. Please refer to the panel wiring diagram for the correct terminal connections.

13. Connect the incoming power to the panel. Power to the panel must be appropriate to the control panel and pump motor (i.e. 120VAC, single phase for a 120 VAC motor, 240 VAC single phase for a 240 VAC motor, etc.) Insure that the panel is properly grounded, and that the fuse or breaker and wire size from the main power panel, and to the pump are sized correctly. A separate circuit for both the pump controls and each of the pump motors is recommended. Note: The voltage for the controls in the panel is always 120VAC, although the pump voltage may be 120VAC or 240 VAC.

14. Use 60° CU conductors only. Torque the terminal blocks to 7.1 LB-IN. Torque the circuit breaker and ground lugs to 45 LB-IN.

15. When power is applied to the control panel, the wires to the pump may be energized. ***Do not service the pump or any electrical wiring in the pump vault without disconnecting the power at the circuit breaker(s) and the fuse. The pump vault area is a hazardous area, and may contain explosive gases. Take appropriate precautions before working in the pump vault.***

16. Once the control panel and pump are installed and wired, the system should be tested. Follow the testing procedure provided.

17. If you have any questions please contact Orenco Systems, Inc.

Recommended Breaker & Wire Size

Pump Motor Size	Breaker size	Wire Size	MaxDistance*
115 VAC 1/3 hp	20 amp	12 AWG	210 ft
1/2 hp	20 amp	12 AWG	160 ft
230 VAC 1/2 hp	15 amp	14 AWG	400 ft
1 hp	20 amp	12 AWG	400 ft
1 1/2 hp	20 amp	12 AWG	310 ft

* This is the maximum distance from the main power panel to the pump motor for the recommended wire size. If actual distance is greater than the listed maximum, or more than one pump is on the circuit, then a larger gauge of wire must be used. If the actual distance is close to the maximum distance, then it is recommended that the larger gauge wire be used.

Installation of Intrinsically Safe Systems

It is important that the installer of an intrinsically safe system reference the requirements of the "authority having jurisdiction" at the installation site. In the United States reference should be made to Article 504 of the National Electrical Code, the ISA RP 12.6 and the manufacturer's control drawing.

Where possible, associated apparatus should be mounted and grounded in a safe area as near to the hazardous area as possible. This will minimize the length of intrinsically safe conductors within the nonhazardous location, thereby lessening the possibility of inadvertent connection of nonintrinsically safe energy to the protected circuit. R. Stahl recommends that associated apparatus be mounted and installed within dust and moisture free enclosures. While this requirement is not part of any referenced standard it should be remembered that dust and moisture are conductive and can lessen the required distance (≥ 2" or 50 mm) between intrinsically safe and nonintrinsically safe conductors. Further, as shown in Figure 10, the panel layout of these enclosures should be constructed so that the separation of intrinsically safe and nonintrinsically safe conductors is maximized.

In cases where it is necessary or desired to mount associated apparatus within a Division 1 hazardous location they must be placed within an enclosure suited for that environment, i.e., explosionproof or purged. In such instances, the requirements relative to those systems and installations must be adhered to. For installation within a Division 2 hazardous location reference should be made to the approval report of the respective testing agency.

It should always be remembered that whether it is in the nonhazardous location or within the hazardous location, intrinsically safe wiring must be installed, maintained and repaired with consideration to the following:

- Nonintrinsically safe wiring should never be connected to the intrinsically safe terminations of any associated apparatus, usually identified with blue.
- Intrinsically safe wiring must enter or leave the nonhazardous location by the shortest and most direct route.
- A clearance distance of at least 2 inches (50 mm) must be reliably maintained between any nonintrinsically safe conductors and any intrinsically safe wiring or terminations.
- Raceways should be used to keep intrinsically safe wire and nonintrinsically safe wire separated. Wire lacing or ties are acceptable as well.
- Intrinsically safe conductors must be identified either by color coding with light blue jacketed cable or by tagging, at regular intervals, which the NEC identifies as every 25 feet.

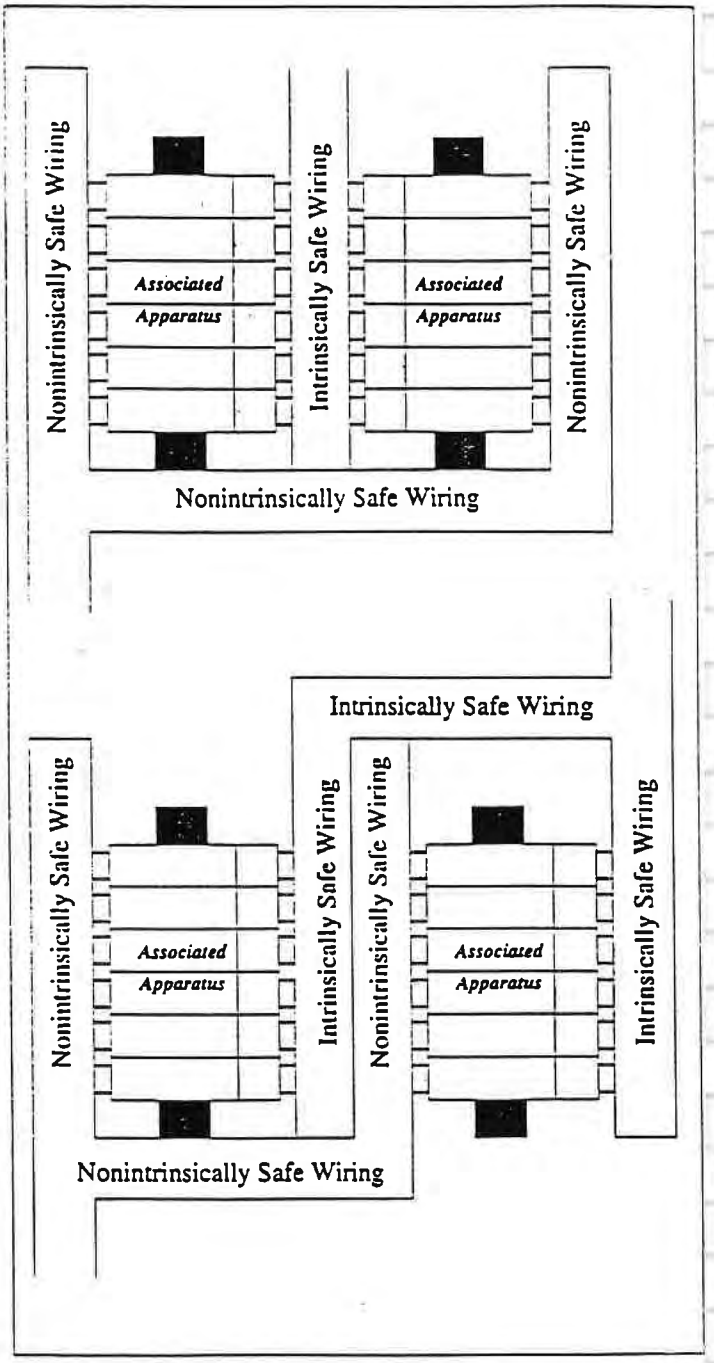


Figure 10. Recommended methods of seperation between intrinsically safe and nonintrinsically safe wiring.

Septic Tank Electrical Equipment
Class I Division 1
Splice Box inside Tank Riser

① **Access box w/ Fiberglass Lid**
as per NEC 501-5 (c)(1). Sealing fittings will be accessible.

② **Sealing Fitting**
as per NEC 501-5 (a)(4). Sealing required on conduit leaving a Class I Division 1 area.

③ **Rigid Metal Conduit**
as per NEC 501-4 (a) and 501-5 (a)(4). No fittings are allowed between riser wall and seal fitting.

④ **PVC Splice Box**
allowed as per NEC 504-20. Intrinsically safe apparatus may use wiring methods suitable for unclassified areas. The box and the cord grips must be listed for wet locations or better. All splices must be waterproof.

⑤ **Explosionproof Splice Box**
as per NEC 501-4 (a). All boxes, fittings and joints shall be threaded and explosionproof.

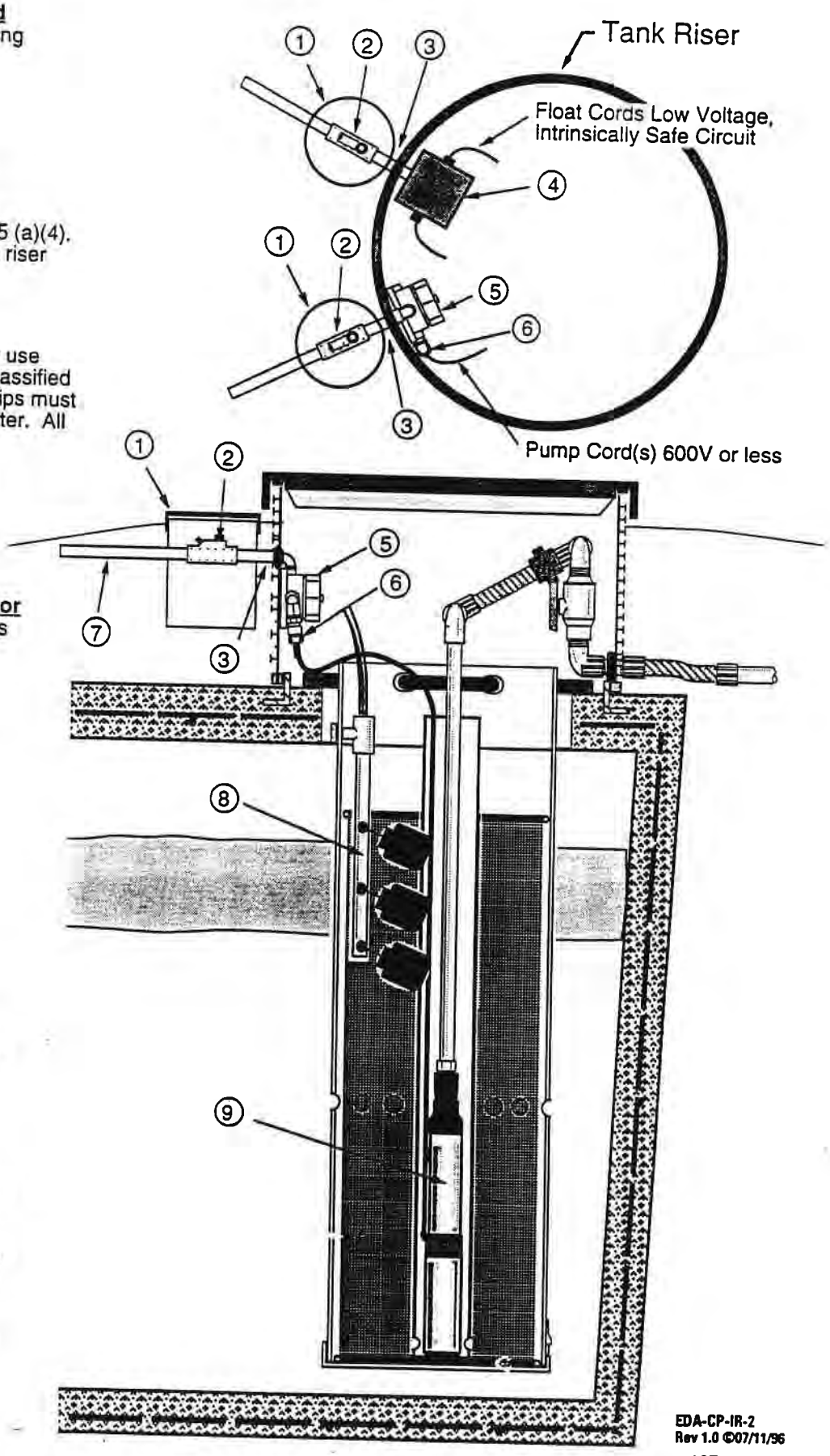
⑥ **Explosionproof Cord Connector**
Connector for flexible cord that is rated for Class I Division I environments.

⑦ **Conduit or Direct Buried**
As per NEC 300-5 (a). Conduit must be buried to a minimum depth of 6" if rigid metallic conduit is used, or 18" if nonmetallic conduit is used. If the wires are direct buried, they must be buried to a minimum of 24".

Wires must be appropriately sized for the amperage draw and distance run.

⑧ **Floats**
allowed as per NEC 504-20. Intrinsically safe apparatus may use wiring methods suitable for unclassified areas.

⑨ **Pumps**
As per NEC 501-11. Flexible cords are permitted for connection to portable utilization equipment. Pump cords are 600V or less and must be rated for extra hard usage. Pumps are required to be UL or CSA listed for use as effluent pumps. Explosionproof pumps are required unless a redundant off float is used.



- Nonhazardous location electrical equipment must not contain a source voltage greater than 250V unless sufficient means have been employed to prevent the shorting of a source voltage greater than 250V onto the nonintrinsically safe terminals of the associated apparatus.

- Conductors may be part of a multiconductor cable provided that all of the conductors within that cable are intrinsically safe.

- A seal must be provided at the point the intrinsically safe wire passes between the hazardous and nonhazardous locations to prevent the ingress of the hazardous mixture into the unprotected control room environment. The specification of this seal is that it must not pass ≥ 0.007 $ft.^3$ of air per hour at a pressure equivalent to 6 inches of water. While this is the same specification for the sealing requirements of an explosionproof system, it is not necessary to employ those seals.

- Field junction boxes may be used provided that intrinsically safe and nonintrinsically safe wiring is separated by at least 2 inches (50mm). Should hazardous location junction boxes be installed, it is acceptable to make use of general purpose terminals and enclosures when connecting intrinsically safe circuits.

- In panel construction physical barriers (either nonconductive or grounded metal) may be used for the separation of intrinsically safe and nonintrinsically safe circuits.

Intrinsic safety is concerned with the limiting of energy within electrical circuits in hazardous locations to levels below those which are capable of igniting various flammable or combustible mixtures. As all wiring contains stored energy (capacitance and inductance), all conductors must be considered when determining the length of intrinsically safe circuits. When available, the actual values of capacitance and inductance for the specific wire being used should be referenced. If these are not available, values of 60 pF/foot for capacitance per wire pair and 0.2 µH/foot for inductance are accepted and may be used.

Without proper grounding, intrinsic safety barriers will not provide voltage limitation. This effectively eliminates the integrity of the intrinsically safe system. Therefore, the following steps should be taken to ensure a connection to ground.

- The grounding path resistance from the furthest intrinsic safety barrier to the designated ground electrode must be < 1 Ω.

- The intrinsic safety barrier ground conductor must be at least # 12 AWG.

- Shakeproof ground terminals must be used to connect the ground conductor to the designated ground electrode.

- All ground path connections must be secure, identified, permanent, visible and accessible for routine inspection.

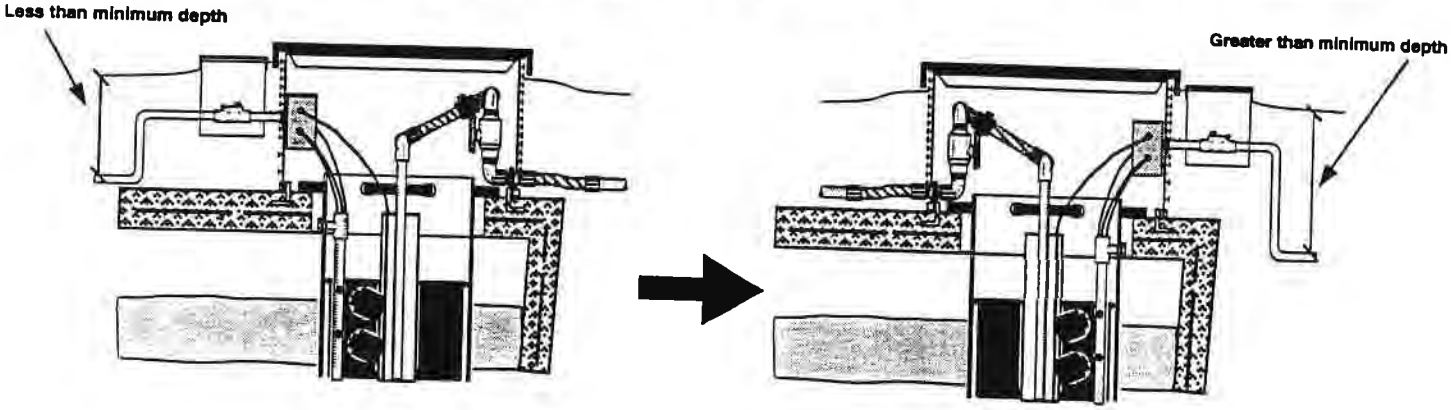
- Routine inspections must be made to insure that the ground path is secure, measures less than 1 Ω and is free of moisture, dirt and corrosion which would adversely influence the path of any fault current.

- For installations designed to Canadian requirements, a redundant ground connection is recommended between each "barrier device" and the designated ground electrode, meeting the same specifications as previously described.

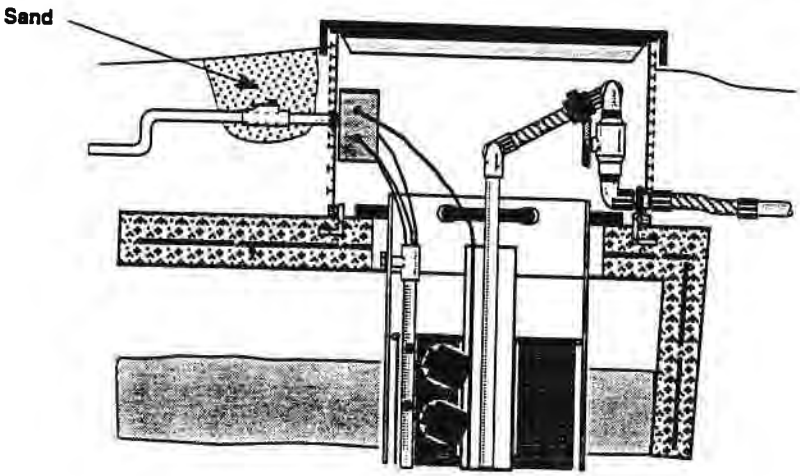
- R. Stahl recommends that the intrinsic safety ground bus is labelled.

Septic Tank Electrical Equipment
Notes

① Conduit and direct burial wire must meet minimum depth requirements even over the septic tank. If the tank is buried shallowly, then the electrical equipment should be oriented so the conduit or wires can exit the riser and drop down the side of the tank to the proper depth. The splice box must be sized and appropriately positioned to ensure accessibility & maintainability of all other components. The splice box must be located near the lid for ease of maintainance.



② The accessibility requirements of the sealing fitting can be achieved by using an access box or covering the sealing fitting with sand or gravel so that it can be easily uncovered; check with local authority.

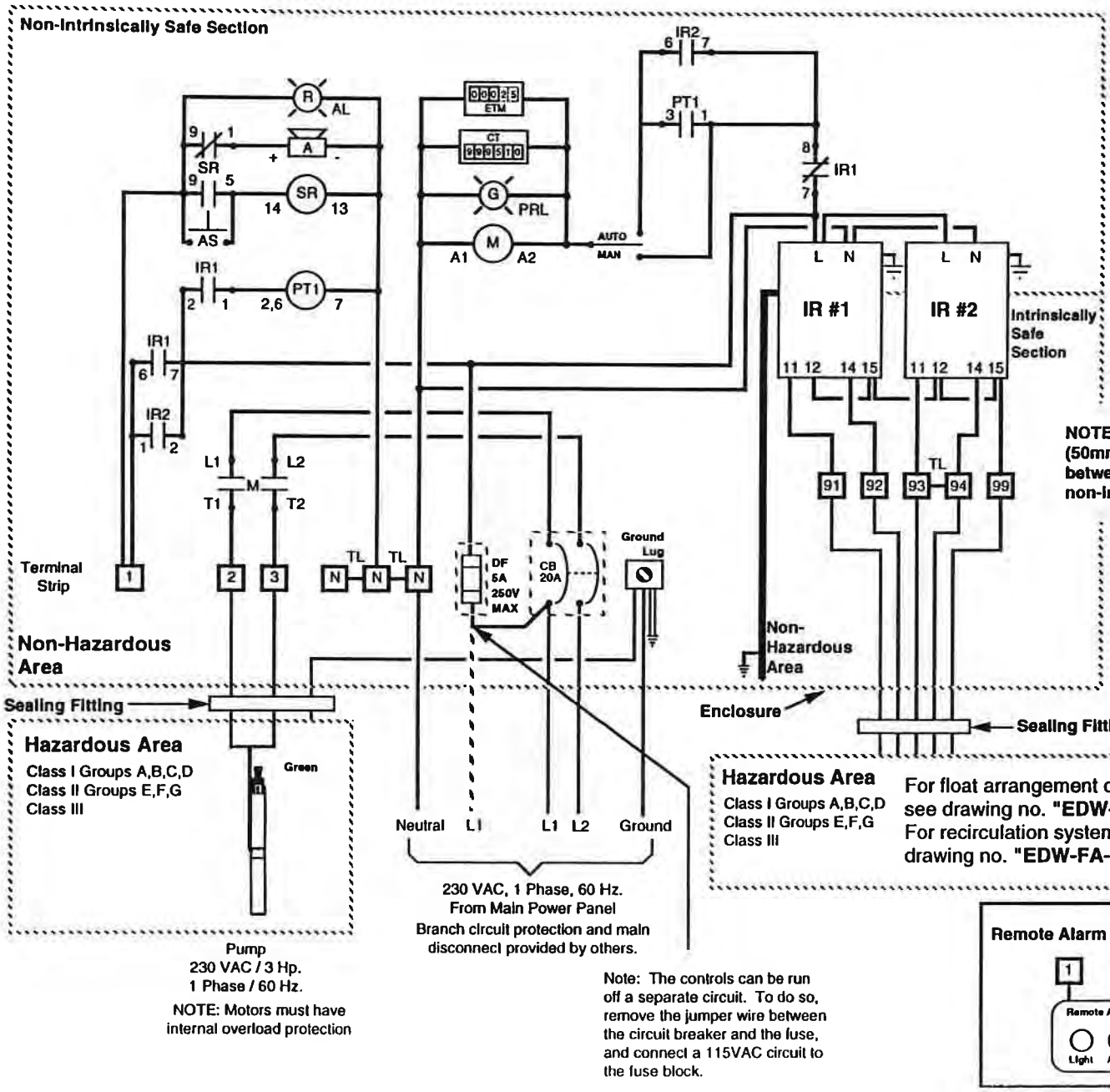


③ Options 4 & 5 are not recommended. The intent of these options is to avoid the use of a splice box and sealing fitting. The NEC requires that conductors emerging from the ground be protected to 8 feet above grade and this puts the receptacle at an inconvenient height above the ground. Since the maximum pump cord length available is 20 feet, this limit requires that the riser be no further than 8' from the wall of the house. Exposed plugs are a target for childs play or vandalism. The receptacle and plug will also be subject to moisture and will often begin corroding within a year. Generally these options offer no real cost advantage and ultimately will require frequent maintenance and replacement of the receptacle.

Orenco Systems, Inc.

Panel Wiring Diagram

Model S2 IR2 PT RO



NOTE: A spacing of 2 inches (50mm) must be maintained between intrinsically safe, and non-intrinsically safe wiring.

———	= Factory Wire
———	= Field Wire
- - -	= Alternate Field Wire
A	= Audio Alarm, 115 VAC
AL	= Alarm Light
AS	= Audio Silence Switch
CB	= Circuit Breaker
DF	= Disconnect Fuse
IR	= Intrinsically Safe Relay
M	= Motor Contactor
SR	= Silence Control Relay
TL	= Terminal Link

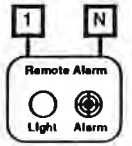
Options

ETM	= Elapsed Time Meter
CT	= Event Counter
PRL	= Pump Run Light
RA	= Remote Alarm

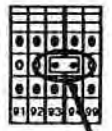
Hazardous Area
Class I Groups A,B,C,D
Class II Groups E,F,G
Class III

For float arrangement diagram, see drawing no. **"EDW-FA-S-504"**. For recirculation systems, see drawing no. **"EDW-FA-S-505"**.

Remote Alarm Connections



Removal Of Alarm/Override Link Rail



Terminal Link Rail

Removal of the terminal link rail will separate the high level alarm and timer override functions.

Simplex Operation

High Water Alarm This float activates the high liquid level alarm, and turns on the alarm light and audible alarm. The audible alarm may be silenced by pressing the illuminated **PUSH TO SILENCE** button on the front of the control panel. The alarm light will remain on until the high level condition is corrected.

High Level Override On/Off: Energizes and de-energizes the motor contactor, which overrides the programmable timer and switches ON and OFF power to the pump. The float is in the **up** position to energize the pump and in the **down** position to de-energize it.

Low Level Off: This float shuts off the programmable timer and any pump turned on by the timer. This float is in the down position when this occurs. When this float rises again, the timer will be restarted. Note: The timer wil start with it's off cycle first.

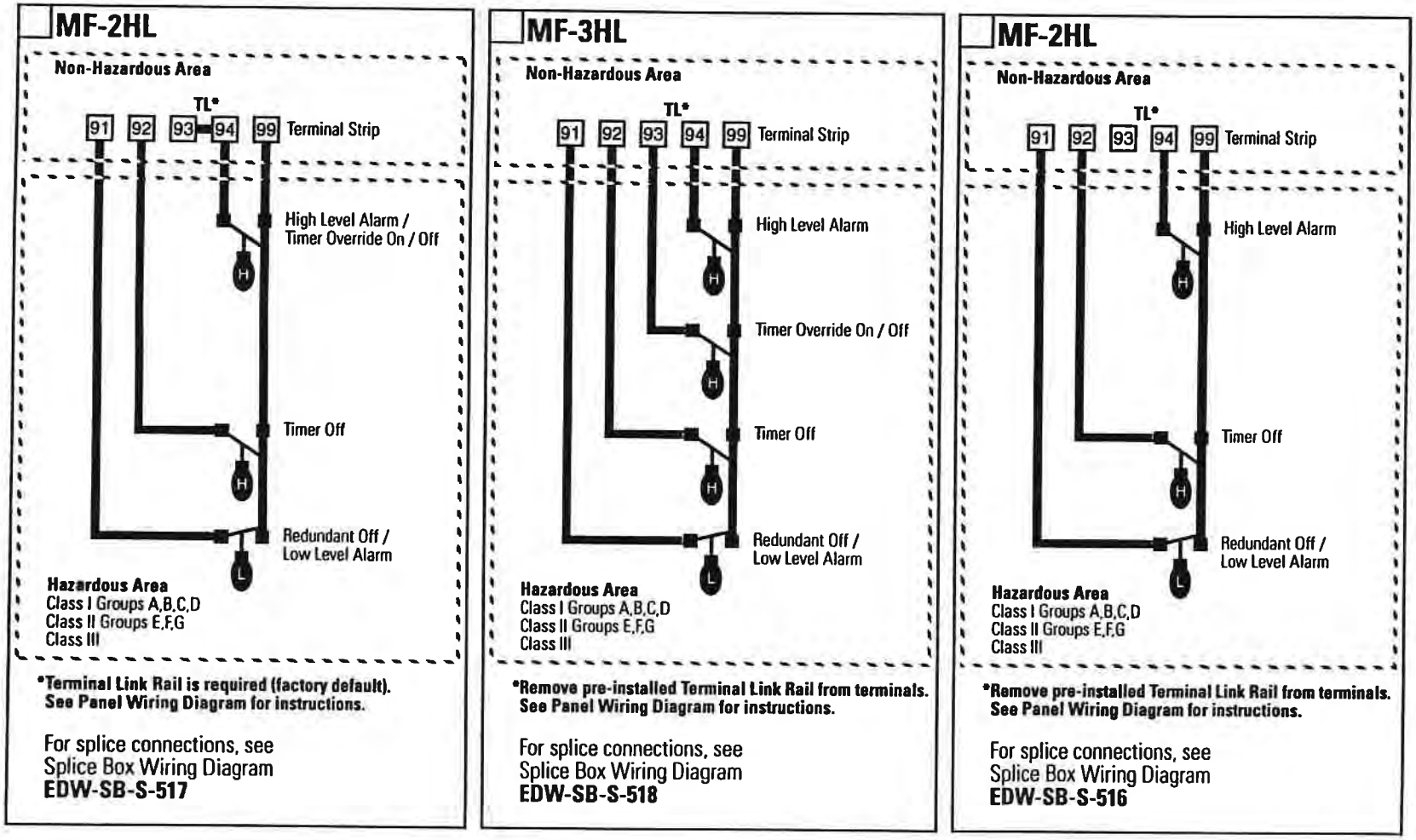
Low Level Alarm & Redundant Off: This float is a secondary Off float. The Redundant Off float will stop the pumps if the Low Level Off float fails. This Off function affects the operation of the pumps even if they are run manually. This float also activates the low liquid level alarm, and turns on the alarm light and audible alarm. The audible alarm may be silenced by pressing the illuminated **PUSH TO SILENCE** button on the front of the control panel. The alarm light will remain on until the low level condition is corrected. This float is in the down position when this occurs.

Programmable Timer: The timer turns the pump on and off in a pre-set cycle. Note: The timer initially operates with it's off cycle first, then it's on cycle.

EDW-WD-S-508
Rev. 1.2 ©12/23/96

Float Arrangement Diagram

Check the appropriate box for the float arrangement used in your system.



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Control Panel Series

S IR2 PT RO

Drawing No.

EDW-FA-S-504

Splice Box Wiring Diagram

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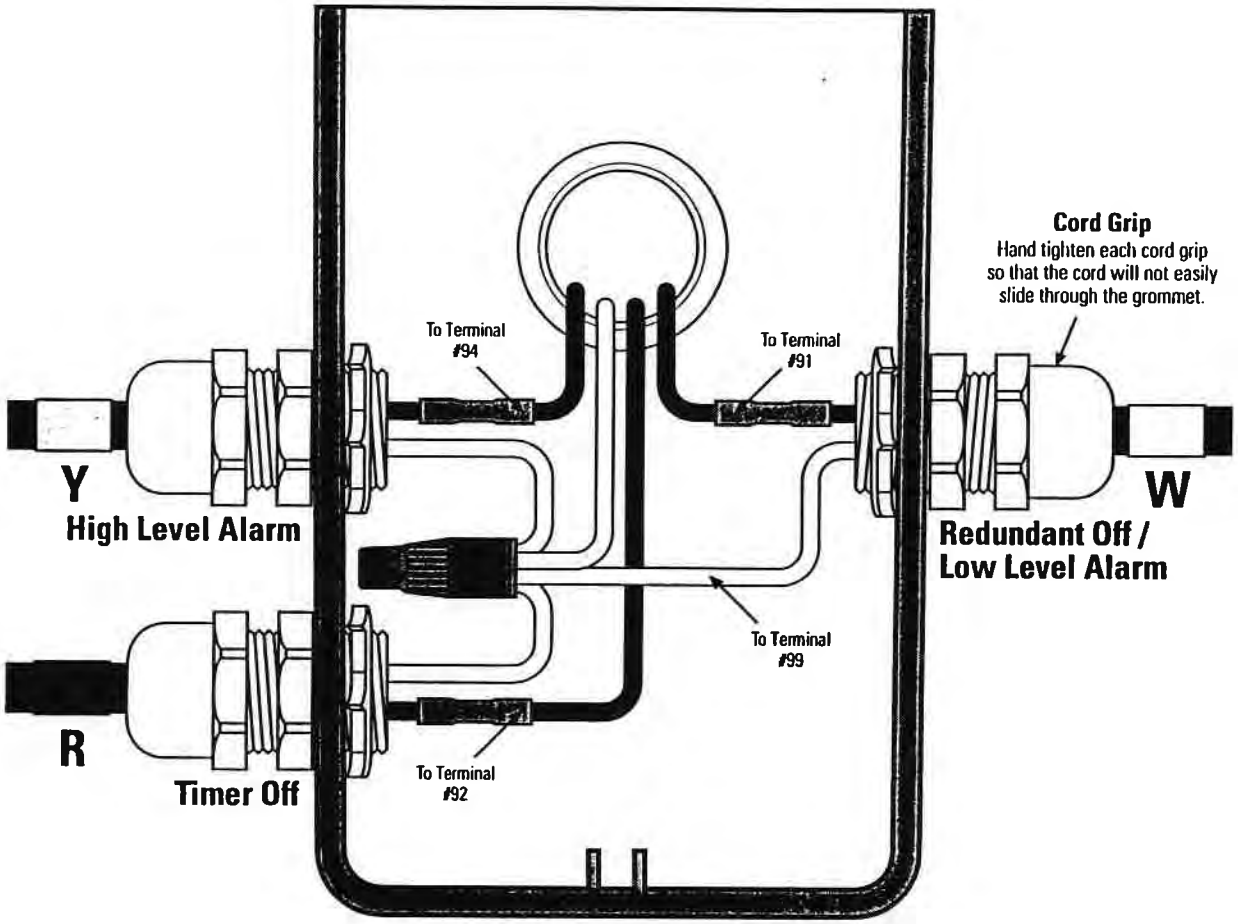


Key

- Black Wire
- White Wire
- Green Wire
- Waterproof Wire Nut
- Heat Shrink & Butt Connector *

* Refer to drawing EIN-SB-SB-1 for splicing instructions.

Float Tag Colors

- **Y** – Yellow
- **P** – Purple
- **B** – Blue
- **G** – Green
- **R** – Red
- **O** – Orange
- **E** – Grey
- **W** – White

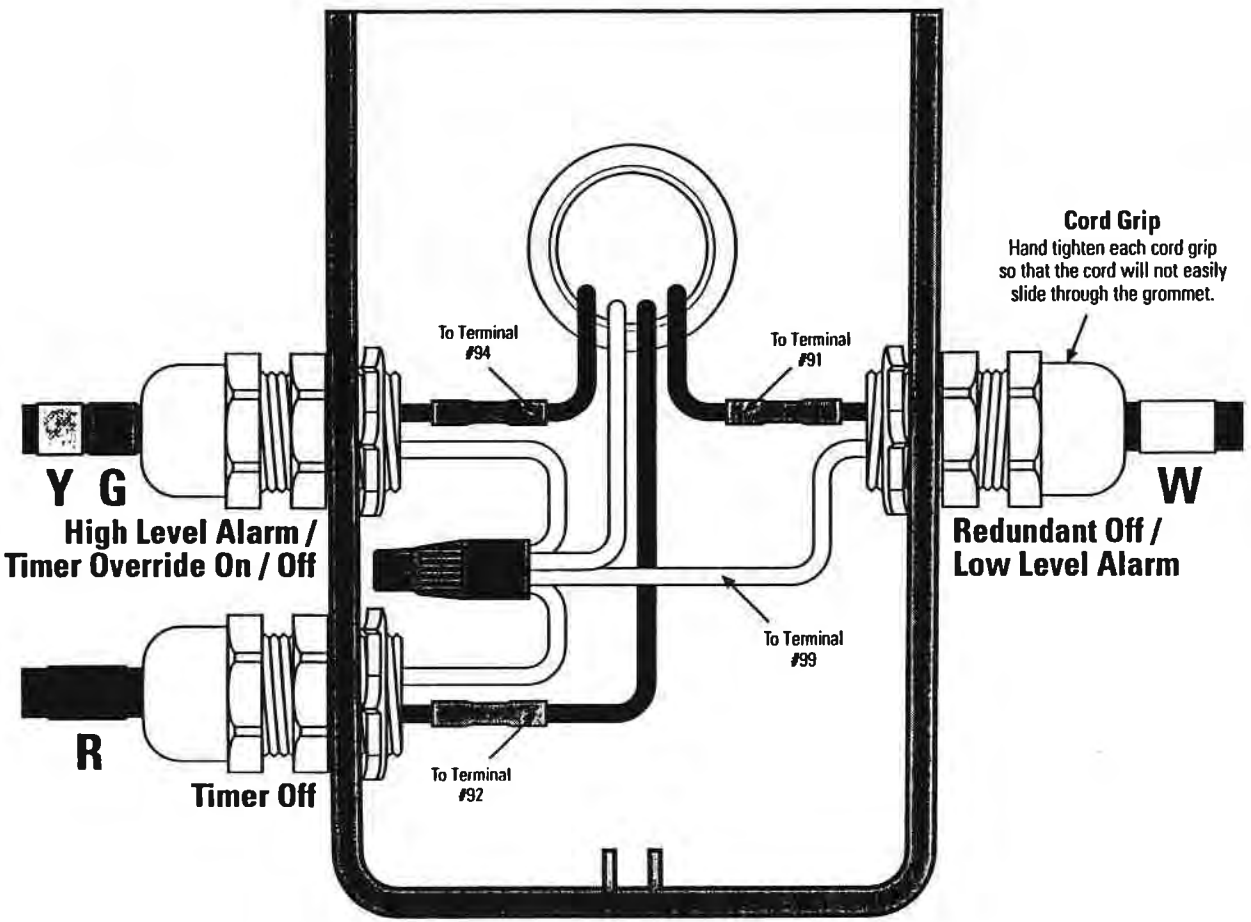
Note: Multi-function floats will have more than one marker

Attention: Failure to follow splicing instructions will void warranty

Control Panel Series	Float Function Color Code	Splice Box Model	Drawing No.
S IR2 PT RO	YRW	SB3	EDW-SB-S-516

EDW-SB-S-516
Rev 1 0 05/28/96

Splice Box Wiring Diagram



Key

- Black Wire
- White Wire
- Green Wire
- Waterproof Wire Nut
- Heat Shrink & Butt Connector *

* Refer to drawing EIN-SB-SB-1 for splicing instructions.

Float Tag Colors

- **Y** - Yellow
- **P** - Purple
- **B** - Blue
- **G** - Green
- **R** - Red
- **O** - Orange
- **E** - Grey
- **W** - White

Note: Multi-function floats will have more than one marker

Attention: Failure to follow splicing instructions will void warranty

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Control Panel Series	Float Function Color Code	Splice Box Model	Drawing No.
S IR2 PT RO	(YG)RW	SB3	EDW-SB-S-517

Splice Box Wiring Diagram

Panel #3

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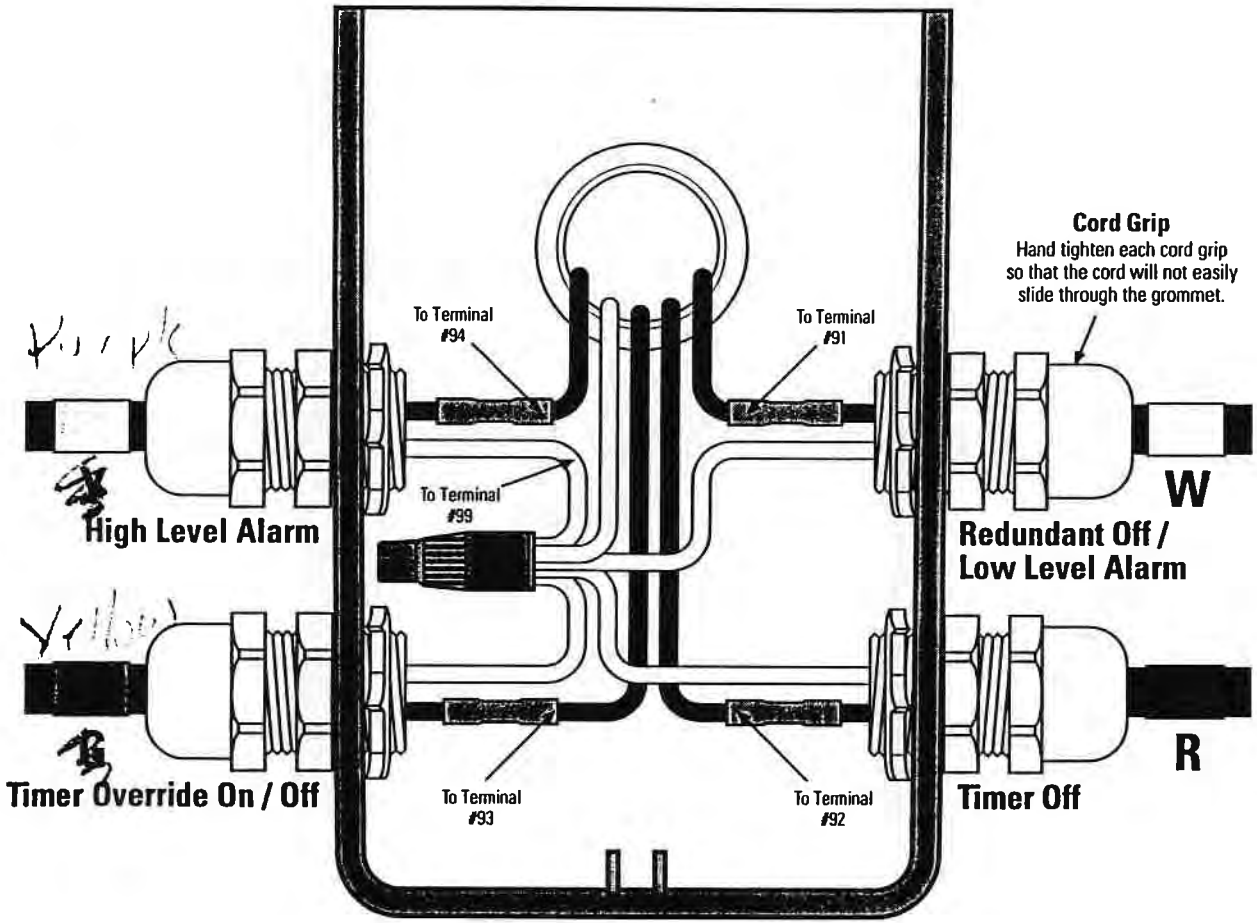

Key

- Black Wire
- White Wire
- Green Wire
- Waterproof Wire Nut
- Heat Shrink & Butt Connector *

* Refer to drawing EIN-SB-SB-1 for splicing instructions.

Float Tag Colors

- **Y** - Yellow
- **P** - Purple
- **B** - Blue
- **G** - Green
- **R** - Red
- **O** - Orange
- **E** - Grey
- **W** - White

Note: Multi-function floats will have more than one marker

Attention: Failure to follow splicing instructions will void warranty

Control Panel Series	Float Function Color Code	Splice Box Model	Drawing No.
S IR2 PT RO	YGRW	SB4	EDW-SB-S-518

Testing Instructions

Stahl Intrinsically Safe Controls

Orenco Systems®
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Before Testing Panel

1. Familiarize yourself with how the panel operates, and the function of each of the floats. Being familiar with the system will make any troubleshooting easier.

2. Make sure that the power is connected correctly. All Orenco Systems control panels require 120VAC for the controls to operate. A neutral conductor is necessary which can be sometimes overlooked on a control panel for a 240VAC pump.

3. Make sure that the pump circuit breakers are in the ON position, and that the fuse is good and in place.

4. Make sure that there is enough liquid in the tank or pumping chamber to perform the tests. This is especially important for control panels with Redundant Off circuits.

Testing the Panel on Manual

5. Test the pump(s) by placing the HOA switch(s) to the Manual (MAN) position. The pump should turn on and start pumping the liquid level in the tank down. You can determine if the pump is running by listening for the sound of the motor, observing the liquid level in the tank drop, or using a clamp-on ammeter to measure the electrical current draw of the pump. All Orenco Systems pump control panels have a loop of wire at the top of each of the circuit breakers for use as a measuring point for a clamp on ammeter.

If a Pump Doesn't Work on Manual

6. If one or more of the pumps will not run on manual, then there are several things to check:
   a. Check again to see if there is power to the control panel, and that all of the circuit breakers are in the ON (up) position.
   b. If the panel has motor contactors, then the contactors will pull in (close) when the HOA switch is flipped to the Manual position. If the contactors do not operate, then either there isn't any power to the controls, the fuse is blown, or the redundant off float is in the down position. If the contactors do operate, then it is necessary to check the terminals where the pump is wired to, for the proper voltage. Lack of voltage when the switch is in the Manual position indicates that there is not any power in the pump circuit. If voltage is detected, then the problem is in the wiring from the panel to the pump.

Testing the Panel on Automatic

7. Once it has been determined that the pumps work in the Manual position, the panel can be tested in the Automatic mode. There are two ways to perform the test; the first and easiest method is to fill the tank with liquid and let the panel run through its cycle. This usually requires several cycles, with the tank being filled for each cycle. Testing functions like a Lag Pump and/or High Level Alarm will usually mean turning off the pump(s) while you fill the tank. Also if the panel has a Redundant Off float, you will need to manipulate the float with a hook or a pole to test it.

   The second method is to directly manipulate the floats using a pole with a hook on

the end. Using one or more poles, you will want to reach into the tank and lift up the floats to operate the panel. The floats should be lifted up and lowered in the order that would occur as the liquid raises and lowers. You will want to run through several cycles, testing each float for proper operation.

If a Pump Doesn't Work on Automatic

8. If the pumps doesn't work in the Automatic setting, then there are several things to check to locate the problem:
   a. The majority of problems that affect the automatic operation of the panel, are due to the wiring of the floats. It is important to double check the splices in the splice box to determine if the floats are wired correctly. All of the standard Orenco control panels have a Splice Box diagram that shows a pictorial view of the correct splices. If you are using one of these diagrams, be sure that it is the correct one for the float arrangement that is installed in the tank.
   b. It is a common practice to run the same color of wire from the splice box back to the control panel. If the wires are not tagged, or otherwise identified, it can be very easy to connect them to the wrong terminals. Even if they are tagged, it is still easy to accidentally switch two wires around while connecting them up to the field wiring terminals in the control panel. So it is important to double check the connections.

9. If the wiring in the splice box and to the terminals in the control panel appears to be correct, then the next step is to check the continuity of the floats:
   a. Turn off the power to the control panel. This means cutting the power off at the source, or pulling the fuse in the control panel and turning all of the circuit breakers to the OFF position.
   b. Disconnect the common wire from terminal #99. Attach one lead of a continuity meter or an ohmmeter to the common wire.
   c. Attach the other lead of the continuity tester to the other float wire. Using a pole with a hook, or by removing the float assembly and lifting the floats by hand, raise the float that corresponds to the wire you are testing. This may require two people to perform the test, one to watch the meter, and one to lift the floats.

   Note: Some floats may not show continuity when lifted, if either the float is an 'R' (normally closed) float, or if the float is in series with another float. There are a number of standard float arrangements where two floats are wired in series. If this is the case with your float arrangement, then both floats must be raised to test continuity. Also some floats are wired in parallel and may show continuity if either one of the floats are raised (or lowered if one of the floats is an 'R' float). To test continuity you must make certain that only one float is closed at a time.

   d. If a float fails the continuity test, then the float may or may not be defective. There are a number of reasons a float might fail the continuity test, the wire from the panel to the splice box might be broken, a splice in the splice box might be broken or bad, or the float could be miswired. It is also quite easy to test the wrong float, so it is important to double check your test.
   e. If you are sure you have a defective float, then you will need to disconnect the float in the splice box, and test it for continuity. If it fails the test, you should return it for replacement. If it passes the test, then the problem lies elsewhere, and you will need to conduct more tests.

Note: The pump vault area is a hazardous area, and may contain explosive gases. Take appropriate precautions before working in the pump vault.

10. If the floats all check out OK, then the problem could lie in the panel. The panel can be easily tested by using jumper wires to simulate the floats. To perform these tests, you will need a couple of pieces of insulated wire that have had the ends stripped. The tests will be performed with the power to the panel ON, so you will need to be careful and avoid touching any live metal components.

a. It is important that you understand how the floats control the panel before you try testing it. Look over the Float Arrangement diagram for your specific float assembly, and review the function of each of the floats.

b. You will need to disconnect all of the float wires from the field wiring terminals. This is to prevent the floats from affecting the test. Make sure that the float wires are tagged or otherwise labeled to help you reconnect them after the test is complete.

c. Jumper the terminal that normally would hold the common float wire, with the terminal whose function you wish to test, and observe the result. The best way to test the panel is to jumper the terminals in the same order the floats in the tank would close as the liquid level rises and falls.

   Example: On an S1 IR1 control panel with an MF-2H float assembly, the common float wire connects to terminal #99, the Pump On/Off float is connected to terminal #91, and the High Level Alarm float is connected to terminal #92. As liquid enters the tank, the liquid level would rise to close the On/Off float. The pump would turn on and pump the level in the tank down until it opened the On/Off float.

   To test the On and Off function, you would need to jumper terminals #99 and #91. The pump will turn on, and stay on until you remove the jumper.
   To test the High Liquid Alarm , you would take a jumper wire, and connect terminal #99 and terminal #92. This should activate the High Liquid Alarm and light.

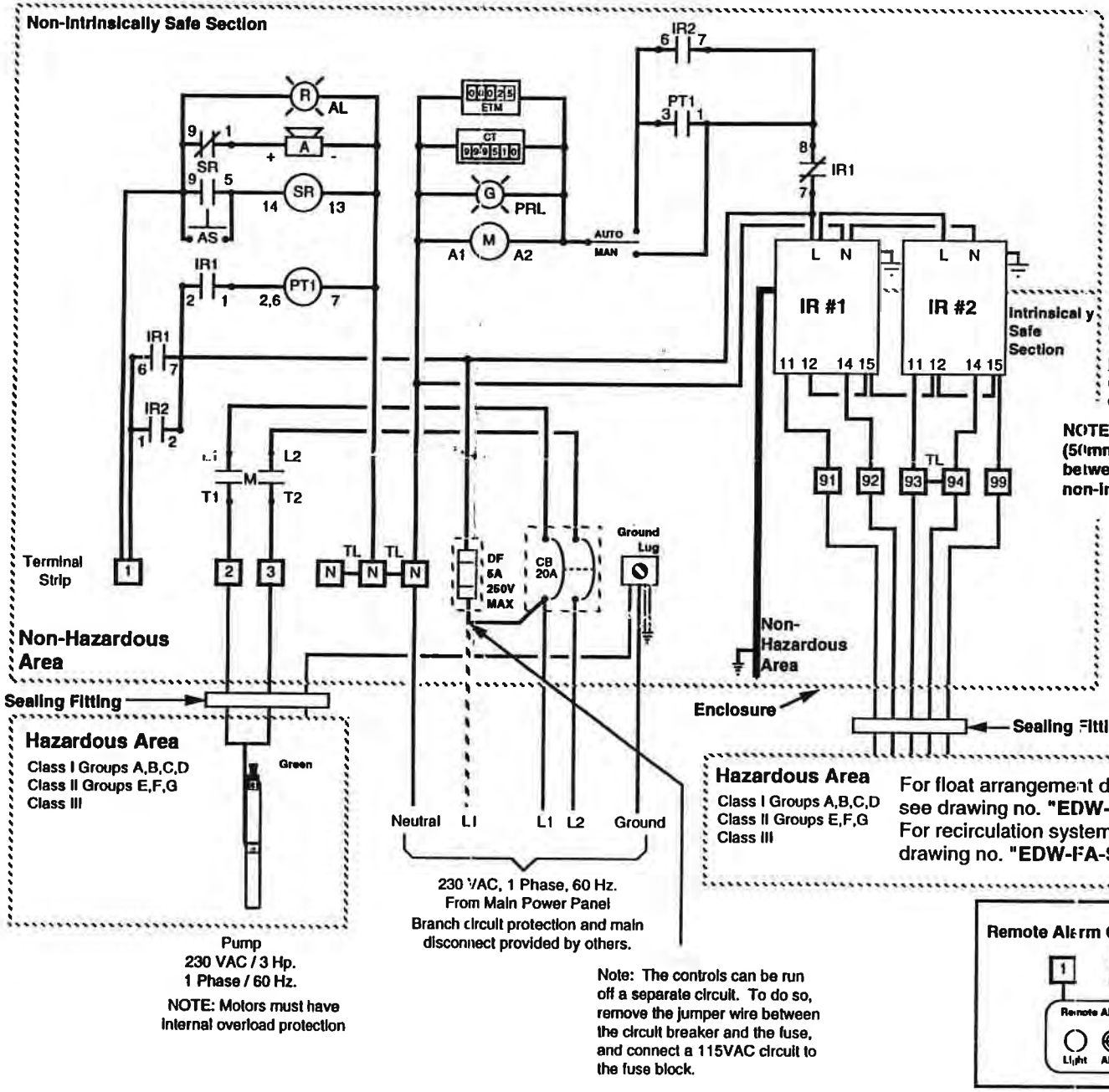
d. If the test shows that the panel is operating correctly, then your problem lies in the floats, or the float wiring. If the panel doesn't work correctly, please contact Orenco Systems Inc. for assistance.

Note: The above procedure is meant to be general. For a testing procedure for a specific model of control panel, please contact Orenco Systems Inc.

Orenco Systems, Inc.

Panel Wiring Diagram

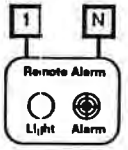
Model S2 IR2 PT RO



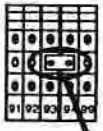
NOTE: A spacing of 2 inches (50mm) must be maintained between intrinsically safe, and non-intrinsically safe wiring.

———	= Factory Wire	**Options**	
———	= Field Wire		
- - -	= Alternate Field Wire	ETM	= Elapsed Time Meter
A	= Audio Alarm, 115 VAC	CT	= Event Counter
AL	= Alarm Light	PRL	= Pump Run Light
AS	= Audio Silence Switch	RA	= Remote Alarm
CB	= Circuit Breaker		
DF	= Disconnect Fuse		
IR	= Intrinsically Safe Relay		
M	= Motor Contactor		
SR	= Silence Control Relay		
TL	= Terminal Link		

Remote Alarm Connections



Removal Of Alarm/Override Link Rail



Terminal Link Rail

Removal of the terminal link rail will separate the high level alarm and timer override functions.

Simplex Operation

High Water Alarm This float activates the high liquid level alarm, and turns on the alarm light and audible alarm. The audible alarm may be silenced by pressing the illuminated **PUSH TO SILENCE** button on the front of the control panel. The alarm light will remain on until the high level condition is corrected.

High Level Override On/Off: Energizes and de-energizes the motor contactor, which overrides the programmable timer and switches ON and OFF power to the pump. The float is in the up position to energize the pump and in the down position to de-energize it.

Low Level Off: This float shuts off the programmable timer and any pump turned on by the timer. This float is in the down position when this occurs. When this float rises again, the timer will be restarted. Note: The timer wil start with it's off cycle first.

Low Level Alarm & Redundant Off: This float is a secondary Off float. The Redundant Off float will stop the pumps if the Low Level Off float fails. This Off function affects the operation of the pumps even if they are run manually. This float also activates the low liquid level alarm, and turns on the alarm light and audible alarm. The audible alarm may be silenced by pressing the illuminated **PUSH TO SILENCE** button on the front of the control panel. The alarm light will remain on until the low level condition is corrected. This float is in the down position when this occurs.

Programmable Timer: The timer turns the pump on and off in a pre-set cycle. Note: The timer initially operates with it's off cycle first, then it's on cycle.

Appendix B Contract Agreement for Effluent Collection, Treatment and Disposal Services

CONTRACT AGREEMENT

FOR EFFLUENT COLLECTION, TREATMENT, AND DISPOSAL SERVICE

Olympic Greens Partnership

Lot_____, Volume_____ of Plats/Surveys, Page_____

Parties

This Agreement, hereinafter referred to as LOT OWNER AGREEMENT, is made this ____ day of _____, 19____, by and between PUBLIC UTILITY DISTRICT NO. 1 OF JEFFERSON COUNTY (PUD), Post Office Box 929, Port Hadlock, Washington 98339 (hereinafter referred to as SYSTEM OWNER), and the following (hereinafter referred to as LOT OWNER):

Lot Owner Name(s): _____

Address: _____

Street City State Zip

being the legal owner and/or purchaser of the following described property:

Terms and Conditions

A. In consideration of and upon receipt of _____ dollars ($_____) plus the monthly charge described herein, the SYSTEM OWNER agrees to provide septic system effluent collection, treatment, and disposal service (hereinafter referred to as SERVICE), as set forth in the Owner's Operation and Maintenance Manual for the Mats View Terrace Community Drainfield System (hereinafter referred to as MAINTENANCE MANUAL). Informational copies of the MAINTENANCE MANUAL are available for review, upon request, from the SYSTEM OWNER.

B. A monthly charge of _____ dollars ($_____) shall be paid by the LOT OWNER to the SYSTEM OWNER each and every month after initial connection to the Mats View Terrace Community Drainfield System (hereinafter referred to as SYSTEM). Said monthly charge is due and payable on the first day of each month and shall be considered delinquent if payment is not received by the SYSTEM OWNER on or before the 10th day of the month. Late payment finance charges will be imposed on any unpaid balance 30 days after date of billing at the maximum rate allowed by law.

C. The SYSTEM OWNER shall be given access to provide maintenance and inspections of the LOT OWNERS components as is specified in accordance with the MAINTENANCE MANUAL. The SYSTEM OWNER shall bill the LOT OWNER for the accrued expenses as a result of this service.

Delinquent accounts shall be subject to termination of the SERVICE, as well as notification of the Jefferson County Health Department (hereinafter referred to as HEALTH DEPARTMENT), unless acceptable arrangements are made with the SYSTEM OWNER prior to termination of service.

In the event of termination of SERVICE, for any reason, a reconnection charge of _____ dollars ($_____) shall be paid to the OWNER, plus the balance due on the account, before SERVICE will be restored.

D. The SYSTEM OWNER will adjust the monthly charge from time to time as necessary to fulfill the terms and conditions of the MAINTENANCE PLAN. In addition to adjustments in the monthly charge to cover normal operation and maintenance of the SYSTEM, the LOT OWNER will be subject to special assessments for repairs and replacements to the SYSTEM.

Monthly charge increases and special assessments shall not exceed _____% of each LOT OWNER's pro rata share of the total cost to the SYSTEM OWNER according to the financial records maintained by the MANAGER.

E. The LOT OWNER is responsible for installing and maintaining his sewage facility. This will include the septic tank, pump chamber (if needed) and transport line up to the service connection at or near the property line. This will also include any and all associated appurtenances necessary to connect the residence to the SYSTEM and provide proper functioning of the SYSTEM.

The LOT OWNER is hereby notified of the requirement to obtain a "septic tank permit" from the HEALTH DEPARTMENT and to submit plans and specifications for the proposed septic tank and effluent pump (if needed) system to the SYSTEM OWNER for approval prior to commencement of construction. The LOT OWNER is responsible for providing proper notification to both the HEALTH DEPARTMENT and the SYSTEM OWNER for inspection and approval of the septic tank and effluent pump (if needed) system prior to connecting to the SYSTEM and backfilling.

For the LOT OWNER's convenience, the SYSTEM OWNER will provide a packet of information to assist the LOT OWNER in the proper design, operation, and maintenance of the LOT OWNER's septic tank and effluent pump (if needed) system. This information will be referred to as the OPERATION AND MAINTENANCE MANUAL.

F. The LOT OWNER shall not discharge non-biodegradable items and/or materials which are toxic to those bacteria essential for septic tank operation. A list of specific materials which are not allowed to be discharged into the sewage facilities and SYSTEM is included in the OPERATION AND MAINTENANCE MANUAL to be provided by the SYSTEM OWNER. The SYSTEM OWNER reserves the right to modify said list as necessary for proper operation of the SYSTEM.

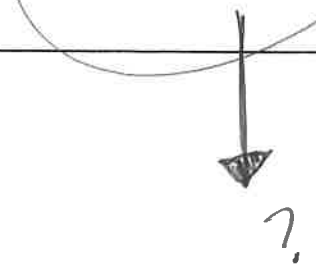
G. The LOT OWNER hereby grants permission for the SYSTEM OWNER and/or the SYSTEM OWNER's heirs, successors or assigns, to enter upon the property described herein for the purpose of inspecting the LOT OWNER's septic tank, pump chamber (if needed), and effluent transport pipe (hereinafter referred to as FACILITIES). The SYSTEM OWNER shall determine when the LOT OWNER's FACILITIES require pumping, cleaning, maintenance, and/or repair/replacements (hereinafter referred to as MAINTENANCE) and shall issue a Notice of LOT OWNER SEWAGE FACILITY MAINTENANCE. If necessary said notice will give the LOT OWNER the option of having the required MAINTENANCE performed by the SYSTEM OWNER at the cost specified in the notice or the LOT OWNER can make other arrangements to have the required MAINTENANCE to the SYSTEM OWNER within the time specified in the notice. Failure to provide written evidence that the MAINTENANCE was performed (by a properly licensed firm as required by the HEALTH DEPARTMENT) by the date specified in the notice will result in the SYSTEM OWNER providing the MAINTENANCE service at the cost specified on the notice. Failure to comply with these requirements shall result in termination of the SERVICE as well as notification to the HEALTH DEPARTMENT, unless acceptable arrangements are made with the SYSTEM OWNER prior to termination of SERVICE. See Section B for reconnection charges. The LOT OWNER is responsible for any and all costs for maintenance and repairs to the LOT OWNER's sewage facility as described in this CUSTOMER AGREEMENT.

H. Upon offering the sale or transfer of ownership of the property described herein, the LOT OWNER shall inform the potential purchaser of the terms and conditions of this LOT OWNER AGREEMENT and shall incorporate this CUSTOMER AGREEMENT, together with any amendments thereto, as part of any document for the sale and purchase of the said property.

PUD - take over -

I. The above represents all that has been agreed to by the parties to this Agreement.

SYSTEM OWNER signature	Date	LOT OWNER signature	Date
		LOT OWNER signature	Date
		LOT OWNER signature	Date



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Appendix C Lot Owner Maintenance Form

LOT OWNER MONITORING SHEET

Submit to the HEALTH DEPARTMENT annually.

For Lot _____ of Olympic Greens

SERVED BY THE OLYMPIC GREENS PARTNERSHIP

COMMUNITY DRAINFIELD SYSTEM

Lot Owner: _____

Telephone No.: _____ Age of System: _____

Resident (If different from lot owner): _____

Telephone No. (If different from lot owner): _____

A. SEPTIC TANK INSPECTION

Performed by: _____ Date: _____

Level of Sludge Accumulation: _____ inches.

Level of Scum Accumulation: _____ inches.

B. OUTLET SCREEN INSPECTION

Performed By: _____ Date: _____

Screen Cleaned: Yes _____ No _____

C. PUMP TEST (If applicable)

Performed by: _____ Date of Test: _____

1. Pumping Volume:
   liquid level when "on" _____ inches
   liquid level when "off" _____ inches
   total inches drawdown _____ inches
   inches drawdown X 22 gal. per inch _____ gallons per pump dose.
2. Pumping Time: _____ : _____ (Minutes : Seconds)

C. VISUAL CHECKS

Performed by: _____ Date of Check: _____

1. Pump Chamber Screen Build-up: (if applicable) _____
2. Test Pump Chamber Alarm: _____ Pass _____ Fail
3. Pump Chamber in General: _____
4. Surface Water Diverted: _____
5. Water Usage Monitoring (Water Meter Readings): _____ average gallons per day
6. Dose Counter Readings (every 2 months, designed to dose 4x per day)

Date: _____ Reading: _____ Date: _____ Reading: _____

Date: _____ Reading: _____ Date: _____ Reading: _____

Date: _____ Reading: _____ Date: _____ Reading: _____

Appendix D System Owner Maintenance Form

SYSTEM OWNER'S MONITORING SHEET

For

OLYMPIC GREENS

COMMUNITY PRESSURIZED DRAINFIELD SYSTEM

Monitor SYSTEM as described herein and as shown on the attached monitoring schedule. Submit to the HEALTH DEPARTMENT annually.

Date of this monitoring: _____

Date of last monitoring: _____

This monitoring will cover the following (check appropriate lines):

_____ Pump to drainfield dose counters and run time meters (every month).

_____ Pump flows and pump cycle timing (every six months).

_____ General monitoring; condition of SYSTEM (every six months).

Location of SYSTEM: OLYMPIC GREENS, in Section 11, Township 29 North, Range 1 W W.M., Jefferson County, Washington.

System Owner: _____, Telephone Number: _____

Address: _____

Operator (If different than owner): _____

Operator Address: _____

Operator Telephone Number: _____

Age of SYSTEM (Started operation _____, 19____): ____yrs., ____months

Refer to the Operation and Maintenance Manual for more information regarding inspecting the following SYSTEM components.

SYSTEM 1

SEWER AND EFFLUENT PIPES (Frequency—every 6 months)

Date:_____

EFFLUENT COLLECTION SYSTEM Generally consists of walking pipeline routes and noting any wet areas (may have odor) and condition of the grass along these routes.

_____

_____

_____

_____

_____

PUMP TANKS (*Pumps to Drainfield)* (Frequency—every 6 months)

SLUDGE BUILD UP NOTED:_____

_____

TANK PUMPING: (Tank pumping: 2" or more of accumulated sludge is grounds for pumping and cleaning. Attach receipt from pumper)

Date: _____

Performed by: _____

TEST HIGH WATER ALARM SWITCH: _____ Pass _____ Fail
(Test by lifting the highest mercury float switch.)

TEST LOW WATER ALARM SWITCH:_____ Pass _____ Fail
(Test by depressing lowest mercury float switch.)

INSPECTION OF ELECTRICAL PARTS AND COMPONENTS:_____

_____

PUMP TANKS IN GENERAL (6 tanks in series):

_____

_____

CONDITION OF GRASS AND OTHER VISUAL ASPECTS AROUND THE PUMP TANKS:

_____

PUMP TIMING TEST AND FLOW DETERMINATION:

Perform and record on the Pump Flow Data Sheet. Refer to as-built inspection report for conditions as set at time of completion.

Pump timer operation: Time "on" dose after adjusting "off" cycle for 1 minute, see timer instructions either in panel or in Appendix F

_____minutes "on".

Pumping Volume: _____ Actual Gallons per Dose. (Multiply minutes of run time by assumed gallons per dose based on residual head at 75 gallons per minute)

Designed to pump 225+/- gallons per dose with approximate 3 minute run time. If the above run time is more than 30 seconds over or under designed time, reset.

INSPECTION OF DISTRIBUTION VALVE:

Perform and record on the Pump Flow Data Sheet.

Uncover the risers at the lateral ends of each zone and over the distribution valve. Manually cycle the pump to ensure that each zone is sequentially receiving effluent. Check spray height in each zone against the documented spray height at the time of initial start-up on the as-built inspection sheet.

_____ all four zones sequenced.
_____sequencing did not function. Explain:_____

_____

_____ spray height in zone 1
_____ spray height in zone 2
_____ spray height in zone 3
_____ spray height in zone 4

The residual spray height should be very close to the same as documented at start-up. If not, please note below, contact the designer and refer to manual page 22.

Discrepancy:_____

_____

PRESSURE DRAINFIELD (Frequency—every six months)

GENERAL INSPECTION: Condition of grass and inspection port condition, ponding in laterals or any evidence of neglect such as vehicles having been driven in area.

_____

_____

_____

_____

OTHER VISUAL ASPECTS OF SYSTEM (Frequency—every six months)

This section is for comments regarding anything noticed which might affect the performance of the SYSTEM in regard to preventing potential health hazards or imminent failure.

_____

_____

MAINTENANCE RECORDS

Above monitoring performed by: _____

Prepared by: _____

Date: _____

SYSTEM OWNER'S MAINTENANCE SUMMARY SHEET

(Attach to Owner's Monitoring Sheet)

SYSTEM Name: Olympic Greens Community Septic System

1. Repairs to any component of the sewage system:

Date	Nature of Repair	Probable Reason for Failure

2. Maintenance on any component of the SYSTEM:

Date	Nature of Maintenance

SYSTEM 2

SEWER AND EFFLUENT PIPES (Frequency—every 6 months)

Date:_____

EFFLUENT COLLECTION SYSTEM Generally consists of walking pipeline routes and noting any wet areas (may have odor) and condition of the grass along these routes.

_____

_____

_____

_____

_____

PUMP TANKS (*Pump to Drainfield)* (Frequency—every 6 months)

SLUDGE BUILD UP NOTED:_____

_____

TANK PUMPING: (Tank pumping: 2" or more of accumulated sludge is grounds for pumping and cleaning. Attach receipt from pumper)

Date: _____

Performed by: _____

TEST HIGH WATER ALARM SWITCH: _____ Pass _____ Fail
(Test by lifting the highest mercury float switch.)

TEST LOW WATER ALARM SWITCH:_____ Pass _____ Fail
(Test by depressing lowest mercury float switch.)

INSPECTION OF ELECTRICAL PARTS AND COMPONENTS:_____

_____

PUMP TANKS IN GENERAL (2 tanks in series):

_____

_____

CONDITION OF GRASS AND OTHER VISUAL ASPECTS AROUND THE PUMP TANKS:

_____

PUMP TIMING TEST AND FLOW DETERMINATION:

Perform and record on the Pump Flow Data Sheet. Refer to as-built inspection report for conditions as set at time of completion.

Pump timer operation: Time "on" dose after adjusting "off" cycle for 1 minute, see timer instructions either in panel or in Appendix F

_____minutes "on".

Pumping Volume: _____ Actual Gallons per Dose. (Multiply minutes of run time by assumed gallons per dose based on residual head at 40 gallons per minute)

Designed to pump 100+/- gallons per dose with approximate 2.5 minute run time. If the above run time is more than 30 seconds over or under designed time, reset.

INSPECTION OF DISTRIBUTION VALVE:

Perform and record on the Pump Flow Data Sheet.

Uncover the risers at the lateral ends of each zone and over the distribution valve. Manually cycle the pump to ensure that each zone is sequentially receiving effluent. Check spray height in each zone against the documented spray height at the time of initial start-up on the as-built inspection sheet.

_____ all zones sequenced (2).
_____sequencing did not function. Explain:_____

_____

_____ spray height in zone 1
_____ spray height in zone 2

The residual spray height should be very close to the same as documented at start-up. If not, please note below, contact the designer and refer to manual page 22.

Discrepancy:_____

_____

PRESSURE DRAINFIELD (Frequency—every six months)

GENERAL INSPECTION: Condition of grass and inspection port condition, ponding in laterals or any evidence of neglect such as vehicles having been driven in area.

_____

_____

_____

_____

OTHER VISUAL ASPECTS OF SYSTEM (Frequency—every six months)

This section is for comments regarding anything noticed which might affect the performance of the SYSTEM in regard to preventing potential health hazards or imminent failure.

_____

_____

MAINTENANCE RECORDS

Above monitoring performed by: _____

Prepared by: _____

Date: _____

SYSTEM OWNER'S MAINTENANCE SUMMARY SHEET

(Attach to Owner's Monitoring Sheet)

SYSTEM Name: Olympic Greens Community Septic System

1. Repairs to any component of the sewage system:

Date	Nature of Repair	Probable Reason for Failure

2. Maintenance on any component of the SYSTEM:

Date	Nature of Maintenance

SYSTEM 3

SEWER AND EFFLUENT PIPES (Frequency—every 6 months)

Date:_____

EFFLUENT COLLECTION SYSTEM Generally consists of walking pipeline routes and noting any wet areas (may have odor) and condition of the grass along these routes.

_____

_____

_____

_____

_____

PUMP TANKS (*Pump to Drainfield*)(Frequency—every 6 months)

SLUDGE BUILD UP NOTED:_____

_____

TANK PUMPING: (Tank pumping: 2" or more of accumulated sludge is grounds for pumping and cleaning. Attach receipt from pumper)

Date: _____

Performed by: _____

TEST HIGH WATER ALARM SWITCH: _____ Pass _____ Fail
(Test by lifting the highest mercury float switch.)

TEST LOW WATER ALARM SWITCH:_____ Pass _____ Fail
(Test by depressing lowest mercury float switch.)

INSPECTION OF ELECTRICAL PARTS AND COMPONENTS:_____

_____

PUMP TANKS IN GENERAL (6 tanks in series):

_____

_____

CONDITION OF GRASS AND OTHER VISUAL ASPECTS AROUND THE PUMP TANKS:

_____

PUMP TIMING TEST AND FLOW DETERMINATION:

Perform and record on the Pump Flow Data Sheet. Refer to as-built inspection report for conditions as set at time of completion.

Pump timer operation: Time "on" dose after adjusting "off" cycle for 1 minute, see timer instructions either in panel or in Appendix F

_____minutes "on".

Pumping Volume: _____ Actual Gallons per Dose. (Multiply minutes of run time by assumed gallons per dose based on residual head at 40 gallons per minute)

Designed to pump 100+/- gallons per dose with approximate 2.5 minute run time. If the above run time is more than 30 seconds over or under designed time, reset.

INSPECTION OF DISTRIBUTION VALVE:

Perform and record on the Pump Flow Data Sheet.

Uncover the risers at the lateral ends of each zone and over the distribution valve. Manually cycle the pump to ensure that each zone is sequentially receiving effluent. Check spray height in each zone against the documented spray height at the time of initial start-up on the as-built inspection sheet.

_____ all zones sequenced. (2)
_____sequencing did not function. Explain:_____

_____

_____ spray height in zone 1
_____ spray height in zone 2

The residual spray height should be very close to the same as documented at start-up. If not, please note below, contact the designer and refer to manual page 22.

Discrepancy:_____

_____

PRESSURE DRAINFIELD (Frequency—every six months)

GENERAL INSPECTION: Condition of grass and inspection port condition, ponding in laterals or any evidence of neglect such as vehicles having been driven in area.

_____

_____

_____

_____

OTHER VISUAL ASPECTS OF SYSTEM (Frequency—every six months)

This section is for comments regarding anything noticed which might affect the performance of the SYSTEM in regard to preventing potential health hazards or imminent failure.

_____

_____

MAINTENANCE RECORDS

Above monitoring performed by: _____

Prepared by: _____

Date: _____

SYSTEM OWNER'S MAINTENANCE SUMMARY SHEET

(Attach to Owner's Monitoring Sheet)

SYSTEM Name: Olympic Greens Community Septic System

1. Repairs to any component of the sewage system:

Date	Nature of Repair	Probable Reason for Failure

2. Maintenance on any component of the SYSTEM:

Date	Nature of Maintenance

SYSTEM 4

SEWER AND EFFLUENT PIPES (Frequency—every 6 months)

Date:_____

EFFLUENT COLLECTION SYSTEM Generally consists of walking pipeline routes and noting any wet areas (may have odor) and condition of the grass along these routes.

_____

_____

_____

_____

_____

PUMP TANKS (*Pump to Drainfield)* (Frequency—every 6 months)

SLUDGE BUILD UP NOTED:_____

_____

TANK PUMPING: (Tank pumping: 2" or more of accumulated sludge is grounds for pumping and cleaning. Attach receipt from pumper)

Date: _____

Performed by: _____

TEST HIGH WATER ALARM SWITCH: _____ Pass _____ Fail
(Test by lifting the highest mercury float switch.)

TEST LOW WATER ALARM SWITCH:_____ Pass _____ Fail
(Test by depressing lowest mercury float switch.)

INSPECTION OF ELECTRICAL PARTS AND COMPONENTS:_____

_____

PUMP TANKS IN GENERAL (6 tanks in series):

_____

_____

CONDITION OF GRASS AND OTHER VISUAL ASPECTS AROUND THE PUMP TANKS:

_____

PUMP TIMING TEST AND FLOW DETERMINATION:

Perform and record on the Pump Flow Data Sheet. Refer to as-built inspection report for conditions as set at time of completion.

Pump timer operation: Time "on" dose after adjusting "off" cycle for 1 minute, see timer instructions either in panel or in Appendix F

_____minutes "on".

Pumping Volume: _____ Actual Gallons per Dose. (Multiply minutes of run time by assumed gallons per dose based on residual head at 50 gallons per minute)

Designed to pump 125+/- gallons per dose with approximate 2.5 minute run time. If the above run time is more than 30 seconds over or under designed time, reset.

INSPECTION OF DISTRIBUTION VALVE:

Perform and record on the Pump Flow Data Sheet.

Uncover the risers at the lateral ends of each zone and over the distribution valve. Manually cycle the pump to ensure that each zone is sequentially receiving effluent. Check spray height in each zone against the documented spray height at the time of initial start-up on the as-built inspection sheet.

_____ all zones sequenced. (2)
_____sequencing did not function. Explain:_____

_____

_____ spray height in zone 1
_____ spray height in zone 2

The residual spray height should be very close to the same as documented at start-up. If not, please note below, contact the designer and refer to manual page 22.

Discrepancy:_____

_____

PRESSURE DRAINFIELD (Frequency—every six months)

GENERAL INSPECTION: Condition of grass and inspection port condition, ponding in laterals or any evidence of neglect such as vehicles having been driven in area.

_____

_____

_____

_____

OTHER VISUAL ASPECTS OF SYSTEM (Frequency—every six months)

This section is for comments regarding anything noticed which might affect the performance of the SYSTEM in regard to preventing potential health hazards or imminent failure.

_____

_____

MAINTENANCE RECORDS

Above monitoring performed by: _____

Prepared by: _____

Date: _____

SYSTEM OWNER'S MAINTENANCE SUMMARY SHEET

(Attach to Owner's Monitoring Sheet)

SYSTEM Name: Olympic Greens Community Septic System

1. Repairs to any component of the sewage system:

Date	Nature of Repair	Probable Reason for Failure

2. Maintenance on any component of the SYSTEM:

Date	Nature of Maintenance

OLYMPIC GREENS
COMMUNITY DRAINFIELD

OLYMPIC GREENS
PUMP FLOW DATA SHEET

PUMP SYSTEM:

DATE	#DAYS SINCE LAST READING (1)	DOSE COUNTER READING (2)	DOSE SINCE LAST READING (3)	AVERAGE DOSE PER DAY (4)	RUN TIME METER READING (5)	RUN TIME SINCE LAST READING (6)	AVERAGE RUN TIME PER DAY (7)	GALLONS PER DOSE (8)	AVERAGE GALLONS PER DAY (9)

(1) SUBTRACT CURRENT DATE FROM PREVIOUS DATE

(2) DOCUMENT NUMBER SHOWING ON DOSE COUNTER FROM APPROPRIATE PUMP

(3) SUBTRACT CURRENT READING FROM PREVIOUS READING

(4) DIVIDE NUMBER OF DOSES BY NUMBER OF DAYS

(5) DOCUMENT RUN TIME METER, IN 100THS OF AN HOUR

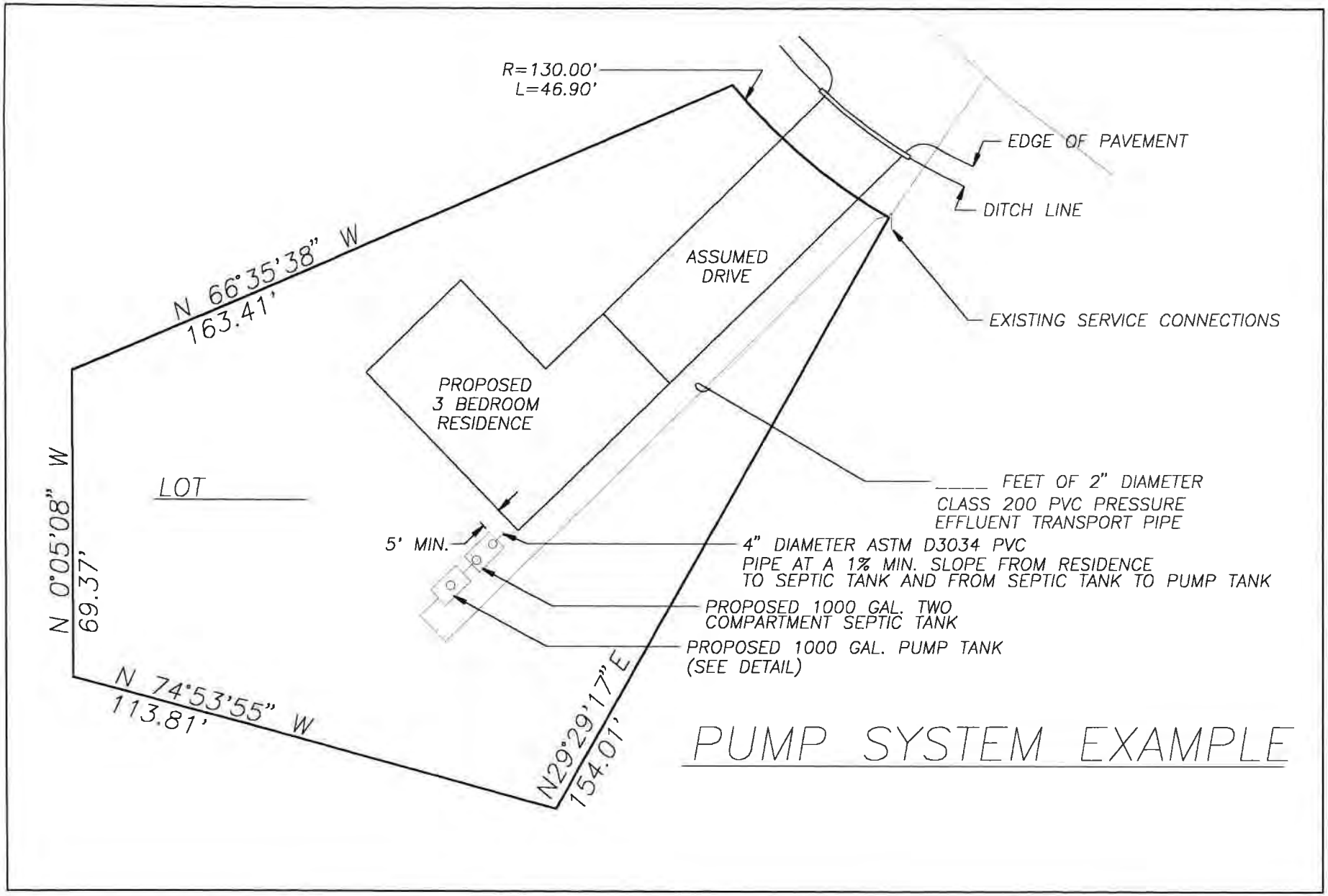
(6) SUBTRACT CURRENT READING FROM PREVIOUS READING

(7) DIVIDE RUN TIME READING (6) BY NUMBER OF DAYS(1)

(8) SEE INSPECTION SHEETS OR AS-BUILT INSPECTION SHEET

(9) MULTIPLY DOSES PER DAY X GALLONS PER DOSE

Appendix E Example Site Plan and Pump Tank

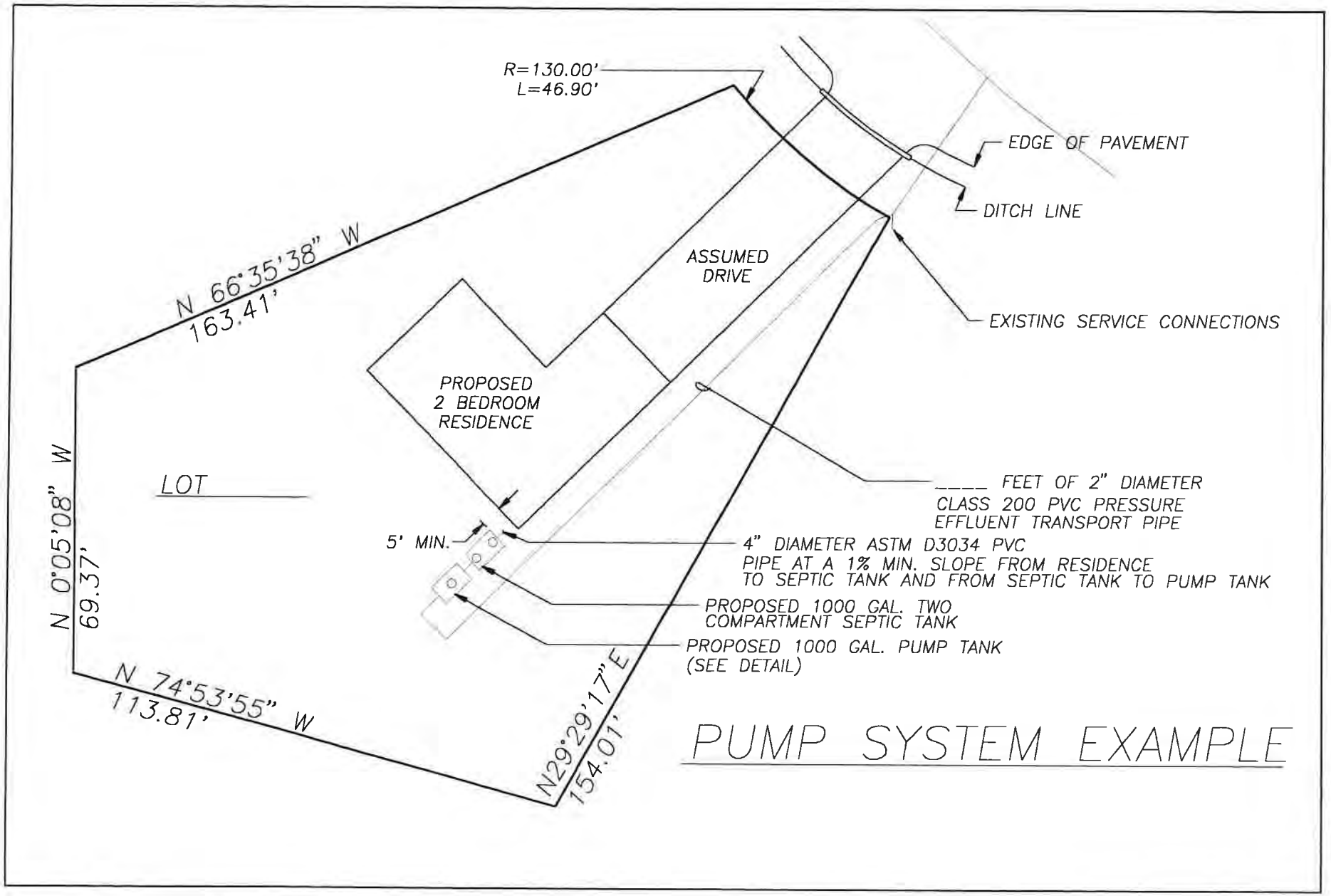


TILLMAN ENGINEERING, INC.

EXAMPLE SITE PLAN

MATS VIEW TERRACE COMMUNITY SYSTEM

1

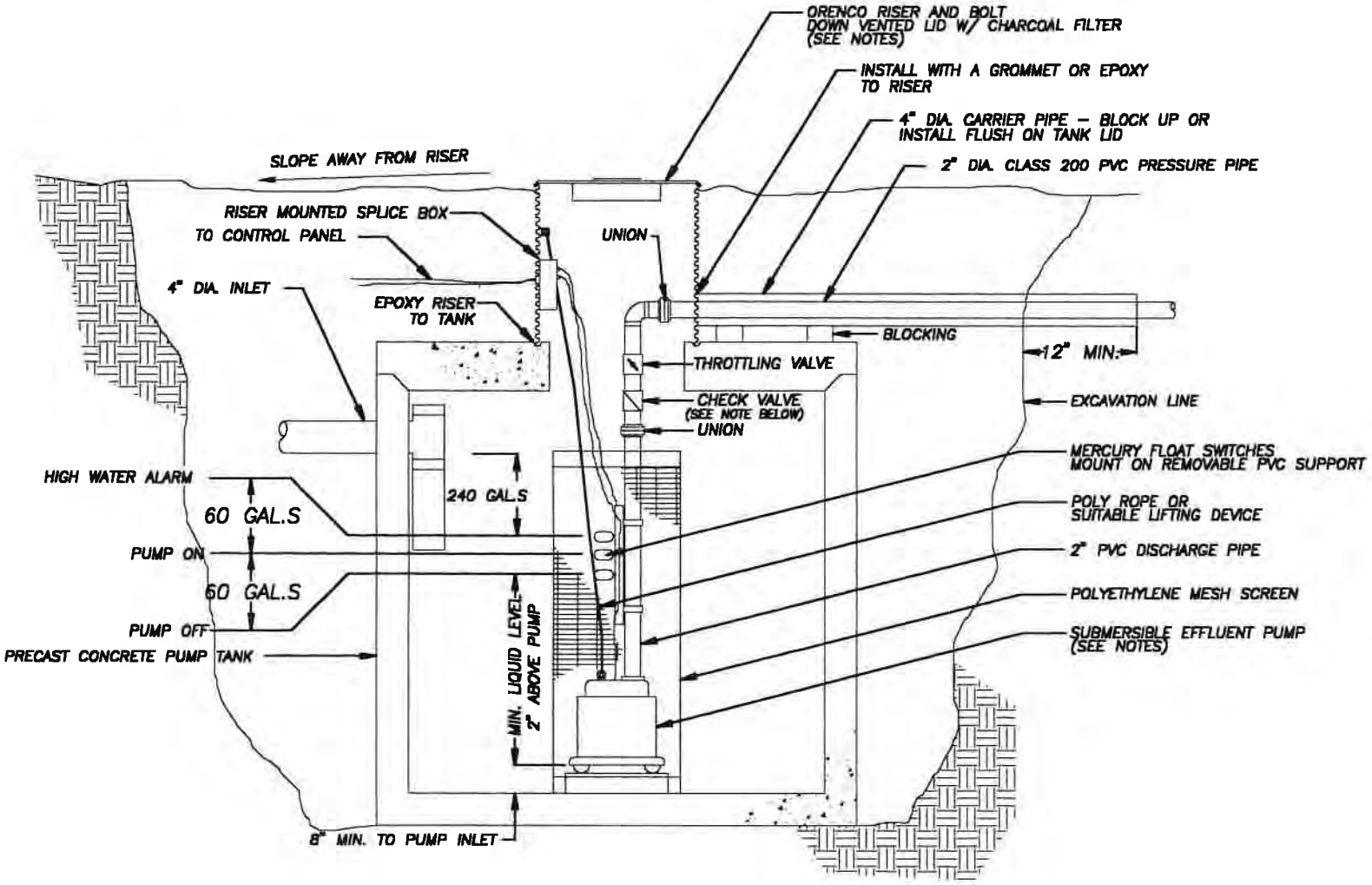


TRUMAN ENGINEERING, INC.

EXAMPLE SITE PLAN

OLYMPIC GREENS COMMUNITY SYSTEM

1



PUMP TANK DETAIL

NOT TO SCALE

- EFFLUENT SCREEN AROUND PUMP TANK CAN BE ELIMINATED IF EFFLUENT SCREEN IN OUTLET OF SEPTIC TANK IS INTACT.

246-272-09501 Location.

(1) Persons shall design and install OSS to meet the minimum horizontal separations shown in Table I, Minimum Horizontal Separations:

TABLE I
Minimum Horizontal Separations

Items Requiring Setback	From edge of disposal component and reserve area	From septic tank, holding tank, containment vessel, pump chamber, and distribution box	From building sewer, collection, and non-perforated distribution line[1]
Non-public well or suction line	100 ft.	50 ft.	50 ft.
Public drinking water well	100 ft.	100 ft.	100 ft.
Public drinking water spring[2]	200 ft.	200 ft.	100 ft.
Spring or surface water used as drinking water source[2,3]	100 ft.	50 ft.	50 ft.
Pressurized water supply line[4]	10 ft.	10 ft.	10 ft.
Properly decommissioned well[5]	10 ft.	N/A	N/A
Surface water[3] Marine water Fresh water	 100 ft. 100 ft.	 50 ft. 50 ft.	 10 ft. 10 ft.
Building foundation	10 ft. [6]	5 ft. [6]	2 ft.
Property or easement line [6]	5 ft.	5 ft.	N/A
Interceptor / curtain drains/ drainage ditches Down-gradient[7] Up-gradient[7]	 30 ft. 10 ft.	 5 ft. N/A	 N/A N/A
Down-gradient cuts or banks with at least 5 ft. of original, undisturbed soil above a restrictive layer due to a structural or textural change	25 ft.	N/A	N/A
Down-gradient cuts or banks with less than 5 ft. of original, undisturbed, soil above a restrictive layer due to a structural or textural change	50 ft.	N/A	N/A

[1] "Building sewer" as defined by the most current edition of the Uniform Plumbing Code. "Non-perforated distribution" includes pressure sewer transport lines.

[2] If surface water is used as a public drinking water supply, the designer shall locate the OSS outside of the required sanitary control area.

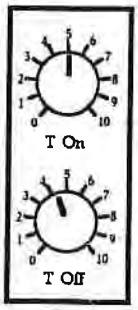
[3] Measured from the ordinary high-water mark.

[4] The local health officer may approve a sewer transport line within 10 feet of a water supply line if the sewer line is constructed in accordance with section 2.4 of the department of ecology's "Criteria For Sewage Works Design," revised October 1985, or equivalent.

Appendix F: Timer Operation

ORENCO SYSTEMS, INC.
2826 Colonial Road Roseburg, OR 97470
503 673-0165

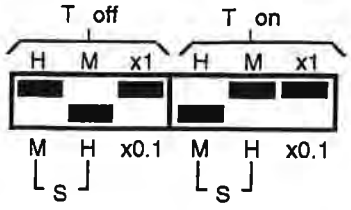
SETTING THE SYRELEC PROGRAMMABLE TIMER



There are two dials on the top of the timer, one for the "on" time range and one for the "off" time range. Each dial is set independently of the other and is read in whatever units you set using the blue dip switches on the side of the timer.

The 3 dip switches on the left set the "off" units.

The 3 dip switches on the right set the "on" units.

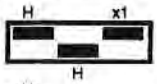
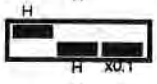
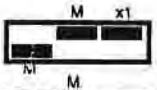
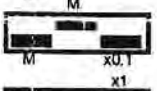
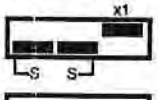
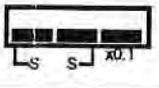


2 Steps for Setting Timer

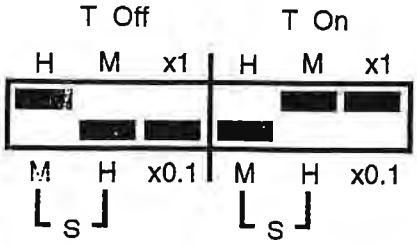
1. On the chart at right, find the time range for the "off" time required and move the "T off" dip switches to the corresponding settings.

2. Note in which units the dial now reads and move the "T off" dial to the "off" time required. If dealing in 10th of units, it may help to refer to the example below.

REPEAT THE 2 STEPS TO SET THE "ON" TIME.

Time Range	Dip Switch Setting	Units on the Dial
0 to 10 hours		Hours
0 to 1 hour		10th of Hours
0 to 10 minutes		Minutes
0 to 1 rainute		10th of Minutes
0 to 10 seconds		Seconds
0 to 1 second		10ths of Seconds

EXAMPLE

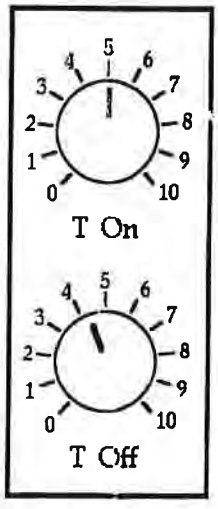


Dip Switches

A typical setting for a recirculating sand filter is 25 minutes "Off" and 5 minutes "On."

To set Off time of 25 minutes: Refer to the chart in the center of this page. Because 25 minutes is in the 0 to 1 hour range, set the "T off" dip switches as shown for 10ths of hours. Now set the lower dial (see right) to 0.42 hour (25 minutes ÷ 60 minutes/hour = 0.42 hr).

To set On time of 5 minutes: Because 5 minutes is in the 0 to 10 minutes range, set the "T on" dip switches as shown for minutes. Now set the upper dial (see right) to 5 minutes.



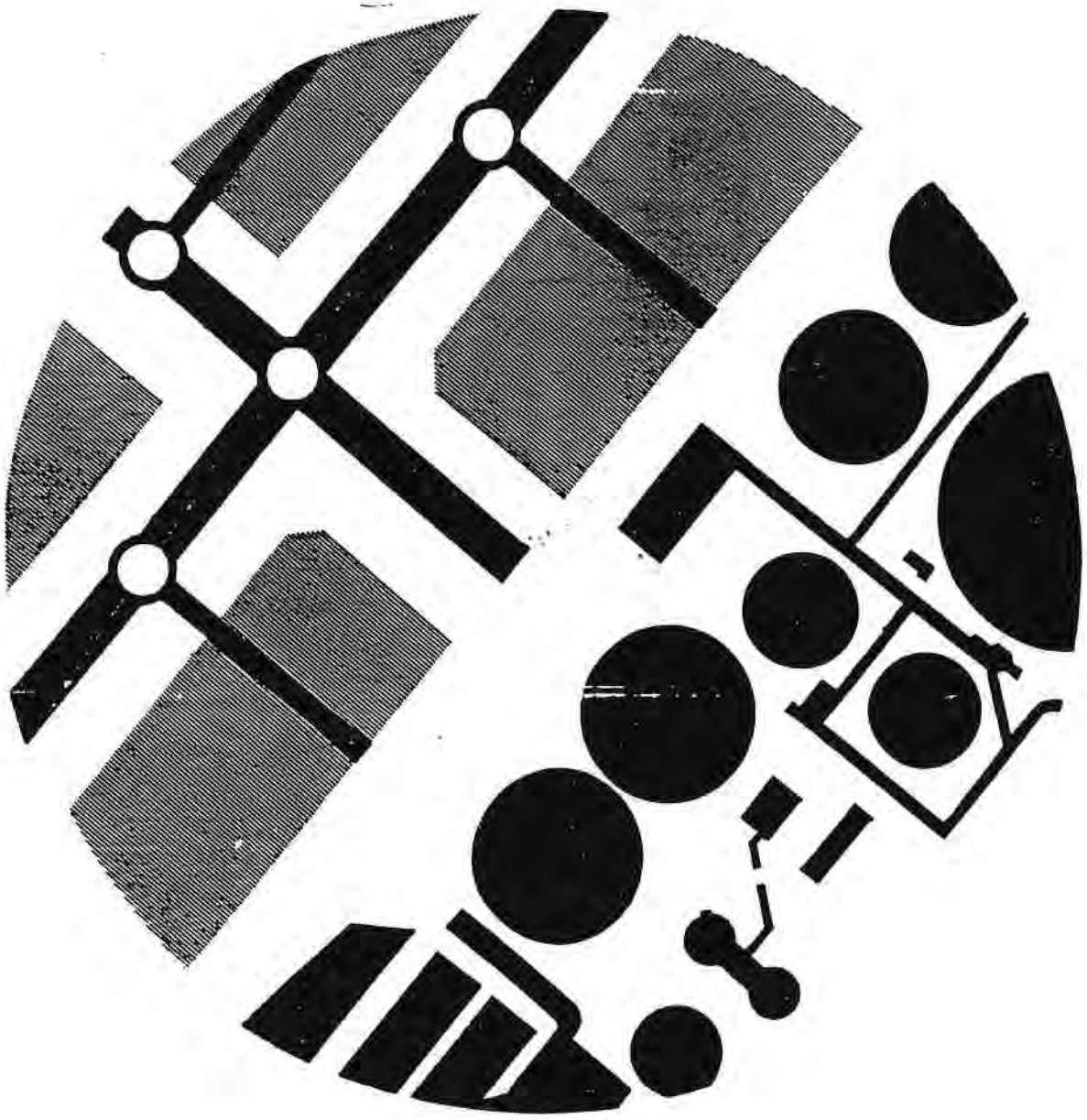
Dials

Appendix G: Criteria for Sewage Works Design

CRITERIA FOR SEWAGE WORKS DESIGN

State of Washington
Department of Ecology

Revised October 1985



DOE 78-5

2.347 Connections

Line connections directly to the manholes or to short stubs integral with the manholes shall be made with flexible joints. Flexible joints are joints which permit the manholes to settle without destroying the watertight integrity of the line connections.

2.348 Ventilation

Ventilation of gravity sewer systems should be considered where continuous watertight sections greater than 1,000 feet in length are incurred.

2.349 Frames, Covers, and Steps

Frames, covers, and steps shall be of suitable material and designed to accommodate prevailing site conditions and to provide for a safe installation.

All covers located in an easement or constructed of aluminum material should be the locking type.

Materials used for manhole steps should be highly corrosion-resistant. Galvanized steel shall not be used.

2.4 Special Details

2.41 Required Separation Between Water Lines and Sanitary Sewers

The basic separation requirements apply to sewers of 24-inch diameter or less; larger sewers may create special hazards because of flow volumes and joint types. The special construction requirements given are for the normal conditions found with sewage and water systems. More stringent requirements may be necessary in areas of high ground water, unstable soil conditions, etc.

2.411 Horizontal Separation (Parallel)

A minimum horizontal separation of ten (10) feet between gravity sanitary sewers and any existing potable water lines shall be maintained, whenever possible. The distance shall be measured edge to edge.

2.412 Unusual Conditions (Parallel)

When local conditions prevent a horizontal separation as described in 2.411, a gravity sewer may be laid closer than 10 feet to a water line provided:

a. It is laid in a separate trench; or, it is laid in the same trench with the water line that is located at one side on a bench of undisturbed earth; and

b. In either case, the elevation of the crown of the gravity sewer must be at least 18 inches below the invert of the water line. When this vertical separation cannot be obtained, the gravity sewer shall be constructed of materials and joints that are equivalent to water main standards of construction and shall be pressure tested to assure water tightness (as per Section 3.46) prior to backfilling (see detail 2.4).

2.413 Vertical Separation (Perpendicular)

Sewer lines crossing water lines shall be laid below the water lines to provide a separation of at least 18 inches between the invert of the water pipe and the crown of the sewer, whenever possible.

2.414 Unusual Conditions (Perpendicular)

When local conditions prevent a vertical separation as described in 2.413, the following construction shall be used:

a. Gravity sewers passing over or under water lines shall be:

1. Constructed of material described in Table 1. The one segment of the maximum standard length of pipe, (but no less than 18 feet long) shall be used with the pipes centered to maximize joint separation.

2. Standard gravity sewer material encased in concrete or in a 1/4" thick continuous steel casing with all voids pressure-grouted with sand-cement grout.

3. The length of sewer pipe shall be centered at the point of crossing so that the joints will be equi-distant and as far as possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.

b. Water lines passing under gravity sewers, in addition, shall be protected by providing:

1. A vertical separation of at least 18 inches between the invert of the sewer and the crown of the water line;

2. Adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking of the water lines; and

3. The length of sewer pipe shall be centered at the point of crossing so that the joints will be equi-distant and as far as possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.

c. Pressure sewers shall only be constructed under water lines with ductile iron pipe or standard sewer pipe in a steel casing for a distance of at least ten (10) feet on each side of the crossing.

2.42 Pumpout Facilities at Marinas

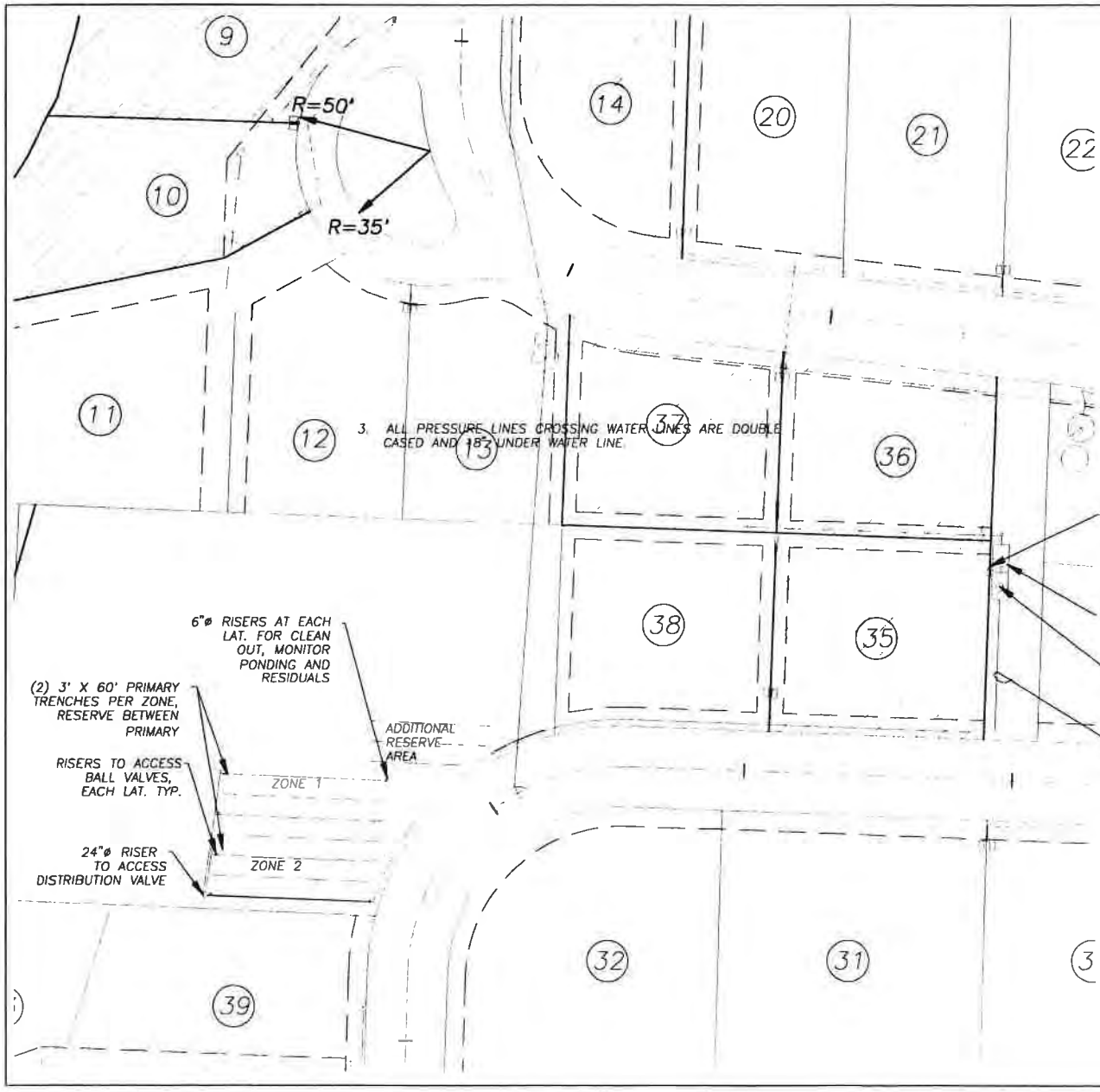
a. Pumpout facilities for disposal of sanitary wastes from boats shall be installed at marinas at the time of initial construction or expansion of facilities, when the following conditions are present:

- The marina is of sufficient size and design to serve larger boats with toilets.
- Provision can be made for adequate disposal of the collected sewage wastes.

Two additional factors that weigh in favor of construction of pumpout facilities are:

- The presence of commercial services such as gasoline, bait, etc. at the marina.
- Use of the marina by overnight or live-aboard boaters.

b. The facilities shall be designed according to the criteria established by DSHS in their publication Environmental Health Guidelines for Marina Development and Operation. Hose connections shall be compatible with the size of fitting required by Coast Guard regulation for marine sanitation devices, which is 1-1/2 inches or 4 inches nominal pipe size.



NOTES:

1. SYSTEM 3 SERVES LOTS 35, 36, AND 37
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1" = 50'

R. RYAN TILLMAN
STATE OF WASHINGTON
28225
REGISTERED
PROFESSIONAL ENGINEER

EXP. DATE: 10 / 28 /98

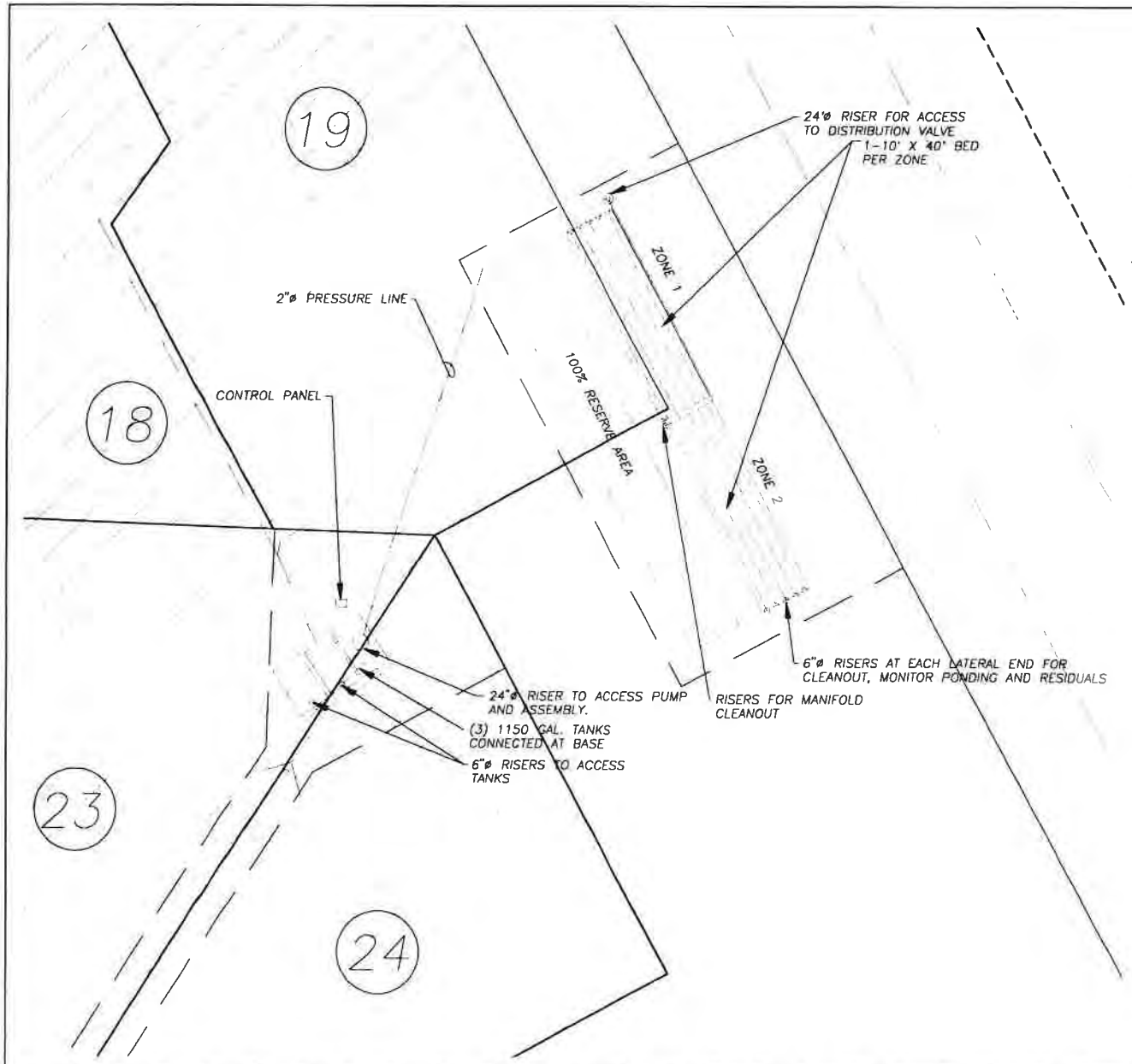
7/11/97

TILLMAN ENGINEERING, INC.
Kirley Professional Center
141 Oak Bay Road / PO Box 1375
Port Hadlock, WA 98339
(360) 379-9951
(360) 379-0150 fax

SYSTEM 3
AS-BUILT

OLYMPIC GREENS
COMM. SYSTEM

DATE:	5/97
SCALE:	1"=50'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET	1



NOTES:

1. SYSTEM 4 SERVES LOTS 18, 19, 23, AND 24.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1"=20'

R. RYAN TILLMAN
STATE OF WASHINGTON
28225
REGISTERED
PROFESSIONAL ENGINEER

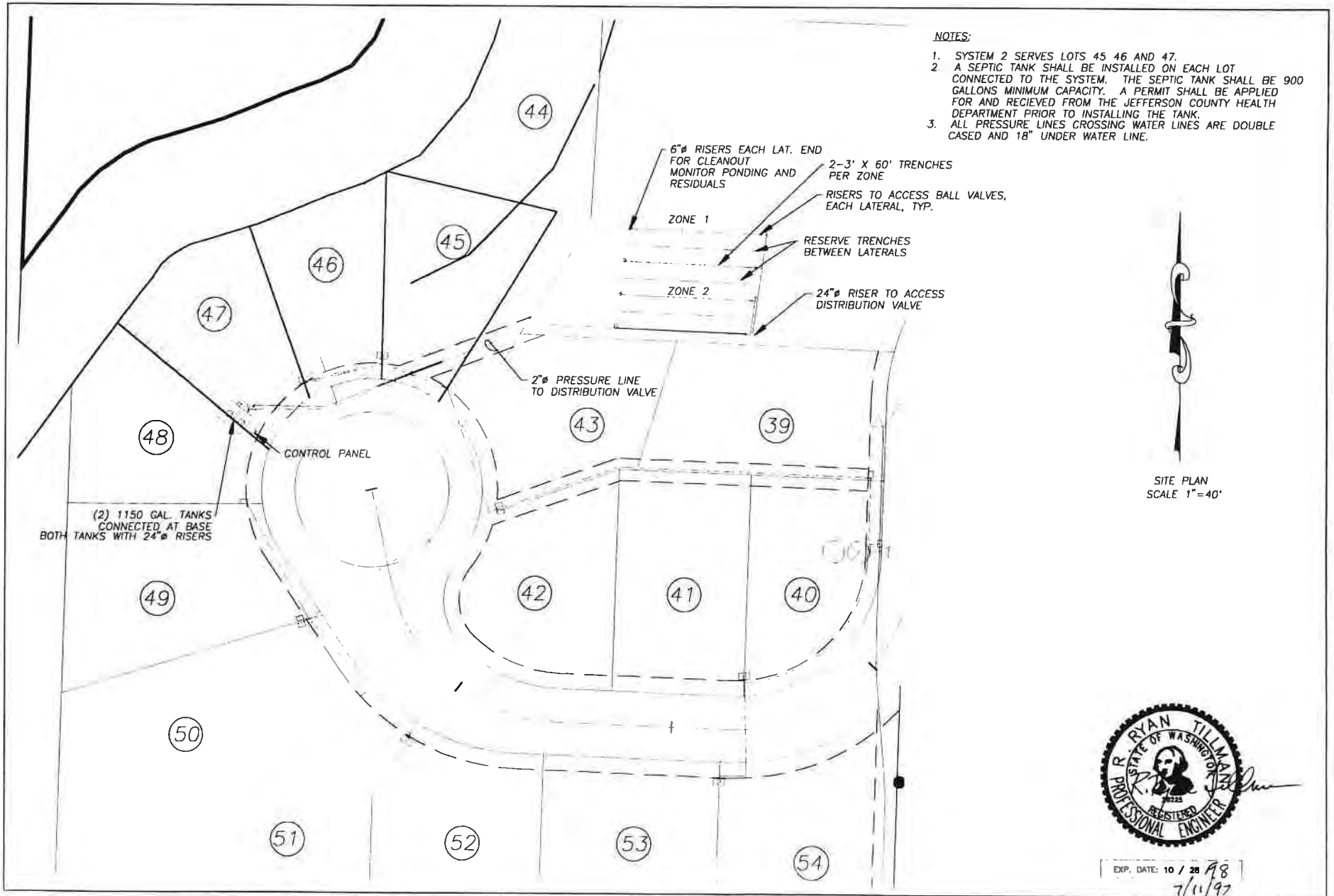
EXP. DATE: 10 / 28 / 98
7/11/97

TILLMAN ENGINEERING, INC.
Kirley Professional Center
141 Oak Bay Road / PO Box 1575
Port Hadlock, WA 98339
(360) 379-0661
(360) 379-0150 fax

SYSTEM 4
AS-BUILT

OLYMPIC GREENS
COMM. SEPTIC

DATE:	5/97
SCALE:	1"=20'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET:	1



NOTES:

1. SYSTEM 2 SERVES LOTS 45 46 AND 47.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1"=40'

R RYAN TILLMAN
STATE OF WASHINGTON
20225
REGISTERED PROFESSIONAL ENGINEER

EXP. DATE: 10 / 28 98

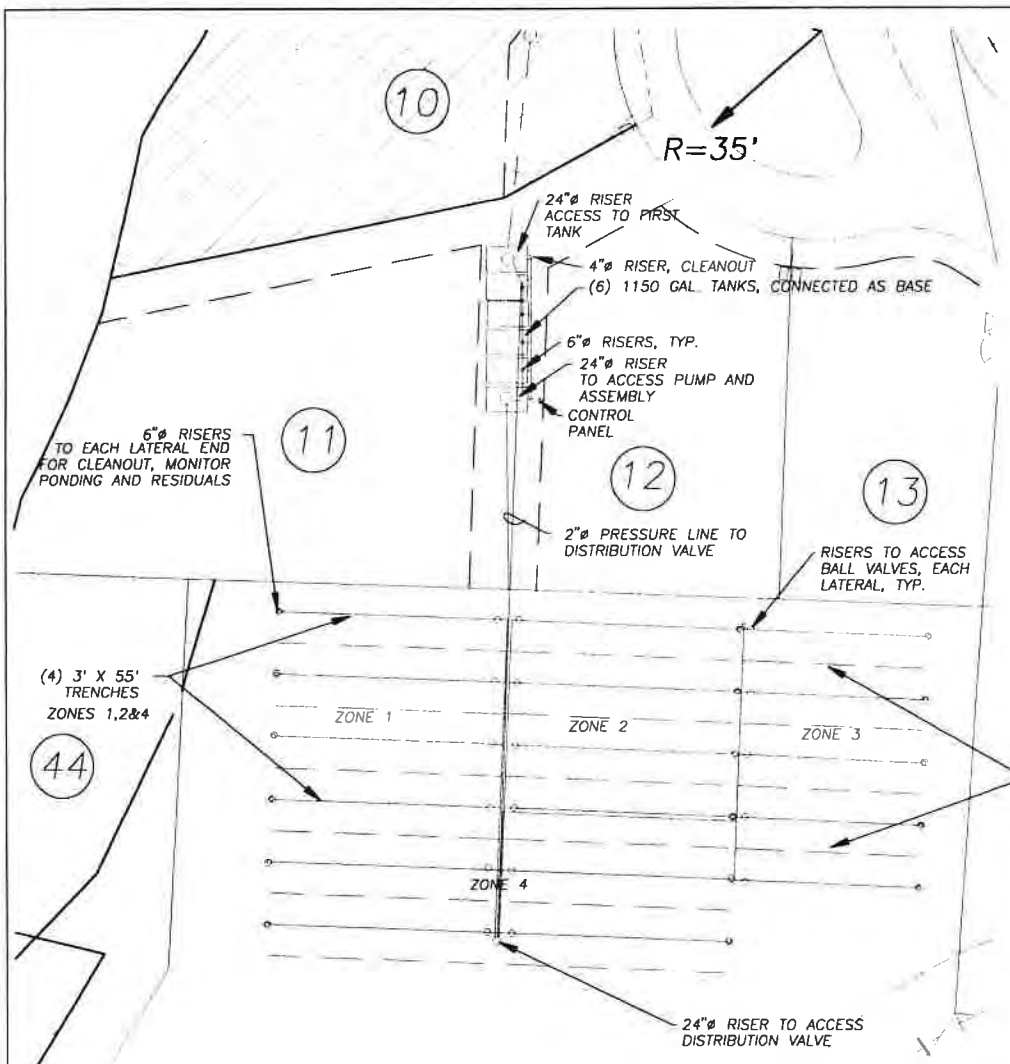
7/11/97

Tillman Professional Center
141 Oak Bay Road / PO Box 1578
Port Hadlock, WA 98339
(360) 379-9901
(360) 379-0150 fax
TILLMAN ENGINEERING, INC.

SYSTEM 2 AS-BUILT

OLYMPIC GREENS
COMM. SYSTEM

DATE:	6/97
SCALE:	1"=40'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET	1



NOTES:

1. SYSTEM 1 SERVES LOTS 1–10 AND 14.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE

SITE PLAN
SCALE 1"=30'

EXP. DATE: 10 / 28 /98

7/11/97

TILLMAN ENGINEERING, INC.
Kirby Professional Center
141 Oak Bay Road / PO Box 1576
Port Hadlock, WA 98339
(360) 379-9991
(360) 379-0150 fax

SYSTEM 1 AS-BUILT

OLYMPIC GREENS COMM. SEPTIC

DATE:	5/97
SCALE:	1"=30'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET	1

Shold Excavating Inc.

PO Box 179
Port Hadlock, WA 98339

360-385-0480

Mail To: Sto llc.
1909 WALNUT STREET
PORT TOWNSEND, WA
98368

PROPERTY INFORMATION

serves lots 1-10 and 14 SYSTEM 1
Location: 86 OLYMPIC GREENS DR
Port Hadlock
Tax ID: 979900100

Use: Residential, Community

GENERAL SYSTEM TYPE: Community pressure

ON ID: SOM96-00338

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Fold Here

Inspected: 09/30/2019 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company: Certification - Level 2	Work Performed By:	Submitted 10/29/2019 by:
Shold Excavating Inc.	Martin Fugere	Timothy Johnson

This report does not assure approvals by Jefferson County Public Health for ANY future building permits or development.

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

Cord on redundant off float is a little swollen and should be replaced

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
All Components accessible for maintenance, secure and in good condition:	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (roads, buildings, etc.) onto component(s):	NO
Component settling problems observed:	NO
Abnormal ponding present for one or more of the disposal components:	NO
Subsurface components adequately covered	YES
Owner compliance issues noted	NO
Site maintenance required (e.g. Landscape maintenance) If yes, describe in comments:	NO
Occupant compliance problem (occupant not operating the system properly). If YES, describe in notes:	NO
If deficiencies were identified on last inspection were they corrected before or during this inspection? (If NO, describe in notes, NA = no deficiencies on last report):	N/A
OSS Components, structures and appurtenances located per as-built/record drawing (reference Septic Permit # in notes). If NO, describe in notes and if no as-built exists or changes made, state NO and provide record to Health Dept:	YES
Alterations made to the OSS (valves adjusted, timer settings modified, ports installed, etc.) (If YES, describe in notes):	NO
The house/structure was vacant or used infrequently, assessment of the drainfield was not possible.	NO
Is the SEP case in a finaled/completed status? (if NO explain in comments)	YES

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 2 Compartment #32 lot 1 sep 97-108		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		

TANK: Septic Tank - 2 Compartment #44 lot 2 sep97-197		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		
TANK: Septic Tank - 2 Compartment #56 lot 3 sep97-109		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		
TANK: Septic Tank - 2 Compartment #62 lot 4 sep 97-198		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		
TANK: Septic Tank - 2 Compartment #86 lot 7 sep 07-137		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		
TANK: Septic Tank - 2 Compartment #92 lot 8 sep 08-224		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		

TANK: Pump Tank		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Pump vault screen needed cleaning on arrival	N/A	
Compartment 1 Sludge accumulation (Inches, if other specify):	0	
Pump Vault Filter cleaned (N/A = not present):	N/A	
Pumping needed:	NO	
Approximate Gallons to be pumped (if needed) by Certified Pumper:	0	
Panel: Control - 1 Pump		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	2.5 min	
Pump 1: off hours (override in parentheses - if present):	6 hrs	
Pump 1: gallons per dose (override in parentheses - if present):	225	
Pump 1: ETM hours (override in parentheses - if present):	866:30	
Pump 1: Cycle Count (override in parentheses - if present):	113265	
Pump: Effluent Pump		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Controls functioning:	YES	
Dose setting different than original (If YES, detail in comments)	NO	
Dose setting adjusted to meet as-built/record drawing specifications (by the O&M Specialist)	NO	
Tested gallons per minute flow:	75	
Distribution: Automatic Distributing Valve		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Distributing valve dosing as intended:	YES	
Drainfield (disposal): Pressure		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Lateral lines flushed:	NO	
Average squirt height (if performed) (feet, if other specify):	7'	
Ponding present? If YES explain in comments:	NO	
Drainfield was vacuumed, flushed or hydro-jetted? (If YES, explain in comments)	NO	

Shold Excavating Inc.

PO Box 179
Port Hadlock, WA 98339

360-385-0480

PROPERTY INFORMATION

SYSTEM 2
Location: 86 OLYMPIC GREENS DR
Port Hadlock
Tax ID: 979900100

Use: Residential, Community

GENERAL SYSTEM TYPE: PRESSURE

Mail To: Sto llc.
1909 WALNUT STREET
PORT TOWNSEND, WA
98368

ON ID: SOM96-00339

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ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Fold Here

Inspected: 09/30/2019 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company: Certification - Level 2	Work Performed By:	Submitted 10/29/2019 by:
Shold Excavating Inc.	Martin Fugere	Timothy Johnson

This report does not assure approvals by Jefferson County Public Health for ANY future building permits or development.

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
All Components accessible for maintenance, secure and in good condition:	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (roads, buildings, etc.) onto component(s):	NO
Component settling problems observed:	NO
Abnormal ponding present for one or more of the disposal components:	NO
Subsurface components adequately covered	YES
Owner compliance issues noted	NO
Site maintenance required (e.g. Landscape maintenance) If yes, describe in comments:	NO
Occupant compliance problem (occupant not operating the system properly). If YES, describe in notes:	NO
If deficiencies were identified on last inspection were they corrected before or during this inspection? (If NO, describe in notes, NA = no deficiencies on last report):	N/A
OSS Components, structures and appurtenances located per as-built/record drawing (reference Septic Permit # in notes). If NO, describe in notes and if no as-built exists or changes made, state NO and provide record to Health Dept:	YES
Alterations made to the OSS (valves adjusted, timer settings modified, ports installed, etc.) (If YES, describe in notes):	NO
The house/structure was vacant or used infrequently, assessment of the drainfield was not possible.	YES
Is the SEP case in a finaled/completed status? (if NO explain in comments)	YES

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Pump Tank		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Pump vault screen needed cleaning on arrival	N/A	
Compartment 1 Sludge accumulation (Inches, if other specify):	0	
Pump Vault Filter cleaned (N/A = not present):	N/A	
Pumping needed:	NO	
Approximate Gallons to be pumped (if needed) by Certified Pumper:	0	

Panel: Control - 1 Pump		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	2.5 min	
Pump 1: off hours (override in parentheses - if present):	6 hrs	
Pump 1: gallons per dose (override in parentheses - if present):	93	
Pump 1: ETM hours (override in parentheses - if present):	7:03	
Pump 1: Cycle Count (override in parentheses - if present):	245	
Pump: Effluent Pump		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Controls functioning:	YES	
Dose setting different than original (If YES, detail in comments)	NO	
Dose setting adjusted to meet as-built/record drawing specifications (by the O&M Specialist)	NO	
Tested gallons per minute flow:	33	
Distribution: Automatic Distributing Valve		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Distributing valve dosing as intended:	YES	
Drainfield (disposal): Pressure		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Lateral lines flushed:	NO	
Average squirt height (if performed) (feet, if other specify):	8'	
Ponding present? If YES explain in comments:	NO	
Drainfield was vacuumed, flushed or hydro-jetted? (If YES, explain in comments)	NO	

Shold Excavating Inc.

PO Box 179
Port Hadlock, WA 98339

360-385-0480

PROPERTY INFORMATION

SYSTEM 3
Location: 86 OLYMPIC GREENS DR
Port Hadlock
Tax ID: 979900100

Use: Residential, Community

Mail To: Sto llc.
1909 WALNUT STREET
PORT TOWNSEND, WA
98368

ON ID: SOM96-00340

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Fold Here

Inspected: 09/30/2019 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company: Certification - Level 2	*Work Performed By:*	*Submitted 10/29/2019 by:*
Shold Excavating Inc.	Martin Fugere	Timothy Johnson

This report does not assure approvals by Jefferson County Public Health for ANY future building permits or development.

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
All Components accessible for maintenance, secure and in good condition:	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (roads, buildings, etc.) onto component(s):	NO
Component settling problems observed:	NO
Abnormal ponding present for one or more of the disposal components:	NO
Subsurface components adequately covered	YES
Owner compliance issues noted	NO
Site maintenance required (e.g. Landscape maintenance) If yes, describe in comments:	NO
Occupant compliance problem (occupant not operating the system properly). If YES, describe in notes:	NO
If deficiencies were identified on last inspection were they corrected before or during this inspection? (If NO, describe in notes, NA = no deficiencies on last report):	N/A
OSS Components, structures and appurtenances located per as-built/record drawing (reference Septic Permit # in notes). If NO, describe in notes and if no as-built exists or changes made, state NO and provide record to Health Dept:	YES
Alterations made to the OSS (valves adjusted, timer settings modified, ports installed, etc.) (If YES, describe in notes):	NO
The house/structure was vacant or used infrequently, assessment of the drainfield was not possible.	YES
Is the SEP case in a finaled/completed status? (if NO explain in comments)	YES

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Pump Tank		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Pump vault screen needed cleaning on arrival	N/A	
Compartment 1 Sludge accumulation (Inches, if other specify):	0	
Pump Vault Filter cleaned (N/A = not present):	N/A	
Pumping needed:	NO	
Approximate Gallons to be pumped (if needed) by Certified Pumper:	0	

Panel: Control - 1 Pump		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	2.5 min	
Pump 1: off hours (override in parentheses - if present):	6hrs	
Pump 1: gallons per dose (override in parentheses - if present):	94	
Pump 1: ETM hours (override in parentheses - if present):	:61	
Pump 1: Cycle Count (override in parentheses - if present):	93	
Pump: Effluent Pump		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Controls functioning:	YES	
Dose setting different than original (If YES, detail in comments)	NO	
Dose setting adjusted to meet as-built/record drawing specifications (by the O&M Specialist)	NO	
Tested gallons per minute flow:	34	
Distribution: Automatic Distributing Valve		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Distributing valve dosing as intended:	YES	
Drainfield (disposal): Pressure		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Lateral lines flushed:	NO	
Average squirt height (if performed) (feet, if other specify):	6'	
Ponding present? If YES explain in comments:	NO	
Drainfield was vacuumed, flushed or hydro-jetted? (If YES, explain in comments)	NO	

Shold Excavating Inc.

PO Box 179
Port Hadlock, WA 98339

360-385-0480

PROPERTY INFORMATION

lots 18, 19, 23, 24 SYSTEM 4
Location: 86 OLYMPIC GREENS DR
Port Hadlock
Tax ID: 979900100

Use: Residential, Community

GENERAL SYSTEM TYPE: Community pressure

Mail To: Sto llc.
1909 WALNUT STREET
PORT TOWNSEND, WA
98368

ON ID: SOM96-00341

Fold Here

ON-SITE WASTEWATER TREATMENT SYSTEM INSPECTION REPORT

Fold Here

Inspected: 09/30/2019 - Inspection Type: ROUTINE - Correction Status: No corrections needed

Company: Certification - Level 2	Work Performed By:	Submitted 10/29/2019 by:
Shold Excavating Inc.	Martin Fugere	Timothy Johnson

This report does not assure approvals by Jefferson County Public Health for ANY future building permits or development.

COMMENTS & GENERAL INSPECTION NOTES

No Deficiencies Noted

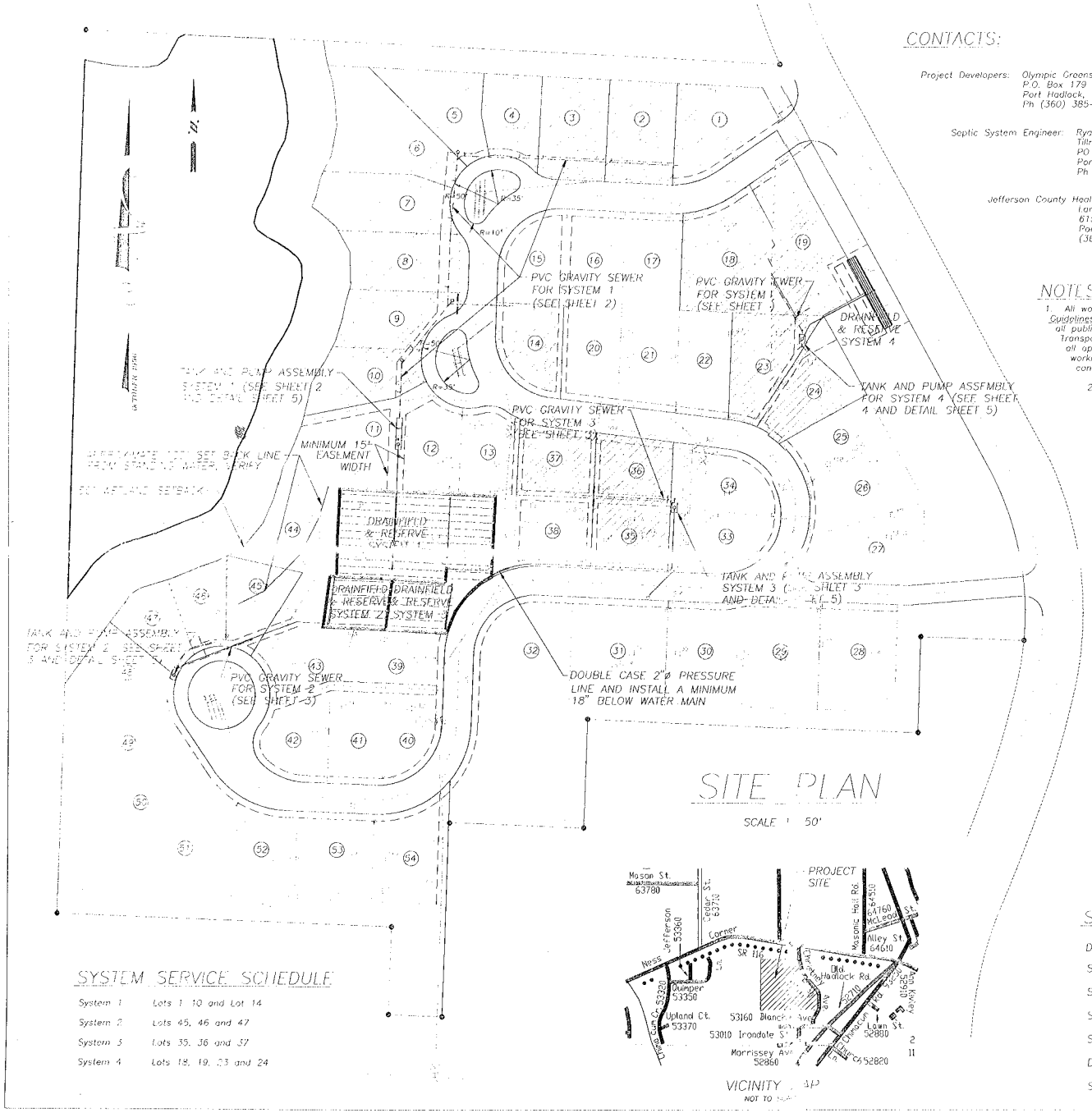
GENERAL SITE & SYSTEM CONDITIONS

The General Site and System Conditions were:	Fully Inspected
All Components accessible for maintenance, secure and in good condition:	YES
Surfacing effluent from any component (including mound seepage):	NO
Components appear to be watertight - no visual leaks:	YES
Improper encroachment (roads, buildings, etc.) onto component(s):	NO
Component settling problems observed:	NO
Abnormal ponding present for one or more of the disposal components:	NO
Subsurface components adequately covered	YES
Owner compliance issues noted	NO
Site maintenance required (e.g. Landscape maintenance) If yes, describe in comments:	NO
Occupant compliance problem (occupant not operating the system properly). If YES, describe in notes:	NO
If deficiencies were identified on last inspection were they corrected before or during this inspection? (If NO, describe in notes, NA = no deficiencies on last report):	N/A
OSS Components, structures and appurtenances located per as-built/record drawing (reference Septic Permit # in notes). If NO, describe in notes and if no as-built exists or changes made, state NO and provide record to Health Dept:	YES
Alterations made to the OSS (valves adjusted, timer settings modified, ports installed, etc.) (If YES, describe in notes):	NO
The house/structure was vacant or used infrequently, assessment of the drainfield was not possible.	NO
Is the SEP case in a finaled/completed status? (if NO explain in comments)	YES

ONSITE SEWAGE SYSTEM INSPECTION DETAIL

TANK: Septic Tank - 2 Compartment # 35 lot 18 sep 98-229		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		

TANK: Septic Tank - 2 Compartment #23 lot 19 sep 98-135		
This component was:	**Not Inspected**	
Component appears to be functioning as intended:		
Effluent level within operational limits (if NO explain in comments):		
All required baffles in place (N/A = No baffles required):		
Effluent Filter Cleaned (N/A = Not Present):		
Compartment 1 Scum accumulation (Inches, if other specify):		
Effluent filter/screen needed cleaning on arrival		
Compartment 1 Sludge accumulation (Inches, if other specify):		
Compartment 2 Scum accumulation (Inches, if other specify):		
Compartment 2 Sludge accumulation (Inches, if other specify):		
Pumping needed:		
Approximate Gallons to be pumped (if needed) by Certified Pumper:		
TANK: Pump Tank		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Compartment 1 Scum accumulation (Inches, if other specify):	0	
Pump vault screen needed cleaning on arrival	NO	
Compartment 1 Sludge accumulation (Inches, if other specify):	1	
Pump Vault Filter cleaned (N/A = not present):	NO	
Pumping needed:	NO	
Approximate Gallons to be pumped (if needed) by Certified Pumper:	0	
Panel: Control - 1 Pump		
This component was:	Fully Inspected	
Panel functioning (including alarm):	YES	
Pump 1: on minutes (override in parentheses - if present):	3 min	
Pump 1: off hours (override in parentheses - if present):	6 hrs	
Pump 1: gallons per dose (override in parentheses - if present):	125	
Pump 1: ETM hours (override in parentheses - if present):	1571:68	
Pump 1: Cycle Count (override in parentheses - if present):	42002	
Pump: Effluent Pump		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Controls functioning:	YES	
Dose setting different than original (If YES, detail in comments)	NO	
Dose setting adjusted to meet as-built/record drawing specifications (by the O&M Specialist)	NO	
Tested gallons per minute flow:	50	
Distribution: Automatic Distributing Valve		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Distributing valve dosing as intended:	YES	
Drainfield (disposal): Pressure		
This component was:	Fully Inspected	
Component appears to be functioning as intended:	YES	
Lateral lines flushed:	NO	
Average squirt height (if performed) (feet, if other specify):	7'	
Ponding present? If YES explain in comments:	NO	
Drainfield was vacuumed, flushed or hydro-jetted? (If YES, explain in comments)	NO	



SITE PLAN

SCALE 1" = 50'

SYSTEM SERVICE SCHEDULE

System 1	Lots 1, 10 and Lot 14
System 2	Lots 45, 46 and 47
System 3	Lots 35, 36 and 37
System 4	Lots 18, 19, 23 and 24

CONTACTS:

Project Developers: Olympic Greens Partnership
P.O. Box 179
Port Hadlock, WA 98339
Ph (360) 385-0480

Road and Drainage Engineer: Ryan Tillman, P.E.
Tillman Engineering, Inc.
PO Box 1375
Port Hadlock, WA 98339
Ph (360) 379-9661

Septic System Engineer: Ryan Tillman, P.E.
Tillman Engineering, Inc.
PO Box 1375
Port Hadlock, WA 98339
Ph (360) 379-9661

Septic Installer: Shold Excavating
P.O. Box 179
Port Hadlock, WA 98339
Ph. (360) 385-0480

Jefferson County Health Department:
Larry Fay, Director
615 Sheridan Street
Port Townsend, WA 98368
(360) 385-9444

Monitoring: Jefferson County PUD No. 1
P.O. Box 929
Port Hadlock, WA 98339
(360) 385-5800

NOTES:

1. All work shall be in accordance with WAC 246-272; On-Site System Regulations, Guidelines For The Use Of Pressure Distribution Systems, Criteria For Sewage Works Design, all published by the State of Washington, latest editions; Washington State Department of Transportation Standard Specifications for Road, Bridge and Municipal Construction, current edition, all applicable rules and regulations of Jefferson County, and the plans. All materials, workmanship, design and construction of the septic tanks and other components shall conform to the drawings, specifications and the Uniform Building Code, current edition.

2. All setbacks shall be maintained in accordance with WAC 246-272-09501. Pressure lines and gravity sewer lines which cross water lines, or can not maintain 10' horizontal separation shall comply with the Washington State Department of Ecology "Criteria For Sewage works Design" requirements.

3. This plan assumes implementation of the approved storm water plan.

4. A copy of the approved plans and applicable specifications shall be on site during construction.

5. Work shall be performed in a professional, workmanlike manner by persons skilled and licensed in the construction of alternative on-site sewage disposal systems. The contractor shall be responsible for all safety precautions and the methods, techniques, sequences, or proceedures required to perform his work, including shoring and cribbing for excavations, etc.

[illegible] with the engineer, owner and other involved parties.

7. The contractor shall notify the Engineer immediately of discrepencies, errors and/or omissions in the plans. Construction on the effected portion of the work shall not continue until the problem is resolved. The contractor is responsible for recording all changes on the as-built plans. The contractor is responsible for submitting the corrected as-built plans to the Engineer within 30 days after completion of construction. As-built plans shall accurately show all trenches, beds, clean outs, stub outs, tanks, hatches, risers, etc. to within 1' of the actual location.

8. Contact the Engineer prior to installation for staking of all system components.

9. Maintain a minimum cover of 30" over all pressure lines and gravity sewer lines under driveways, roadways and other areas exposed to vehicular traffic or other mechanical disturbances, unless otherwise approved by the Engineer.

10. See Specifications, Sheet 6, for individual component descriptions.

11. Easement lines shown on the plan are approximate. Easements shall be recorded that encompass all system components and allow access for installation, maintenance and repair.

SHEET INDEX

DESCRIPTION	SHEET NUMBER
SITE, NOTES AND CONTACTS	1
SYSTEM 1	2
SYSTEM 2 & 3	3
SYSTEM 4 & DETAILS	4
DETAILS	5
SPECIFICATIONS	6

REVISED 10/29/96

RYAN TILLMAN — STATE OF WASHINGTON — 16202 — REGISTERED PROFESSIONAL ENGINEER

EXP. DATE 10/29/97

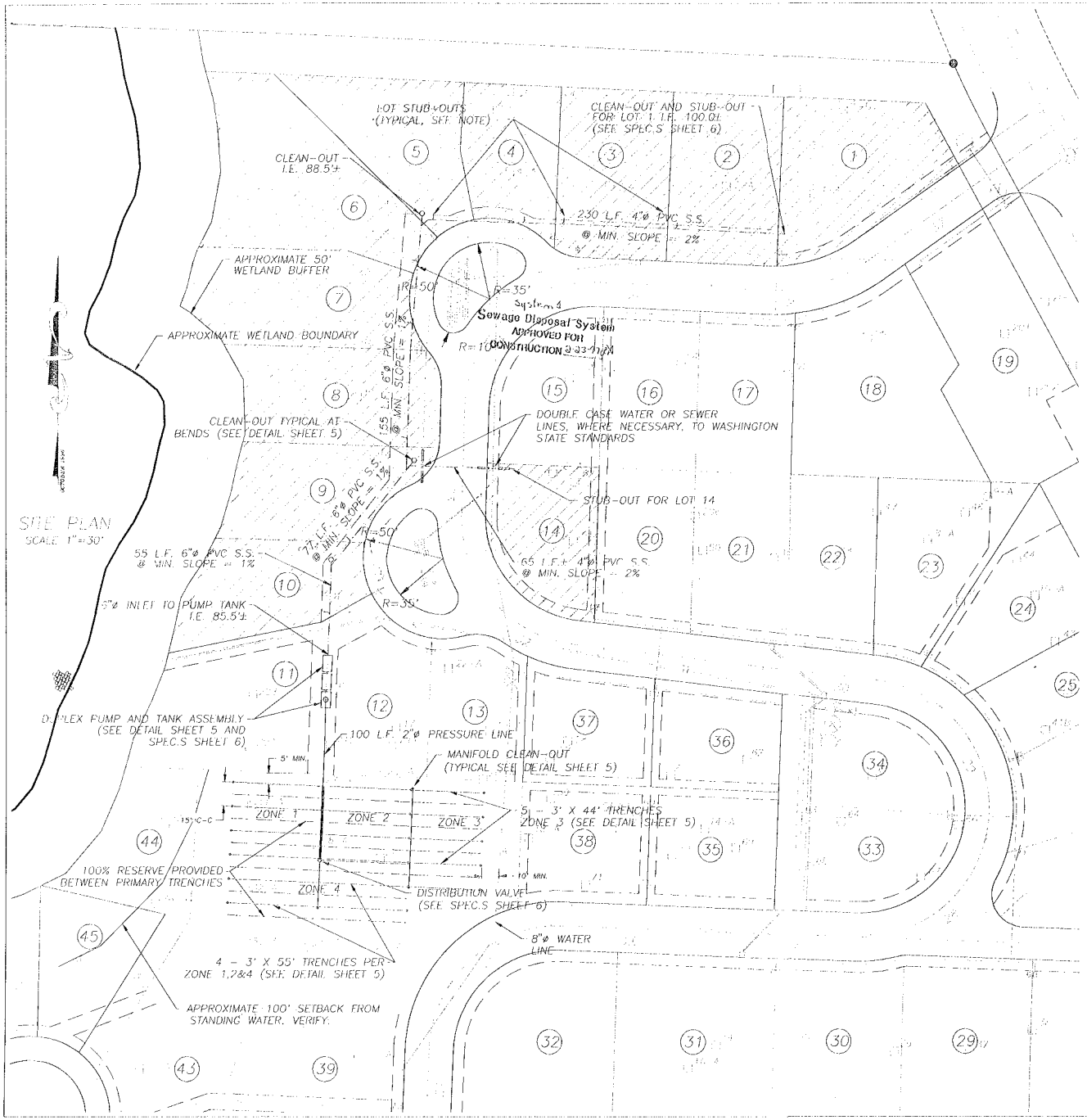
10/29/96

Kirby Professional Center
1841 Kirby Ave. P.O. Box 1375
Port Hadlock, WA 98339
(360) 379-9661
(360) 379-0156 fax
ENGINEERING, INC.

SITE, NOTES & CONTACTS

OLYMPIC GREENS
COMM. SEPTIC

DATE: OCT. 96
SCALE: 1"=50'
JOB NO: 9401.3
DRAWN BY: TM
TOT SHTS: 6
SHEET: 1



NOTES:

1. SYSTEM 1 SERVES LOTS 1-10 AND LOT 14.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECEIVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. LOT STUB-OUT LOCATIONS ARE APPROXIMATE AND MAY BE MOVED TO BETTER ACCOMODATE SLOPE OR LOCATION OF RESIDENCE. MAINTAIN MINIMUM SLOPE OF 2% FOR 4"ø PIPE RUNS AND 1% FOR 6"ø PIPE RUNS.
4. LOT STUB-OUTS SHALL BE CAPPED AND MARKED WITH A TREATED 2"X4" STAKE, OR EQUIVALENT, PROTRUDING A MINIMUM OF 24" ABOVE FINISHED GRADE.
5. SEE SHEET 6 FOR SPECIFICATIONS INCLUDING TANK AND PUMP SIZING, ELECTRICAL REQUIREMENTS, ETC.
6. VERIFY SETBACK COMPLIANCE PRIOR TO INSTALLATION OF ANY SYSTEM COMPONENT.

RECEIVED

R. RYAN TILLIAN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

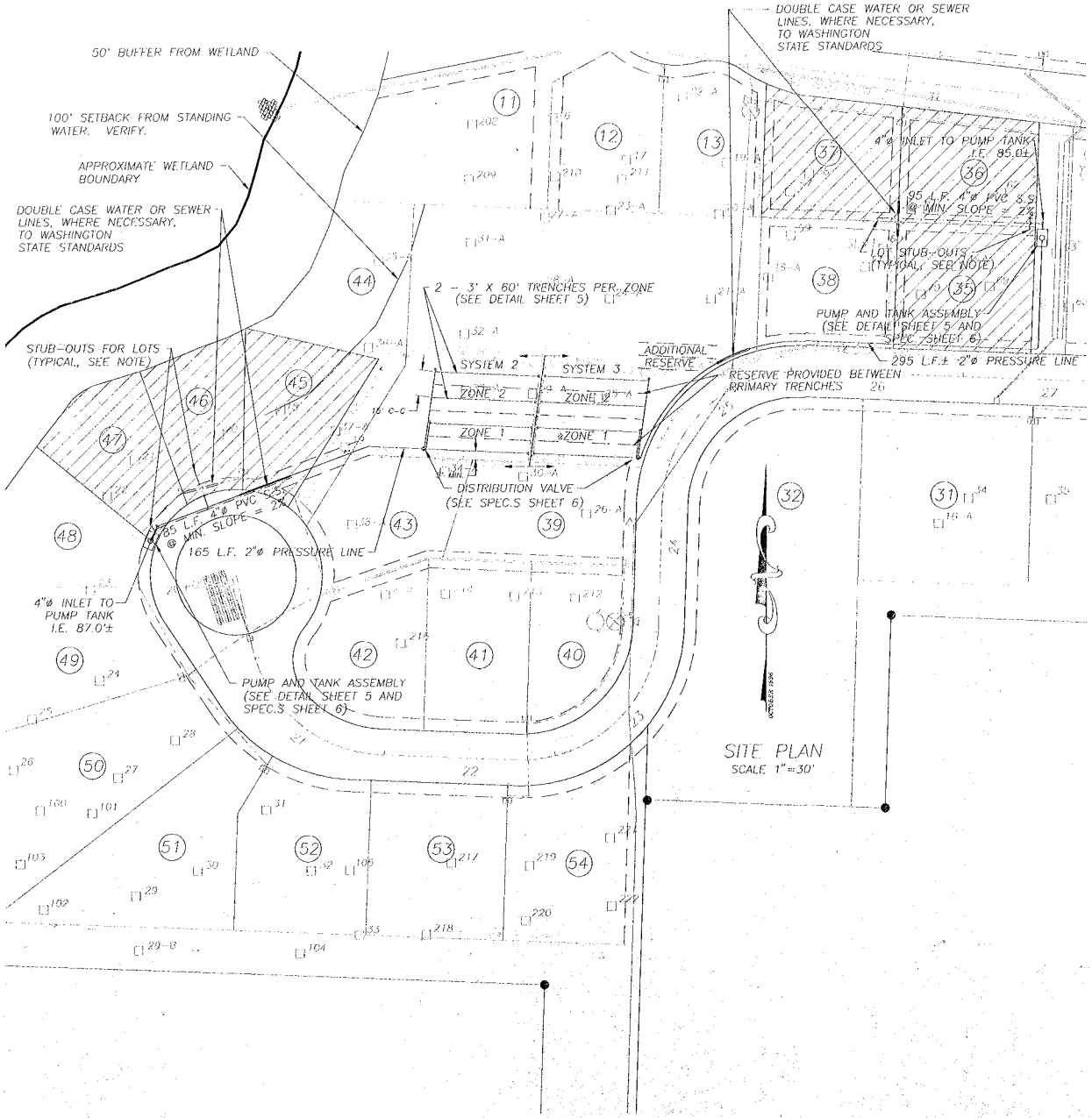
EXP. DATE: 10/28/98
10/31/96

TILLIAN ENGINEERING, INC.
Kirley Professional Center
141 Oak Bay Road / PO Box 1375
Port Hadlock, WA 98339
(360) 379-9661
(360) 379-0150 fax

SYSTEM 1 SITE PLAN

OLYMPIC GREENS COMM. SEPTIC

DATE:	OCT. 96
SCALE:	1"=30'
JOB NO:	94013
DRAWN BY:	TM
TOT SHTS:	6
SHEET:	2



NOTES:

1. SYSTEM 2 SERVES LOTS 45, 46 AND LOT 47. SYSTEM 3 SERVES LOTS 35, 36 AND LOT 37.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECEIVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. LOT STUB-OUT LOCATIONS ARE APPROXIMATE AND MAY BE MOVED TO BETTER ACCOMODATE SLOPE OR LOCATION OF RESIDENCE. MAINTAIN MINIMUM SLOPE OF 2% FOR 4"ø PIPE RUNS AND 1% FOR 6"ø PIPE RUNS.
4. LOT STUB-OUTS SHALL BE CAPPED AND MARKED WITH A TREATED 2"X4" STAKE, OR EQUIVALENT, PROTRUDING A MINIMUM OF 24" ABOVE FINISHED GRADE.
5. SEE SHEET 6 FOR SPECIFICATIONS INCLUDING TANK AND PUMP SIZING, ELECTRICAL REQUIREMENTS, ETC.
6. VERIFY SETBACK COMPLIANCE PRIOR TO INSTALLATION OF ANY SYSTEM COMPONENT.

RECEIVED
JAN 29 1997
JEFFERSON COUNTY
PERMIT CENTER

R. RYAN TILLMAN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

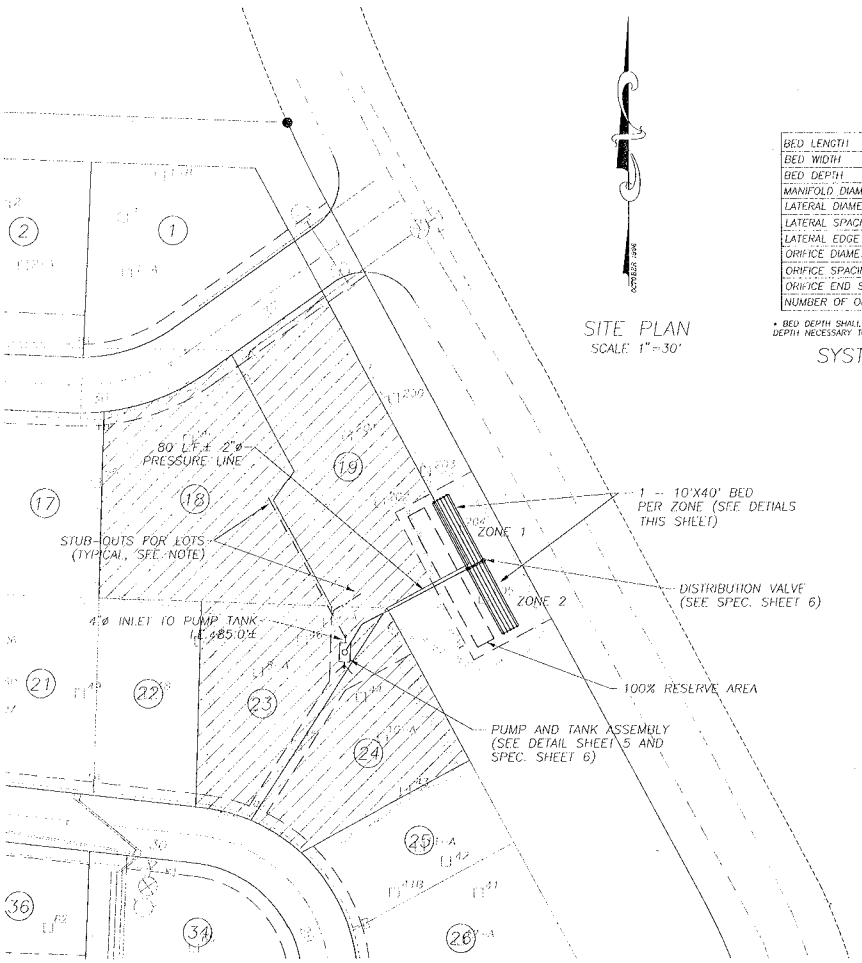
EXP. DATE 10 / 28 / 96
11/31/96

TILLMAN ENGINEERING, INC.
Kivley Professional Center
141 Oak Bay Road / PO Box 1375
Port Hadlock, WA 98339
(360) 379-9661
(360) 379-0150 fax

SYSTEMS 2&3 SITE PLAN

OLYMPIC GREENS COMM. SEPTIC

DATE: OCT. 96
SCALE: 1"=30'
JOB NO: 94013
DRAWN BY: TM
TOT SHTS: 6
SHEET: 3



SITE PLAN
SCALE 1"=30'

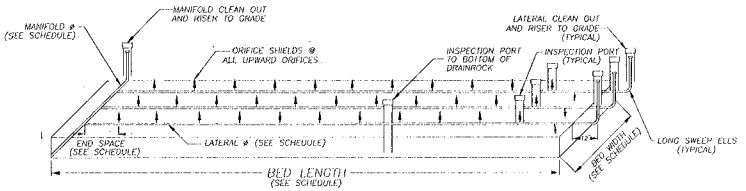
	LATERAL #1	LATERAL #2	LATERAL #3	LATERAL #4	LATERAL #5
BED LENGTH	40'	40'	40'	40'	40'
BED WIDTH	10'	10'	10'	10'	10'
BED DEPTH	62"*	62"*	62"*	62"*	62"*
MANIFOLD DIAMETER	2"	2"	2"	2"	2"
LATERAL DIAMETER	1"	1"	1"	1"	1"
LATERAL SPACING	2'	2'	2'	2'	2'
LATERAL EDGE SPACE	1'	1'	1'	1'	1'
ORIFICE DIAMETER	1/8"	1/8"	1/8"	1/8"	1/8"
ORIFICE SPACING	2'	2'	2'	2'	2'
ORIFICE END SPACE	1'	1'	1'	1'	1'
NUMBER OF ORIFICES	20	20	20	20	20

* BED DEPTH SHALL BE VERIFIED IN THE FIELD AND SHALL BE THE DEPTH NECESSARY TO PENETRATE THE COARSE MATERIAL BY 6" MINIMUM.

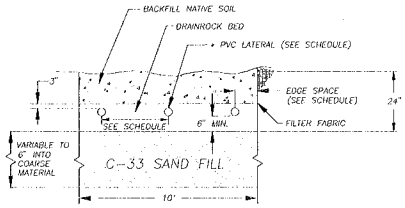
SYSTEM 4 SCHEDULE PER ZONE

NOTES:

1. SYSTEM 4 SERVES LOTS 18, 19, 23 AND LOT 24.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECEIVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. LOT STUB-OUT LOCATIONS ARE APPROXIMATE AND MAY BE MOVED TO BETTER ACCOMODATE SLOPE OR LOCATION OF RESIDENCE. MAINTAIN MINIMUM SLOPE OF 2% FOR 4"ø PIPE RUNS AND 1% FOR 6"ø PIPE RUNS.
4. LOT STUB-OUTS SHALL BE CAPPED AND MARKED WITH A TREATED 2"X4" STAKE, OR EQUIVALENT, PROTRUDING A MINIMUM OF 24" ABOVE FINISHED GRADE.
5. SEE SHEET 6 FOR SPECIFICATIONS INCLUDING TANK AND PUMP SIZING, ELECTRICAL REQUIREMENTS, ETC.
6. VERIFY SETBACK COMPLIANCE PRIOR TO INSTALLATION OF ANY SYSTEM COMPONENT.
7. INSTALL BEDS LEVEL AND ON CONTOUR.



PRESSURE DISTRIBUTION BED DETAIL PER ZONE
NOT TO SCALE
* SEE SCHEDULE FOR BED LENGTH, BED WIDTH, ORIFICE SPACING, ETC.



* SEE SCHEDULE FOR BED DEPTH, LATERAL LENGTH AND DIAMETER, ORIFICE SPACING AND DIAMETER, ETC.

DISTRIBUTION BED SECTION
NOT TO SCALE
NOTE: THE BED DEPTH PER THE SCHEDULE IS TO THE BOTTOM OF THE SAND FILL AND MAY BE ADJUSTED IN THE FIELD TO ASSURE 6" MINIMUM PENETRATION INTO THE UNDERLYING COARSE MATERIAL.

RECEIVED
JAN 29 '97
JEFFERSON COUNTY
PLANNING

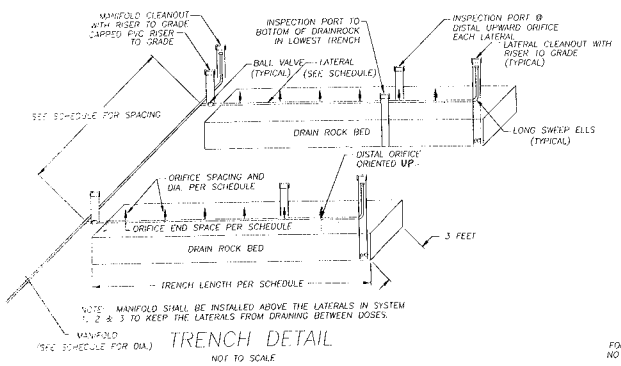
EXP. DATE 10/31/96
10/31/96

RYAN ENGINEERING, INC.
Kivley Professional Center
141 Oak Bay Road PO Box 1375
Port Hadlock WA 98339
(360) 379-9661
(360) 379-0150 fax

SYSTEM 4 SITE PLAN

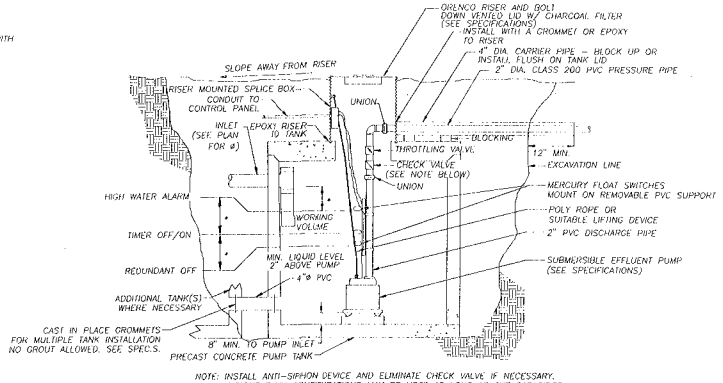
OLYMPIC GREENS COMM. SEPTIC

DATE: OCT. 96
SCALE: 1"=30'
JOB NO: 94013
DRAWN BY: TM
TOT SHTS: 6
SHEET: 4



TRENCH DETAIL

NOT TO SCALE



NOTE: INSTALL ANTI-SIPHON DEVICE AND ELIMINATE CHECK VALVE IF NECESSARY. VARIOUS TANK CONFIGURATIONS MAY BE USED AS LONG AS THE CAPACITIES CAN BE MET AND THE PUMP CONFIGURATIONS CAN BE ACCOMODATED.

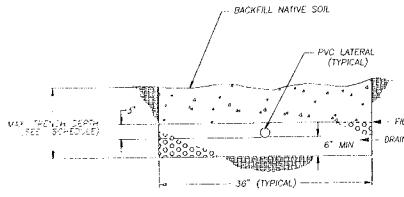
PUMP TANK DETAIL

NOT TO SCALE

* RESERVE CAPACITY, WORKING VOLUME AND VOLUME TO REDUNDANT OFF/LOW WATER ALARM SHALL BE PER THE SCHEDULE ON THIS SHEET.

	WORKING VOLUME	RESERVE	DOSE PER ZONE	MIN. LIQUID VOLUME	TOTAL TANK CAP.
SYSTEM 1	2640	1980	220	1980	6820
SYSTEM 2	720	540	90	900	2250
SYSTEM 3	720	540	90	900	2250
SYSTEM 4	960	720	120	1080	2880

PUMP TANK CAPACITY SCHEDULE



* SEE SCHEDULE FOR ORIFICE SPACING, DIAMETER, LATERAL LENGTH, ETC.

TRENCH SECTION

NOT TO SCALE

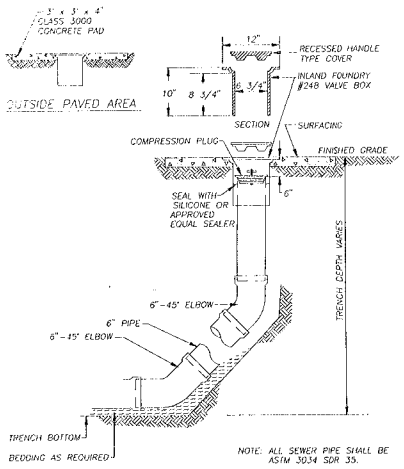
System 1 APPROVED FOR CONSTRUCTION 2-23-97 PM

	LATERAL #1	LATERAL #2	LATERAL #3	LATERAL #4	
TRENCH LENGTH	55'	55'	55'	55'	
TRENCH WIDTH	3'	3'	3'	3'	
TRENCH DEPTH	24"	24"	24"	24"	
MANIFOLD DIAMETER	2"	2"	2"	2"	
LATERAL DIAMETER	1.25"	1.25"	1.25"	1.25"	
LATERAL SPACING	15'	15'	15'	15'	
LATERAL EDGE SPACE	N/A	N/A	N/A	N/A	
ORIFICE DIAMETER	3/16	3/16	3/16	3/16	
ORIFICE SPACING	3'	3'	3'	3'	
ORIFICE END SPACE	1.67'	1.67'	1.67'	1.67'	

SYSTEM 1 SCHEDULE ZONE 1, 2 & 4

	LATERAL #1	LATERAL #2	LATERAL #3	LATERAL #4	LATERAL #5
TRENCH LENGTH	44'	44'	44'	44'	44'
TRENCH WIDTH	3'	3'	3'	3'	3'
TRENCH DEPTH	24"	24"	24"	24"	24"
MANIFOLD DIAMETER	2"	2"	2"	2"	2"
LATERAL DIAMETER	1.25"	1.25"	1.25"	1.25"	1.25"
LATERAL SPACING	15'	15'	15'	15'	15'
LATERAL EDGE SPACE	N/A	N/A	N/A	N/A	N/A
ORIFICE DIAMETER	3/16	3/16	3/16	3/16	3/16
ORIFICE SPACING	3'	3'	3'	3'	3'
ORIFICE END SPACE	1.67'	1.67'	1.67'	1.67'	1.67'

SYSTEM 1 SCHEDULE ZONE 3



NOTE: ALL SEWER PIPE SHALL BE ASTM 3034 SDR 35.

CLEANOUT DETAIL

NOT TO SCALE

	LATERAL #1	LATERAL #2	LATERAL #3	LATERAL #4	LATERAL #5
TRENCH LENGTH	60'	60'	60'	60'	60'
TRENCH WIDTH	3'	3'	3'	3'	3'
TRENCH DEPTH	24"	24"	24"	24"	24"
MANIFOLD DIAMETER	2"	2"	2"	2"	2"
LATERAL DIAMETER	1.25"	1.25"	1.25"	1.25"	1.25"
LATERAL SPACING	15'	15'	15'	15'	15'
LATERAL EDGE SPACE	N/A	N/A	N/A	N/A	N/A
ORIFICE DIAMETER	3/16	3/16	3/16	3/16	3/16
ORIFICE SPACING	3'	3'	3'	3'	3'
ORIFICE END SPACE	1.5'	1.5'	1.5'	1.5'	1.5'

SYSTEM 2 SCHEDULE ZONES 1 & 2

	LATERAL #1	LATERAL #2	LATERAL #3	LATERAL #4	LATERAL #5
TRENCH LENGTH	60'	60'	60'	60'	60'
TRENCH WIDTH	3'	3'	3'	3'	3'
TRENCH DEPTH	24"	24"	24"	24"	24"
MANIFOLD DIAMETER	2"	2"	2"	2"	2"
LATERAL DIAMETER	1.25"	1.25"	1.25"	1.25"	1.25"
LATERAL SPACING	15'	15'	15'	15'	15'
LATERAL EDGE SPACE	N/A	N/A	N/A	N/A	N/A
ORIFICE DIAMETER	3/16	3/16	3/16	3/16	3/16
ORIFICE SPACING	3'	3'	3'	3'	3'
ORIFICE END SPACE	1.5'	1.5'	1.5'	1.5'	1.5'

SYSTEM 3 SCHEDULE ZONES 1 & 2

RECEIVED
OCT 29 1997
KITSAP COUNTY
HEALTH DISTRICT

STATE OF WASHINGTON
ILLEGIBLE
PROFESSIONAL ENGINEER

EXP. DATE 10/21/98
10/21/96

Kirtley Professional Center
1111 Alt. Hwy 101 P.O. Box 1375
Port Ludlow, WA 98339
(360) 379-9681
(360) 379-0150 fax

ENGINEERING, INC.

DETAILS & SCHEDULES

OLYMPIC GREENS
COMM. SEPTIC

DATE: OCT. 1996
SCALE: NONE
JOB NO: 94013
DRAWN BY: TM
TOT SHTS: 6
SHEET: 5

SPECIFICATIONS:

PRESSURE DRAINFIELD DISTRIBUTION SYSTEM:

1. Orifice diameter may be 1/8th inch or 3/16th inch. See individual system schedule for orifice sizing. Orient all orifices up in systems 1 through 3 and all orifices up, except the distal (far end) orifices in system 4, shall be oriented down. Provide pre-manufactured or site fabricated orifice shields, as approved in advance by the Engineer, on all upward facing orifices.

2. Min. residual head = 5 ft. and max. residual head = 10 ft. for 1/8th. inch orifices. Min. residual head = 3 ft. and max. residual head = 8 ft. for 3/16th. inch orifices.

3. The end of each lateral and manifold shall be brought to finish grade with a long sweep ell, extensions as required, and a PVC threaded end cap. Each lateral end shall be covered with a 6 inch dia. PVC pipe riser and end cap set 2 inches min. above finish grade to facilitate access for testing and maintenance.

4. The manifolds for system 1 through 3 shall be installed above the laterals to prevent the laterals from draining between doses.

5. Inspection ports are required as follows: 1) over the distal upward orifice on each lateral (for pressure testing) and 2) in the center of the drain rock bed or lowest lateral.

6. Minimum soil backfill over the disposal components of the systems is 12".

MATERIALS AND SUBMITTALS:

Materials shall conform to the following specifications. All submittals are to be made to the Engineer 7 days prior to beginning construction.

1. Building Sewer and Effluent Lines: PVC ASTM D3034, gasketed bell and spigot pipe.

2. Curtain Drain: PVC ASTM D2729, perforated

3. Pressure Lines: PVC ASTM D2241, SDR 26 Cl 200 IPS, Cl 160 may be used for pressure lines over 2" diameter. Minimum burial depth for pressure lines shall be 18 inches.

4. Sand Fill: ASTM C-33 concrete sand as modified in the Mound System Guidelines by the Washington State DOH. Submittal of sieve analysis and certification is required.

5. Drain rock: 0.5" to 2" washed gravel.

6. Filter Fabric: Fabric shall be non woven geotextile material complying with the following "Minimum Average Roll Values." The fabric shall be free of any chemical treatment or coating which reduces permeability and shall be inert to chemicals commonly found in soil. Any laps shall be a minimum of 3 feet. Submittal of manufacture's specification sheet is required.

Property	Test	Unit	Min. Value
Grab Strength	ASTM D4632	LBS	60
Puncture Tear	ASTM D4833	LBS	18
Trapezoid Tear	ASTM D4533	LBS	25
AOS	ASTM D4751	US Std. Sieve	30
Flow Rate	ASTM D4491	gal/sf/min.	100

7. Septic Tank: ASTM C478 precast two compartment tank, with a minimum capacity as shown on the plan. Provide with inlet and outlet baffles and Zabel A1800 (or equivalent) outlet effluent screen. Provide riser to grade over screen to access for maintenance and inspections. Note. septic tanks shall be installed under separate permits on the individual residential sites. (NOTE SEE #12)

8. Pump Tanks: ASTM C478 precast concrete tanks, with minimum capacities as shown on the plan, and configured to accept pumps and related equipment. If a configuration that places tanks in series is chosen, connections between the tanks shall conform to ASTM C923-96 for manhole adapters or cast in place grommet shall be provided for the interconnection between the tanks. Tanks shall be of monopour construction. Asphaltic emulsion coating is not required. Contact the Engineer prior to ordering and installing tanks in series. SEE #12

9. Sewage Pump: The pumps shall be fully submersible effluent style ejector pumps delivering the gallons per minute and total dynamic head specified below:

System 1 63 G.P.M. @ 53 feet T.D.H. (each pump) check TDH with 3" dia. transport!!!

System 2 33 G.P.M. @ 40 feet T.D.H.

System 3 33 G.P.M. @ 43 feet T.D.H.

System 4 48 G.P.M. @ 55 feet T.D.H.

These pump specifications assume specific locations and configurations for the various system components. The contractor shall verify the pump specifications prior to installation.

Discharge assemblies shall contain check and ball valves and unions to facilitate removal of the pump units from the pump tank. Flexible couplings shall be required where recommended by the manufacturer to negate torque effects.

Effluent style ejector pumps shall be capable of passing 0.75" diameter solids and have a 1.5" minimum discharge. High head well style pumps may be used. Well style pumps shall have a 1" minimum discharge. Any pump shall be UL listed for use as a sewage pump. Submittal of manufacturer's specification sheet including pump curve is required.

10. Electrical Controls: Pump operation for system 1 shall be controlled by the use of a duplexing type electrical control panel that provides control and power functions. The panel shall alternate pump operation. Pump operation for systems 2, 3 and 4 shall be controlled by the use of simplex type electrical control panels. Verify electrical requirements for splicing, ventilation, etc. with local electrical inspector prior to ordering parts and installation. The controls and relays shall be rated and provide proper function for the intended use. The contractor shall ensure compatibility of controls for the pump systems. Components shall be mounted in NEMA 4X rated weather tight enclosures that meets NEC code standards and the requirements of the Washington State Department of Labor and Industries (L&I), and be listed by Underwriters Laboratories. Systems are designed to function with programmable timers to regulate the length of the dose and the interval between doses. Timers should be capable of a repeatable cycles from 10 seconds to 10 hours with separate variable controls for the "on" and "off" times. Timers shall be set to dose the drainfields 4 times per day. In addition to the timers, provide the following features/options for the pump control panels for each system:

1. Manual ON/Off and Automatic modes (HOA) and timer actuating on/off float, with pump run light indicator.
2. Audible and visual high water alarm and low water alarm/redundant off. Alarm circuits shall be wired separately from the pump circuit.
3. Dose counters and pump run time meters for each pump.
4. Float switches shall be mounted independent of the pump and fittings to facilitate replacement and/or adjustments without removing the pump.
5. Intrinsically safe relays.
6. Standard fuse disconnects.
7. Current limiting circuit breakers.
8. The panel for system 1 shall provide a "lag" condition to allow continued operation in the event of a failure to the lead pump. This lag shall sound an alarm to notify the owner of a pump malfunction.

Submittal of manufacturers specification sheet for pump controls showing options to be included is required.

Location of the Pump Controls shall be as approved by the owner

Verify electrical requirements for splicing, ventilation,panel placement etc. with the Washington State Department of Labor and Industries (L&I) prior to construction. The system is a commercial installation and requires electrical system protection to the standards of Class 1, Division 1 Hazardous Locations. The components shall include, but are not limited to, explosion proof splice box, for high voltage components, in the tank riser, electrical wires in conduit with seal offs, intrinsically safe relays, redundant off features. Rigid conduit shall be supplied for all locations that require conduit.

Floats and miscellaneous electrical equipment shall be recommended by the manufacturer for use in septic system environment, and matched to the pumps and pump controls for satisfactory operation.

11. Distributing Valve: Hydrotek Distributing Valves shall be the following models for the various systems:

System 1 V6404
System 2 V6402
System 3 V6402
System 4 V6402

Install per manufacturers specifications Provide Orenco 24" diameter riser to grade for maintenance and/or adjustments.

Septic Tank Riser and Lid: Concrete riser rings or leveling brick together with locking ring and cover or fiberglass lid may be an acceptable alternate (Engineer approval required) to the 'Orenco' riser and bolt down lid

Provide an 24"Ø access riser to grade over the inlet and outlet of the septic tank. A water tight seal is required to prevent any surface water from entering the tank. GAS TIGHT SEAL REQUIRED Note: septic tanks shall be installed under separate permits on the individual residential sites.

13. Pump Tank Riser and Lid: Concrete riser rings or leveling brick together with locking ring and cover or fiberglass lid may be an acceptable alternate (Engineer approval required) to the 'Orenco' riser and bolt down lid specified in the details. Riser lids shall be vented to prevent buildup of explosive gases in the pumping chamber. A splice box suitable to L&I shall be attached firmly to the riser for connection of the pump and control leads.

INSPECTIONS:

The contractor shall notify the Owner and Engineer 2 days prior to the following required inspections. Notify Jefferson County Health Department 2 days prior to pump test.

For pump tanks:

1. Prior to backfilling all tanks.

For pressure drain fields:

1. Prior to excavating trenches or beds for staking of the drainfields.
2. Prior to covering manifolds and pressure lines. Compliance with setbacks and/or casings at waterline crossings must be verified by the Engineer prior to cover.
3. For pump test prior to covering laterals. A full cycle shall be run with each pump dosing it's drainfield zone. The pressure test shall be used to adjust each ball valve to modulate the flow to within the required residual head range. A verification as to spray height uniformity along each lateral and from lateral to lateral shall be made. Pressure testing shall be done with clean water only.
4. For final inspection of pump run time, float arrangement, function of timers and the control panels.
5. For final inspection at project completion for adequate cover, surface water diversion and riser placement.
6. Gravity sewers prior to cover for connections, setbacks, crossings, manhole/clean-out arrangements, grade and bedding.

Quality control is the responsibility of the contractor. Inspections by the Engineer or the Health Department do not relieve the contractor from ensuring conformity to the plans and their intent.

OTHER UTILITIES:

In addition to utilities shown on the plans, other utilities may exist on site. The contractor shall be responsible for any damage to utilities, whether shown or not. Call before you dig 1-800-424-5555.

OPERATION AND MAINTENANCE:

The operation and maintenance of the system will be an ongoing function of the owner. System principals and maintenance procedures are outlined in the "Maintenance and Operations Manual" provided with the project. It is the contractor's responsibility to leave concise operating instructions for the individual system components with the owner, including but not limited to the following on all equipment:

Warranties

Specification Sheets.

Installation instructions and deviations therefrom with justifications for such deviations

Operations manuals.

Maintenance manuals.

MONITORING:

System 1
APPROVED FOR
CONSTRUCTION 2-23-97 [illegible]

DESIGN MEMORANDUM

1. The monitoring ports in the detail sheets have been changed to reflect the current recommendations per the new Guidelines for the Use of Pressure Distribution Systems, July, 1996, Washington State Department of Health. This details includes 6" diameter inspection ports at the end of all the laterals which serves two functions. The first is to give access to the terminus of the laterals, and the PVC threaded end caps for flushing of the system during maintenance. The second is to provide an inspection port to the infiltrative surface for monitoring of ponding in the system. See Sheet 5 and Sheet 6, #3.

2. Soil logs that were previously omitted from the design are enclosed. Soil logs in the area of system #4 were numbers 204 and 205. Soil log #204 showed very gravelly, coarse to medium sands between 42 and 78 inches, with medium sands below. Soil log #205 showed 20 to 61 inches of very gravelly, loamy to medium sands. The sand lining shown in the plan is to reach below the upper soils that are fill, to the usable very gravelly sands below. A minimum of 24" of sand shall be below the gravel bed for treatment prior dispersal into the native soils.

3. The requirements for the 24" gas tight and water tight inlet and outlet access risers on the septic tank are reflected in the notes on Sheet 6, #12

4. The orifice orientation is as follows; All the orifices are up in Systems 1-3. In System 4 the end or distal orifice is oriented down with the remainder oriented up. This is reflected in the details on Sheets 4 and 5. The specifications further describe this orientation on Sheet 6, #1.

5. The manifolds in Systems 1-3 shall be installed above the laterals as explained in the notes below the trench detail on Sheet 5 and discussed in the Specifications on Sheet 6, #4.

6. The issue of the size and type of inlet and outlet risers for the septic tank are clarified on Sheet 6, #12.

7. A secure lid and gas tight seal is required over the risers to the septic tank and pump tank per Sheet 6, #12. Any other alternative may be acceptable, but must be approved by the Engineer.

8. Community alternative on site sewage disposal systems are required to be monitored during their lifetimes for the Washington State Department of Health. The operation, maintenance and monitoring of the proposed Olympic Greens Community Septic System will be divided between two responsible parties. The Jefferson County Public Utility District #1 will be the monitoring entity or the third party guarantor and the Olympic Greens Partnership, as the System Owner, will be responsible for primary operation and maintenance. The owner will be required to enter a monitoring agreement with the PUD prior to final approval of septic system.

9. The individual lot sewer stub outs shall be staked and labeled as SEWER These sewer lines are gravity flow lines, and back flow prevention will not be necessary.

Kivley Professional Center
141 Oak Bay Road / PO Box 1375
Port Hadlock, WA 98339
(360) 379-9861
(360) 379-0150 fax
ENGINEERING, INC.

SPECIFICATIONS

OLYMPIC GREENS
COMM. SEPTIC

DATE: OCT. 1996
SCALE: NONE
JOB NO: 94013
DRAWN BY: [illegible]
OF SHTS: [illegible]
SHEET [illegible]

AS-BUILT

INSPECTION REPORT

Inspector LINDA JTKIN Permit # SEP 96-03-[illegible]

Site Address OLYMPIC GREENS

Owners Name OLYMPIC GREENS PARTNERSHIP.

Legal Description 5-2 T 29N R 1W

ITEM	SYSTEM 1 (11 LOTS)	COMMENT/MANUFACTURER 1-10 & 14	DATE INSPECTED
Septic Tank (baffles, etc.)		INDIVIDUAL [illegible]	
Pump Tank		(6) 1150 CONNECT AT BASE	3/19/97
Screen		PROPOSED ON OUTLET S.T.	
Floats		4 FLOATS SEE WIRING DIAGRAM	
Alarm		✓	5/7/97
Pump (include TDH)		GOULD WE 1512 H 1½ HP. 23V.	
Transport pipe		2"	
Manifold		2"	
Barrier Material		FILTER FABRIC	
Cover Material		NATIVE	
Sand Fill (met ASTM spec?)		N/A	
Other (counter, timer)		COUNTER 68 RTM 44	5/7/97
Sandfilter Basin		N/A	
Mound site preparation		N/A.	
Orifice Spacing (Lat.# and Spacing)		3' 3/16	
Residual Head (Lat.# and ft. Head)		5' ALL	
Trench Width		3'	
Trench Depth		20-24"	

COMMENTS (changes from design or deficiencies in installation)

CONTROL PANEL LABEL #2

TIMER SET 3.0 MIN ON. - ASSUMES 756 P.M

6 HR. OFF X 3 = 225 +/- G.P.D.

HYDROTECH VALVE MODEL V.6404 = 4-ZONES

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector L ATKINS **Permit #** SEP96-03[illegible]

Site Address [illegible] CHRISTNEY RD

Owners Name [illegible]

Legal Description S. 2 T. 29N R 1W.

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
	SYSTEM #2 SERVES LOTS 45-46-47	
Septic Tank (baffles, etc.)	INDIV. ON SITE.	
Pump Tank	(2) 1150 GALLON S.T. IN SERIES	3/19/97
Screen	PROPOSED ON OUTLET S.T.	
Floats	4 FLOATS (SEE WIRING DIAGRAM)	
Alarm	✓	
Pump (include TDH)	GOULD WE1512 H. 1 1/2 HP 230V.	5/7/97
Transport pipe	2"	
Manifold	BLUE 2" ZONE 1 WHITE 2" ZONE 2	
Barrier Material	FILTER FABRIC	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	N/A	
Other (counter, timer)	COUNTER 65 RTM .45	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A	
Orifice Spacing (Lat.# and Spacing)	[illegible]	
Residual Head (Lat.# and ft. Head)	5' ALL	
Trench Width	[illegible]	
Trench Depth	[illegible]	

COMMENTS (changes from design or deficiencies in installation)

ALL MANIFOLD ABOVE LATERALS

CONTROL PANEL LABEL # 4

TIMER SET 2.5 MIN — ASSUMES 6 HRS. OFF. 406 P.M. = 100 GAL/DOSE

HYDROTECH VALVE MODEL V.6402

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector L. ATKINS **Permit #** SEP96-0340

Site Address OLYMPIC GREENS.

Owners Name OLYMPIC GREENS PARTNERSHIP

Legal Description S-2 T 29N R. 1 W.

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
SYSTEM 3 SERVES LOTS 35-36-37	(NO baffle).	
Septic Tank (baffles, etc.)	INDIV. ON EACH SITE	
Pump Tank	(2) 1150 for PUMP -	3/19/97
Screen	PROPOSED ON OUTLET OF S.T.	
Floats	4 FLOATS (SEE WIRING DIAGRAGM	
Alarm	✓ WE	5/7/97
Pump (include TDH)	GOULD 1512 H. 1½ HP. 230V.	
Transport pipe	2"	
Manifold	Blue 2" to zone 1 white 2" to zone 2	
Barrier Material	Filter fabric	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	N/A	
Other (counter, timer)	COUNTER 71 RTM 77	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A	
Orifice Spacing (Lat.# and Spacing)	3 - 3/16	
Residual Head (Lat.# and ft. Head)	5' RES. ALL	

Trench Width [illegible]

Trench Depth [illegible]

COMMENTS (changes from design or deficiencies in installation)

CONTROL PANEL LABEL #3

TIMER SET 2.5 MIN ON ASSUMES 40 G.P.M.

6 HRS. OFF X 2.5 = 100 GPD +/-

HYDROTECH VALVE MODEL #V 6402

RECORD/ASBUILT DRAWING ATTACHED

AS-BUILT

INSPECTION REPORT

Inspector L. ATKINS Permit # SEP 96-034

Site Address CHRISTNEY RD. P.H.

Owners Name OLYMPIC GREENS PARTNERSHIP.

Legal Description S 2 T 29N R 1W

ITEM	COMMENT/MANUFACTURER	DATE INSPECTED
	SYSTEM 4. SERVICE LOTS 18-19-23-24.	
Septic Tank (baffles, etc.)	INDIV. ON SITE.	
Pump Tank	(2) 1150 COTTON	3/19/97
Screen	PROPOSE ON OUTLET OF S.T.	
Floats	4 FLOATS (SEE WIRING DIAGRAM)	
Alarm	✓ WE	5/7/97
Pump (include TDH)	GOULD 1512 H 1½ H.P. 230V "	
Transport pipe	2" "	
Manifold	2"	
Barrier Material	FILTER FABRIC	
Cover Material	NATIVE	
Sand Fill (met ASTM spec?)	COTTON	
Other (counter, timer)	COUNTER 42 RTM .38	5/7/97
Sandfilter Basin	N/A	
Mound site preparation	N/A.	
Orifice Spacing (Lat.# and Spacing)	2' 1/8" ORIFICES.	
Residual Head (Lat.# and ft. Head)	7' ALL	
Trench Width	10'	
Trench Depth	40' X (2) ZONES.	

COMMENTS (changes from design or deficiencies in installation)

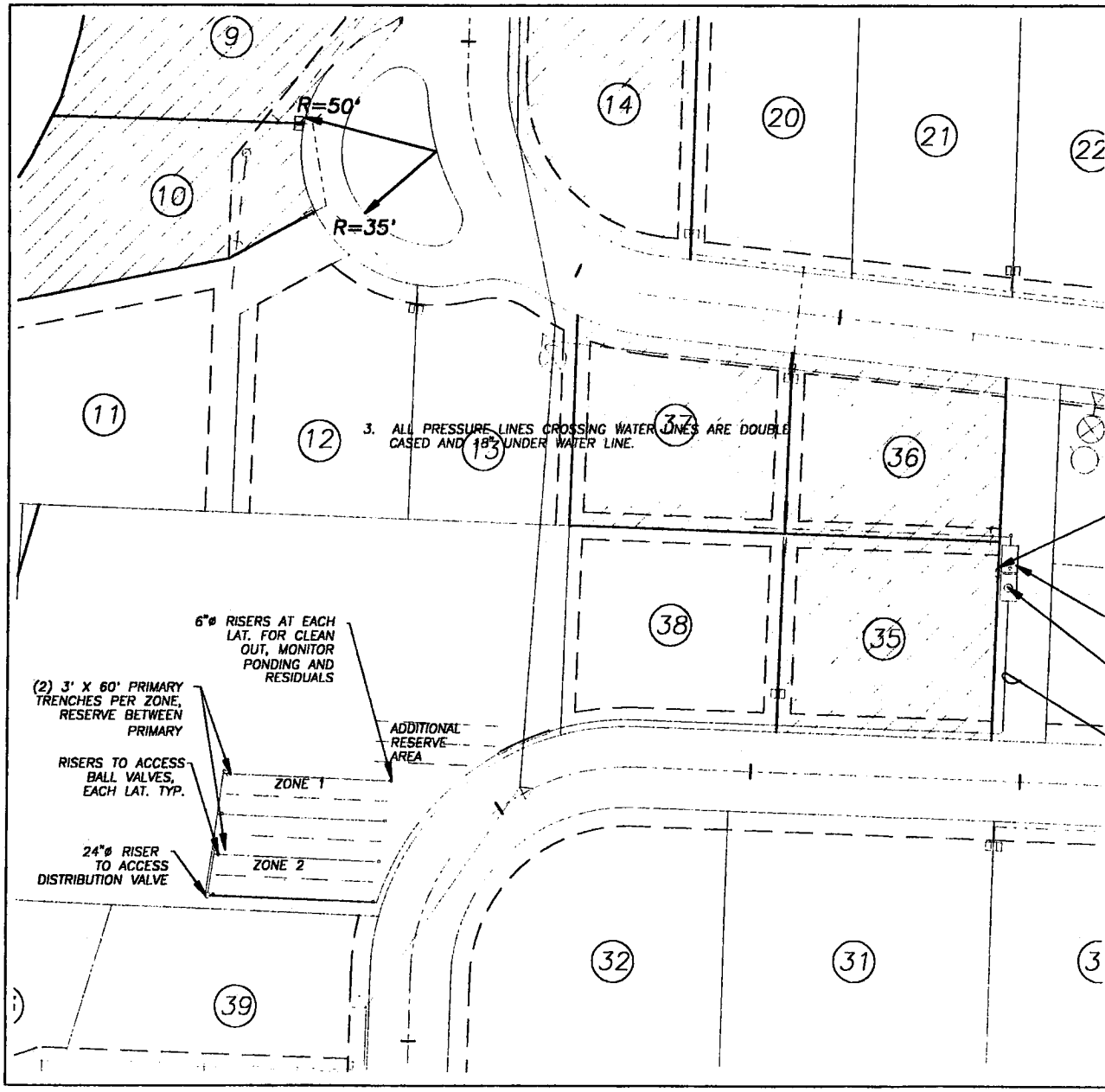
CONTROL PANEL LABEL #1

TIMER SET 2.5 MIN ON ASSUMES 506 P.M.

6 HR OFF. X 2.5 =

HYDROTECH VALVE MODEL # V6402 1256 P.D

RECORD/ASBUILT DRAWING ATTACHED



NOTES:

1. SYSTEM 3 SERVES LOTS 35, 36, AND 37.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1" = 50'

R. RYAN TILLMAN
STATE OF WASHINGTON
REGISTERED PROFESSIONAL ENGINEER

EXP. DATE: 10 / 28 / 98

7/11/97

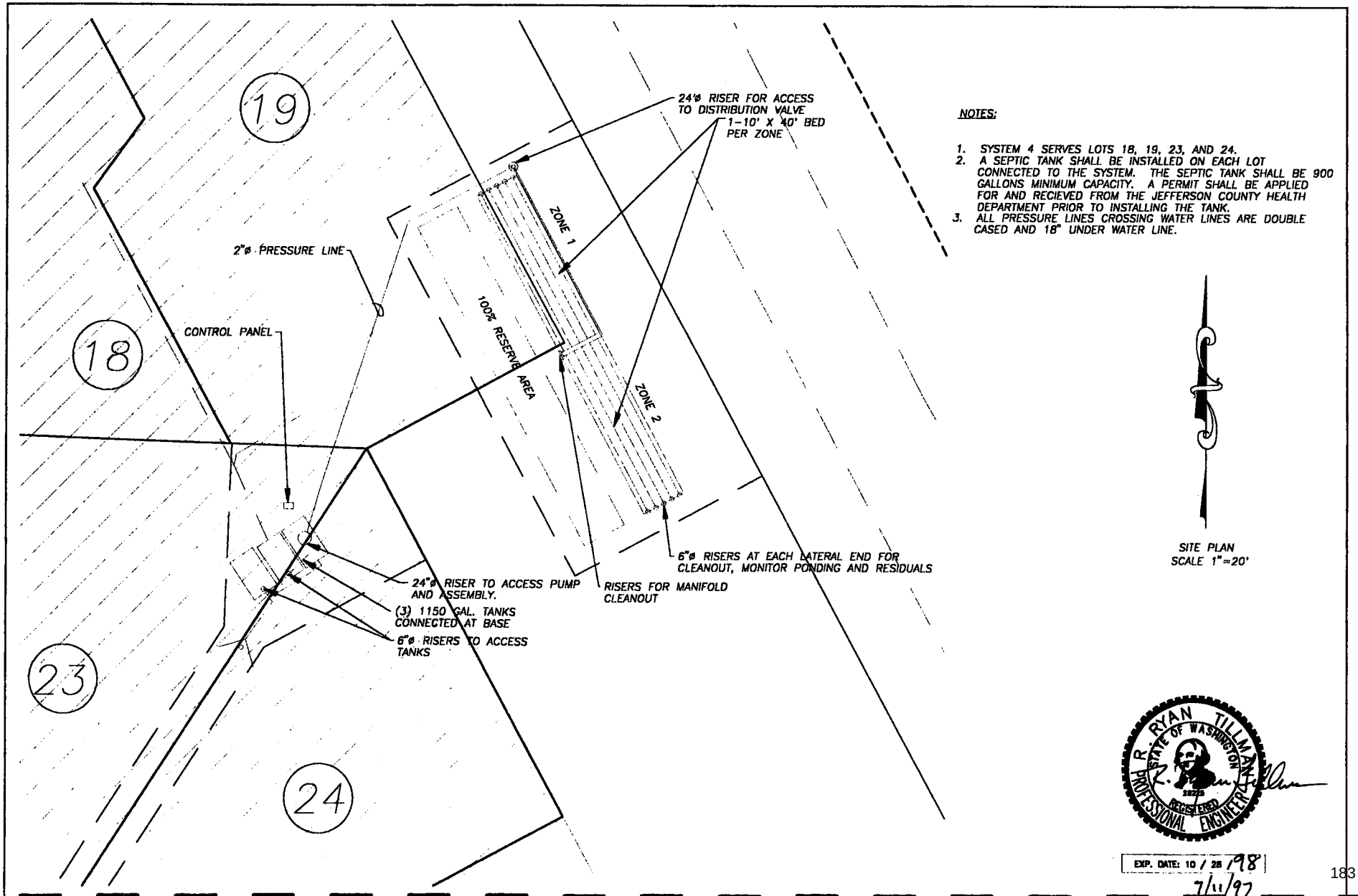
TILLMAN ENGINEERING, INC.

Kirley Professional Center
141 Oak Bay Road / PO Box 1375
Port Hadlock, WA 98339
(360) 379-9961
(360) 379-0150 fax

SYSTEM 3
AS-BUILT

OLYMPIC GREENS
COMM. SYSTEM

DATE:	5/97
SCALE:	1"=50'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET:	1



NOTES:

1. SYSTEM 4 SERVES LOTS 18, 19, 23, AND 24.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1"=20'

R. RYAN TILLMAN
STATE OF WASHINGTON
18220
REGISTERED PROFESSIONAL ENGINEER

EXP. DATE: 10 / 28 / 98

7/11/97

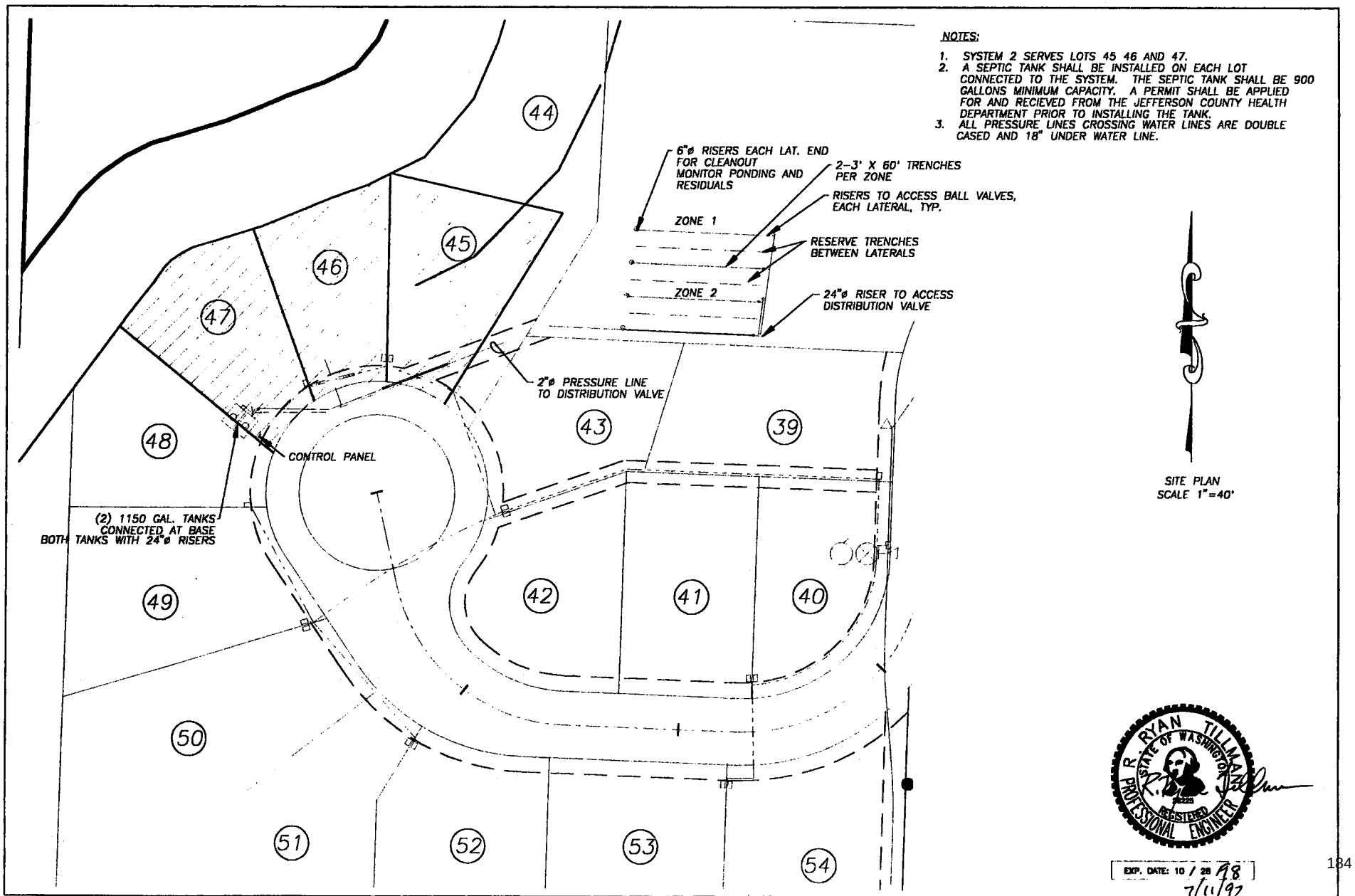
Kirby Professional Center
141 Oak Bay Road / PO Box 1976
Port Hadlock, WA 98339
(360) 379-0881
(360) 379-0180 fax

TILLMAN ENGINEERING, INC.

SYSTEM 4 AS-BUILT

OLYMPIC GREENS COMM. SEPTIC

DATE:	6/97
SCALE:	1"=20'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET:	1

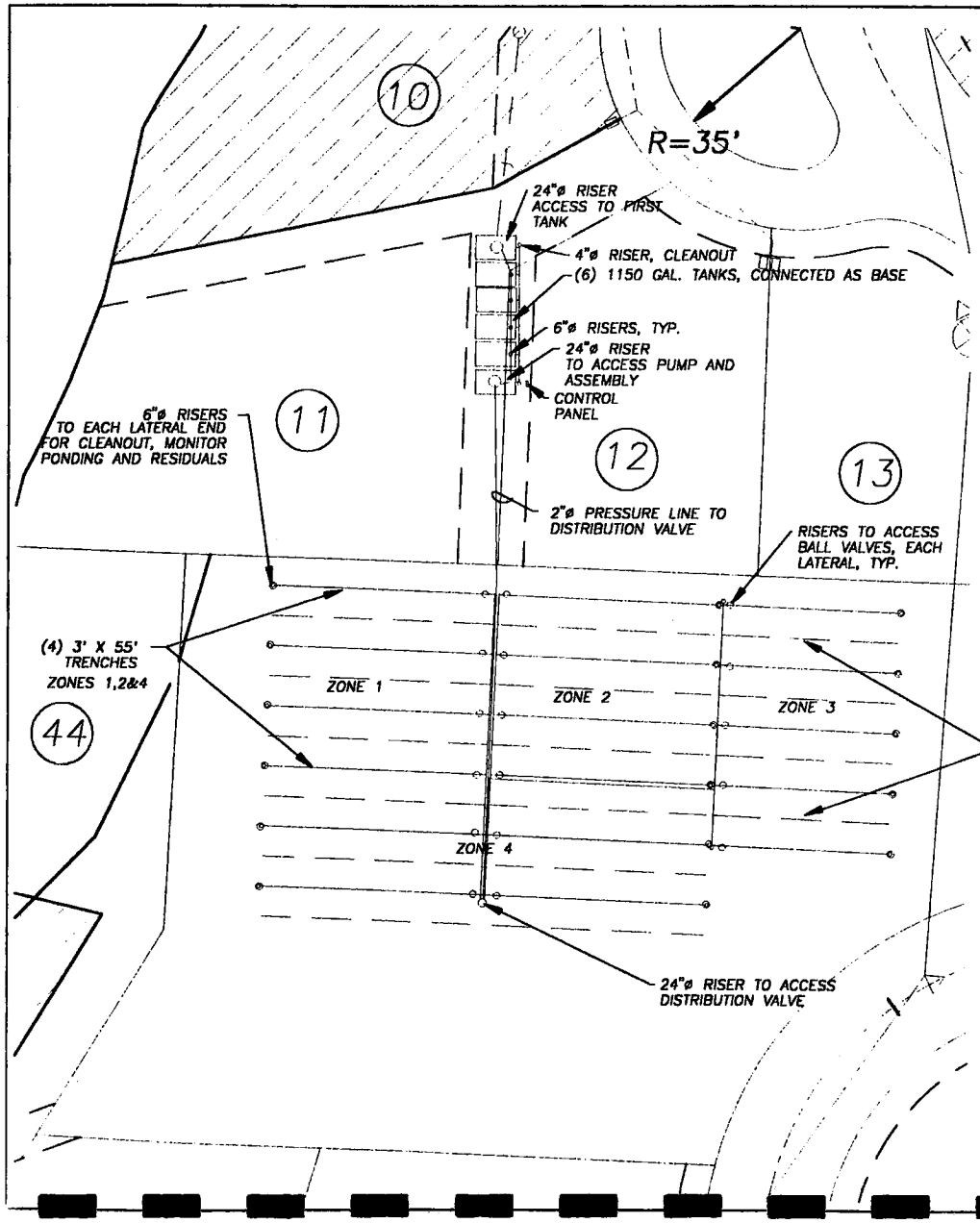


TILLMAN ENGINEERING, INC.

SYSTEM 2
AS-BUILT

OLYMPIC GREENS
COMM. SYSTEM

DATE:	6/97
SCALE:	1"=40'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET:	1



NOTES:

1. SYSTEM 1 SERVES LOTS 1–10 AND 14.
2. A SEPTIC TANK SHALL BE INSTALLED ON EACH LOT CONNECTED TO THE SYSTEM. THE SEPTIC TANK SHALL BE 900 GALLONS MINIMUM CAPACITY. A PERMIT SHALL BE APPLIED FOR AND RECIEVED FROM THE JEFFERSON COUNTY HEALTH DEPARTMENT PRIOR TO INSTALLING THE TANK.
3. ALL PRESSURE LINES CROSSING WATER LINES ARE DOUBLE CASED AND 18" UNDER WATER LINE.

SITE PLAN
SCALE 1'=30'

R. RYAN TILLMAN
STATE OF WASHINGTON
REGISTERED
PROFESSIONAL ENGINEER

EXP. DATE: 10 / 28 / 98

7/11/97

TILLMAN ENGINEERING, INC.

SYSTEM 1
AS-BUILT

OLYMPIC GREENS
COMM. SEPTIC

DATE:	5/97
SCALE:	1"=30'
JOB NO:	94013
DRAWN BY:	SP
TOT SHTS:	1
SHEET:	1

06402

Jefferson County Department of Community Development
621 Sheridan St., Port Townsend WA 98368 (360) 379-4450

Office Use Only
Date 1/22/09
Fee 41.00
Recpt 105277
Check 3867
Case # 96-338

Evaluation of an Existing Onsite Sewage System (EES)

Draw on the back of this sheet a current plot plan showing location of: Buildings, Drainfields, Septic Tanks, Wells, etc OR attach a current plot plan identifying these items.
ALL SPACES MUST BE FILLED IN.
If information is not available enter (NV) or not applicable (NA).

Type of Evaluation

- ☒ Evaluation of on-site sewage system
- ☐ Evaluation of drinking water
- ☐ Evaluation of on-site sewage & drinking water

Reason for Evaluation

- ☒ Routine Operation and Monitoring Inspection
- ☐ Real Estate transaction
- ☐ Complete a Permit #_____
- ☐ Building Permit Review and/or no septic permit on file
- ☐ Other , explain _____

Date of evaluation 1-6-09 **Inspected by** David Jensen PE

Community Drainfield

Tax Parcel # 979900157 Permitted System ✓ yes ____ no Permit/case # SEP96-00338 ←

Subdivision, Division, Block and Lot(s) Olympic Greens Lots 1-10 and 14

Lot Size Varies Acres or Dimensions Varies X _____ Community Drainfield

Current Owner Olympic Greens LLC

Site Address 86 Olympic Green Drive

Owner Phone # David Wilson 805-260-4539

Previous property owner name(s) - (N/V if not known) N/A

Directions to Site Take SR116 west from Port Hadlock, turn south on Christney Ave, turn west on next road into plat of Olympic Green.

Date System Installed 1-29-1997 Age of Dwelling Varies # Bedrooms _____

House Occupied ✓ yes _____ no, vacant how long? _____

Who installed system? Shold Excavating

JAN 22 2009

Send completed report to:

Owner

Name Olympic Greens LLC

Mailing Address 650 E Clark Ave, Santa Maria, CA 93455-5254

Phone/email/fax 805-260-4539

Realtor or Other Representative

Name David Jensen PE
Jensen Engineering Inc.

Mailing Address 10604 NE 38th Pl., Kirkland WA 980

Phone/email/fax 425-827-3063 david.riddle@drstrong.com, 425-827-2423

Include the following items on your plot plan:

- ❑ Property boundaries
- ❑ Names of adjacent streets
- ❑ Driveways and parking spaces
- ❑ Surface water (ponds,creeks, etc)
- ❑ Buildings(residence, sheds, garages, etc)
- ❑ Wells
- ❑ Septic tank
- ❑ Drainfield (enter N/V if unknown)
- ❑ North Arrow

PLOT PLAN-date prepared_____

See Attached
As Built Plans

Date of Inspection 1-6-09 Inspected by Dave Jensen

Water Supply (fill in only if water supply is being tested in this evaluation)
Sample was taken_____Yes _____No Sample Results_____
Well casing 12" above ground _____Yes _____No
Sanitary Seal in place_____Yes_____No
Public: _____offsite _____ onsite Name of System_____
Individual: _____ offsite _____ onsite
Is well more than 100' to drainfield/disposal component __yes__ no, if not, distance_____
Is well more than 50' to tanks and effluent transport line __yes__ no, if not, distance_____

ONSITE SEWAGE SYSTEM

Bedrooms/gallons per day indicated in County Health Dept. records for this case_____

Septic Tanks on Individual Lots and not part of community system.

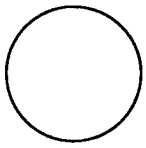
#1 - Septic Tank

Tank size _____ gal. ____single compartment _____two compartment _____ material
Riser to grade on inlet _____yes_____ no. Riser to grade on outlet _____yes_____no
Condition of tank_____good _____needs repair, describe_____
1st comp. Scum (top layer) _____in. sludge (bottom layer) _____ in.
2nd comp. scum _____in. sludge _____ in.
Was ground water observed leaking into tank ? _____yes _____ no
If yes, where was water observed?_____
Condition of baffles: Inlet: _____good_____needs repair _____material (PVC,Concrete)
Outlet: _____good_____needs repair_____material (PVC,concrete)
Screened Outlet _____no ____yes, condition _____ clean _____clogged/dirty

Septic tank needs to be pumped (per Jefferson County code 8.15.150 (1) (b))____ yes ____no

Effluent level at outlet (mark level on circle)

(eg:)



If effluent is below the outlet, indicate when tank was last pumped:
_____

Does system include a pump? Yes yes If yes, complete the next section _____ no (if no skip to section 3)

#2 - Pump Chamber

Tank size 6820 gal. Concrete Material. Riser to grade? X yes _____no
Condition of tank X good _____needs repair, describe one 6" riser to south broken needs new cap
Solids in Tank (see 8.15.150) _____ yes X no scum _____in. sludge _____ in.
Was Ground water observed leaking into tank ? _____yes X no
If yes, where was water observed?_____
Screen around pump?_____no X yes, condition X clean _____ dirty/clogged
Shroud around pump? X no _____yes very deep but no obstructions noted
Electrical Components
Pump operating X yes_____no, describe_____
High water alarm functions X yes_____ no, if no, describe_____
Elec. Panel condition X good_____needs repair, describe_____
Pump cycle drawdown 3 1/4" inches. Time for pump cycle 2 (min)/sec.
Timer Settings 3 (min)/sec on 6 min/(hrs) off Floats secured: X yes_____no
Hour Run 1162.09 Events 33820

172

JAN 2 2 2009

Permit # or Parcel # 979900157

#3 – Drainfield

Appropriate Vegetation in area X yes _____ no. Describe vegetation Mowed grass and scotch broom

Indications of surfacing sewage (check one) _____ yes , if yes, describe and diagram on plot plan

X no

_____ drainfield area is overgrown and not observable

Signs of parking/driving in area _____ yes X no _____ drainfield area unknown

Ground settling or erosion _____ yes X no _____ overgrown/not observable

Monitoring Port Observations (if present):

Residual Head X yes, 3 6" # of inches _____ no

Ponding in trench _____ yes, _____ # of inches of ponded effluent X no

Repair area is? X Available as shown on permit _____ None evaluated or shown on permit

Addendum (page 5) is attached for evaluation of Treatment Unit or detailed evaluation of drainfield

_____yes_____no

COMMENTS (attach additional sheet if necessary):

Top tank ≈ 11 1/2 ft deep.
One 6" riser over tank needs new cap. - owner notified
Recomend locks on control panel and breaker box - owner notified

Houses
1, 2, 3, 4 Built
T in as office

surfacing due to broken manifold repaired by Tim Thomas - Ericsen Excavating
LA

* no page 5 - not applicable
LA

JAN 22 2009

Was a System Problem Identified? Yes _____ if yes, what section #. _____ No X

This report on the existing onsite sewage system is valid for the permitted or historic (if installed prior to permit requirements) use of the system only and does not constitute assurance of future County approvals (such as building permits) on this parcel. Any future application will be judged separately by the rules and laws in effect at that time.

I certify that the information provided is based on a review of County records and my direct observations at the time of inspection.

Dave Jensen PE — Name/Signature

1-06-09 — Date

No guarantee of future onsite sewage system performance is implied or granted based on the information contained in this report. This report constitutes a summary of findings only.

Permit # or Parcel # _____

SYSTEM 1 Jefferson County Permit Center, 621 Sheridan, Port Townsend WA 98368

#2 on Post at D.F.

FEE 200 + 440 40/lot $640

SEPTIC PERMIT APPLICATION

RECEIVED OCT 31 1996 JEFFERSON COUNTY PERMIT CENTER

PROPERTY OWNER OLYMPIC GREENS PARTNERSHIP

MAILING ADDRESS P.O. BOX 179
PORT HADLOCK, WA. 98339

PHONE Area Code (360) 385 - 0480

SYSTEM DESIGNER TILLMAN ENG., INC.

LEGAL DESCRIPTION: Section 11 Township 29N Range 1W PARCEL # 901 024 001 901 024 083

Subdivision Name _____ Division ____ Block ____ Lot(s) ____

SITE LOCATION APPROX. 500' S. OF NESS' CORNER RD & WEST OF CHRISTNEY ROAD IN PORT HADLOCK Zip Code 98339

TYPE OF IMPROVEMENT: Residential ____ Commercial ____ Community X

TYPE OF WORK: serves lots 1-10 + lot 14.

New X Redesign ____ Upgrade ____ Repair ____ Partial (tank) ____ (drainfield) ____

Conventional ____ Alternative X

Number of Bedrooms 2 PER SITE 22 TOTAL

Basement: yes / no

Site Size 17 AC. +/-

Previous evaluation: yes / no SEP ____

Water Source: private ____ public X

Drainfield Length 220 L.ft. PER ZONE

Trench Width 3 ft.

Trench/Bed Depth 24 in.

Number of Lines 4 - ZONES 1,2 & 4; 5 - ZONE 3

Tank size 900 min. gal. SEPTIC 6820 min PUMP

Soil type 2 (ATTACH SOIL EVAL.)

Application Rate 1 gal./sq.ft./day

TYPE OF SYSTEM PRESSURE TRENCH W/ GRAVITY COLLECTION

THE UNDERSIGNED ACKNOWLEDGES THAT THE INFORMATION PROVIDED IS TRUE AND CORRECT AND THAT FALSE INFORMATION WILL NEGATE AND INVALIDATE THE APPLICATION AND/OR THE SUBSEQUENT PERMIT. THE PROPERTY OWNER WILL BE RESPONSIBLE FOR THE ACCURATE LOCATION OF ALL PROPERTY LINES.

Signature Thomas E. Noullo Date 10/30/96

FOR OFFICE USE ONLY

Pmp test 3-19-97 PWD recvd 8-22-97

2-24-97 APPROVED

LD Asbuilt 8-8-97 PARTIAL

LD FINAL

RENEWED

RENEWED

Fire District ____ Planning District ____ School District ____ Zone ____

Date 10-31-96 Fee 640 Rec # 112760 Check # 1016 Case # SEP 96-0338

SEWAGE DISPOSAL PERMIT
JEFFERSON COUNTY PERMIT CENTER
621 SHERIDAN STREET, PORT TOWNSEND, WA 98368 (360) 379-4450

PERMIT NUMBER:**SEP96-0338**

ISSUE DATE:02/24/97
DATE RECEIVED:10/31/96

Permit issued to CONSTRUCT, ALTER, REPAIR OR MODIFY AN INDIVIDUAL SEWAGE DISPOSAL SYSTEM IN JEFFERSON COUNTY, WASHINGTON

ISSUED TO....: OLYMPIC GREENS PARTNERSHIP
P O BOX 179

PORT HADLOCK WA 98339

PARCEL NUMBER: 901024001 (Permit valid for this parcel ONLY)

LEGAL DESCRIPTION
Section: 02, Township 29 N, Range 01 West

Subdivision : Block : Lot(s):; lots 1 - 10 and lot 14, system #1

LOCATION.....: CHRISTNEY RD

DESIGNER.....: RYAN TILLMAN, PE

THIS PERMIT IS ISSUED FOR A PERIOD OF ONE YEAR (UNLESS OTHERWISE STATED BELOW) IN ACCORDANCE WITH JEFFERSON COUNTY RULES AND REGULATIONS FOR ON-SITE SEWAGE DISPOSAL SYSTEMS, ORDINANCE NO. 1-83.

DATE OF EXPIRATION:**02/24/98** Linda Akes

Jefferson Co. Environmental Health Specialist.

The property owner will be responsible for the accurate location of all property lines. Any removal of or major disturbance of soil in the primary or reserve drainfield area may create site conditions that are unacceptable for the installation of a sewage disposal system. Any change in building or sewage disposal plans (including plumbing stubout location) and/or location of house or drainfield invalidates this permit unless prior approval is obtained from the Jefferson Co. Health Dept.

Issuance of a permit or renewal does not preclude the applicant from complying with all other state and local regulations.

HEALTH DEPARTMENT MUST BE CALLED FOR FINAL INSPECTION.

TYPE OF SYSTEM: PRESSURIZED TRENCH NO. OF BEDROOMS:22

-----Drainfield-------	----------Trench----------	-----Tank------
Length:220 ft.	Width:3.0 ft. Depth:24 in.	Size:6820 gal.

SPECIAL CONDITIONS MAY APPLY - SEE REVERSE

1) This community drainfield requires a management agreement with a third party guarantor with adequate funds set aside in an account to repair the system. The third party guarantor shall be the PUD #1 and will take over management and operation of the system if so directed by the Jefferson County Environmental Health Div.

2) Individual lots shall obtain a permit from Jefferson Co. to install a septic tank to serve the residence. Each tank shall have risers to grade over the inlet and outlet, The inlet riser shall be 24". AN OUTLET BAFFLE FILTER IS REQUIRED ON EACH SEPTIC TANK.

3) AS PER WAC 246-272 ALL ALTERNATIVE SYSTEMS REQUIRE MONITORING. THIS MONITORING IS PROVIDED BY AGREEMENT BETWEEN THE JEFFERSON COUNTY ENVIRONMENTAL HEALTH DIVISION AND THE JEFFERSON COUNTY PUBLIC UTILITY DISTRICT #1. THIS SEWAGE DISPOSAL SYSTEM WILL REQUIRE AN ACTIVE MONITORING CONTRACT WITH THE PUD #1 PRIOR TO FINAL APPROVAL OF THE SEWAGE DISPOSAL SYSTEM.

4) Health Dept. required to observe pressure test, 48 hour notice to be given.

5) 100 ft. setback to all wells to be maintained

6) 10 ft. setback required between water lines and effluent lines. If this setback cannot be met, the DOE Guidelines shall be followed.

7) MAXIMUM TRENCH DEPTH 24 INCHES

8) All components of the septic system are to be completely protected from vehicular traffic or mechanical disturbance. Protective barriers are required around drainfield.

9) Dose counters are required in the control panel for all drainfield components.

10) Divert all sources of drainage away from septic tank and drainfield area.

11) Any portion of transport line under a driven way is to be double cased or equivalent.

12) Asphaultic emulsion or equivalent required on septic tank and/or pump chamber.

13) Approval/issuance of a sewage disposal permit does not guarantee the approval of other development or a building permit on this site. Compliance with other Jefferson County and Washington State Codes is required.

14) Approval of this sewage disposal permit does not preclude the permit holder from complying with the Critical Areas Ordinance for other development on the site.

15) This onsite sewage system is designed for domestic strength waste water only. Disposal of any other waste streams is considered a violation of this permit.

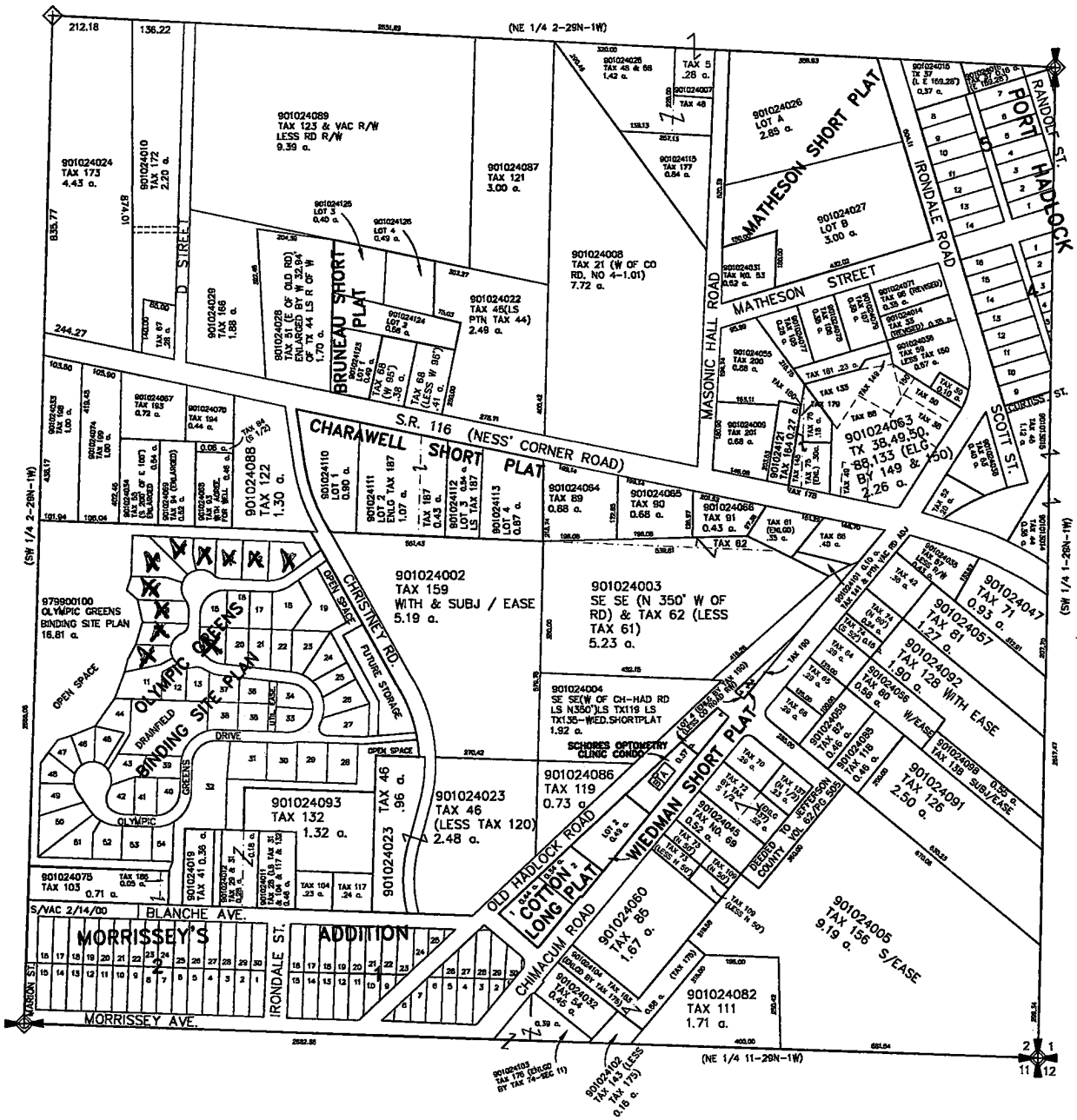
File to 96-338

96-338

System serves X lots

JEFFERSON COUNTY ASSESSOR
PARCEL MAP

SE1/4
SEC 2
TWP 29N
RGE 1W



SCALE: 1"=200'

MAP SCALE GIVEN UNDER THE NORTH ARROW IS FOR THE ORIGINAL DRAWING ONLY.
THIS COPY MAY BE A REDUCED OR ENLARGED REPRODUCTION.
PLEASE REFER TO THE SCALE BELOW.

0 100X 200X 400X 600X 800X

FOR ORIGINAL MAP SCALE:		
	1" = 100'	X = 1/2 FOOT
	1" = 200'	X = 1 FOOT
	1" = 400'	X = 2 FOOT

THE ASSESSOR DOES NOT IN ANY WAY GUARANTEE THE ACCURACY OF THE ACREAGE AND PARCEL BOUNDARIES DEPICTED ON THESE MAPS. PARCEL SIZE AND LOCATION IS BASED ON INFORMATION AVAILABLE, INCLUDING RECORDED SURVEYS, LEGAL DESCRIPTIONS, AERIAL PHOTOGRAPHS, AND VARIOUS GOVERNMENT SOURCES. WHERE THIS INFORMATION IS INSUFFICIENT, PARCEL BOUNDARY LOCATIONS ARE ESTIMATED.
PARCEL MAPS ARE UPDATED FREQUENTLY. PLEASE CHECK WITH THE COUNTY ASSESSOR FOR THE LATEST REVISION.

FOR MORE INFORMATION, CONTACT:
JEFFERSON COUNTY ASSESSOR
P.O. BOX 1220
PORT TOWNSEND, WA. 98368

JEFFERSON COUNTY ASSESSOR

DRWN.
8/20/80 PV
REVISIONS
9/30/03 PP~
12/1/03 PP~
2/15/06 PP~
5/1/00 MF***
5/10/00 MF***
12/8/00 MF***
4/22/02 PP***

9010240

COMMUNITY SYSTEM

Permit number SEP96-338

Lots Served lots 1-10 & lot 14.

BLD#/ ADDRESS	Lot #	Lot Owners name	BLD PERMIT #	SEP PERMIT #	#Bdrms
86 Oly Gr Dr	7	Oly Gr. LLC. 2bdrm.	07-163 07-164.		2
92 Oly Gr Dr	8	Oly Gr. Residents Ass. 2bdrm	08-458 08-459	08-224	2.
32 Oly Gr Dr	1	Oly Gr Partnership.		97-108	2
62 Oly Gr Dr	4	" " "		97-198	2
44 Oly Gr Dr.	2	" " "		97-197	2.
56 Oly Gr Dr	3	" " "		97-109	2

FOR OFFICE USE ONLY FOR FINAL INSPECTION INFORMATION AND APPROVAL

SYSTEM INSTALLED BY John (Ontg) Shold.

ABSORPTION AREA:
DRAINFIELD LENGTH _____ **TRENCH WIDTH** _____ **TRENCH DEPTH** _____ **TANK SIZE** _____

PRESSURE TEST OBSERVED 3-19-97.

APPROVED _____ **SPECIALIST** _____ **DATE** _____

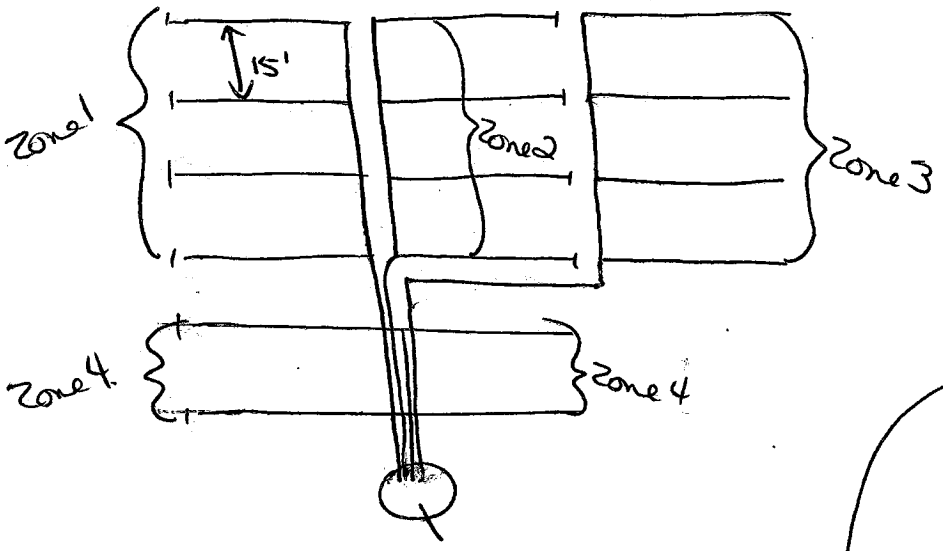
COMMENTS: 1150 gal tanks

24" riser required over main compartment on 1st tank.
6" riser over outlet of each tank & cleanouts.

Riser to grade

Riser to grade

Riser to grade



Distributing valve to be placed here at highest Pt.

to Christney

Sys 2.

Sys 3

Tanks tied at bottom.

NAME Olympic Greens.

PERMIT NUMBER 96-0338

To: Larry Jay

RECEIVED
AUG - 1997
JEFFERSON
COUNTY

RECEIVED
AUG 0 6 1997
JEFF. COUNTY
HEALTH DEPT.

Return Address:

John T. Shold, General Partner
PO Box 179
Port Hadlock, WA 98339

FINANCIAL ASSURANCE PLAN FOR MAJOR REPAIRS
TO
OLYMPIC GREENS COMMUNITY ON-SITE SEPTIC SYSTEMS

Grantor(s):

1. Olympic Greens Partnership
   c/o John T. Shold, General Partner

Grantee(s):

1. Jefferson County, a municipal corporation

Legal Description:

1. Olympic Greens Residential Community Binding Site Plan, as per Plat recorded at Auditor's File Number _____.

Assessors Parcel Numbers: 901-024-001, 901-024-083

1. **DECLARATION OF INTENT, OLYMPIC GREENS FINANCIAL ASSURANCE PLAN FOR MAJOR REPAIRS TO THE OLYMPIC GREENS COMMUNITY ON-SITE SEPTIC SYSTEMS:**

a) The undersigned Owner of Olympic Greens Retirement Community (Owner), a 53 Lot Binding Site Plan recorded at Auditor's File Number _____ and in Volume _____ of Binding Site Plans, Pages _____, do hereby declare it is their intent to provide continual and adequate financial resources to protect the occupants of lots within the properties from failure of components or other portions of the community on-site systems that serve this project.

2. **RECITALS:**

a) The Owner intends to provide leasehold space to tenants complete with necessary facilities to reside in a managed residential community; AND,

b) The Owner has planned the orderly development of Olympic Greens to include both community drainfields and individual on-site systems, where appropriate, and the community drainfields and the individual drainfields together comprise the entire Olympic Greens system (OSS); AND,

c) Facilities for community drainfields including effluent collection lines, pumping tanks and appurtenances, and disposal fields have been installed per the requirements contained within the project Conditions of Approval dated March 6, 1995, and are more particularly described in the Operations and Maintenance Manual(s) and As-Built Plans, on file at Jefferson County; AND,

d) Individual on-site systems are intended for designated lots, and the types and soil effluent application rates have been agreed upon by the Owner's Engineer and Jefferson County, and it is further understood that these individual systems will be installed in conjunction with development of the individual lots within Olympic Greens; AND,

e) The OWNER of Olympic Greens desire to own and maintain the OSS for the benefit of the tenants; AND,

f) The Jefferson County Health and Human Services Department, Environmental Health Division (JCHD) has been charged with ensuring the continuous operation of on-site sewage systems to benefit the public health, safety and welfare; AND

g) The JCHD deems it beneficial to the public health to require a financial assurance that there is a plan and adequate funding for operation and maintenance, including necessary repairs of community sewage systems in the event of a default or otherwise unsatisfactory maintenance and/or operation on the part of the Owner; AND,

h) The JCHD has required this Financial Assurance Plan as a condition of the community systems permits issued; AND,

i) Individual systems will be monitored as required by permit conditions at time of issuance.

3. **Construction** - Prior to the execution of this agreement, the Owner constructed four separate community on-site septic systems on the Olympic Greens site.

a) These four systems were permitted and conditioned by the JCHD. The OSS construction was monitored by representatives of Tillman Engineering, Inc., and at times, inspectors from JCHD, for consistency with said plans and specifications.

b) The OSS consists of a series of gravity collection pipes, pump chambers, effluent transmission lines and disposal drain fields together with the necessary controls for pump operation, monitoring and malfunction alarm(s). Septic tanks for all residences within Olympic Greens are located on the individual lots themselves.

4. **Right of Inspection** - The JCHD shall have the right to inspect the Owner's OSS during operation, maintenance and/or repairs. The JCHD shall notify the Owner of any work condition to be unsatisfactory, and the Owner shall correct the same.

5. **Certification** - Construction certifications and as-built drawings, stamped by a Professional Engineer licensed to practice in the State of Washington, are contained on file at the JCHD, the PUD No. 1 of Jefferson County, and the office of the engineer.

6. **Easements** - All system components including collection lines, pump chambers, electrical controls, and drainfields are located within easements as declared on the Binding Site Plan.

7. **Conveyance** - The Owner shall retain Ownerhip of all facilities and appurtenances that, together or individually, constitute the OSS.

8. **Reversion** - No reversion shall be necessary as Ownerhip shall remain with the Owner.

9. **Warranty** - With the execution of this agreement it is the stated intent of the Owner to own and manage the facilities for the benefit of their own project, and have an acknowledged interest in durable performance of the OSS. The Owner warrants that all facilities presently installed are guaranteed for a period of twelve (12) months. The Owner furthermore warrants that they believe the OSS will be adequate to serve the Olympic Greens property at its maximum capacity.

10. **Additions** - No additional service areas outside the environs of the Olympic Greens complex shall be connected to the Owner's OSS during the lifetime of this agreement without the express written approval of JCHD and the Owner. The JCHD will not unreasonably refuse

connections of additional service areas outside of the Olympic Greens complex if sufficient surplus capacity is available.

11. **Operation and Maintenance** - The Owner will be responsible for the daily operation and maintenance of the OSS. Maintenance and operational checks will be conducted in accordance with the JCHD approved O & M Manuals. The Owner will provide the personnel and equipment necessary to operate and maintain the Owner's OSS and shall keep an accurate record of the costs thereof. Such records shall be open to the inspection of the JCHD.

12. **Annual Inspection(s)** - Inspections of the OSS shall conform to the schedule within the Operation and Maintenance Manual, and any other agreements as may be necessary with the Jefferson County PUD No. 1 (PUD).

13. **Correction of Unsatisfactory Condition(s)** - The Owner shall correct all unsatisfactory operating conditions within 60 days of notification. Improvements to the OSS as recommended by the JCHD or the PUD are considered discretionary costs to the Owner unless lack of improvements could causes threat to the public health.

14. **Reporting** - The Owner will keep records on a monthly basis, and will submit an annual report to the JCHD. This report shall include maintenance and operations, and shall further document that security is provided as per Section 17.

15. **Notifications** - The Owner will be responsible to:

    a) When selling or leasing property, as a condition of sale or lease, the Owner will require the contract of sale, property deed, or lease to include a clause wherein the purchaser agrees to conform to the conditions of this contract, as may be mutually amended and approved by JCHD.

    b) The Owner will provide each purchaser a full and complete copy of this contract together with any amendments prior to purchaser's signature on the purchase contract.

16. **Default by Owner** - In the event that the Owner fails to adequately maintain or repair the OSS, GRANTEE shall:

    a) provide Owner with oral or written notice of such failure to adequately maintain or repair the OSS; and,

    b) following receipt of such notice, GRANTEE shall provide Owner with a reasonable opportunity to adequately repair said OSS; and,

- 1997

17. **Security** - The JCHD has initiated requirements that the Owner provide a Security for the repair of major system components of the OSS. Through negotiations, the Owner and JCHD have agreed to a method for creating a capital account for this purpose.

a) The replacement of wear parts such as pumps and screens, together with replacement of the drainfields themselves is estimated to cost approximately $660 per lot, in 1997 dollars.

b) Excess capacity within the community system will exist until all residences, that are intended to be hooked up to the community drainfields, are indeed hooked up.

c) The Owner will be afforded time to make contributions to the capital account. The Owner will contribute $11 per month, per residence connected (or to be connected to in the future) to the community systems. This per lot contribution to the capital account shall continue for a period of five years, so that all funds are complete at the end of five years. ($11/mo. * 60 mo. = $660). Through time, the account will bear interest in an amount that is similar to inflation, and hence the Security will be somewhat hedged against inflation.

d) If Ownerhip of Olympic Greens changes prior to the completion of the fund as described above, all undeposited funds, up to the $660 per lot as calculated on the attached analysis, shall be paid into the account prior to the sale.

e) The Security Account shall be formed as an interest bearing escrow account jointly in the name of the District and the Owner for the express intent of repair to major system components. The Owner will be allowed to use the funds within the Security Account to repair failures or replace pumps when required.

f) A financial report detailing deposits shall be provided to JCHD annually. Failure of the Owner to deposit funds as detailed above and/or provide said financial report(s) may result in Jefferson County withholding approval of building permits until the fund is made current and/or the report(s) are submitted.

18. **Enforcement** - This agreement may be enforced by GRANTEE in law or equity against the Grantor, its heirs, successors and assigns.

19. **Taxes** - The Owner shall be responsible for paying all real, personal and other taxes as they come due and are owing on the Owner's OSS or real property.

20. **Survival of Covenants and Binding Effect** - All of the promises, covenants, terms and conditions of this agreement shall survive the conveyance hereunder, and this agreement shall extend to and bind the successors and assigns of the respective parties hereto.

21. **Term** - This agreement shall remain in full force and effect until the date of notification by the JCHD to the Owner that the Owner's OSS has been intercepted and connected to a general sewer system. This contract may be amended by mutual consent of the Owner and the County Health Officer.

IN WITNESS WHEREOF the undersigned, being the Declarant herein, have hereunto set their hands and seal this _____ day of July, 1997.

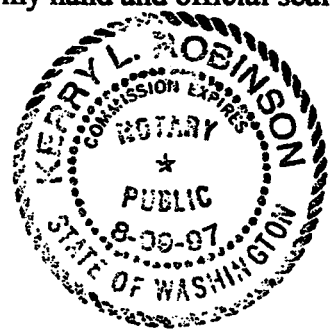
Olympic Greens Partnership

By _____
John T. Shold, general partner

STATE OF WASHINGTON)
) ss.
COUNTY OF JEFFERSON)

On this 6th day of AUGUST, 1997, before me, the undersigned a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared John R. Shold to me known to be the general partner of **Olympic Greens Retirement Community**, the person or persons that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said person or persons, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

Witness my hand and official seal thereto affixed the day and year first above written.



_____
NOTARY PUBLIC in and for the State of Washington
Residing at PORT TOWNSEND, Washington
My Commission expires 8/9/97

IN WITNESS WHEREOF the undersigned, being the Declarant herein, have hereunto set their hands and seal this 6th day of ~~July,~~ August 1997.

Olympic Greens Partnership

By _____
Sterling Huntingford

By _____
Sally Huntingford

STATE OF WASHINGTON)
) ss.
COUNTY OF JEFFERSON)

On this 6th day of August, 1997, before me, the undersigned a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Sterling Huntingford and Sally Huntingford to me known to be one of the developers of **Olympic Greens Retirement Community**, the person or persons that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said person or persons, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

Witness my hand and official seal thereto affixed the day and year first above written.

KERRY L. ROBINSON NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 8-09-97

_____
NOTARY PUBLIC in and for the State of Washington
Residing at Port Townsend, Washington
My Commission expires 8/9/97

IN WITNESS WHEREOF the undersigned, being the Declarant herein, have hereunto set their hands and seal this _____ day of July, 1997.

Olympic Greens Partnership

By _____
Demetrius Katsikapes

By _____ By
Nancy Katsikapes
_____ Her attorney in fact

STATE OF WASHINGTON)
) ss.
COUNTY OF JEFFERSON)

On this 6th day of August, 1997, before me, the undersigned a Notary Public in and for the State of Washington, duly commissioned and sworn, personally appeared Demetrius Katsikapes and Nancy Katsikapes to me known to be one of the developers of **Olympic Greens Retirement Community**, the person or persons that executed the foregoing instrument, and acknowledged the said instrument to be the free and voluntary act and deed of said person or persons, for the uses and purposes therein mentioned, and on oath stated that he is authorized to execute the said instrument.

Witness my hand and official seal thereto affixed the day and year first above written.

KERRY L. ROBINSON NOTARY PUBLIC STATE OF WASHINGTON COMMISSION EXPIRES 8-09-97

_____
NOTARY PUBLIC in and for the State of Washington
Residing at PORT TOWNSEND, Washington
My Commission expires 8/9/97

VOLUME 1 BINDING SITE PLANS, PAGE(S) 25

DRAWING NUMBER Vol 1 Pg 25

Binding Site

DRAWING NUMBER 402152

AGENDA REPORT

DATE: November 19, 2019

TO: Board of Commissioners

FROM: Samantha Harper, P.E., Water Superintendent

RE: Ocean Grove (Local Utility District No. 5) Segregation of an Assessment

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SUMMARY: Staff is requesting that the Board of Commissioners (BOC) to adopt the Segregation of an Assessment on the Assessment Roll for Local Utility District No. 5.

BACKGROUND: On August 5, 1992, Resolution 92-349 outlined the established the boundary, ordered the installation of the improvement and provided a payment option for Local Utility District No. 5 (LUD No. 5). Then in May 18, 1994, Resolution 94-380 levied and confirmed an assessment against parcel number 997100602 (Ocean Grove Estates #2 Block 6, Lot 3) in the name of Four Seasons Development Company in the amount of $10,681.43 for a 3 bedroom connection.

The new property owner, James Diebold Jr. Rev Living Trust petitioned the Jefferson County Public Utility District Board of Commissioners through email correspondence, dated October 24, 2019 to transfer the 3 bedroom connection from parcel number 977100602 (Ocean Grove Estates #2 Block 6, Lot 3) to parcel number 977100603 (Ocean Grove Estates #2 Block 6, Lot 4). Both parcels are currently vacant.

Parcel number 977100603 (Ocean Grove Estates #2 Block 6, Lot 4) originally had a confirmed 3 bedroom connection, however, in May 20, 2014 (Resolution 2014-006) the 3 bedroom connection was transferred to parcel number 977-100-725 (Ocean Grove Estates #2 Block 7, Lot 19).

ANALYSIS/FINDINGS: None

FISCAL IMPACT: None

RECOMMENDATION: Staff is recommending that the Board of Commissioners (BOC) to adopt the Segregation of an Assessment on the Assessment Roll for Local Utility District No. 5.

Attachments:

1. Resolution 2019-20

PUBLIC UTILITY DISTRICT NO.1
OF
JEFFERSON COUNTY

RESOLUTION NO. 2019-30

A Resolution of the Board of Commissioners of Public Utility District (PUD) No. 1 of Jefferson County, Washington, ordering the Segregation of an Assessment on the Assessment Roll of Local Utility District No. 5

WHEREAS, Resolution 92-349, adopted on the 5th day of August 1992: outlined the establishment of the boundary; ordered the installation of the improvement; and provided a payment option for Local Utility District (LUD) No. 5; and

WHEREAS, Resolution 94-380, adopted on the 18th day of May 1994 levied and confirmed an assessment against parcel number 997100602 (Ocean Grove Estates #2 Block 6, Lot 3) in the name of Four Seasons Development Company in the amount of $10,681.43 for a 3 bedroom connection; and

WHEREAS, the current property owner of parcel number 997100602 wishes to transfer the assessment and the septic connection to parcel number 977100603 (Ocean Grove Estates #2 Block 6, Lot 4); and

WHEREAS, the current property owner understands that by transferring the assessment from one parcel to another will mean that the assessment and the sewer connection have been transferred and there is not guarantee that the initial parcel will have a sewer connection available; and

NOW, THEREFORE, BE IT RESOLVED by the Board of Commissioners of Public Utility District No. 1 of Jefferson County as follows:

Section 1. A copy of this Resolution shall be delivered to the Treasurer of Jefferson County Washington, who is authorized and directed to make the following segregation upon the Assessment Roll of Local Utility District No. 5

Parcel Number	Legal Description	Number of Bedrooms
From: 977100602	(Ocean Grove Estates #2 Block 6, Lot 3)	0
To: 977100603	(Ocean Grove Estates #2 Block 6, Lot 4)	3

ADOPTED at a regular meeting of the Board of Commissioners of Public Utility District No. 1 of Jefferson County, this 19th day of November 2019.

_____

Jeff Randall, President

_____

Dan Toepper, Vice President

ATTEST:

_____

Kenneth Collins, Secretary

AGENDA REPORT

DATE: November 19, 2019

TO: Board of Commissioners

THRU: Kevin Streett, General Manager

FROM: Mike Bailey, Financial Services Manager/District Auditor

RE: Line of Credit from National Rural Utilities Cooperative Finance Corporation (CFC)

SUMMARY: First touch of loan documents from CFC for $5 Million Line of Credit.

BACKGROUND: To help with our cash reserves, staff reached out to CFC about getting approval for a line of credit. With the construction and remodeling of our building, we will be using our cash reserves. Olga Darlington with Moss Adams suggested that we look at establishing a line of credit.

ANALYSIS/FINDINGS: During our financial policy review with Olga on November 20, 2019, the use of the line of credit and its purpose will be discussed further. We have 90 days to sign the contract.

FISCAL IMPACT: There is no financial impact currently.

RECOMMENDATION: Discuss and review loan documents.

CFC Instructions for Unsecured Line of Credit

Borrower: Public Utility District No. 1 of Jefferson County
Line of Credit Designation: WA060-R-5100

Enclosed for the above-referenced loan are the following documents:

I. Line of Credit Agreement

II. Certificate of Resolutions and Incumbency

Before any action is taken to execute the documents, it should be determined that all necessary regulatory commission approvals have been obtained. CFC will require an original or true copy of the order of the commission.

A. Line of Credit Agreement: Please execute the line of credit agreement. The effective date of the agreement should be left blank. This date will be provided by CFC. After execution by CFC, a copy will be returned to you.

B. Certificate of Resolutions and Incumbency: Board resolutions should be adopted following the form supplied. Note that the names and titles of all officials authorized to execute the loan documents on behalf of the Borrower must be set forth on the incumbency portion of the certificate. Borrower should consult with counsel to determine if its bylaws and/or the laws of its state of incorporation require the loan documents to be sealed and attested.

DOCUMENTS TO BE RETURNED TO CFC:

- Certified or true copy of Commission approval (if applicable)
- The line of credit agreement
- The original certificate of resolutions and incumbency

IF YOU HAVE QUESTIONS REGARDING THESE INSTRUCTIONS OR DOCUMENTS PLEASE TELEPHONE MARCIA BURDICK, PARALEGAL, AT (800) 424-2954 OR (703) 467-3079.

PLEASE RETURN ALL DOCUMENTS TO:

NRUCFC
ATTN: LEGAL ASSISTANT
20701 COOPERATIVE WAY
DULLES, VA 20166

REVOLVING LINE OF CREDIT AGREEMENT

REVOLVING LINE OF CREDIT AGREEMENT (this "Agreement"), dated as of _____, between PUBLIC UTILITY DISTRICT NO. 1 OF JEFFERSON COUNTY ("Borrower"), a public utility district organized and existing under the laws of the State of Washington, and NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION ("CFC"), a cooperative association organized and existing under the laws of the District of Columbia.

RECITALS

WHEREAS, the Borrower has applied to CFC for a line of credit for the purposes set forth in Schedule 1 hereto, and CFC is willing to extend such a line of credit to the Borrower on the terms and conditions stated herein.

NOW, THEREFORE, for and in consideration of the premises and the mutual covenants hereinafter contained, the parties hereto agree and bind themselves as follows:

ARTICLE I

DEFINITIONS

Section 1.01 For purposes of this Agreement, the following capitalized terms shall have the following meanings (such definitions to be equally applicable to the singular and the plural form thereof).

"Advance" shall mean each advance of funds by CFC to the Borrower pursuant to the terms and conditions of this Agreement.

"Business Day" shall mean any day that both CFC and the depository institution CFC utilizes for funds transfers hereunder are open for business.

"CFC Commitment" shall have the meaning ascribed to it in Schedule 1 hereto.

"CFC Line of Credit Rate" shall mean the rate published by CFC from time to time, by electronic or other means, for similarly classified lines of credit, but if not published, then the rate determined for such lines of credit by CFC from time to time.

"Default Rate" shall mean a rate per annum equal to the interest rate in effect for an Advance plus two hundred (200) basis points.

"Effective Date" shall mean the date designated as such by CFC on the signature page hereof.

"Event of Default" shall have the meaning as described in Article VI hereof.

"GAAP" shall mean generally accepted accounting principles in the United States of America as in effect from time to time.

"Governmental Authority" shall mean the government of the United States of America, any other nation or government, any state or other political subdivision thereof, whether state or local, and any agency, authority, instrumentality, regulatory body, court or other entity exercising executive, legislative, judicial, taxing, regulatory or administrative powers or functions of or pertaining to government.

"Lien" shall mean any statutory or common law consensual or non-consensual mortgage, pledge, security interest, encumbrance, lien, right of set off, claim or charge of any kind, including, without limitation, any conditional sale or other title retention transaction, any lease transaction in the nature thereof and any secured transaction under the Uniform Commercial Code.

"Line of Credit" shall mean the line of credit extended by CFC to the Borrower, pursuant to this Agreement, in an aggregate principal amount outstanding at any time not to exceed the CFC Commitment.

"Loan Documents" shall mean this Agreement and all other documents or instruments executed, delivered or executed and delivered by the Borrower and evidencing, governing or otherwise pertaining to the Line of Credit.

"Maturity Date" shall mean the date set forth in Schedule 1 hereto.

"Obligations" shall mean any and all liabilities, obligations or indebtedness owing by the Borrower to CFC, of any kind or description, irrespective of whether for the payment of money, whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising.

"Person" shall mean natural persons, sole proprietorships, cooperatives, corporations, limited liability companies, limited partnerships, general partnerships, limited liability partnerships, joint ventures, associations, companies, trusts or other organizations, irrespective of whether they are legal entities, and Governmental Authorities.

ARTICLE II

REPRESENTATIONS AND WARRANTIES

Section 2.01 The Borrower represents and warrants to CFC that as of the date of this Agreement:

A. Good Standing. The Borrower is duly organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization, is duly qualified to do business and is in good standing in those states in which it is required to be qualified to conduct its business.

B. Authority; Validity. The Borrower has the power and authority to enter into this Agreement; to make the borrowing hereunder; to execute and deliver all documents and instruments required hereunder and to incur and perform the obligations provided for herein, all of which have been duly authorized by all necessary and proper action; and no consent or approval of any Person, including, as applicable and without limitation, members of the Borrower, which has not been obtained is required as a condition to the validity or enforceability hereof or thereof.

This Agreement is, and when fully executed and delivered will be, legal, valid and binding upon the Borrower and enforceable against the Borrower in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity.

C. No Conflicting Agreements. The execution and delivery of the Loan Documents and performance by the Borrower of the obligations thereunder, and the transactions contemplated hereby or thereby, will not: (i) violate any provision of law, any order, rule or regulation of any court or other Governmental Authority, any award of any arbitrator, the articles of incorporation or bylaws of the Borrower, or any indenture, contract, agreement, mortgage, deed of trust or other instrument to which the Borrower is a party or by which it or any of its property is bound; or (ii) be in conflict with, result in a breach of or constitute (with due notice and/or lapse of time) a default under, any such award, indenture, contract, agreement, mortgage, deed of trust or other instrument, or result in the creation or imposition of any Lien upon any of the property or assets of the Borrower.

The Borrower is not in default in any material respect under any agreement or instrument to which it is a party or by which it is bound and no event or condition exists which constitutes a default, or with the giving of notice or lapse of time, or both, would constitute a default under any such agreement or instrument.

D. Taxes. The Borrower has filed or caused to be filed all federal, state and local tax returns which are required to be filed and has paid or caused to be paid all federal, state and local taxes, assessments, and Governmental Authority charges and levies thereon, including interest and penalties to the extent that such taxes, assessments, and Governmental Authority charges and levies have become due, except for such taxes, assessments, and Governmental Authority charges and levies which the Borrower is contesting in good faith by appropriate proceedings for which adequate reserves have been set aside.

E. Licenses and Permits. The Borrower has duly obtained and now holds all licenses, permits, certifications, approvals and the like necessary to own and operate its property and business that are required by Governmental Authorities and each remains valid and in full force and effect.

F. Litigation. There are no outstanding judgments, suits, claims, actions or proceedings pending or, to the knowledge of the Borrower, threatened against or affecting the Borrower or any of its properties which, if adversely determined, either individually or collectively, would have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower. The Borrower is not, to the Borrower's knowledge, in default or violation with respect to any judgment, order, writ, injunction, decree, rule or regulation of any Governmental Authority which would have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower.

G. Financial Statements. The balance sheet of the Borrower as at the date identified in Schedule 1 hereto, the statement of operations of the Borrower for the period ending on said date, and the interim financial statements of the Borrower, all heretofore furnished to CFC, are complete and correct. Said balance sheet fairly presents the financial condition of the Borrower as at said date and said statement of operations fairly reflects its operations for the period ending on said date. The Borrower has no contingent obligations or

extraordinary forward or long-term commitments except as specifically stated in said balance sheet or herein. There has been no material adverse change in the financial condition or operations of the Borrower from that set forth in said financial statements except changes disclosed in writing to CFC prior to the date hereof.

H. Required Approvals. No license, consent or approval of any Governmental Authority is required to enable the Borrower to enter into this Agreement, or to perform any of its Obligations provided for herein, including without limitation (and if applicable), that of any state public utilities commission, any state public service commission, and the Federal Energy Regulatory Commission.

I. Compliance With Laws. The Borrower is in compliance, in all material respects, with all applicable requirements of law and all applicable rules and regulations of each Governmental Authority.

J. Disclosure. To the Borrower's knowledge, information and belief, neither this Agreement nor any document, certificate or financial statement furnished to CFC by or on behalf of the Borrower in connection herewith (all such documents, certificates and financial statements, taken as a whole) contains any untrue statement of a material fact or omits to state any material fact necessary in order to make the statements contained herein and therein not misleading.

ARTICLE III

CREDIT TERMS

Section 3.01 Advances. CFC agrees to advance funds to the Borrower pursuant to the terms and conditions hereof, provided, however, that the principal amount at any time outstanding under this Agreement shall not exceed the CFC Commitment. The Borrower may borrow, repay and reborrow funds at any time or from time to time from the Effective Date up to, but not including, the Maturity Date, at which time all principal amounts outstanding, and accrued, but unpaid interest thereon, shall be due and payable in full.

Section 3.02 Payment and Interest Rate. The Line of Credit shall be payable and bear interest as follows:

A. Interest Rate and Payment. The Borrower unconditionally promises and agrees to pay, as and when due, interest on all amounts advanced hereunder from the date of each Advance and to repay all amounts advanced hereunder with interest on the Maturity Date, if not sooner paid. Interest shall be due and payable in accordance with CFC's regular billing cycles as may be in effect from time to time. As of the date hereof, interest shall be due and payable on the last day of each of March, June, September and December. CFC shall provide reasonable prior written notice to the Borrower of any change to the billing cycle or due dates for the payment of interest. CFC shall invoice the Borrower at least five days prior to the due date of any interest payment, provided, however, that CFC's failure to timely send an invoice with respect to any interest payment shall not constitute a waiver by CFC or be deemed to relieve the Borrower of its obligation to make such payment as provided for herein or to repay all amounts advanced hereunder in full with accrued interest as provided for herein. All amounts shall be payable at CFC's main office at 20701 Cooperative Way, Dulles, VA 20166 or at such other location as designated by CFC from time to time. The interest rate on all Advances will be equal to the CFC Line of Credit Rate in effect from time to time. Interest will be computed on the basis

of a 365 day year for the actual number of days that any Advance is outstanding. The effective date of an interest rate adjustment will be determined from time to time by CFC and shall remain in effect until any subsequent change in the interest rate occurs.

B. Application of Payments. Each payment shall be applied to the Obligations, first to any fees, costs, expenses or charges other than interest or principal then due on the Borrower's indebtedness to CFC, second to interest accrued and the balance to principal.

Section 3.03 Paydown Requirement. For each 12-month period while this Agreement is in effect, Borrower shall, for a period of at least five consecutive Business Days, pay down the entire outstanding principal balance on this line of credit ("Paydown"). Borrower shall make the initial Paydown within 360 days of the first Advance hereunder, and shall make each subsequent Paydown within 360 days of the date of the first Advance following each Paydown.

Section 3.04 Limitation on Advances. While an Advance is outstanding, CFC reserves the right to limit further Advances if the sum of (a) all Advances outstanding, (b) the amount of any further Advance requested, and (c) the total amount of Borrower's other unsecured outstanding debt, would exceed the CFC Commitment. CFC may in its sole discretion decline to make any Advance during any period when the Borrower is in default hereunder.

Section 3.05 Mandatory Prepayment. If there is a change in the Borrower's corporate structure (including without limitation by merger, consolidation, conversion or acquisition), then upon the effective date of such change, (a) the Borrower shall no longer have the ability to request, and CFC shall have no obligation to make, Advances hereunder and (b) the Borrower shall prepay the outstanding principal balance of all Obligations, together with any accrued but unpaid interest thereon, any unpaid costs or expenses provided for herein, and a prepayment premium as set forth in any agreement between the Borrower and CFC with respect to any such Obligation or, if not specified therein, as prescribed by CFC pursuant to its policies of general application in effect from time to time.

Notwithstanding the foregoing, if after giving effect to such change in the Borrower's corporate structure, Borrower, or its successor in interest, is engaged in the furnishing of electric utility services to its members and patrons for their use as ultimate consumers and is organized as a cooperative, nonprofit corporation, public utility district, municipality, or other public governmental body, Borrower shall retain the ability to request, and CFC shall retain the obligation to make, Advances hereunder and no prepayment shall be required under this Section 3.05.

Section 3.06 RESERVED

Section 3.07 Default Rate. If Borrower defaults on its obligation to make a payment due hereunder by the applicable date payment is due, and such default continues for thirty (30) days thereafter, then beginning on the thirty-first (31st) day after the payment is due and for so long as such default continues, Advances shall bear interest at the Default Rate.

ARTICLE IV

CONDITIONS OF LENDING

Section 4.01 Conditions Precedent to Closing. The obligation of CFC to make Advances hereunder shall not become effective until the date on which the following conditions precedent have been satisfied:

A. Legal Matters. All legal matters incident to the consummation of the transactions hereby contemplated shall be satisfactory to counsel for CFC.

B. Representations and Warranties. The representations and warranties contained in Article II shall be true on the date hereof.

C. Closing Deliverables. CFC shall have been furnished with the following, in form and substance satisfactory to CFC:

(i) Documents. (a) the executed Loan Documents, (b) certified copies of all such organizational documents and proceedings of the Borrower authorizing the transactions hereby contemplated as CFC shall require, and (c) all other such documents as CFC may reasonably request.

(ii) Government Approvals. True and correct copies of all certificates, authorizations, consents, permits and licenses from Governmental Authorities necessary for the execution or delivery of the Loan Documents or performance by the Borrower of the obligations thereunder.

D. Special Conditions of Closing. CFC shall be fully satisfied that the Borrower has complied with all special conditions of closing identified in Schedule 1 hereto.

Section 4.02 Conditions to Advances. The obligation of CFC to make each Advance hereunder is additionally subject to satisfaction of the following conditions:

A. Requisitions. The Borrower will requisition each Advance by submitting its requisition to CFC in form and substance satisfactory to CFC no later than 12:00 noon local time at CFC's offices in Dulles, Virginia on the Business Day prior to the Business Day Borrower seeks to have funds advanced.

CFC may require the Borrower to submit such additional information as it may reasonably require prior to funding the Advance request.

B. Representations and Warranties; Default. The representations and warranties contained in Article II shall be true on the date of the making of each Advance hereunder with the same effect as though such representations and warranties had been made on such date; no Event of Default and no event which, with the lapse of time or the notice and lapse of time would become such an Event of Default, shall have occurred and be continuing or will have occurred after giving effect to each Advance on the books of the Borrower; there shall have occurred no material adverse change in the business or condition, financial or otherwise, of the Borrower; and nothing shall have occurred which in the opinion of CFC materially and adversely affects the Borrower's ability to perform its obligations hereunder.

C. Special Conditions of Advances. CFC shall be fully satisfied that the Borrower has complied with all special conditions to advance identified in Schedule 1 hereto.

ARTICLE V

COVENANTS

Section 5.01 The Borrower covenants and agrees with CFC that until payment in full of the Line of Credit and performance of all obligations of the Borrower hereunder:

A. Use of Proceeds. The Borrower shall use the proceeds of this Line of Credit solely for the purposes identified on Schedule 1 hereto.

B. Notice. The Borrower shall promptly notify CFC in writing of:

(i) any material adverse change in the business, operations, prospects, assets, liabilities or financial condition of the Borrower or its subsidiaries;

(ii) the institution or threat of any litigation or administrative proceeding of any nature involving the Borrower or any subsidiary which could materially affect the business, operations, prospects, assets, liabilities or financial condition of the Borrower or any subsidiary; and

(iii) the occurrence of an Event of Default hereunder, or any event that, with the giving of notice or lapse of time, or both, would constitute an Event of Default.

C. Default Notices. Upon receipt of any notices with respect to a default by the Borrower or any subsidiary under the terms of any evidence of any indebtedness with parties other than CFC or of any loan agreement, mortgage or other agreement relating thereto, the Borrower shall, and shall cause each subsidiary to, deliver copies of such notice to CFC.

D. Financial Books; Financial Reports; Right of Inspection. The Borrower will at all times keep, and safely preserve, proper books, records and accounts in which full and true entries will be made of all of the dealings, business and affairs of the Borrower, in accordance with GAAP. The Borrower will cause to be prepared and furnished to CFC within one hundred twenty (120) days of the end of each of the Borrower's fiscal years during the term hereof, a full and complete consolidated and consolidating report of its financial condition and statement of its operations as of the end of such fiscal year, audited and certified by independent certified public accountants nationally recognized or otherwise satisfactory to CFC and accompanied by a report of such audit in form and substance satisfactory to CFC, including without limitation a consolidated and consolidating balance sheet and the related consolidated and consolidating statements of income and cash flow. CFC, through its representatives, shall at all times during reasonable business hours and upon prior notice have access to, and the right to inspect and make copies of, any or all books, records and accounts, and any or all invoices, contracts, leases, payrolls, canceled checks, statements and other documents and papers of every kind belonging to or in the possession of the Borrower or in any way pertaining to its property or business.

E. Compliance With Laws. The Borrower and each subsidiary shall remain in compliance, in all material respects, with all applicable requirements of law and applicable rules and regulations of each Governmental Authority.

F. Taxes. The Borrower shall pay, or cause to be paid all taxes, assessments or Governmental Authority charges lawfully levied or imposed on or against it and its properties prior to the time they become delinquent, except for any taxes, assessments or charges that are being contested in good faith and with respect to which adequate reserves as determined in good faith by Borrower have been established and are being maintained.

G. Special Covenants. The Borrower will comply with any special covenants identified in Schedule 1 hereto.

ARTICLE VI

EVENTS OF DEFAULT

Section 6.01 The following shall be "Events of Default" under this Agreement:

A. Representations and Warranties. Any representation or warranty made by the Borrower herein, or in any of the other Loan Documents, or in any certificate or financial statement furnished to CFC hereunder or under any of the other Loan Documents shall prove to be false or misleading in any material respect.

B. Payment. The Borrower shall fail to pay (whether upon stated maturity, by acceleration, or otherwise) any principal, interest, premium (if any) or other amount payable under the Line of Credit within five (5) Business Days after the due date thereof.

C. Other Covenants.

(i) No Grace Period. Failure of the Borrower to observe or perform any covenant or agreement contained in Sections 5.01.A, 5.01.C, 5.01.D, or 5.01.G, of this Agreement.

(ii) Thirty Day Grace Period. Failure of the Borrower to observe or perform any other covenant or agreement contained in this Agreement or any of the other Loan Documents, which shall remain unremedied for thirty (30) calendar days after written notice thereof shall have been given to the Borrower by CFC.

D. Legal Existence, Permits and Licenses. The Borrower shall forfeit or otherwise be deprived of (i) its authority to conduct business in the jurisdiction in which it is organized or in any other jurisdiction where such authority is required in order for the Borrower to conduct its business in such jurisdiction or (ii) permits, easements, consents or licenses required to carry on any material portion of its business.

E. Other CFC Obligations. The Borrower shall be in breach or default of any Obligation, which breach or default continues uncured beyond the expiration of any applicable grace period.

F. Other Obligations. The Borrower shall (i) fail to make any payment of any principal, premium or any other amount due or interest on any indebtedness with parties other than CFC which shall remain unpaid beyond the expiration of any applicable grace period, or (ii) be in breach or default with respect to any other term of any evidence of any other indebtedness with parties other than CFC or of any loan agreement, mortgage or other agreement relating thereto which breach or default continues uncured beyond the expiration of any applicable grace period, if the effect of such failure, default or breach is to cause the holder or holders of that indebtedness to cause that indebtedness to become or be declared due prior to its stated maturity (upon the giving or receiving of notice, lapse of time, both or otherwise).

G. Involuntary Bankruptcy. An involuntary case or other proceeding shall be commenced against the Borrower seeking liquidation, reorganization or other relief with respect to it or its debts under bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property and such involuntary case or other proceeding shall continue without dismissal or stay for a period of sixty (60) consecutive days; or an order for relief shall be entered against the Borrower under the federal bankruptcy laws or applicable state law as now or hereafter in effect.

H. Insolvency. The Borrower shall commence a voluntary case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its property, or shall consent to any such relief or to the appointment of or taking possession by any such official in an involuntary case or proceeding commenced against it, or shall make a general assignment for the benefit of creditors, or shall admit in writing its inability to, or be generally unable to, pay its debts as they become due, or shall take any action to authorize any of the foregoing.

I. Dissolution or Liquidation. Other than as provided in subsection H. above, the dissolution or liquidation of the Borrower, or failure by the Borrower promptly to forestall or remove any execution, garnishment or attachment of such consequence as will impair its ability to continue its business or fulfill its obligations and such execution, garnishment or attachment shall not be vacated within sixty (60) consecutive days.

J. Material Adverse Change. Any material adverse change in the business or condition, financial or otherwise, of the Borrower or any subsidiary.

K. Monetary Judgment. The Borrower shall suffer any money judgment not covered by insurance, writ or warrant of attachment or similar process involving an amount in excess of $100,000 and shall not discharge, vacate, bond or stay the same within a period of sixty (60) consecutive days.

L. Nonmonetary Judgment. One or more nonmonetary judgments or orders (including, without limitation, injunctions, writs or warrants of attachment, garnishment, execution, distraint, replevin or similar process) shall be rendered against the Borrower that, either individually or in the aggregate, could reasonably be expected to have a material adverse effect upon the business, operations, prospects, assets, liabilities or financial condition of the Borrower.

ARTICLE VII

REMEDIES

Section 7.01 If any Event of Default shall occur after the date of this Agreement and shall not have been remedied within the applicable grace period therefor, then in every such event (other than an event described in Section 6.01.G, 6.01.H or 6.01.I) and at any time during the continuance of such event, CFC may:

(a) Cease making Advances hereunder;

(b) Declare all unpaid principal outstanding on the Line of Credit, all accrued and unpaid interest thereon, and all other Obligations to be immediately due and payable and the same shall thereupon become immediately due and payable without presentment, demand, protest or notice of any kind, all of which are hereby expressly waived;

(c) Exercise rights of setoff or recoupment and apply any and all amounts held, or hereafter held, by CFC or owed to the Borrower or for the credit or account of the Borrower against any and all of the Obligations of the Borrower now or hereafter existing hereunder or under the Line of Credit, including, but not limited to, patronage capital allocations and retirements, money due to the Borrower from equity certificates purchased from CFC, and any membership or other fees that would otherwise be returned to the Borrower. The rights of CFC under this section are in addition to any other rights and remedies (including other rights of setoff or recoupment) which CFC may have. The Borrower waives all rights of setoff, deduction, recoupment or counterclaim;

(d) Pursue all rights and remedies available to CFC, including, but not limited to, a suit for specific performance, injunctive relief or damages; and

(e) Pursue any other rights and remedies available to CFC at law or in equity.

If any Event of Default described in Section 6.01.G, 6.01.H or 6.01.I shall occur after the date of this Agreement, then CFC's commitment to make Advances hereunder shall automatically terminate and the unpaid principal outstanding hereunder, all accrued and unpaid interest thereon, and all other Obligations shall thereupon become immediately due and payable without presentment, demand, protest or notice of any kind, all of which are hereby expressly waived. In addition, CFC may pursue all rights and remedies available to CFC that are contemplated by the Loan Documents in the manner, upon the conditions, and with the effect provided in the Loan Documents, including, but not limited to, a suit for specific performance, injunctive relief or damages and any other rights and remedies available to CFC at law or in equity.

Nothing herein shall limit the right of CFC to pursue all rights and remedies available to a creditor following the occurrence of an Event of Default. Each right, power and remedy of CFC shall be cumulative and concurrent, and recourse to one or more rights or remedies shall not constitute a waiver of any other right, power or remedy.

ARTICLE VIII

MISCELLANEOUS

Section 8.01 Notices. All notices, requests and other communications provided for herein including, without limitation, any modifications of, or waivers, requests or consents under, this Agreement shall be given or made in writing (including, without limitation, by facsimile) and delivered to the intended recipient at the "Address for Notices" specified below; or, as to any party, at such other address as shall be designated by such party in a notice to each other party. All such communications shall be deemed to have been duly given (a) when personally delivered including, without limitation, by overnight mail or courier service, (b) in the case of notice by United States mail, certified or registered, postage prepaid, return receipt requested, upon receipt thereof, or (c) in the case of notice by facsimile, upon transmission thereof, provided such transmission is promptly confirmed by either of the methods set forth in clauses (a) or (b) above in each case given or addressed as provided for herein. The Address for Notices of each of the respective parties is as follows:

The Borrower:

The address set forth in
Schedule 1 hereto

CFC:

National Rural Utilities Cooperative Finance Corporation:
20701 Cooperative Way
Dulles, Virginia 20166
Attention: General Counsel
Fax # 866-230-5635

Section 8.02 Expenses. The Borrower shall reimburse CFC for any reasonable costs and out-of-pocket expenses paid or incurred by CFC (including, without limitation, reasonable fees and expenses of outside attorneys, paralegals and consultants) for all actions CFC takes, (a) to enforce the payment of any Obligation or in preparation for such enforcement, (b) to restructure any of the Obligations, (c) to review, approve or grant any consents or waivers hereunder, (d) to prepare, negotiate, execute, deliver, review, amend or modify this Agreement, and (e) to prepare, negotiate, execute, deliver, review, amend or modify any other agreements, documents and instruments deemed necessary or appropriate by CFC in connection with any of the foregoing.

The amount of all such expenses identified in this Section 8.02 shall be payable upon demand, and if not paid, shall accrue interest at the then prevailing CFC Line of Credit Rate plus two hundred (200) basis points.

Section 8.03 Late Payments. If payment of any amount due hereunder is not received at CFC's office in Dulles, Virginia or such other location as CFC may designate to the Borrower, within five (5) Business Days after the due date thereof, the Borrower will pay to CFC, in addition to all other amounts due under the terms of the Loan Documents, any late payment charge as may be fixed by CFC from time to time pursuant to its policies of general application as in effect from time to time.

Section 8.04 Non-Business Day Payments. If any payment to be made by the Borrower hereunder shall become due on a day which is not a Business Day, such payment shall be made on the next succeeding Business Day and such extension of time shall be included in computing any interest in respect of such payment.

Section 8.05 Filing Fees. To the extent permitted by law, the Borrower agrees to pay all expenses of CFC (including the reasonable fees and expenses of its counsel) in connection with the filing, registration or recordation of any instruments as may be required by CFC in connection with this Agreement, including, without limitation, all documentary stamps, recordation and transfer taxes and other costs and taxes incident to execution, filing, registration, recordation or perfection of any document or instrument in connection herewith. The Borrower agrees to save harmless and indemnify CFC from and against any liability resulting from the failure to pay any required documentary stamps, recordation and transfer taxes, recording costs, or any other expenses incurred by CFC in connection with this Agreement. The provisions of this subsection shall survive the execution and delivery of this Agreement and the payment of all other amounts due hereunder.

Section 8.06 CFC Accounts. Borrower agrees that the records of, and all computations by, CFC (in whatever media they are recorded or maintained) as to the amount of principal, interest and fees due on the Line of Credit shall be conclusive in the absence of manifest error.

Section 8.07 Waiver; Modification. No failure on the part of CFC to exercise, and no delay in exercising, any right or power hereunder or under the other Loan Documents shall operate as a waiver thereof, nor shall any single or partial exercise by CFC of any right hereunder, or any abandonment or discontinuance of steps to enforce such right or power, preclude any other or further exercise thereof or the exercise of any other right or power. No modification or waiver of any provision of this Agreement or the other Loan Documents and no consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall be in writing by the party granting such modification, waiver or consent, and then such modification, waiver or consent shall be effective only in the specific instance and for the purpose for which given.

SECTION 8.08 GOVERNING LAW; SUBMISSION TO JURISDICTION; WAIVER OF JURY TRIAL.

(A) THE PERFORMANCE AND CONSTRUCTION OF THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAWS OF THE COMMONWEALTH OF VIRGINIA.

(B) THE BORROWER HEREBY SUBMITS TO THE NON-EXCLUSIVE JURISDICTION OF THE UNITED STATES COURTS LOCATED IN VIRGINIA AND OF ANY STATE COURT SO LOCATED FOR PURPOSES OF ALL LEGAL PROCEEDINGS ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY. THE BORROWER IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY OBJECTIONS THAT IT MAY NOW OR HEREAFTER HAVE TO THE ESTABLISHING OF THE VENUE OF ANY SUCH PROCEEDINGS BROUGHT IN SUCH A COURT AND ANY CLAIM THAT ANY SUCH PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.

(C) THE BORROWER AND CFC EACH HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.

SECTION 8.09 INDEMNIFICATION. THE BORROWER HEREBY INDEMNIFIES AND AGREES TO HOLD HARMLESS, AND DEFEND CFC AND ITS MEMBERS, DIRECTORS, OFFICERS, EMPLOYEES, AGENTS, ATTORNEYS AND REPRESENTATIVES (EACH AN "INDEMNITEE") FOR, FROM, AND AGAINST ALL CLAIMS, DAMAGES, LOSSES, LIABILITIES, COSTS, AND EXPENSES (INCLUDING, WITHOUT LIMITATION, COSTS AND EXPENSES OF LITIGATION AND REASONABLE ATTORNEYS' FEES) ARISING FROM ANY CLAIM OR DEMAND IN RESPECT OF THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS OR THE TRANSACTIONS DESCRIBED IN THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS AND ARISING AT ANY TIME, WHETHER BEFORE OR AFTER PAYMENT AND PERFORMANCE OF ALL OBLIGATIONS UNDER THIS AGREEMENT AND THE OTHER LOAN DOCUMENTS IN FULL, EXCEPTING ANY SUCH MATTERS ARISING SOLELY FROM THE GROSS NEGLIGENCE OR WILLFUL MISCONDUCT OF CFC OR ANY INDEMNITEE. NOTWITHSTANDING ANYTHING TO THE CONTRARY CONTAINED IN SECTION 8.11 HEREOF, THE OBLIGATIONS IMPOSED UPON THE BORROWER BY THIS SECTION SHALL SURVIVE THE REPAYMENT OF THE LINE OF CREDIT AND THE TERMINATION OF THIS AGREEMENT.

Section 8.10 Complete Agreement. This Agreement, together with any schedules and exhibits hereto and the other Loan Documents, and the other agreements and matters referred to herein or by their terms referring hereto, is intended by the parties as a final expression of their agreement and is intended as a complete statement of the terms and conditions of their agreement. In the event of any conflict in the terms and provisions of this Agreement and any other Loan Documents, the terms and provisions of this Agreement shall control.

Section 8.11 Survival; Successors and Assigns. All covenants, agreements, representations and warranties of the Borrower which are contained in this Agreement shall survive the execution and delivery to CFC of the Loan Documents and the making of the Advances hereunder and shall continue in full force and effect until all of the obligations under the Loan Documents have been paid in full. All covenants, agreements, representations and warranties of the Borrower which are contained in this Agreement shall inure to the benefit of the successors and assigns of CFC. The Borrower shall not have the right to assign its rights or obligations under this Agreement.

Section 8.12 Use of Terms. The use of the singular herein shall also refer to the plural, and vice versa.

Section 8.13 Headings. The headings and sub-headings contained in this Agreement are intended to be used for convenience only and do not constitute part of this Agreement.

Section 8.14 Severability. If any term, provision or condition, or any part thereof, of this Agreement or the other Loan Documents shall for any reason be found or held invalid or unenforceable by any court of competent jurisdiction or other Governmental Authority, such invalidity or unenforceability shall not affect the remainder of such term, provision or condition nor any other term, provision or condition, and this Agreement and the other Loan Documents

shall survive and be construed as if such invalid or unenforceable term, provision or condition had not been contained therein.

Section 8.15 Binding Effect. This Agreement shall become effective when it shall have been executed by both the Borrower and CFC and thereafter shall be binding upon and inure to the benefit of the Borrower and CFC and their respective successors and assigns.

Section 8.16 Counterparts. This Agreement may be executed in one or more counterparts, each of which will be deemed an original and all of which together will constitute one and the same document. Signature pages may be detached from the counterparts and attached to a single copy of this Agreement to physically form one document.

Section 8.17 Schedule 1. Schedule 1 attached hereto is an integral part of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year first above written.

PUBLIC UTILITY DISTRICT NO. 1 OF JEFFERSON COUNTY

(SEAL)

By: _____

Title: _____

Attest: _____
Secretary

NATIONAL RURAL UTILITIES COOPERATIVE FINANCE CORPORATION

(SEAL)

By: _____
Assistant Secretary-Treasurer

Attest: _____
Assistant Secretary-Treasurer

Effective Date: _____ (to be filled in by CFC)

Loan Number: WA060-R-5100

SCHEDULE 1

1. The purpose of this Line of Credit is to provide funds for the Borrower's general corporate use, consistent with the Borrower's articles of incorporation, bylaws and applicable federal, state and local laws and regulations.

2. The aggregate CFC Commitment shall mean $5,000,000.00.

3. Maturity Date shall mean the date three (3) years from the Effective Date.

4. The date of the Borrower's balance sheet referred to in Section 2.01.G is December 31, 2018.

5. The Governmental Authority referred to in Section 2.01.H is: N/A

6. The special conditions of closing referred to in Section 4.01.D are as follows: None.

7. The special conditions of advance referred to in Section 4.02.C are as follows: None.

8. The special covenants referred to in Section 5.01.G are as follows: None.

9. The address for notices to the Borrower referred to in Section 8.01 is:

   PUBLIC UTILITY DISTRICT NO. 1 OF JEFFERSON COUNTY
   310 Four Corners Road
   Port Townsend, WA 98368-9368
   Attention: General Manager
   Fax: (360) 385-5945

CERTIFICATE OF RESOLUTIONS AND INCUMBENCY

I, _____, do hereby certify that (i) I am the Secretary of Public Utility District No. 1 of Jefferson County (hereinafter called the "Cooperative"); (ii) the following are true and correct copies of resolutions duly adopted by the board of directors of the Cooperative at a meeting held on _____; (iii) the meeting was duly and regularly called and held in accordance with the bylaws of the Cooperative; (iv) the Cooperative is duly incorporated, validly existing and in good standing under the laws of the state of its incorporation and there is no pending or contemplated proceeding for the merger, consolidation, sale of assets or business or dissolution of the Cooperative; (v) forms of the loan documents were submitted to the meeting and were authorized by the board of directors to be executed; (vi) none of the following resolutions has been rescinded or modified as of this date; and (vii) the persons authorized below have been duly elected or appointed to their respective positions and occupied such positions on the date of actual execution of the loan documents:

RESOLVED, that the Cooperative establish a line of credit and authorize borrowing from National Rural Utilities Cooperative Finance Corporation (“CFC”) in an amount which shall not at any one time exceed $5,000,000.00 (the "Line of Credit Amount"), subject to the provisions of the Line of Credit Agreement substantially in the form submitted to this meeting (the "Line of Credit Agreement"); and,

RESOLVED, that the individuals listed below are hereby authorized to execute and to deliver to CFC the Line of Credit Agreement.

RESOLVED, that each of the following individuals is hereby authorized in the name and on behalf of the Cooperative to execute and to deliver all such other documents and instruments as may be necessary or appropriate, to execute any future amendments to said Line of Credit Agreement as such individual may deem appropriate within the Line of Credit Amount so authorized and to do all such other acts as in the opinion of such authorized individual acting may be necessary or appropriate in order to carry out the purposes and intent of the foregoing resolutions:

Office or Title	Name (typed or printed)
_____	_____
_____	_____
_____	_____
_____	_____

IN WITNESS WHEREOF I have hereunto set my hand and affixed the seal of the Cooperative this _____ day of _____, _____

(SEAL)

_____
Secretary

AGENDA REPORT

DATE: **November 19, 2019**

TO: **Kevin Streett, General Manager, Jefferson County PUD**

FROM: **Joel Paisner, Counsel to JPUD**

RE: **NoaNet Interlocal Agreement**

SUMMARY: The NoaNet Interlocal Agreement (ILA) between NoaNet and JPUD expired on January 7, 2019. Since that time, the parties have continued to operate JPUD's telecommunications network pursuant to the ILA. The Parties have reached agreement on the terms and conditions necessary to extend the agreement. The ILA is significantly different that the previous agreement.

BACKGROUND: JPUD was able to negotiate a 5 year extension to the original ILA with NoaNet that provides for a revenue share between the parties – 50-50. This includes all revenues either party generates in Jefferson County. A small portion of revenue is exempted for certain low margin services that NoaNet provides (i.e. voice over IP, etc.) that it incurs separate costs to provide. The term of the ILA is for 5 years, however each party has the right terminate for any reason upon 90 days notification. NoaNet will continue to provide network operation services, network monitoring and all other services it has provided in the past. JPUD will be providing the physical network, similar to what it has previously provided. With the addition of the revenue share, this will be the first time JPUD will directly collect customer revenue for services in the JPUD service territory.

ANALYSIS/FINDINGS: Staff will provided more detail regarding the proposed ILA at the November 5, 2019 regular meeting of the Board of Commissioners. The draft agreement is attached.

RECOMMENDATION: Provide information to the Board of Commissioners in order to facilitate consideration of an extension of the ILA with NoaNet consistent with the terms and conditions contained in the draft ILA that will be provided to the Board in advance of the regular board meeting.

AMENDMENT TO INTERLOCAL AGREEMENT

THIS AMENDMENT TO THE INTERLOCAL COOPERATION AGREEMENT (the "Amendment") is made and entered into effective the ___ day of _____, 20__between NORTHWEST OPEN ACCESS NETWORK, a nonprofit mutual corporation of the State of Washington, ("NoaNet") and JEFFERSON COUNTY PUBLIC UTILITY DISTRICT NO. 1, a Municipal Corporation within the State of Washington ("PUD."). NoaNet and PUD. are sometimes referred to in this Amendment as the "Parties".

RECITALS

A. NoaNet is a Washington nonprofit mutual corporation whose members are comprised of several public utility districts within the State of Washington and one (l) joint operating agency. NoaNet was formed pursuant to the Interlocal Cooperation Act, RCW 39.34, and operates according to an Interlocal Cooperation Agreement, for the purpose of bringing high-speed communications to underserved areas of the State of Washington.

B. The PUD provides electric, water and sewer services in Jefferson County, Washington. In addition, the PUD has built, owns, operates and continues to develop telecommunications facilities within Jefferson County, Washington.

C. NoaNet and the PUD. entered into an Interlocal Cooperation Agreement on January 7, 2014 (the “Interlocal Agreement”). NoaNet provides operational and maintenance services to the PUD pursuant to the Interlocal Agreement, among other services. The Parties seek to amend the Interlocal Agreement to assist in the provision and deployment of telecommunications facilities and provide certain services for the PUD. The Parties are entering into this Amendment in order to provide cost savings, efficiencies, and encourage further efficient deployment of telecommunications facilities throughout the PUD’s service territory.

D. The PUD adopted Resolution No. 2018-013 providing for revised rates, limiting the lease of dark fiber, and approving a Pilot Area in the City of Port Townsend, Washington. Attached and incorporated herein is Exhibit A, is Resolution 2018-013.

E. NoaNet will continue to own and operate its backbone equipment in Jefferson County that interconnects to PUD (local) network assets and provides diversity for Kitsap, Jefferson and Clallam PUD’s.

AGREEMENT

1. **Purpose and Scope**. The purpose and scope of this Amendment is to better reflect the current operations and services provided by NoaNet and the PUD in providing wholesale telecommunications in Jefferson County, Washington. The PUD owns telecommunication facilities, some of which were initially acquired under the BTOP grant in Jefferson County, Washington. NoaNet manages the ongoing operations, wholesale billing to retail service providers, and owns and operates network equipment in Jefferson County, Washington.

2. **Term.** The Parties seek to extend the term of the Interlocal Agreement for an additional five (5) years. Either Party may terminate the Agreement upon ninety (90) days advance written notice. Both parties will use their best efforts to cooperate and mutually agree on separation of technical operations, revenues, costs to support on-going business operations for both parties.

3. **Maintenance of Fiber Optic Equipment or Facilities**. The PUD will be responsible for all physical maintenance of the fiber optic cable and equipment located in its service territory in Jefferson County, and keep the system in good working order and in safe condition, in conformity with all applicable standards, laws and regulations. The Parties shall cooperate with each other to restore service in the event of any outages caused by any fiber cuts, or other physical damage to the fiber optic cable and equipment. Each party's responsibilities regarding maintenance of network assets are further outlined in ***Section 2 of "Exhibit "B" - NoaNet and Jefferson PUD Operational Framework***

4. **Repairs.** The PUD will make reasonable efforts to make timely repairs.

5. **Network Operations**. NoaNet shall provide all network operations services (24/7/365), including, but not limited to, operations and maintenance services related to network management, including routine network engineering for new services, event monitoring and restoration, routine preventative maintenance and care and to provide all of the related services necessary to provide Jefferson County customers with a first class telecommunication service. Each party's responsibilities regarding network operations are further outlined in **Section 3 of Exhibit B"** - ***NoaNet and Jefferson PUD Operational Framework*.**

6. **Other Services**. To the extent either Party needs services from the other that are not included in this Amendment, the Parties shall develop and agree on project scope, schedule and pricing estimate and agree in writing prior to proceeding with the work and shall pay the other for such services. NoaNet hourly pricing for project work outside of this Agreement are attached as **"Exhibit C" - NoaNet Rates.** PUD hourly pricing for work outside of this agreement are attached as **"Exhibit E" – PUD Rates**

7. **Assets.** In order to better assign operating responsibilities, within 90 days of execution of this agreement both parties agree to implement clear demarcation between PUD network assets and NoaNet assets which are further described in ***"Exhibit B" - NoaNet and Jefferson PUD Operational Framework - Section IX – Associated Network Drawings*** attached to this Agreement.

8. **Local vs Regional Sales and Support.** The PUD will provide for ***(local sales)*** and support of Service Providers requesting service "internal" to JPUD's network or JPUD on-net services. NoaNet on behalf of its Service Providers will request quotes from the PUD for

services (***regional sales***) to locations in Jefferson County that require termination outside of the county, off-net to JPUD, or request ancillary NoaNet services "over the top" of the local telecommunication circuit, such as Internet, VoIP, Access Control and Surveillance.

9. **Force Majeure**. If either Party is unable to carry out its obligations under this Agreement as a result of any acts of God including but not limited to earthquakes, fires, floods, wind storms, landslides, labor strife, fiber cut or other similar events, the Party seeking relief under this section shall provide notice in writing to the other within five (5) calendar days of the beginning of the occurrence of the event. Any obligations of the Party seeking relief under this section shall be suspended during the continuity of such events. The Party seeking relief under this section shall use reasonable efforts to remedy and minimize the effects of such an event. If an act of God prevents restoration within six (6) months from the event, either Party shall have the option to terminate this agreement.

10. **Revenue Share**. (a). Monthly Recurring Costs. The Parties agree that all monthly recurring costs ("MRCs") paid by all customers in Jefferson County shall be shared with each other on a fifty-fifty (50-50) basis. Rates for all services shall be set by the PUD. The PUD shall consult with NoaNet before any changes are made to the rate schedule. Exhibit A is Resolution No. 2018-013, the current rate schedule adopted by the PUD's Board of Commissioners. The Parties shall review rates together on an annual basis.(b). NoaNet Revenue. The PUD recognizes certain products and services provided by NoaNet to its customers shall not be subject to the MRC revenue share. These include, but are not limited to, wholesale Internet transport, customer engineering and consulting services, and voice over IP products.

11. **Non-Recurring Costs.** Non-recurring costs ("NRCs) related to connecting new customers to the network in Jefferson County may be paid by the Party connecting the new customer. Each Party agrees to provide its new customers a quote that includes both the MRC and any nonrecurring costs ("NRCs") that may include the other Party's costs, as necessary to establish a customer connection. Quotes may include all required equipment provided by both the PUD and NoaNet to the customer. The Parties shall agree in advance upon total NRCs and payment terms for customers where the PUD and NoaNet agree to share NRC costs.

12. **Billing**. The PUD will bill any customers utilizing local, JPUD on-net services ***(local sales)*** including PUD Access Internet, and other services reflected in the PUD Product and Pricing effective at the time of contracting. Each bill shall include the customer charges for MRCs and NRCs that the Parties have agreed upon. NoaNet will bill its off-net (***regional sales***) customers and include the agreed upon MRCs and NRCs that apply to those customers. Typically, these services include transport out of county, cellular backhaul, Wholesale Internet, VoIP (voice) and Public Private Cloud. NoaNet agrees to bill its customers that locate and utilize facilities within the PUD's service territory and make use of the PUD's facilities. Each Party shall prepare month-end billing summaries for review by the non-billing Party. The Parties will agree on the format and detail necessary to conduct any audits. For the avoidance of doubt,

all billings shall be included in the revenue share provided in Section 10 above, except for what is specifically exempted.

13. **Payment**. Upon receipt of customer payments for MRCs and NRCs, each Party shall arrange for regular payment to the other of the fifty percent (50%) share of the MRCs, and the agreed upon NRC payments within thirty (30) days of receipt, to the extent agreed upon by the parties in advance. Payment is due the 15th of each month.

14. **Records and Audits**. Each Party agrees that it will maintain complete and accurate records related to the services provided under this Amendment, including records of all amounts of payments made to each Party, all in accordance with Generally Accepted Accounting Principles and Practices, and in a format that will permit an audit. The Parties agree to retain all such records and reasonable billing detail for a period of at least three (3) years from the date of the last payment made pursuant to this Amendment. Each Party agrees to provide reasonable supporting documentation to the other concerning any disputed invoice amounts within thirty (30) calendar days after receipt of a written notification of a dispute regarding any bill sent by either the PUD or NoaNet. Each Party shall grant any necessary access to inspect and audit the disputed bills during normal business hours. All such audits will be performed at the requesting Party's cost and expense; provided, however, that if as a result of any audit the requesting party identifies a discrepancy, in any total audited payments or credits, where such discrepancy is greater than ten percent (10%) or more of the invoiced amount, then any such costs for the audit shall be at the non-requesting party's cost and expense.

15. **Interlocal Agreement for Procurement and Purchasing.** The Parties both have adopted public procurement policies. As authorized by RCW 39.34 each does hereby agree, when beneficial to the Parties, to work cooperatively in the purchase of goods, services and public works equipment through competitive bidding and within the specifications established by each Party.

16. **Limitation of Liability**. Each Party's liability for any error or conduct on its part, including acts or omissions that constitute negligence or intentional misconduct is limited to direct damages to the customer, and there shall be no recovery from each other for consequential, incidental, indirect, punitive or special damages including commercial loss and lost profits. The Parties also agree that any contracts entered into by them that may include any services provided by the Parties under the terms of this Agreement shall disclaim any liability for consequential, incidental, indirect, punitive or special damages, including commercial loss and lost profits, however caused and regardless of legal theory or foreseeability, directly or indirectly arising by the performance of this Agreement by the Parties.

17. **Indemnity**. Each Party shall defend, indemnify and hold harmless the other Party and its members, directors, commissioners, officers, employees, agents, attorneys and other representatives against any claims, liabilities, damages, losses or expenses imposed on the other Party, including reasonable attorneys' fees, for personal injury or property damage to third parties resulting from or arising out of: (i) breach of this Agreement by the indemnifying Party;

(ii) the conduct of the indemnifying Party's business; or (iii) any negligent act or omission or willful misconduct of the Indemnifying Party. The foregoing shall not, however, constitute a waiver by the indemnifying Party of any immunity from claims by employees under any industrial insurance or workers compensation act. Each Party shall, however, have no duty to indemnify and hold harmless that other Party and its members, directors, commissioners, officers, employees, agents, attorneys and other representatives, to the extent any injury or damage is caused by that other Party or by parties under their control.

18. **Insurance**. Each Party shall, at its own expense, carry and maintain liability insurance coverage throughout the term of this Agreement, as follows: (a). General Liability Insurance. $1,000,000 per occurrence/ $2,000,000 aggregate. Each Party shall identify the other as an additional insured with a cross liability endorsement. (b). Property Insurance. Each Party shall carry and maintain property insurance in a form that will provide all risk coverage for the fiber optic equipment or facilities subject to this Agreement

19. **Jurisdiction, Venue and Law**. This Amendment is governed by the laws of the State of Washington. Venue for any legal action arising from a dispute under this Amendment is in the Superior Court for Jefferson County, Washington.

20. **Entire Agreement, Amendments and Counterparts**. This Amendment contains the entire agreement between the Parties with respect to the subject matter hereof and supersedes all prior agreements or understandings among the Parties with respect thereto. This Amendment may be amended only by an agreement in writing signed by both Parties. This Amendment may be executed in counterparts, which together shall constitute a single agreement.

21. **Severability**. Should any part, term or provision of this Amendment be determined to be invalid, the remainder of this Amendment shall not be affected, and the same shall continue in full force and effect.

22. **Attorney's Fees and Costs**. In the event of litigation regarding any of the terms of this Amendment, the substantially prevailing Party shall be entitled, in addition to other relief, to such reasonable attorneys' fees and costs as determined by the court.

23. **No Third-Party Rights**. This Agreement shall not be construed to create rights in or grant remedies to any third Party as a beneficiary of this Agreement.

24. **Taxes**. Each Party shall be responsible for its own applicable Federal, State and local taxes, assessments, fees, surcharges and other financial impositions.

25. **Compliance with Laws**. Each Party hereto, in its performance of this Amendment, agrees to comply with all applicable local, State and Federal laws and ordinances.

26. **Authorization**. Each Party hereby represents and warrants to the other that it is duly authorized to enter into and carry out the terms of this Amendment.

27. **Conflict**. In the event of any conflict or inconsistency between the terms of this Amendment and the Interlocal Agreement and Exhibits A and B, the terms of this Amendment and its exhibits shall govern and control.

28. **Definitions**. Unless otherwise provided in this Amendment, all defined terms shall have the same meaning as provided in the Interlocal Agreement and Exhibits A and B.

IN WITNESS WHEREOF, the Parties hereto have caused this Amendment to the Interlocal Agreement to be executed as of the date first written above.

Jefferson County PUD No. 1	**Northwest Open Access Network**
_____	_____
Kevin Streett	Dave Spencer
General Manager	Chief Executive Officer

NoaNet and Jefferson PUD Telecom Operational Framework

Exhibit B

Network drawings may change.

I. Purpose and Scope

The purpose of this attachment is to provide a framework outlining each party's operational responsibilities and the required cooperation to provide a reliable and robust level of service.

II. Maintenance of Fiber Plant, Network Equipment, and Service Installations

a. Responsibilities – The PUD is responsible for all maintenances, outages, and service orders on their network, including off-net NoaNet services. NoaNet is responsible for providing Network Operations Center services as defined in Section III of this attachment to the PUD for the PUD's network, including service order support.
b. Outages – The parties agree to work cooperatively to maintain a high level of reliability, minimize outage downtimes for both parties' customers and comply with the service level agreements listed in this attachment and provide support when needed.
c. Installs – The parties further agree to work cooperatively to complete all network installs on the PUD's network. NoaNet will provide technical support and the PUD is responsible for completing the installs.
d. Locates – The PUD is responsible for all locate requests in their service territory.
e. Charges – Neither party will charge the other party for services rendered associated with outages, basic installs or network maintenance, unless both parties agree in writing. If NoaNet agrees to install additional equipment for its own account or provide additional local work, the PUD will give NoaNet a Quote for these services, and the PUD will complete the work requested upon NoaNet's acceptance of the Quote.

III. Network Operations

a. Network Operations Center Services (NOC) – NoaNet will provide 24x7x365 network, monitoring, troubleshooting, incident management, and technical support. The PUD is responsible for providing personnel in the field as needed for outage restoration, routine maintenance, and service orders.
b. Maintenance Notifications – The PUD will provide NoaNet with maintenance notifications that comply with the required industry and customer advanced notification periods. NoaNet will issue the appropriate maintenance notices and NoaNet's NOC will coordinate with NoaNet's customers maintenance activities with the PUD's cooperation.

c. Network Access – NoaNet will provide PUD personnel with view only network access for all NoaNet off-net service locations on the PUD's network and when required, local administrative access for the PUD's field support personnel to support NoaNet off-net services. NoaNet will also provide full administrative access to PUD personnel for their core network and associated network devices for delivery of the PUD's on-net services.

d. 4 Corners Colocation – The PUD will provide 24x7x365 escorted access to NoaNet personnel to the PUD's 4 Corners Colocation facility for the purposes of installation, maintenances and outage restorations to NoaNet's network equipment, DC plant, and customers. The PUD will not charge NoaNet for colocation or for NoaNet connecting to direct NoaNet customers who have fibers terminated in the colocation building.

IV. Field Support and Engineering Network Services

a. PUD Field Services- The PUD will provide some field services to NoaNet for installation, maintenances and outages for off-net services. NoaNet will provide remote hands to support the PUD network for both on-net and off-net services. Construction cost for NoaNet work are the responsibility of NoaNet

b. NoaNet Network Engineering Support – NoaNet may provide project engineering and field engineering support to the PUD per the rates shown in ***Exhibit C – NoaNet Rates***

c. PUD Support – The PUD may provide project engineering and field support to NoaNet per the rates shown in ***Exhibit E – PUD Rates***

V. Service Level Agreement (SLA's)

a. NoaNet operates under a variety of customer SLA's. To ensure that NoaNet can meet these SLA's and minimize customer credits paid, the SLA's listed below will be the objectives for all NoaNet off-net services. In turn, NoaNet will work to meet these SLA's on behalf of the PUD for their on-net services. The SLA's listed are baseline objectives; however, more stringent SLA's may be in effect for individual services. The parties agree to cooperate to meet these SLA's or more stringent SLA's for any one service. NoaNet will use its best efforts to notify the PUD regarding specific SLAs for such individual services.

b. Requirements

1. TTR – 4 hours or less.
2. Availability – 99.99%
3. Packet Loss – 99.999% success rate minimum
4. Latency - < 10 ms round trip
5. Jitter – < 2 ms one-way

c. Definitions

1. Time to Repair (TTR) – is defined as the period between the time a service went down to the time of restoral.
2. Availability – is defined as the time during a calendar month that the circuit is available to the customer.
3. Data Delivery Ratio (Packet Loss) – is defined as the ratio of packets successfully received to the number of packets sent. Periods of downtime are not included in this calculation.
4. Jitter One-way – is defined as the variance in delay in milliseconds between two packets.
5. Latency – is defined as the time in milliseconds it takes a performance test frame to be sent from point A to point B and back again. Periods of downtime are not included in this calculation.

VI. SLA Credits

a. Credit Payments –The cost of any SLA credits issued by either Party arising in the Jefferson County PUD service territory are to be shared on a 50-50 basis. Each Party will provide all back up documentation regarding any SLA credits issued as is reasonably available to support any credit issued.

VII. Asset Ownership, Inventory and Management

VIII. PUD equipment and network design may change and require different equipment to be used.

a. Network Reconfiguration – In order to reconfigure and segment the network, the PUD will purchase the necessary switches to establish a network-to-network (NNI) interface at the PUD's 4 Corners communications building. The PUD will purchase a switch and install it at the Quilcene substation. NoaNet will remove their switches at the Port Townsend fire station and at the Quilcene school and assist the PUD with the configuration, test and turn up of the PUD's replacement switches. The PUD will also install a router for the PUD's internet access product. See section VIII for the recommended network segmentation and network migration.
b. Core Equipment – Each party will maintain their core equipment in a manner that provides a high degree of serviceability and reliability. This includes maintaining enough spares for outages and maintenance requirements. Each party will purchase and maintain their own core equipment as needed.
c. CPE Equipment – In order to ensure that new services are turned up on or before the service commit date, and to minimize outage durations, the PUD will maintain an adequate CPE inventory. NoaNet will provide stocking level recommendations. The PUD will purchase CPE's from NoaNet for on-net services and spares. NoaNet will purchase CPE's for resale to the PUD at cost plus 15% for administrative purchasing and repair/return costs. For NoaNet off-net services, NoaNet will preconfigure a CPE from NoaNet's inventory and send it to the PUD

for installation. In the event of a CPE failure the PUD will replace the CPE, send the defective CPE to NoaNet, and NoaNet will provide the PUD with a replacement CPE.

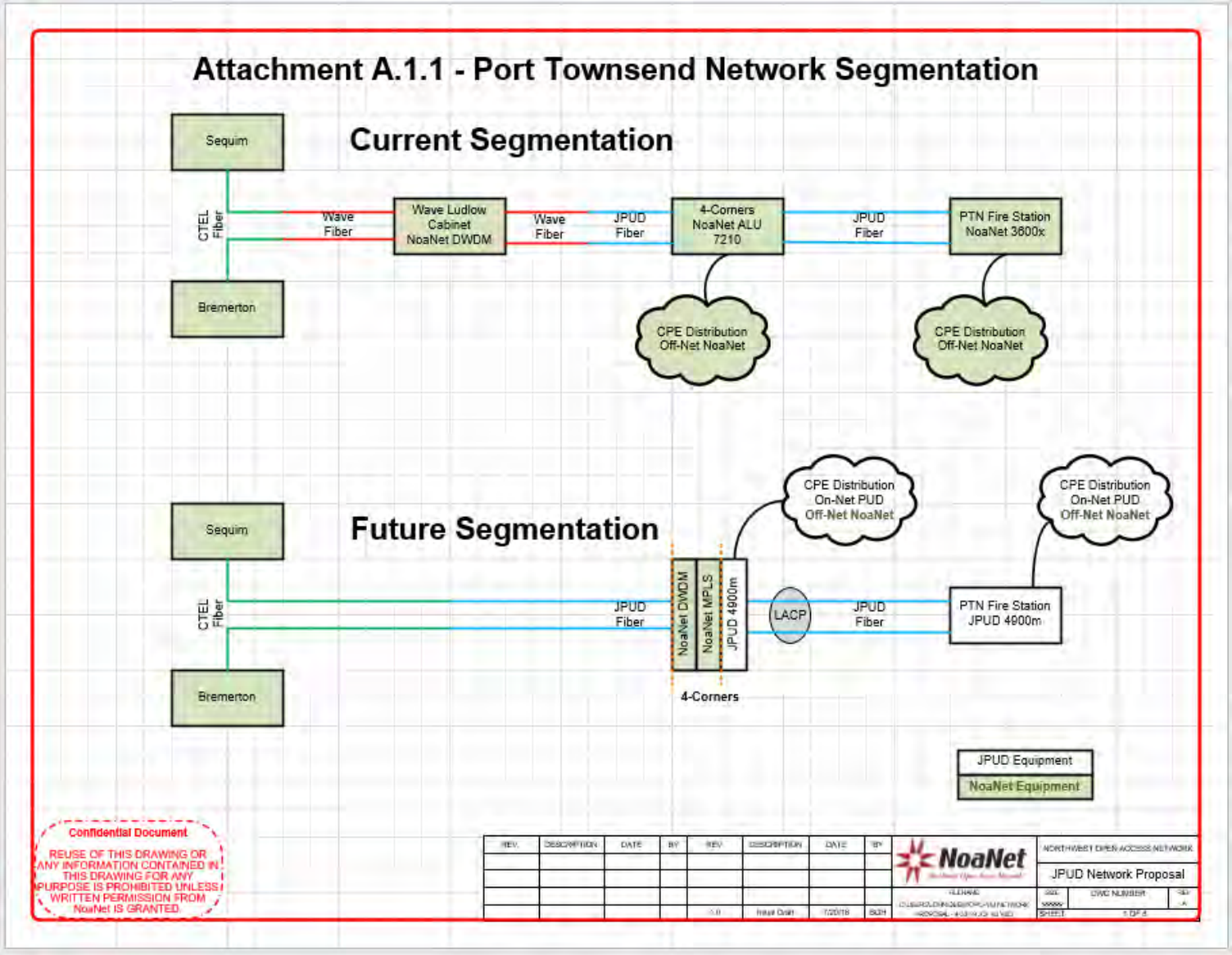
d. CPE Ownership – The PUD will own the CPE's for their on-net services and be responsible for the associated costs. NoaNet will own the CPE's for off-net services.

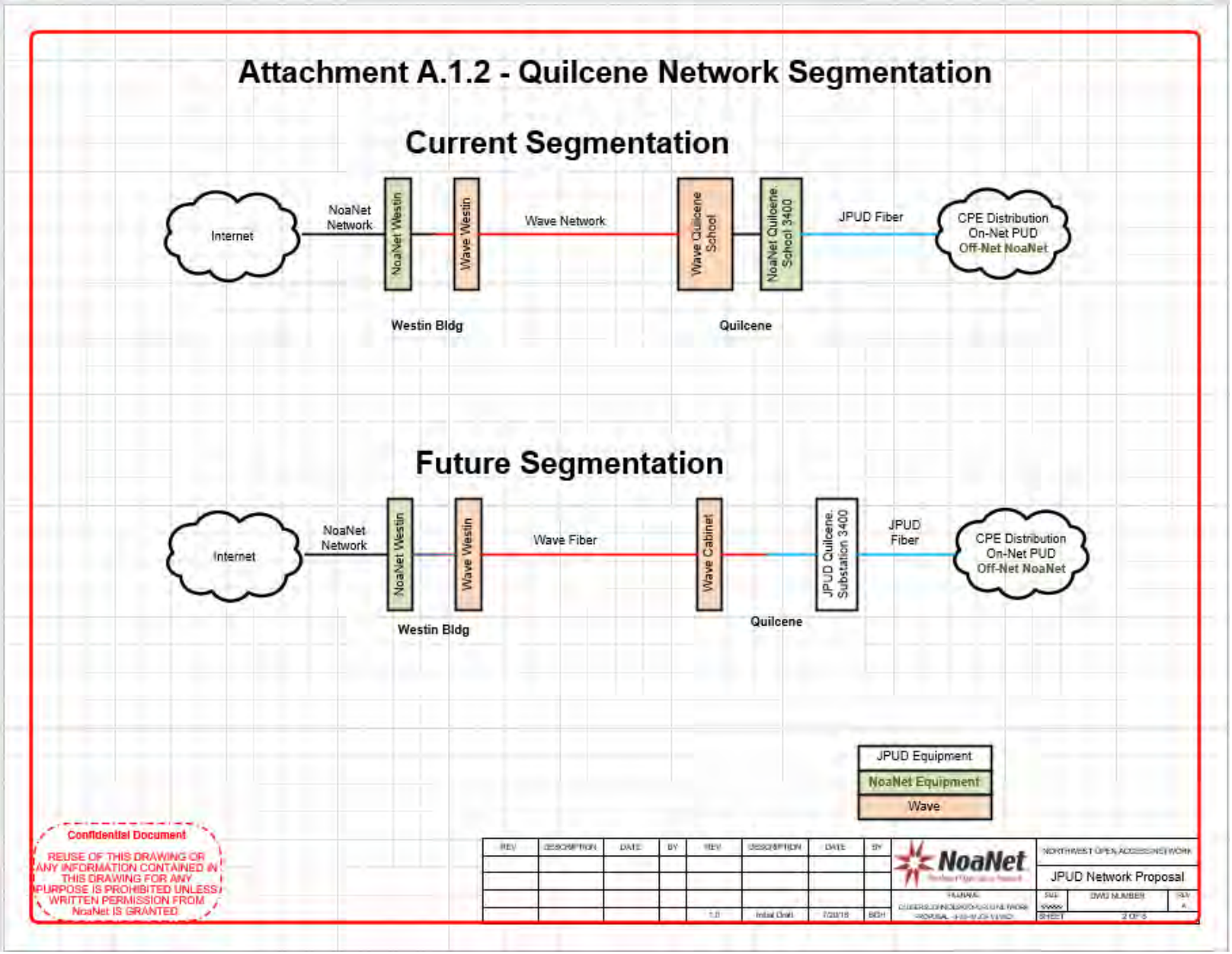
IX. Attachment A.1 – Network Segmentation and Migration

This section provides additional details to the attached drawings and clarity to the current network configuration, and the steps needed to segment and migrate the network.

a. A.1.1 – Port Townsend Network Segmentation – this drawing shows the current and future segmentation of the equipment owned by each party.
b. A.1.2 – Quilcene Network Segmentation – this drawing shows the current and future segmentation of equipment owned by each party.
c. A.1.3 – Current Network – this drawing shows starting point for network segmentation and migration for both Port Townsend and Quilcene.
d. A.1.4 – Core Buildout – this drawing shows the core buildout to segment the network between NoaNet and the PUD. This includes the PUD purchasing two Cisco 4900 from NoaNet and installing the PUD's ASR920 for PUD's access internet product.
e. A.1.5 – Move NoaNet's DWDM Ludlow Terminal – this drawing shows moving NoaNet's existing DWDM terminal currently in the Wave Port Ludlow cabinet to the PUD's COLO at 4 Corners and patching the existing fiber plant through Wave's cabinet.
f. A.1.6 – Splice Backbone Fibers – this drawing shows splicing PUD fibers to CTEL's fibers for NoaNet's dual routes to Bremerton and Sequim. The goal is to splice as close to the PUD's 4 Corners COLO for maximum redundancy and eliminate using Wave's fibers for interconnection at Port Ludlow. It also shows moving Wave's Quilcene's interconnection point from the Quilcene School to the PUD's substation and the PUD installing a new switch at the substation for the existing Quilcene customers and their substation connection. The substation circuit will be routed to the PUD's 4 Corners POP.
g. A.1.7 – Port Townsend Fire Station Move the PUD Substation – this drawing shows moving the current services terminated at the fire station to the PUD substation.
h. A.1.8 – Marrowstone Buildout – this drawing shows future rearrangement and addition of a Marrowstone aggregation device for Marrowstone services.

X. Associated Network Drawings




Attachment A.1.2 - Quilcene Network Segmentation
Current Segmentation
Internet
NoaNet Network
NoaNet Westin
Wave Westin
Wave Network
Wave Quilcene School
NoaNet Quilcene School 3400
JPUD Fiber
CPE Distribution On-Net PUD Off-Net NoaNet
Westin Bldg
Quilcene
Future Segmentation
Internet
NoaNet Network
NoaNet Westin
Wave Westin
Wave Fiber
Wave Cabinet
JPUD Quilcene, Substation 3400
JPUD Fiber
CPE Distribution On-Net PUD Off-Net NoaNet
Westin Bldg
Quilcene
JPUD Equipment
NoaNet Equipment
Wave
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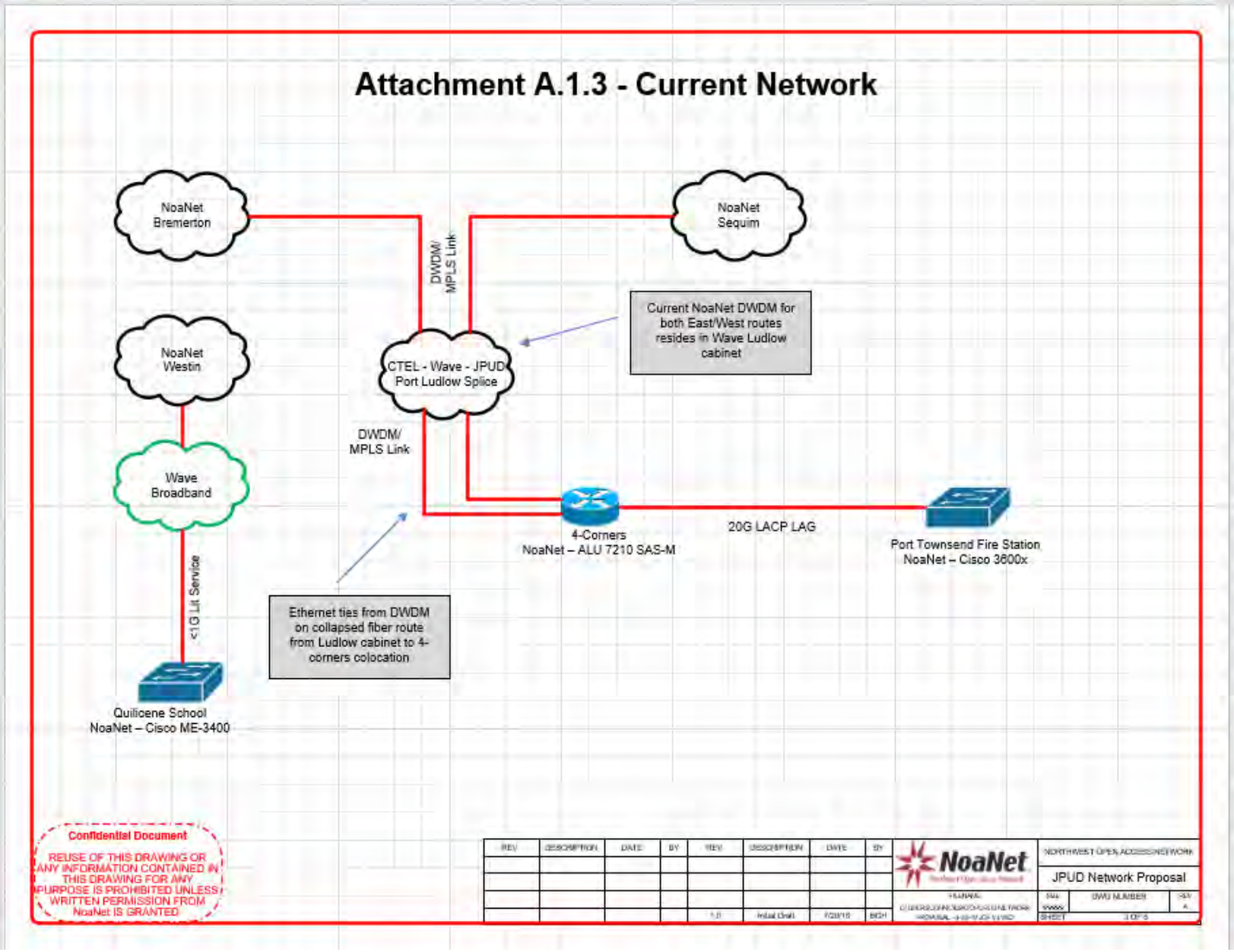
NoaNet
JPUD Network Proposal


Attachment A.1.3 - Current Network
NoaNet Bremerton
NoaNet Sequim
DWDM/ MPLS Link
NoaNet Westin
CTEL - Wave - JPUD Port Ludlow Splice
Current NoaNet DWDM for both East/West routes resides in Wave Ludlow cabinet
DWDM/ MPLS Link
Wave Broadband
4-Corners
NoaNet – ALU 7210 SAS-M
20G LACP LAG
Port Townsend Fire Station
NoaNet – Cisco 3600x
<1G Lit Service
Ethernet ties from DWDM on collapsed fiber route from Ludlow cabinet to 4-corners colocation
Quilicene School
NoaNet – Cisco ME-3400
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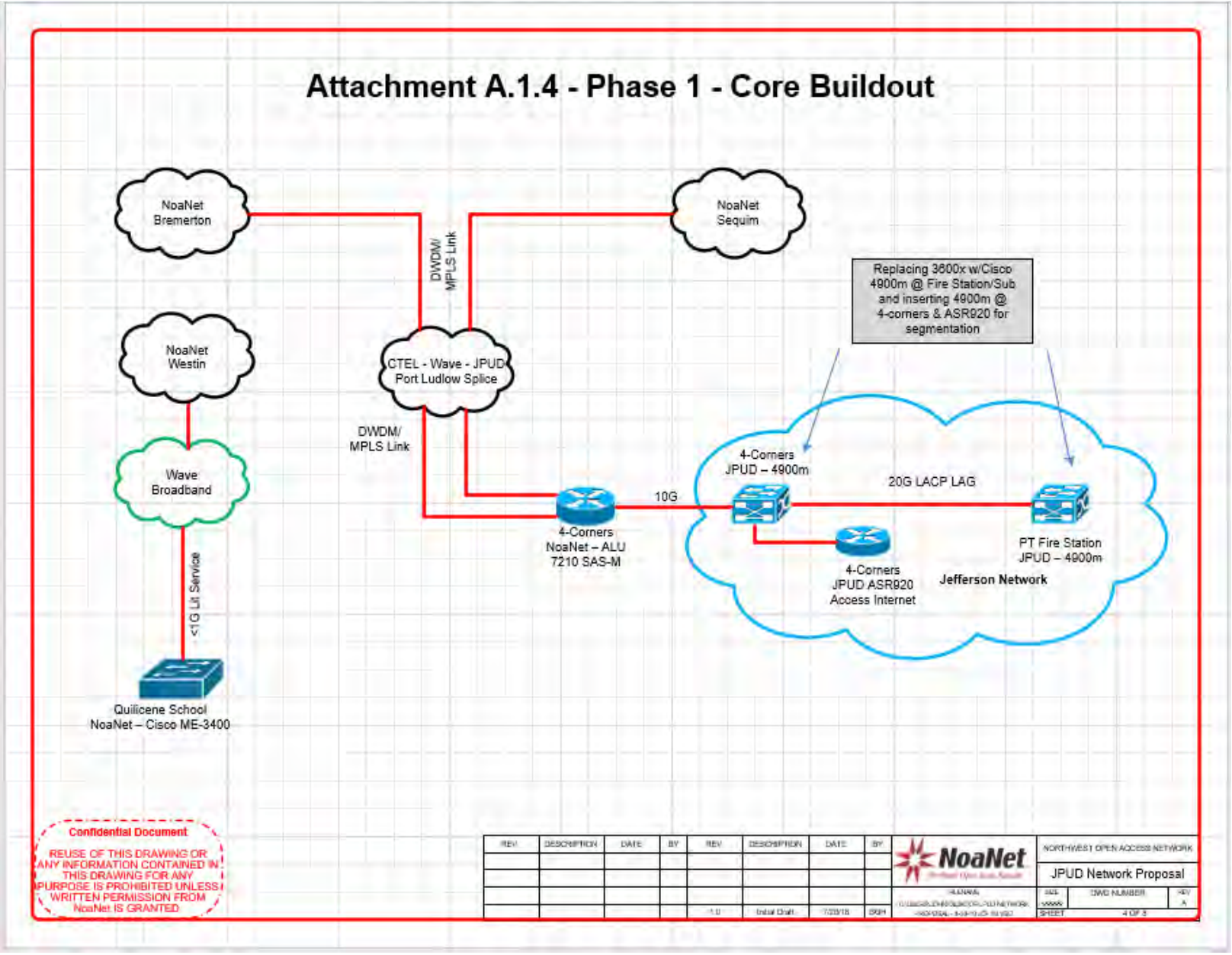
Attachment A.1.4 - Phase 1 - Core Buildout
NoaNet Bremerton
NoaNet Sequim
DWDM/ MPLS Link
NoaNet Westin
CTEL - Wave - JPUD Port Ludlow Splice
Replacing 3600x w/Cisco 4900m @ Fire Station/Sub and inserting 4900m @ 4-corners & ASR920 for segmentation
DWDM/ MPLS Link
Wave Broadband
4-Corners JPUD – 4900m
10G
20G LACP LAG
4-Corners NoaNet – ALU 7210 SAS-M
PT Fire Station JPUD – 4900m
4-Corners JPUD ASR920 Access Internet
Jefferson Network
<1G Lit Service
Quilicene School NoaNet – Cisco ME-3400
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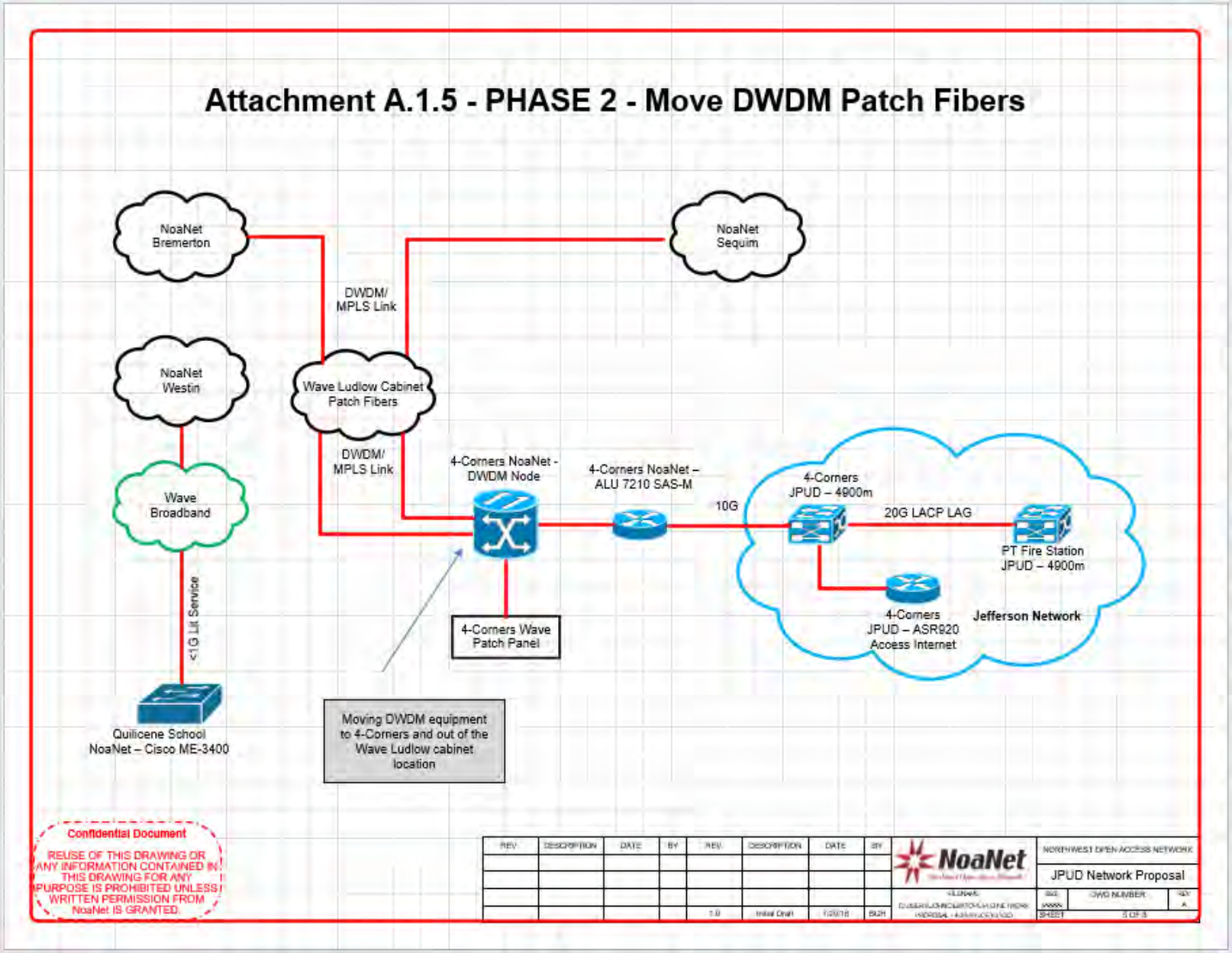
NORTHWEST OPEN ACCESS NETWORK
JPUD Network Proposal


Attachment A.1.5 - PHASE 2 - Move DWDM Patch Fibers
NoaNet Bremerton
NoaNet Sequim
DWDM/ MPLS Link
NoaNet Westin
Wave Ludlow Cabinet Patch Fibers
DWDM/ MPLS Link
4-Corners NoaNet - DWDM Node
4-Corners NoaNet – ALU 7210 SAS-M
10G
4-Corners JPUD – 4900m
20G LACP LAG
PT Fire Station JPUD – 4900m
Wave Broadband
<1G Lit Service
4-Corners Wave Patch Panel
4-Corners JPUD – ASR920 Access Internet
Jefferson Network
Quilicene School NoaNet – Cisco ME-3400
Moving DWDM equipment to 4-Corners and out of the Wave Ludlow cabinet location
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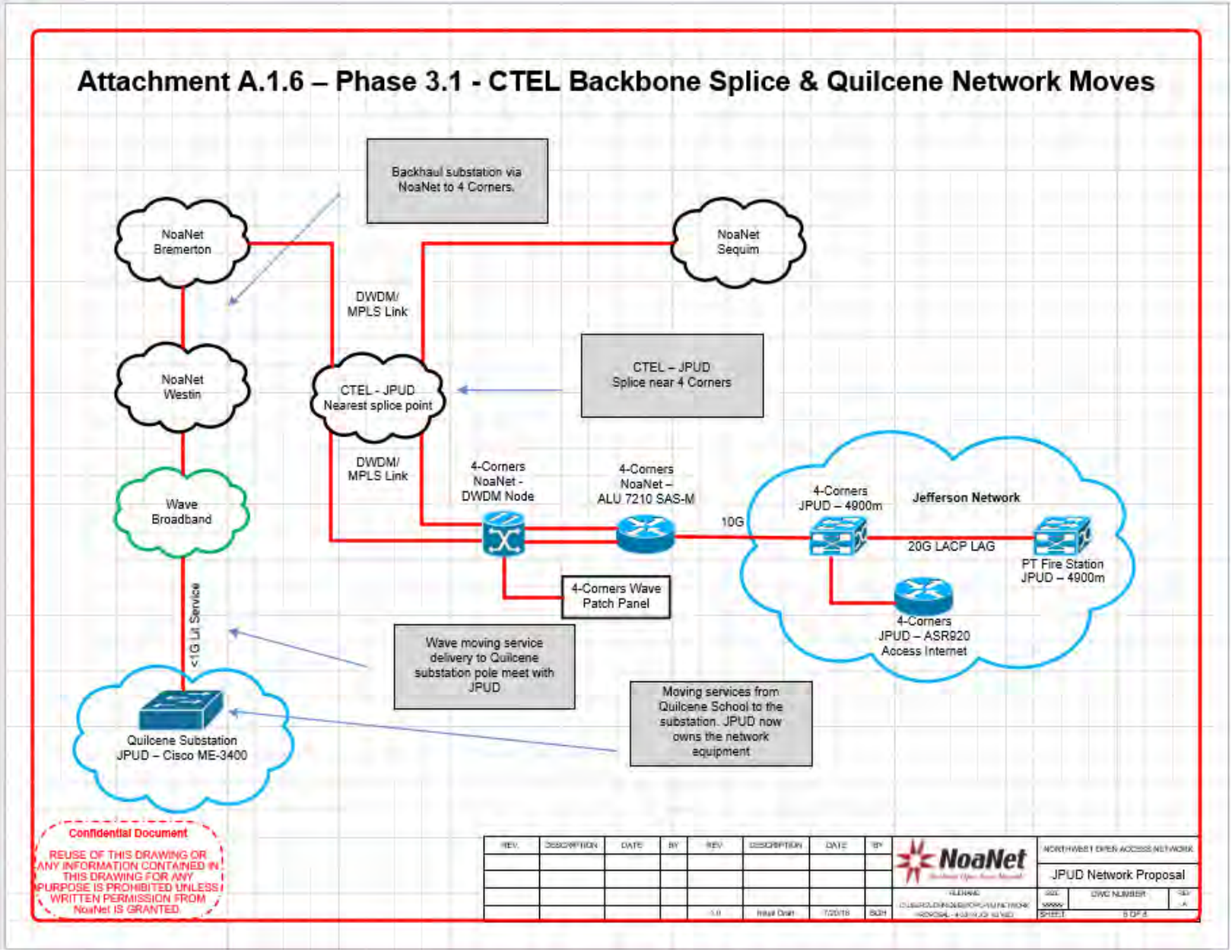
Attachment A.1.6 – Phase 3.1 - CTEL Backbone Splice & Quilcene Network Moves
Backhaul substation via NoaNet to 4 Corners.
NoaNet Bremerton
NoaNet Sequim
DWDM/ MPLS Link
NoaNet Westin
CTEL - JPUD Nearest splice point
CTEL – JPUD Splice near 4 Corners
DWDM/ MPLS Link
4-Corners NoaNet - DWDM Node
4-Corners NoaNet – ALU 7210 SAS-M
Wave Broadband
10G
4-Corners JPUD – 4900m
Jefferson Network
20G LACP LAG
PT Fire Station JPUD – 4900m
4-Corners Wave Patch Panel
4-Corners JPUD – ASR920 Access Internet
<1G L2 Service
Wave moving service delivery to Quilcene substation pole meet with JPUD
Moving services from Quilcene School to the substation. JPUD now owns the network equipment
Quilcene Substation JPUD – Cisco ME-3400
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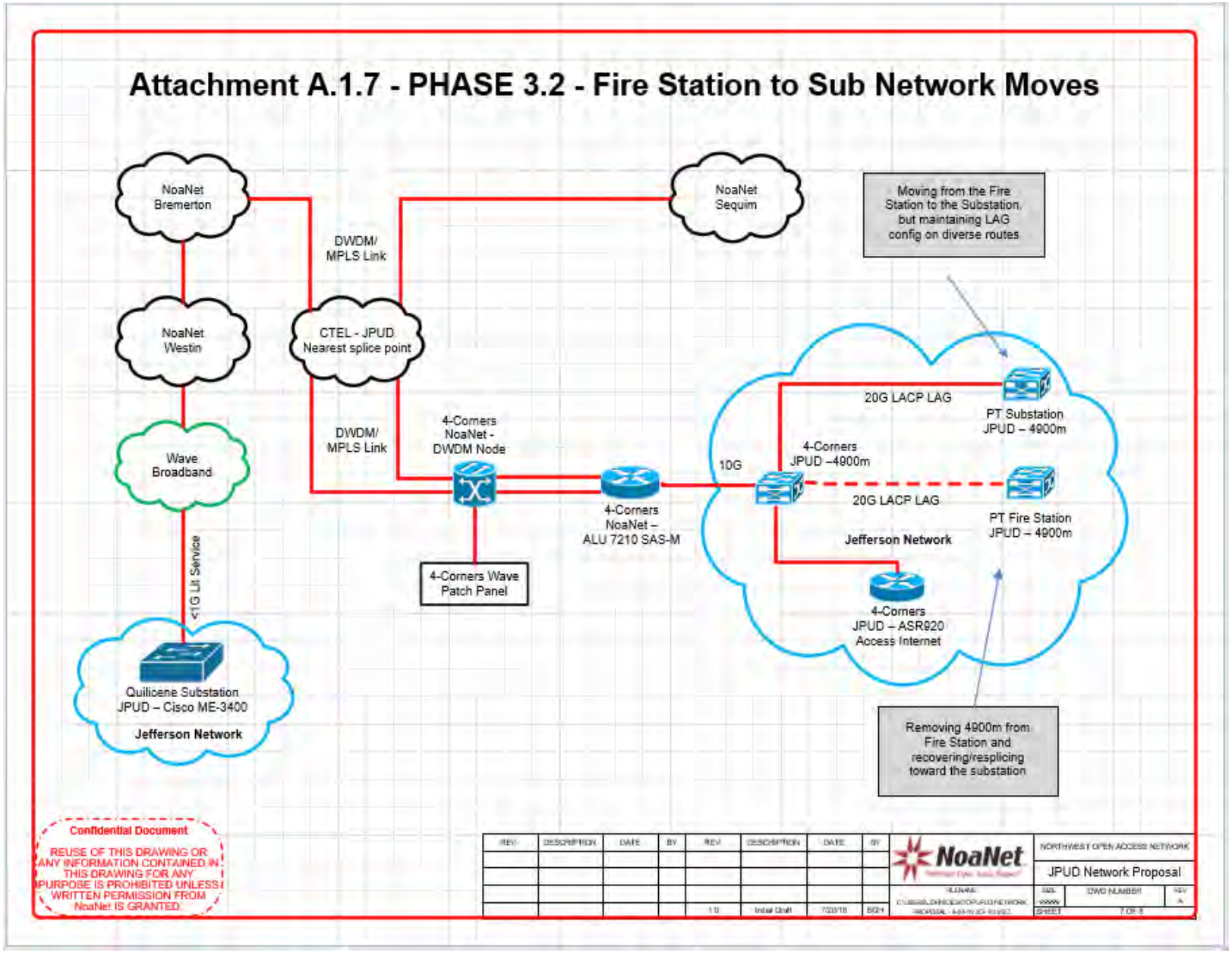
Attachment A.1.7 - PHASE 3.2 - Fire Station to Sub Network Moves
NoaNet Bremerton
NoaNet Sequim
NoaNet Westin
CTEL - JPUD Nearest splice point
DWDM/ MPLS Link
DWDM/ MPLS Link
Wave Broadband
4-Corners NoaNet - DWDM Node
4-Corners NoaNet – ALU 7210 SAS-M
4-Corners Wave Patch Panel
<1G Lit Service
Quilicene Substation JPUD – Cisco ME-3400
Jefferson Network
Moving from the Fire Station to the Substation, but maintaining LAG config on diverse routes
20G LACP LAG
PT Substation JPUD – 4900m
10G
4-Corners JPUD –4900m
20G LACP LAG
PT Fire Station JPUD – 4900m
Jefferson Network
4-Corners JPUD – ASR920 Access Internet
Removing 4900m from Fire Station and recovering/resplicing toward the substation
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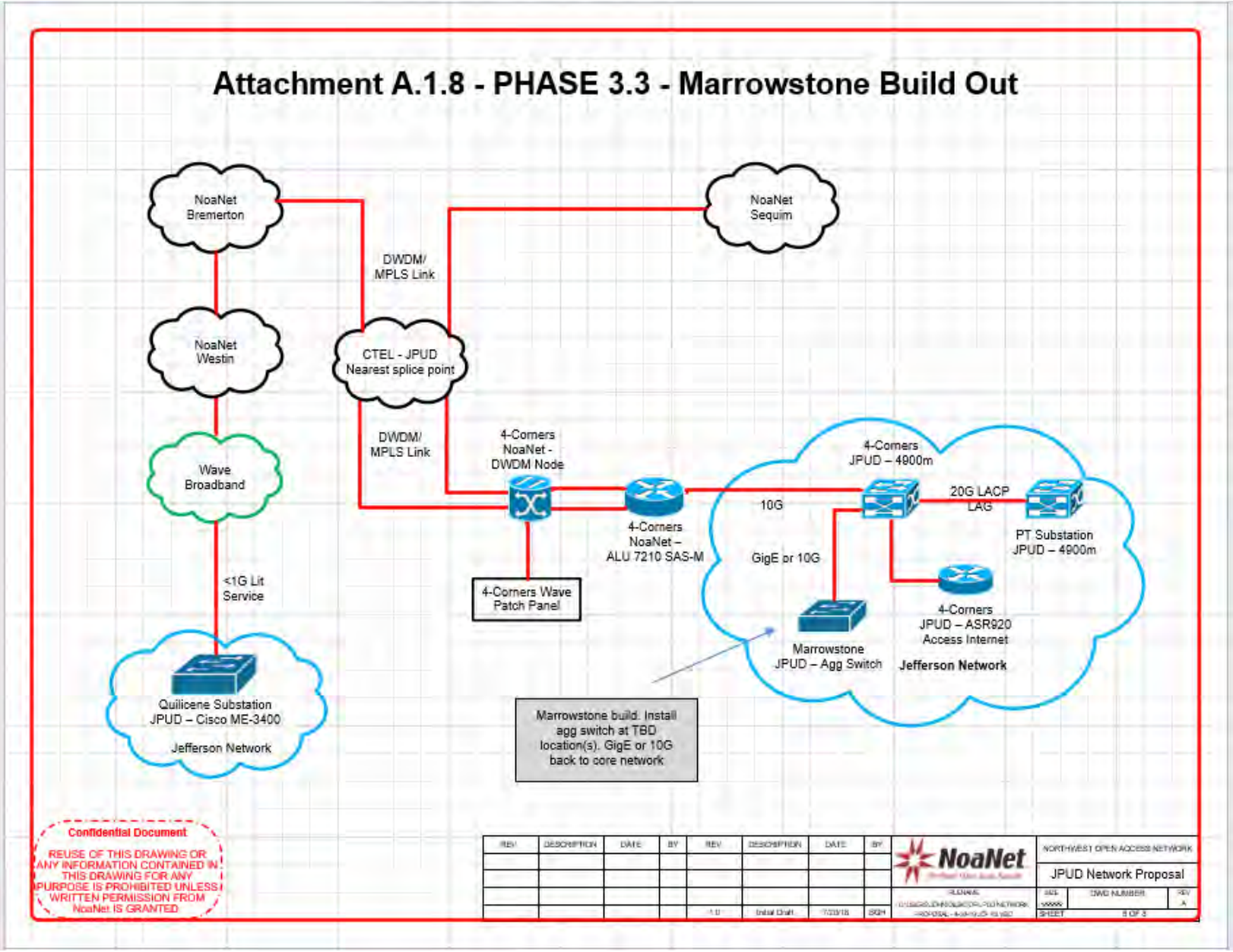
Attachment A.1.8 - PHASE 3.3 - Marrowstone Build Out
NoaNet Bremerton
NoaNet Sequim
DWDM/ MPLS Link
NoaNet Westin
CTEL - JPUD Nearest splice point
DWDM/ MPLS Link
4-Corners NoaNet - DWDM Node
Wave Broadband
4-Corners JPUD – 4900m
10G
20G LACP LAG
PT Substation JPUD – 4900m
4-Corners NoaNet – ALU 7210 SAS-M
GigE or 10G
<1G Lit Service
4-Corners Wave Patch Panel
4-Corners JPUD – ASR920 Access Internet
Marrowstone JPUD – Agg Switch
Jefferson Network
Quilicene Substation JPUD – Cisco ME-3400
Jefferson Network
Marrowstone build. Install agg switch at TBD location(s). GigE or 10G back to core network
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JPUD Network Proposal

Exhibit C – NoaNet Rates

Each specific scope of work will estimate the work utilizing the below labor rates. Contract labor and expenses for materials and equipment will be estimated on each individual scope of work and included in any Task-Service Order.

Project Manager	$85.00
Project Engineer	$150.00
Field Engineer	$105.00
OSP, GIS and Engineering Support	$105.00
Sr. Manager/ Engineer	$150.00
Director	$180.00

Exhibit E – PUD Rates

Each specific scope of work will estimate the work utilizing the below labor rates. Contract labor and expenses for materials and equipment will be estimated on each individual scope of work and included in any Task-Service Order.

Field Technician/Lineman	$135.00
Splice Technician	$120.00
Technician	$115.00
Engineer	$120.00
GIS	$100.00
Manager	$150.00