Meetings are held at the
Ilwaco Community Building Meeting Room
158 First Ave North in Ilwaco, WA

CITY OF ILWACO
CITY COUNCIL MEETING
Monday, February 23, 2015

3:00 p.m. SPECIAL COUNCIL MEETING
6:00 p.m. REGULAR COUNCIL MEETING

AGENDA

A. Call to order

B. Flag Salute

C. Roll Call

D. Approval of Agenda

E. Consent Agenda

All matters, which are listed within the consent section of the agenda, have been distributed or made available for review to each member of the council prior to the meeting. Items listed are considered routine and will be enacted with one motion unless a council member specifically requests it to be removed from the Consent Agenda to be considered separately. The staff recommends the approval of the following items:

1. Approval of Minutes (TAB 1)
   a. February 9, 2015 Regular meeting
   b. February 10, 2015 Special Meeting

2. Claims & Vouchers (TAB 2)

a.	Checks: 37535 to 37536 + electronic payments	$20,255.37
b.	Checks: 37537 to 37568	$57,773.40
	GRAND TOTAL:	$78,028.77

F. Reports

1. Staff Reports (TAB 3)
   a. Treasurer's Report
2. Council Reports
3. Mayor's Report

G. Comments of Citizens and Guests Present

At this time, the mayor will call for any comments from the public on any subject not on the agenda. Please limit your comments to five (5) minutes. The City Council does not take any action or make any decisions during public comment. To request an item be added to a future agenda, please contact the city clerk for the council rules of procedure for agenda items.

H. Business

1. Amendment to ORD 834, Adopting Salary Classifications (TAB 4) – *Cassinelli*
2. Sahalee Sewer Improvements DOE Contract (TAB 5) – *Cassinelli*
3. Developer Standards Amendment (TAB 6) - *Marshall*

I. Discussion

1. Water Plant Operator Promotion (TAB 9) – *Cassinelli*
2. Amendment to Title 14 for Side Sewers & Private Sewers (TAB 10) – *Marshall*

J. Correspondence and Written Reports

L. Future Discussion/Agendas

1. Amended Procedures Ordinance --*City Planner*
2. Pursuit of New Agreement with Seaview Sewer District –*Cassinelli*

M. Adjournment

N. Upcoming Meetings

COUNCIL/COMMISSION	PURPOSE	DAY	DATE	TIME	LOCATION
City Council	Special Meeting – Pollution Ins.	Monday	02/23/15	3:00 p.m.	Community Building
City Council	Regular Meeting	Monday	02/23/15	6:00 p.m.	Community Building
Parks & Rec. Commission	Regular Meeting	Tuesday	03/10/15	6:00 p.m.	Ilwaco Fire Hall
Port/City Meeting	Regular Meeting	Tuesday	03/10/15	5:00 p.m.	Port of Ilwaco Meeting Room
Planning Commission	Regular Meeting *(meetings subject to cancellation if there is no business to transact)*	Tuesday	03/03/15	6:00 p.m.	Community Building

CITY OF ILWACO
CITY COUNCIL MEETING
Monday, February 9, 2015

A. Call to order
Mayor Cassinelli called the meeting to order at 6:00pm

B. Flag Salute
The Pledge of Allegiance was recited.

C. Roll Call
Present: Councilmembers Jensen, Karnofski, Marshall, Chambreau and Forner; Mayor Cassinelli.

D. Approval of Agenda
ACTION: Motion to approve agenda with the additional discussion item, Fire Department Officer Pay Resolution (Marshall/Karnofski) 5 Ayes 0 Nays 0 Abstain.

E. Approval of Consent Agenda
Including Checks 37452 to 37459 + Electronic totaling $36,718.82 and Checks: 37451, and 37477 to 37534 $397,791.05 for a grand total of $434,509.87.
ACTION: Motion to approve the consent agenda. (Chambreau/Forner). 5 Ayes 0 Nays 0 Abstain.

F. Reports
Staff Reports
a. Police Chief Wright provided a written report.
b. Fire Chief Williams had no report.
c. City Planner Crater reported that Doug Knutzen might be coming to the Council to request a street vacation.
d. The Treasurer reported the amount of lost water for the month of January.

Council Reports
There were no Council reports.

Mayor's Report
Mayor Cassinelli mentioned the Special Meeting with Kris Lawrence from Propel Insurance. He also mentioned that he attended the sub-committee meeting for Pacific County's Shoreline Master Program Update.

G. Comments of Citizens and Guests Present
Citizen Gail Moore asked how much longer the trucks hauling rock/sand will be coming through

town. The Mayor responded with, roughly three more years as that is the duration of the project. He said that he would talk to the Army Corps. Of Engineers and let them know of her concerns.

H. Business

Black Lake Vegetation Control Contract

ACTION: Motion to authorize the Mayor to execute the contract with Pacific County Dept. of Vegetation Management for Elodea control at Black Lake. (Karnofski/Jensen)

At that time prior to the vote, Councilmember Marshall asked about the liability as noted in the contract. The contract states that the City would be solely liable. Marshall then asked if the contract had been reviewed by the City's insurance company or the City attorney.

ACTION: Motion to table the item and leave the item as business for the next meeting (Marshall/Jensen) 5 Ayes 0 Nays Abstain

I. Discussion

1. Amendment to Ordinance 834, Adopting Salary Classifications & Establishing the 2015 Pay Table

Mayor Cassinelli presented this item, stating that new definitions were introduced for Fire Administrator 8,9, and 10 and Fire Chief 9,10 and 11. This would allow these positions to move to higher pay grades.

ACTION: Move to business at the next meeting.

2. Black Lake Vegetation Control Contract

Councilmember Karnofski presented this item stating that in the past the Parks and Recreation Commission has been spraying the lake. The lake needs to be spayed at least 3 times a year and Parks and Rec just doesn't have the time to do so. So with the grant extension provided by Dept. of Ecology the City sought out the County to take over the maintenance of Black Lake. This was something that was communicated to DOE and they were in favor of. She also mentioned that this is time sensitive because usually there is a treatment at the end of February. **ACTION: Motion to move this to business at this meeting. (Jensen/Forner) 5 Ayes 0 Nays 0 Abstain**

3. Private Sewer Lines

The Mayor shared some information that he recently came across after he met with Mr. Wallen, the former Public Works Supervisor. Mr. Wallen agreed that he did install the sewer line up Cooks Hill Rd up through Iris. The Mayor plans to continue his research with this topic and let the Council and public know when he has new information. There were some comments from citizens present inquiring about other parts of town. The Mayor reassured them that he would look in to it and get back to them.

4. Department of Ecology State Revolving Fund Loan Agreement for Sahalee Sewer Improvements Project

Councilmember Jensen asked how much the loan payments were going to be once the project was completed.

ACTION: Move to business at the next meeting

5. Fire Department Officer Pay Resolution
Councilmember Marshall presented this item.
ACTION: Move to business at the next meeting.

K. Correspondence and Written Reports

L. Future Discussion/Agendas

1. Amended Procedures Ordinance – *City Planner*
2. Pursuit of New Agreement with Seaview Sewer District – *Cassinelli*

L. Adjournment

ACTION: Motion to adjourn the meeting (Jensen). Mayor Cassinelli adjourned the meeting at 6:41p.m.

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Mike Cassinelli, Mayor

_____
Ariel Smith, Treasurer

CITY OF ILWACO
Water System Discussion
Tuesday, February 10, 2015

A. Call to Order
Mayor Cassinelli called the workshop to order at 1:02 p.m.

B. Present: Councilmembers: Gary Forner, Jon Chambreau and Fred Marshall (arrived at 1:07); Mayor Cassinelli; Water Plant Operators: Daryl Gardner, Rick Gray, Troy Richardson; City Engineer Nancy Lockett, Gray & Osborne; Department of Commerce: Cathi Read; Department of Health: Mark Mazeski, Teresa Walker; CREST: Garrett Phillips; Citizen: Gail Moore; Treasurer Ariel Smith and City Clerk Holly Beller

C. Discussion
Status of Current Projects:
Upflow Clarifier – Water Plant Supervisor Rick Gray gave a status report, the new unit is in place and everything will be plumbed within the next couple of weeks. He also mentioned that the contractor is great to work with and the process has gone pretty smoothly. They are estimating the project to be completed by the end of March.
Backwash Basin – Water Plant Operator Daryl Gardener displayed his dissatisfaction with the backwash basin. He explained that it over flows to often and he doesn't believe it is big enough to sustain the amount of water being produced. The Mayor and Engineer Nancy Lockett explained that they did the best they could with the money allotted and the space allowed. Councilmember Marshall proposed that an ultimate solution be presented and then everyone can work towards that solution. Discussion on this topic ensued.
Source Water Protection Grant – Garrett Phillips from CREST provided a presentation, discussing the time line, forestry consultant and future goals. The City has applied for a short grant extension to provide the allotted time for the Department of Health to review the Water Source Plan.

Water Distribution System:
Unaccounted for Water – The City hall staff presented the lost water calculations for the year of 2014. The percentage is higher than allowed by Department of Health, therefore solutions were being suggested. The current solution is to compare the water leaving the plant with the water sold and to recommend the City to take flow readings from the Spring Street pump station and compare these to actual readings from the downstream users. Another solution is to put clamp on meters on certain portions of town to see if the leak can be detected that way.
Status of replacing commercial meters – Meters continue to be replaced.

Sanitary Survey Findings: No major findings were announced.

Other Topics Mentioned at Meeting: Councilmember Marshall asked about water discoloration on Discovery Heights, Councilmember Chambreau agreed. Teresa Walker from DOH gave some possible reasons for the discoloration. She mentioned internal pipes and a couple other possibilities.

Next meeting: Tuesday, May 12th at 11:00am

D. Adjournment

Mayor Cassinelli adjourned the workshop at 2:58 p.m.

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Mike Cassinelli, Mayor

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Ariel Smith, Treasurer

Register

Number	Name	Fiscal Description	Amount
37535	Fero, Jimmie W	2015 - February - Second meeting	$1,009.89
37536	Gardner, Daryl W	2015 - February - Second meeting	$1,844.47
Beller, Holly Celeste	ACH Pay - 1427	2015 - February - Second meeting	$1,233.94
Benson, Austin	ACH Pay - 1428	2015 - February - Second meeting	$1,077.12
Gray, Richard Roy	ACH Pay - 1431	2015 - February - Second meeting	$1,784.70
Gustafson, David M.	ACH Pay - 1438	2015 - February - Second meeting	$1,428.17
Hazen, Warren M.	ACH Pay - 1433	2015 - February - Second meeting	$1,638.61
Mc Kee, David A	ACH Pay - 1434	2015 - February - Second meeting	$1,822.71
Richardson, Troy	ACH Pay - 1435	2015 - February - Second meeting	$1,463.57
Smith, Ariel	ACH Pay - 1436	2015 - February - Second meeting	$1,621.05
Staples, Terri P	ACH Pay - 1437	2015 - February - Second meeting	$422.33
EFT 2-20-15	U.S. Treasury Department	2015 - February - Second meeting	$4,908.81
			$20,255.37

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, due and unpaid obligation against the City of Ilwaco, and that I am authorized to authenticate and certify said claims.

_____
Treasurer

37535 through 37536 and electronic payments totalling $20,255.37 are approved this 23rd day of February, 2015.

_____
Council member

_____
Council member

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Council member

Register

Fiscal: 2015
Deposit Period: 2015 - February
Check Period: 2015 - February - Second meeting

Number	Name	Print Date		Amount
Bank of the Pacific	**8023281**			
Check				
37537	A & E Security Solutions, Inc.	2/23/2015		$568.65
37538	ALS Environmental	2/23/2015		$462.00
37539	Beach Batteries, Inc	2/23/2015		$90.45
37540	Blue Tarp Financial	2/23/2015		$155.57
37541	Calvert Technical Services, Inc.	2/23/2015		$3,361.20
37542	Cascade Columbia Distribution Co.	2/23/2015		$489.37
37543	Centurylink	2/23/2015		$1,458.17
37544	Charter Communications	2/23/2015		$80.00
37545	Chemtrac, Inc	2/23/2015		$13,453.44
37546	Chinook Observer	2/23/2015		$28.91
37547	CREST	2/23/2015		$2,779.55
37548	Discovery Benefits	2/23/2015		$16.50
37549	Evergreen Rural Water of Washington	2/23/2015		$740.00
37550	Fastenal Company	2/23/2015		$147.00
37551	Ferguson Enterprises, Inc.	2/23/2015		$709.99
37552	Gray & Osborne, Inc.	2/23/2015		$6,277.07
37553	Hach Company	2/23/2015		$5,300.53
37554	HD Fowler Company	2/23/2015		$486.87
37555	IFOCUS Consulting Inc.	2/23/2015		$155.00
37556	Ilwaco Merchants Assoc.	2/23/2015		$75.00
37557	IPFS Corporation	2/23/2015		$6,087.27
37558	Kubwater Resources Inc.	2/23/2015		$1,373.66
37559	Lazerquick	2/23/2015		$62.00
37560	Pacific CO Auditor	2/23/2015		$32.00
37561	Pacific County Treasurer	2/23/2015		$16.95
37562	Peninsula Sanitation Service, Inc.	2/23/2015		$15.00
37563	Pitney Bowes	2/23/2015		$348.00
37564	PUD No 2 of Pacific County	2/23/2015		$9,729.45
37565	The Watershed Company	2/23/2015		$2,192.45
37566	Vision Municipal Solutions, Llc	2/23/2015		$910.35
37567	WA State Dept. of Health	2/23/2015		$77.00
37568	WA State Fish & Wildlife	2/23/2015		$94.00
			Total Check	**$57,773.40**
			Total 8023281	**$57,773.40**
			Grand Total	**$57,773.40**

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, due and unpaid obligation against the City of Ilwaco, and that I am authorized to authenticate and certify said claims.

_____
Treasurer

37537 through 37568 totalling $57,773.40 are approved this 23rd day of February, 2015.

Council member

Council member

Council member

TREASURER'S REPORT
Month ending January 31, 2015

The 2015 budget has been set to build reserves while continuing to replace and maintain a back log of deteriorating equipment and facilities. Additionally, careful cash management must be deployed as revenues and disbursements often fluctuate. The chart below shows that some of the funds have already started the year with a higher or lower than anticipated carry over from 2014. During the month of April, the first budget amendment of the year will be drafted to incorporate this and any other issues identified during the first quarter of 2015 that need to be amended in the budget.

City of Ilwaco **Beginning Fund Balance** **1/1/2015**				
	Actual	Budget	difference	%
General Fund	179,178	200,392	(21,214)	-11%
Streets Fund	88,743	30,790	57,953	188%
Tourism Fund	59,160	58,587	573	1%
Excise Rsv Fund	11,729	12,296	(567)	-5%
Water Fund	332,491	337,780	(5,289)	-2%
Water/Sewer Bond Rsv Fund	347,731	347,731	-	0%
Stormwater Fund	18,556	11,120	7,436	67%
Sewer Fund	317,949	332,225	(14,276)	-4%
Total	1,355,537	1,330,921	24,616	2%

The following explains the significant discrepancies from the projected and actual beginning balances:

General Fund (001)
The 2014 actual revenues included the receipt of approximately $18,500 of unanticipated revenue from sources such as utility taxes, permits, community building rent, and park donations. This was offset by $54,000 of grant revenue that was not claimed. On the expenditure side, $54,000 of expenditures for grant related projects did not occur. The $18,500 of unanticipated revenue along with the funds not expended created the $21,214 carryover of fund balance. There is such are large variance in the Streets Fund due to unexpected STP funds that were allocated right before the year end.

Water Fund (401)
The variance between the actual and budget was in part due to expended grant funds that were not received until the following month. With the combination of unexpected revenue from penalty fees. The large expenditure for the year 2015 will be the water plant improvements project which is mostly covered by a Jobs Act Now Grant –DOH, the remainder of the cost of the project will be covered by the City – an estimated $69,000 which was budgeted for.

Wastewater Fund (409)
Excluding loan funds and Seaview Sewer District charges, the fund revenues were approximately $24,000 less than budget; however, were offset by expenditures that came in under budget.

Summary

The city has the opportunity to address many issues during 2015. Until optimal reserves are established the city is exposed to cash flow fluctuation and unfunded emergencies. In addition to the day to day operation of the water and sewer plant, maintenance of city streets and storm drainage, fire and police protection, and utility billing, there are many repairs being made to the water and sewer plants and infrastructure during 2015. Additionally, the city council and staff still have the following (and many other) projects to move forward in the new-year:

1) Tenant for lower half of Community Building
2) Black Lake Aquatic weeds grant
3) Shoreline Master Program update
4) Construction of filter (currently in progress); and possibly painting of steel reservoir
5) Sahalee & Nesadi Sewer projects, treatment plant roof
6) Identification and funding of parks projects – Possibly working with the Port to secure STP funds from the County
7) Progress on Comprehensive Plan
8) Ramp replacement at city hall
9) Completion of Steed house sale

Current Overall Cash Position

The following are the account balances at the Bank of Pacific and Local Government Investment Pool:

Current Balances as of February 13, 2015	
Bank of Pacific	
xxx.3303 Main	$320,618
xxx.7413	28,337
LGIP	1,047,161
Total Cash	$1,396,116

Ariel Smith
Treasurer

Cash and Investment Activity

Period: 2015 - January
Period Totals

Fund		Beginning Cash	Beginning Investments	Activity In	Activity Out	Ending Cash	Ending Investments	Ending Balance
001	General Fund Current Expense	$179,178.83	$0.00	$104,419.05	$100,473.02	$183,124.86	$0.00	$183,124.86
101	City Streets	$88,743.75	$0.00	$2,604.67	$6,494.54	$84,853.88	$0.00	$84,853.88
104	Tourism	$59,160.31	$0.00	$579.28	$954.48	$58,785.11	$0.00	$58,785.11
301	Excise Reserve	$11,729.97	$0.00	$1,842.44	$0.00	$13,572.41	$0.00	$13,572.41
401	Water	$332,491.44	$0.00	$53,177.14	$50,490.16	$335,178.42	$0.00	$335,178.42
402	Water & Sewer Equip Reserve	$0.12	$0.00	$0.00	$0.00	$0.12	$0.00	$0.12
403	Water & Sewer Bond Redemption	$0.00	$0.00	$0.00	$52,153.94	($52,153.94)	$0.00	($52,153.94)
404	Water & Sewer Bond Reserve	$347,731.55	$0.00	$0.00	$0.00	$347,731.55	$0.00	$347,731.55
408	Stormwater	$18,556.56	$0.00	$23,338.96	$2,253.32	$39,642.20	$0.00	$39,642.20
409	Sewer	$317,949.16	$0.00	$67,503.54	$50,541.93	$334,910.77	$0.00	$334,910.77
631	Payroll Clearing Fund	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
632	Claims Clearing Fund	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
999	Lgip Investment	($1,032,241.45)	$1,032,241.45	$14,919.73	$14,919.73	($1,047,161.18)	$1,047,161.18	$0.00
		$323,300.24	**$1,032,241.45**	**$268,384.81**	**$278,281.12**	**$298,484.20**	**$1,047,161.18**	**$1,345,645.38**

Revenue

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
General Fund Current Expense						
Revenue						
Taxes						
General Property Taxes						
001-000-000-311-10-00-00	General Property Taxes	$2,484.94	$2,484.94	$146,300.00	1.70%	$143,815.06
001-000-000-311-10-00-01	General Property-IVFD Truck	$0.00	$0.00	$0.00		$0.00
Total General Property Taxes		**$2,484.94**	**$2,484.94**	**$146,300.00**	**1.70%**	**$143,815.06**
Retail Sales and Use Taxes						
001-000-000-313-11-00-00	Local Sales & Use Taxes	$7,187.35	$7,187.35	$135,000.00	5.32%	$127,812.65
Total Retail Sales and Use Taxes		**$7,187.35**	**$7,187.35**	**$135,000.00**	**5.32%**	**$127,812.65**
Business and Occupation Taxes						
001-000-000-316-10-00-00	Business & Occupation Tax	$12,675.63	$12,675.63	$60,000.00	21.13%	$47,324.37
Business and Occupation Taxes on Private Utilites						
001-000-000-316-40-01-00	Garbage 6% Utility Tax	$0.00	$0.00	$15,000.00	0.00%	$15,000.00
001-000-000-316-40-02-00	Cable 6% Utility Tax	$827.31	$827.31	$12,000.00	6.89%	$11,172.69
001-000-000-316-40-03-00	Telephone 6% Utility Tax	$2,193.86	$2,193.86	$35,000.00	6.27%	$32,806.14
001-000-000-316-40-04-00	Electric 6% Utility Tax	$17,411.91	$17,411.91	$75,000.00	23.22%	$57,588.09
001-000-000-316-40-05-00	Water Utility Tax	$4,068.38	$4,068.38	$56,871.00	7.15%	$52,802.62
001-000-000-316-40-06-00	Sewer Utility Tax	$3,545.01	$3,545.01	$46,591.00	7.61%	$43,045.99
001-000-000-316-40-07-00	Storm Drainage Utility Tax	$1,401.07	$1,401.07	$5,192.00	26.99%	$3,790.93
001-000-000-316-40-08-00	Fire Hydrant Fee	$0.00	$0.00	$0.00		$0.00
Total Business and Occupation Taxes on Private Utilites		**$29,447.54**	**$29,447.54**	**$245,654.00**	**11.99%**	**$216,206.46**
001-000-000-316-81-00-00	Gambling Tax	$0.00	$0.00	$0.00		$0.00
Total Business and Occupation Taxes		**$42,123.17**	**$42,123.17**	**$305,654.00**	**13.78%**	**$263,530.83**
Excise Taxes						
001-000-000-317-20-00-00	Local Leasehold Excise Tax	$0.00	$0.00	$30,000.00	0.00%	$30,000.00
001-000-000-317-40-00-00	Timber Harvest Excise Tax	$0.00	$0.00	$0.00		$0.00
Total Excise Taxes		**$0.00**	**$0.00**	**$30,000.00**	**0.00%**	**$30,000.00**
Total Taxes		**$51,795.46**	**$51,795.46**	**$616,954.00**	**8.40%**	**$565,158.54**
Licenses and Permits						
Business Licenses and Permits						
001-000-000-321-99-00-00	Other Business Licenses and Permits	$3,875.00	$3,875.00	$40,000.00	9.69%	$36,125.00
Total Business Licenses and Permits		**$3,875.00**	**$3,875.00**	**$40,000.00**	**9.69%**	**$36,125.00**
Non-Business Licenses and Permits						
Buildings, Structures and Equipment						
001-000-000-322-10-00-01	Building Permit Fees	$0.00	$0.00	$7,500.00	0.00%	$7,500.00
Total Buildings, Structures and Equipment		**$0.00**	**$0.00**	**$7,500.00**	**0.00%**	**$7,500.00**
001-000-000-322-90-00-01	Zoning Fees	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
Total Non-Business Licenses and Permits		**$0.00**	**$0.00**	**$12,500.00**	**0.00%**	**$12,500.00**
Total Licenses and Permits		**$3,875.00**	**$3,875.00**	**$52,500.00**	**7.38%**	**$48,625.00**
Intergovernmental Revenues						
Direct Federal Grants						
001-000-000-331-97-03-60	Fema Grant	$0.00	$0.00	$0.00		$0.00
Total Direct Federal Grants		**$0.00**	**$0.00**	**$0.00**		**$0.00**
State Grants						
001-000-000-334-03-12-00	DOE Aquatic Weed Grant	$0.00	$0.00	$19,519.00	0.00%	$19,519.00
001-000-000-334-03-13-00	DOE Shoreline Master Program	$0.00	$0.00	$50,000.00	0.00%	$50,000.00
Total State Grants		**$0.00**	**$0.00**	**$69,519.00**	**0.00%**	**$69,519.00**
State Shared Revenues						
001-000-000-335-00-91-00	PUD Privilege Tax	$0.00	$0.00	$9,000.00	0.00%	$9,000.00
Total State Shared Revenues		**$0.00**	**$0.00**	**$9,000.00**	**0.00%**	**$9,000.00**
State Entitlements, Impact Payments and Taxes						
001-000-000-336-06-20-00	Criminal Justice - High Crime	$0.00	$0.00	$0.00		$0.00
001-000-000-336-06-21-00	Criminal Justice - Violent	$250.00	$250.00	$500.00	50.00%	$250.00
001-000-000-336-06-25-00	Criminal Justice - Contracted Services	$392.04	$392.04	$1,500.00	26.14%	$1,107.96
001-000-000-336-06-26-00	Criminal Justice - Special Programs	$226.64	$226.64	$795.00	28.51%	$568.36
001-000-000-336-06-51-00	DUI & Other Criminal Justice	$41.54	$41.54	$300.00	13.85%	$258.46
001-000-000-336-06-94-00	Liquor Excise Tax	$470.08	$470.08	$4,176.00	11.26%	$3,705.92
001-000-000-336-06-95-00	Liquor Board Profits	$0.00	$0.00	$8,244.00	0.00%	$8,244.00
Total State Entitlements, Impact Payments and Taxes		**$1,380.30**	**$1,380.30**	**$15,515.00**	**8.90%**	**$14,134.70**
Interlocal Grants, Entitlements, Payments, and Tax						
001-000-000-337-00-01-00	PCOG For Fire Station	$25,000.00	$25,000.00	$25,000.00	100.00%	$0.00
001-000-000-337-00-02-00	PCOG For Community Building	$18,979.00	$18,979.00	$18,979.00	100.00%	$0.00
001-000-000-337-00-03-00	Port of Ilwaco	$0.00	$0.00	$0.00		$0.00
Total Interlocal Grants, Entitlements, Payments, and Tax		**$43,979.00**	**$43,979.00**	**$43,979.00**	**100.00%**	**$0.00**
Total Intergovernmental Revenues		**$45,359.30**	**$45,359.30**	**$138,013.00**	**32.87%**	**$92,653.70**

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
Charges for Goods and Services						
General Government						
001-000-000-341-81-00-00	Photocopying	$0.00	$0.00	$100.00	0.00%	$100.00
Other General Government Services						
001-000-000-341-96-00-00	Other General Government Services	$0.00	$0.00	$0.00		$0.00
Total Other General Government Services		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total General Government		**$0.00**	**$0.00**	**$100.00**	**0.00%**	**$100.00**
Public Safety						
001-000-000-342-20-00-00	Fire Protection Services	$0.00	$0.00	$8,000.00	0.00%	$8,000.00
Total Public Safety		**$0.00**	**$0.00**	**$8,000.00**	**0.00%**	**$8,000.00**
Total Charges for Goods and Services		**$0.00**	**$0.00**	**$8,100.00**	**0.00%**	**$8,100.00**
Fines and Penalties						
Civil Infraction Penalties						
001-000-000-353-10-00-00	Traffic Infraction Penalties	$0.00	$0.00	$0.00		$0.00
001-000-000-353-10-03-01	Municipal Court Fines	$634.25	$634.25	$5,000.00	12.69%	$4,365.75
001-000-000-353-70-00-00	Non-Traffic Infraction Penalties	$1.83	$1.83	$25.00	7.32%	$23.17
Total Civil Infraction Penalties		**$636.08**	**$636.08**	**$5,025.00**	**12.66%**	**$4,388.92**
Total Fines and Penalties		**$636.08**	**$636.08**	**$5,025.00**	**12.66%**	**$4,388.92**
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
001-000-000-361-11-00-00	Investment Interest	$15.68	$15.68	$500.00	3.14%	$484.32
Total Total Investment Interest		**$15.68**	**$15.68**	**$500.00**	**3.14%**	**$484.32**
001-000-000-361-40-00-00	Other Interest	$2.45	$2.45	$40.00	6.13%	$37.55
Total Interest and Other Earnings		**$18.13**	**$18.13**	**$540.00**	**3.36%**	**$521.87**
Rents, Leases and Concessions						
001-000-000-362-40-00-00	Space & Facility Rental	$1.00	$1.00	$0.00		($1.00)
001-000-000-362-50-00-04	Community Building - Rent	$2,695.16	$2,695.16	$3,250.00	82.93%	$554.84
001-000-000-362-50-01-00	Community Building - Electricity	$0.00	$0.00	$11,500.00	0.00%	$11,500.00
001-000-000-362-50-03-00	Community Building - Insurance	$0.00	$0.00	$0.00		$0.00
001-000-000-362-90-00-00	Community Building - Other	$0.00	$0.00	$0.00		$0.00
Total Rents, Leases and Concessions		**$2,696.16**	**$2,696.16**	**$14,750.00**	**18.28%**	**$12,053.84**
Contributions and Donations From Private Sources						
001-000-000-367-11-00-00	Fire Deptartment Donations	$0.00	$0.00	$0.00		$0.00
001-000-000-367-19-00-00	Black Lake Fish Derby Donations	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
001-000-000-367-19-00-01	Ilwaco Park Fund Donations	$0.00	$0.00	$0.00		$0.00
Total Contributions and Donations From Private Sources		**$0.00**	**$0.00**	**$5,000.00**	**0.00%**	**$5,000.00**
Other Miscellaneous Revenues						
001-000-000-369-10-00-00	Sale of Scrap And Junk	$0.00	$0.00	$0.00		$0.00
001-000-000-369-20-00-00	Unclaimed Property	$0.00	$0.00	$0.00		$0.00
001-000-000-369-80-00-00	Cash Adjustment	$0.00	$0.00	$0.00		$0.00
Total Other Miscellaneous Revenues		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Miscellaneous Revenues		**$2,714.29**	**$2,714.29**	**$20,290.00**	**13.38%**	**$17,575.71**
Nonrevenues						
State Remittances - Courts						
001-000-000-386-83-08-00	Trauma Care	$1.57	$1.57	$170.00	0.92%	$168.43
001-000-000-386-83-31-00	Auto Theft	$2.93	$2.93	$220.00	1.33%	$217.07
001-000-000-386-83-32-00	Brain Trauma	$0.58	$0.58	$40.00	1.45%	$39.42
001-000-000-386-88-00-00	ST Gen Fund 54	$2.30	$2.30	$0.00		($2.30)
Total State Remittances - Courts		**$7.38**	**$7.38**	**$430.00**	**1.72%**	**$422.62**
State Remittances-Courts						
001-000-000-386-91-00-00	ST Gen Fund 40	$16.84	$16.84	$1,300.00	1.30%	$1,283.16
001-000-000-386-92-00-00	ST Gen Fund 50	$9.55	$9.55	$700.00	1.36%	$690.45
001-000-000-386-96-00-00	Crime Lab Analysis Fee	$0.00	$0.00	$0.00		$0.00
001-000-000-386-97-00-00	JIS Account	$5.15	$5.15	$225.00	2.29%	$219.85
Total State Remittances-Courts		**$31.54**	**$31.54**	**$2,225.00**	**1.42%**	**$2,193.46**
Total Nonrevenues		**$38.92**	**$38.92**	**$2,655.00**	**1.47%**	**$2,616.08**
Other Financing Sources						
Proceeds of Long-Term Debt-Governmental Funds Only						
001-000-000-391-90-00-00	Proceeds from Other Debt	$0.00	$0.00	$0.00		$0.00
Total Proceeds of Long-Term Debt-Governmental Funds Only		**$0.00**	**$0.00**	**$0.00**		**$0.00**
001-000-000-397-00-00-01	Transfer From 101-Bldg. Rental	$0.00	$0.00	$11,500.00	0.00%	$11,500.00
001-000-000-397-00-00-02	Transfer From 401-Bldg. Rental	$0.00	$0.00	$12,375.00	0.00%	$12,375.00
001-000-000-397-00-00-03	Transfer From 409-Bldg. Rental	$0.00	$0.00	$20,275.00	0.00%	$20,275.00
001-000-000-397-00-00-06	Transfer From 104	$0.00	$0.00	$2,500.00	0.00%	$2,500.00
001-000-000-397-00-00-07	Transfer from 408	$0.00	$0.00	$5,500.00	0.00%	$5,500.00
001-000-000-397-00-00-08	Transfer from 301	$0.00	$0.00	$0.00		$0.00
001-000-000-398-00-00-00	Insurance Recoveries	$0.00	$0.00	$0.00		$0.00
Total Other Financing Sources		**$0.00**	**$0.00**	**$52,150.00**	**0.00%**	**$52,150.00**
Total Revenue		**$104,419.05**	**$104,419.05**	**$895,687.00**	**11.66%**	**$791,267.95**
Total General Fund Current Expense		**$104,419.05**	**$104,419.05**	**$895,687.00**	**11.66%**	**$791,267.95**
City Streets						
Revenue						
Taxes						
General Property Taxes						
101-000-000-311-10-00-00	General Property Tax	$1,064.97	$1,064.97	$62,700.00	1.70%	$61,635.03
Total General Property Taxes		**$1,064.97**	**$1,064.97**	**$62,700.00**	**1.70%**	**$61,635.03**
Retail Sales and Use Taxes						

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
Local Retail Sales and Use Tax						
Rural County Sales and Use Tax						
101-000-000-313-18-62-00	Pcog .09 - (2008)	$0.00	$0.00	$0.00		$0.00
Total Rural County Sales and Use Tax		$0.00	$0.00	$0.00		$0.00
Total Local Retail Sales and Use Tax		$0.00	$0.00	$0.00		$0.00
Total Retail Sales and Use Taxes		$0.00	$0.00	$0.00		$0.00
Total Taxes		$1,064.97	$1,064.97	$62,700.00	1.70%	$61,635.03
Intergovernmental Revenues						
State Grants						
101-000-000-334-03-82-00	TIB - School Street	$0.00	$0.00	$0.00		$0.00
101-000-000-334-03-83-00	TIB - Brumbach	$0.00	$0.00	$0.00		$0.00
101-000-000-334-03-84-00	TIB - Sidewalks	$0.00	$0.00	$0.00		$0.00
101-000-000-334-03-85-00	TIB - Elizabeth	$0.00	$0.00	$0.00		$0.00
Total State Grants		$0.00	$0.00	$0.00		$0.00
State Entitlements, Impact Payments and Taxes						
101-000-000-336-00-87-00	Motor Vehicle Fuel Tax	$1,531.93	$1,531.93	$19,073.00	8.03%	$17,541.07
Total State Entitlements, Impact Payments and Taxes		$1,531.93	$1,531.93	$19,073.00	8.03%	$17,541.07
101-000-000-337-00-00-00	MV Fuel Tax - County distribution	$0.00	$0.00	$0.00		$0.00
101-000-000-337-00-00-01	Other Local Distributions	$0.00	$0.00	$0.00		$0.00
101-000-000-339-22-20-00	Arra Grant	$0.00	$0.00	$0.00		$0.00
Total Intergovernmental Revenues		$1,531.93	$1,531.93	$19,073.00	8.03%	$17,541.07
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
101-000-000-361-11-00-00	Investment Interest	$7.77	$7.77	$0.00		($7.77)
Total Total Investment Interest		$7.77	$7.77	$0.00		($7.77)
Total Interest and Other Earnings		$7.77	$7.77	$0.00		($7.77)
Total Miscellaneous Revenues		$7.77	$7.77	$0.00		($7.77)
101-000-000-395-10-00-00	Proceeds From Sales of Capital Assets	$0.00	$0.00	$0.00		$0.00
Transfers-In						
101-000-000-397-00-00-01	Transfer from 301	$0.00	$0.00	$0.00		$0.00
101-000-000-397-00-41-00	Transfer IN -401	$0.00	$0.00	$0.00		$0.00
Total Transfers-In		$0.00	$0.00	$0.00		$0.00
Total Revenue		$2,604.67	$2,604.67	$81,773.00	3.19%	$79,168.33
Total City Streets		$2,604.67	$2,604.67	$81,773.00	3.19%	$79,168.33
Tourism						
Revenue						
Taxes						
Retail Sales and Use Taxes						
104-000-000-313-31-00-00	Hotel-Motel Tax	$574.10	$574.10	$30,000.00	1.91%	$29,425.90
Total Retail Sales and Use Taxes		$574.10	$574.10	$30,000.00	1.91%	$29,425.90
Total Taxes		$574.10	$574.10	$30,000.00	1.91%	$29,425.90
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
104-000-000-361-11-00-00	Investment Interest	$5.18	$5.18	$130.00	3.98%	$124.82
Total Total Investment Interest		$5.18	$5.18	$130.00	3.98%	$124.82
Total Interest and Other Earnings		$5.18	$5.18	$130.00	3.98%	$124.82
Total Miscellaneous Revenues		$5.18	$5.18	$130.00	3.98%	$124.82
Total Revenue		$579.28	$579.28	$30,130.00	1.92%	$29,550.72
Total Tourism		$579.28	$579.28	$30,130.00	1.92%	$29,550.72
Excise Reserve						
Revenue						
Taxes						
Other Taxes						
301-000-000-318-34-00-00	Real Estate Excise Tax -REET 1	$1,841.41	$1,841.41	$9,000.00	20.46%	$7,158.59
Total Other Taxes		$1,841.41	$1,841.41	$9,000.00	20.46%	$7,158.59
Total Taxes		$1,841.41	$1,841.41	$9,000.00	20.46%	$7,158.59
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
301-000-000-361-11-00-00	Investment Interest	$1.03	$1.03	$0.00		($1.03)
Total Total Investment Interest		$1.03	$1.03	$0.00		($1.03)
Total Interest and Other Earnings		$1.03	$1.03	$0.00		($1.03)
Total Miscellaneous Revenues		$1.03	$1.03	$0.00		($1.03)
Total Revenue		$1,842.44	$1,842.44	$9,000.00	20.47%	$7,157.56
Total Excise Reserve		$1,842.44	$1,842.44	$9,000.00	20.47%	$7,157.56
Water						
Revenue						
Intergovernmental Revenues						
Indirect Federal Grants						
401-000-000-333-66-46-00	Indirect Federal Grant from EPA	$0.00	$0.00	$0.00		$0.00

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
Total Indirect Federal Grants		**$0.00**	**$0.00**	**$0.00**		**$0.00**
State Grants						
401-000-000-334-04-00-01	State Grant - Department of Health	$0.00	$0.00	$780,000.00	0.00%	$780,000.00
Total State Grants		**$0.00**	**$0.00**	**$780,000.00**	**0.00%**	**$780,000.00**
Total Intergovernmental Revenues		**$0.00**	**$0.00**	**$780,000.00**	**0.00%**	**$780,000.00**
Charges for Goods and Services						
Physical Environment						
401-000-000-343-40-00-00	Water Sales	$50,145.52	$50,145.52	$710,890.00	7.05%	$660,744.48
401-000-000-343-40-00-01	Other Utilities	$0.00	$0.00	$0.00		$0.00
401-000-000-343-40-00-02	Other Rev Sources	$3,002.53	$3,002.53	$5,000.00	60.05%	$1,997.47
Total Physical Environment		**$53,148.05**	**$53,148.05**	**$715,890.00**	**7.42%**	**$662,741.95**
Total Charges for Goods and Services		**$53,148.05**	**$53,148.05**	**$715,890.00**	**7.42%**	**$662,741.95**
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
401-000-000-361-11-00-00	Investment Interest	$29.09	$29.09	$200.00	14.55%	$170.91
Total Total Investment Interest		**$29.09**	**$29.09**	**$200.00**	**14.55%**	**$170.91**
Total Interest and Other Earnings		**$29.09**	**$29.09**	**$200.00**	**14.55%**	**$170.91**
Total Miscellaneous Revenues		**$29.09**	**$29.09**	**$200.00**	**14.55%**	**$170.91**
Proprietary Funds Revenues						
Capital Contributions						
401-000-000-379-00-00-01	Water Connections	$0.00	$0.00	$7,500.00	0.00%	$7,500.00
Total Capital Contributions		**$0.00**	**$0.00**	**$7,500.00**	**0.00%**	**$7,500.00**
Total Proprietary Funds Revenues		**$0.00**	**$0.00**	**$7,500.00**	**0.00%**	**$7,500.00**
Other Financing Sources						
401-000-000-391-80-00-00	Intergovernmental Loan Proceeds	$0.00	$0.00	$0.00		$0.00
Disposition of Capital Assets						
401-000-000-395-10-00-00	Proceeds From Sales of Capital Assets	$0.00	$0.00	$0.00		$0.00
Total Disposition of Capital Assets		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Other Financing Sources		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Revenue		**$53,177.14**	**$53,177.14**	**$1,503,590.00**	**3.54%**	**$1,450,412.86**
Total Water		**$53,177.14**	**$53,177.14**	**$1,503,590.00**	**3.54%**	**$1,450,412.86**
Water & Sewer Bond Redemption						
Revenue						
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
403-000-000-361-11-00-00	Investment Interest	$0.00	$0.00	$0.00		$0.00
Total Total Investment Interest		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Interest and Other Earnings		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Miscellaneous Revenues		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Other Financing Sources						
403-000-000-397-00-00-00	Intertie Loan Usda 91-01	$0.00	$0.00	$4,354.00	0.00%	$4,354.00
403-000-000-397-00-00-02	Transfer - Sewer Usda-Sbr #3	$0.00	$0.00	$0.00		$0.00
403-000-000-397-00-00-03	Transfer-Sewer Pwtf97-791-007	$0.00	$0.00	$14,299.00	0.00%	$14,299.00
403-000-000-397-00-00-05	Tranfer-Sewer Pwtf 04-691	$0.00	$0.00	$1,646.00	0.00%	$1,646.00
403-000-000-397-00-00-06	Transfer-Sewer Pwtf 05-691	$0.00	$0.00	$24,718.00	0.00%	$24,718.00
403-000-000-397-00-00-07	Transfer-Sewer DOE	$0.00	$0.00	$285,424.00	0.00%	$285,424.00
403-000-000-397-00-00-08	Transfer from Sewer PC13-961-054	$0.00	$0.00	$1,226.00	0.00%	$1,226.00
403-000-000-397-00-70-02	Transfer From Sewer Srf 94-08	$0.00	$0.00	$104,308.00	0.00%	$104,308.00
403-000-000-397-00-70-05	Tran From Wat Pwtf04-65104-013	$0.00	$0.00	$0.00		$0.00
403-000-000-397-00-72-04	Tran From Sewer Pwtf06-962-017	$0.00	$0.00	$13,326.00	0.00%	$13,326.00
403-000-000-397-00-72-06	Trans From Sewer-B of P 2008	$14,823.40	$14,823.40	$29,648.00	50.00%	$14,824.60
403-000-000-397-00-72-07	Trans From Sewer PWTF 09-951-050	$0.00	$0.00	$0.00		$0.00
Total Other Financing Sources		**$14,823.40**	**$14,823.40**	**$478,949.00**	**3.09%**	**$464,125.60**
Total Revenue		**$14,823.40**	**$14,823.40**	**$478,949.00**	**3.09%**	**$464,125.60**
Total Water & Sewer Bond Redemption		**$14,823.40**	**$14,823.40**	**$478,949.00**	**3.09%**	**$464,125.60**
Water & Sewer Bond Reserve						
Revenue						
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
404-000-000-361-11-00-00	Investment Interest	$0.00	$0.00	$0.00		$0.00
Total Total Investment Interest		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Interest and Other Earnings		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Miscellaneous Revenues		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Other Financing Sources						
Transfers-In						
404-000-000-397-35-70-01	Wwtp-SRF Reserve- Refinance of	$0.00	$0.00	$4,668.00	0.00%	$4,668.00
404-000-000-397-35-70-02	Wwtp Srf Reserve- First Avenue	$0.00	$0.00	$12,920.00	0.00%	$12,920.00
404-000-000-397-35-70-03	Wwtp 2004-Usda Reserve	$0.00	$0.00	$0.00		$0.00
404-000-000-397-35-72-06	Wwtp 2008 Reserve-B of P	$0.00	$0.00	$2,965.00	0.00%	$2,965.00
Total Transfers-In		**$0.00**	**$0.00**	**$20,553.00**	**0.00%**	**$20,553.00**
Total Other Financing Sources		**$0.00**	**$0.00**	**$20,553.00**	**0.00%**	**$20,553.00**

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
Total Revenue		**$0.00**	**$0.00**	**$20,553.00**	**0.00%**	**$20,553.00**
Total Water & Sewer Bond Reserve		**$0.00**	**$0.00**	**$20,553.00**	**0.00%**	**$20,553.00**
Stormwater						
Revenue						
Charges for Goods and Services						
Physical Environment						
408-000-000-343-10-00-00	Storm Drainage	$23,337.35	$23,337.35	$86,538.00	26.97%	$63,200.65
Total Physical Environment		**$23,337.35**	**$23,337.35**	**$86,538.00**	**26.97%**	**$63,200.65**
Total Charges for Goods and Services		**$23,337.35**	**$23,337.35**	**$86,538.00**	**26.97%**	**$63,200.65**
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
408-000-000-361-11-00-00	Investment Interest	$1.61	$1.61	$0.00		($1.61)
Total Total Investment Interest		**$1.61**	**$1.61**	**$0.00**		**($1.61)**
Total Interest and Other Earnings		**$1.61**	**$1.61**	**$0.00**		**($1.61)**
Total Miscellaneous Revenues		**$1.61**	**$1.61**	**$0.00**		**($1.61)**
408-000-000-397-00-00-01	Transfer from 301	$0.00	$0.00	$20,000.00	0.00%	$20,000.00
408-000-000-397-00-00-02	Transfer from 101	$0.00	$0.00	$8,000.00	0.00%	$8,000.00
Total Revenue		**$23,338.96**	**$23,338.96**	**$114,538.00**	**20.38%**	**$91,199.04**
Total Stormwater		**$23,338.96**	**$23,338.96**	**$114,538.00**	**20.38%**	**$91,199.04**
Sewer						
Revenue						
Charges for Goods and Services						
Physical Environment						
409-000-000-343-60-00-00	Sewer Service Charges	$55,651.25	$55,651.25	$776,518.00	7.17%	$720,866.75
409-000-000-343-61-00-00	Seaview Sewer District Fees	$8,684.58	$8,684.58	$285,982.00	3.04%	$277,297.42
409-000-000-343-62-00-00	Seaview - SRF Loan Match	$0.00	$0.00	$94,282.00	0.00%	$94,282.00
Total Physical Environment		**$64,335.83**	**$64,335.83**	**$1,156,782.00**	**5.56%**	**$1,092,446.17**
Total Charges for Goods and Services		**$64,335.83**	**$64,335.83**	**$1,156,782.00**	**5.56%**	**$1,092,446.17**
Miscellaneous Revenues						
Interest and Other Earnings						
Total Investment Interest						
409-000-000-361-11-00-00	Investment Income	$58.25	$58.25	$500.00	11.65%	$441.75
Total Total Investment Interest		**$58.25**	**$58.25**	**$500.00**	**11.65%**	**$441.75**
409-000-000-361-40-00-00	Other Revenue Sources	$3,109.46	$3,109.46	$10,000.00	31.09%	$6,890.54
Total Interest and Other Earnings		**$3,167.71**	**$3,167.71**	**$10,500.00**	**30.17%**	**$7,332.29**
Total Miscellaneous Revenues		**$3,167.71**	**$3,167.71**	**$10,500.00**	**30.17%**	**$7,332.29**
Proprietary Funds Revenues						
409-000-000-372-00-00-00	Insurance Recovery	$0.00	$0.00	$0.00		$0.00
409-000-000-379-00-00-00	Sewer Connections	$0.00	$0.00	$0.00		$0.00
Total Proprietary Funds Revenues		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Other Financing Sources						
409-000-000-391-80-00-00	Intergovernmental Loan Proceed	$0.00	$0.00	$0.00		$0.00
409-000-000-391-80-00-01	Loan Proceeds	$0.00	$0.00	$285,000.00	0.00%	$285,000.00
Disposition of Capital Assets						
409-000-000-395-10-00-00	Proceeds Surplus Property	$0.00	$0.00	$0.00		$0.00
Total Disposition of Capital Assets		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Other Financing Sources		**$0.00**	**$0.00**	**$285,000.00**	**0.00%**	**$285,000.00**
Total Revenue		**$67,503.54**	**$67,503.54**	**$1,452,282.00**	**4.65%**	**$1,384,778.46**
Total Sewer		**$67,503.54**	**$67,503.54**	**$1,452,282.00**	**4.65%**	**$1,384,778.46**
Grand Totals		**$268,288.48**	**$268,288.48**	**$4,586,502.00**	**5.85%**	**$4,318,213.52**

Expenditure

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
General Fund Current Expense						
Expenditure						
General Government Services						
Legislative						
Official Publication Services						
001-000-000-511-30-44-00	Official Publications	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
Total Official Publication Services		**$0.00**	**$0.00**	**$2,000.00**	**0.00%**	**$2,000.00**
Legislative Services						
001-000-000-511-60-10-00	Salaries & Wages	$1,544.44	$1,544.44	$18,000.00	8.58%	$16,455.56
001-000-000-511-60-20-00	Personnel Benefits	$253.59	$253.59	$1,537.00	16.50%	$1,283.41
001-000-000-511-60-41-01	IT/Software Services	$0.00	$0.00	$3,833.00	0.00%	$3,833.00
001-000-000-511-60-43-00	Travel/Meals/Lodging	$0.00	$0.00	$500.00	0.00%	$500.00
001-000-000-511-60-46-00	Insurances	$1,273.46	$1,273.46	$7,362.00	17.30%	$6,088.54
001-000-000-511-60-47-00	Electricity	$174.52	$174.52	$0.00		($174.52)
001-000-000-511-60-47-02	City Sewer - Museum	$0.00	$0.00	$1,890.00	0.00%	$1,890.00
001-000-000-511-60-48-00	Repair & Maintenance	$0.00	$0.00	$200.00	0.00%	$200.00
001-000-000-511-60-49-01	Miscellaneous	$0.00	$0.00	$100.00	0.00%	$100.00
001-000-000-511-60-51-00	Election Costs	$0.00	$0.00	$6,000.00	0.00%	$6,000.00
Total Legislative Services		**$3,246.01**	**$3,246.01**	**$39,422.00**	**8.23%**	**$36,175.99**
Total Legislative		**$3,246.01**	**$3,246.01**	**$41,422.00**	**7.84%**	**$38,175.99**
Judicial						
001-000-000-512-50-40-03	Municipal Court Services	$1,436.00	$1,436.00	$17,250.00	8.32%	$15,814.00
001-000-000-512-50-40-04	Court Remit TO State	$0.00	$0.00	$3,500.00	0.00%	$3,500.00
Total Judicial		**$1,436.00**	**$1,436.00**	**$20,750.00**	**6.92%**	**$19,314.00**
Financial and Records Services						
Financial Services						
001-000-000-514-20-10-00	Salaries & Wages	$4,297.70	$4,297.70	$42,373.00	10.14%	$38,075.30
001-000-000-514-20-20-00	Personnel Benefits	$1,396.42	$1,396.42	$12,935.00	10.80%	$11,538.58
001-000-000-514-20-31-00	Office & Operating Supplies	$117.08	$117.08	$6,020.00	1.94%	$5,902.92
001-000-000-514-20-35-00	Small Tools & Equipment	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
001-000-000-514-20-41-00	Professional Services	$137.50	$137.50	$2,000.00	6.88%	$1,862.50
001-000-000-514-20-42-00	Communication	$350.71	$350.71	$4,080.00	8.60%	$3,729.29
001-000-000-514-20-43-00	Travel/Meals/Lodging	$0.00	$0.00	$1,000.00	0.00%	$1,000.00
001-000-000-514-20-43-01	Training	$0.00	$0.00	$1,500.00	0.00%	$1,500.00
001-000-000-514-20-45-00	Postage Meter Rental	$500.00	$500.00	$1,452.00	34.44%	$952.00
001-000-000-514-20-46-00	Insurance	$0.00	$0.00	$0.00		$0.00
001-000-000-514-20-47-00	Electricity	$0.00	$0.00	$0.00		$0.00
001-000-000-514-20-47-01	Garbage Bills	$285.22	$285.22	$3,049.00	9.35%	$2,763.78
001-000-000-514-20-47-02	Water - City Hall	$0.00	$0.00	$432.00	0.00%	$432.00
001-000-000-514-20-47-03	Sewer - City Hall	$0.00	$0.00	$1,440.00	0.00%	$1,440.00
001-000-000-514-20-47-04	Storm Drainage	$0.00	$0.00	$300.00	0.00%	$300.00
001-000-000-514-20-48-00	Repairs & Maintenance	$0.00	$0.00	$500.00	0.00%	$500.00
001-000-000-514-20-49-00	Miscellaneous	$0.00	$0.00	$4,000.00	0.00%	$4,000.00
Budgeting, Accounting, Auditing (State Auditors)						
001-000-000-514-23-41-00	Audit Costs	$0.00	$0.00	$20,400.00	0.00%	$20,400.00
Total Budgeting, Accounting, Auditing (State Auditors)		**$0.00**	**$0.00**	**$20,400.00**	**0.00%**	**$20,400.00**
Total Financial Services		**$7,084.63**	**$7,084.63**	**$103,481.00**	**6.85%**	**$96,396.37**
001-000-000-514-30-00-00	Records Services	$0.00	$0.00	$0.00		$0.00
001-000-000-514-31-00-00	Recording Fees	$309.00	$309.00	$0.00		($309.00)
001-000-000-514-81-00-00	Licensing Fees	$30.00	$30.00	$0.00		($30.00)
Total Financial and Records Services		**$7,423.63**	**$7,423.63**	**$103,481.00**	**7.17%**	**$96,057.37**
Legal						
001-000-000-515-30-41-00	Legal Services	$1,818.00	$1,818.00	$20,000.00	9.09%	$18,182.00
Total Legal		**$1,818.00**	**$1,818.00**	**$20,000.00**	**9.09%**	**$18,182.00**
Other General Government Services						
Miscellaneous						
001-000-000-519-70-49-00	Assoc of WA Cities (dues)	$473.00	$473.00	$720.00	65.69%	$247.00
001-000-000-519-70-49-01	Pacfic Council of Governments	$1,500.00	$1,500.00	$1,500.00	100.00%	$0.00
001-000-000-519-70-49-02	Misc General Government	$0.00	$0.00	$0.00		$0.00
001-000-000-519-70-49-03	Pacific County EDC	$0.00	$0.00	$500.00	0.00%	$500.00
Total Miscellaneous		**$1,973.00**	**$1,973.00**	**$2,720.00**	**72.54%**	**$747.00**
Total Other General Government Services		**$1,973.00**	**$1,973.00**	**$2,720.00**	**72.54%**	**$747.00**
Total General Government Services		**$15,896.64**	**$15,896.64**	**$188,373.00**	**8.44%**	**$172,476.36**
Public Safety						
Law Enforcement						
Administration						
001-000-000-521-10-50-00	Law Enforcement Contract	$15,261.69	$15,261.69	$214,250.00	7.12%	$198,988.31
Total Administration		**$15,261.69**	**$15,261.69**	**$214,250.00**	**7.12%**	**$198,988.31**
001-000-000-521-30-40-00	Drug Task Force	$0.00	$0.00	$0.00		$0.00
Total Law Enforcement		**$15,261.69**	**$15,261.69**	**$214,250.00**	**7.12%**	**$198,988.31**
Fire Control						
Administration						

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
001-000-000-522-10-10-00	Salaries & Wages	$1,334.65	$1,334.65	$15,952.00	8.37%	$14,617.35
001-000-000-522-10-20-00	Personnel Benefits	$958.79	$958.79	$10,196.00	9.40%	$9,237.21
001-000-000-522-10-20-01	Board of Volunteer Firemen	$90.00	$90.00	$2,100.00	4.29%	$2,010.00
001-000-000-522-10-20-02	Life & Disability Insurance	$0.00	$0.00	$3,600.00	0.00%	$3,600.00
001-000-000-522-10-31-00	Office & Operating Supplies	$320.78	$320.78	$10,730.00	2.99%	$10,409.22
001-000-000-522-10-31-01	Training/Attendance	$40.00	$40.00	$10,650.00	0.38%	$10,610.00
001-000-000-522-10-32-00	Gasoline	$0.00	$0.00	$1,600.00	0.00%	$1,600.00
001-000-000-522-10-35-00	Small Tools & Equipment	$0.00	$0.00	$7,700.00	0.00%	$7,700.00
001-000-000-522-10-42-00	Communication	$380.85	$380.85	$4,440.00	8.58%	$4,059.15
001-000-000-522-10-49-00	Miscellaneous	$32.00	$32.00	$0.00		($32.00)
Total Administration		**$3,157.07**	**$3,157.07**	**$66,968.00**	**4.71%**	**$63,810.93**
Facilities						
001-000-000-522-50-46-00	Insurance	$2,445.02	$2,445.02	$9,540.00	25.63%	$7,094.98
001-000-000-522-50-47-00	Electricity	$1,235.46	$1,235.46	$7,000.00	17.65%	$5,764.54
001-000-000-522-50-47-01	Water	$0.00	$0.00	$1,500.00	0.00%	$1,500.00
001-000-000-522-50-47-02	Sewer	$0.00	$0.00	$2,940.00	0.00%	$2,940.00
001-000-000-522-50-47-03	Storm Drainage	$0.00	$0.00	$500.00	0.00%	$500.00
001-000-000-522-50-48-00	Repair & Maintenance	$0.00	$0.00	$2,800.00	0.00%	$2,800.00
Total Facilities		**$3,680.48**	**$3,680.48**	**$24,280.00**	**15.16%**	**$20,599.52**
001-000-000-522-60-00-00	Vehicle & Equipment Maintenance	$0.00	$0.00	$800.00	0.00%	$800.00
Total Fire Control		**$6,837.55**	**$6,837.55**	**$92,048.00**	**7.43%**	**$85,210.45**
Detention and/or Correction						
Monitoring Of Prisoners						
001-000-000-523-20-40-00	Correctional Institutions	$0.00	$0.00	$3,500.00	0.00%	$3,500.00
001-000-000-523-21-00-01	Juvenile Facility	$0.00	$0.00	$50.00	0.00%	$50.00
Total Monitoring Of Prisoners		**$0.00**	**$0.00**	**$3,550.00**	**0.00%**	**$3,550.00**
Total Detention and/or Correction		**$0.00**	**$0.00**	**$3,550.00**	**0.00%**	**$3,550.00**
Emergency Services						
Emergency Preparedness						
001-000-000-525-60-51-00	Disaster Preparedness	$0.00	$0.00	$5,753.00	0.00%	$5,753.00
Total Emergency Preparedness		**$0.00**	**$0.00**	**$5,753.00**	**0.00%**	**$5,753.00**
Total Emergency Services		**$0.00**	**$0.00**	**$5,753.00**	**0.00%**	**$5,753.00**
Communications, Alarms and Dispatch						
Operations - Contracted Services						
001-000-000-528-60-51-00	Dispatch Services	$0.00	$0.00	$28,729.00	0.00%	$28,729.00
Total Operations - Contracted Services		**$0.00**	**$0.00**	**$28,729.00**	**0.00%**	**$28,729.00**
Total Communications, Alarms and Dispatch		**$0.00**	**$0.00**	**$28,729.00**	**0.00%**	**$28,729.00**
Total Public Safety		**$22,099.24**	**$22,099.24**	**$344,330.00**	**6.42%**	**$322,230.76**
Utilities and Environment						
Other Environmental Services						
Other						
001-000-000-539-90-41-00	Enviromental Monitoring 2006	$0.00	$0.00	$0.00		$0.00
Total Other		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Other Environmental Services		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Utilities and Environment		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Economic Environment						
001-000-000-553-70-51-00	Air Pollution Control	$423.00	$423.00	$423.00	100.00%	$0.00
Community Services						
Information Services						
001-000-000-557-20-41-00	Ilwaco Web Page	$50.00	$50.00	$1,500.00	3.33%	$1,450.00
Total Information Services		**$50.00**	**$50.00**	**$1,500.00**	**3.33%**	**$1,450.00**
Total Community Services		**$50.00**	**$50.00**	**$1,500.00**	**3.33%**	**$1,450.00**
Planning and Community Development						
Planning						
001-000-000-558-60-41-00	Planner Services	$10,792.50	$10,792.50	$70,000.00	15.42%	$59,207.50
Total Planning		**$10,792.50**	**$10,792.50**	**$70,000.00**	**15.42%**	**$59,207.50**
Total Planning and Community Development		**$10,792.50**	**$10,792.50**	**$70,000.00**	**15.42%**	**$59,207.50**
Total Economic Environment		**$11,265.50**	**$11,265.50**	**$71,923.00**	**15.66%**	**$60,657.50**
Mental and Physical Health						
Substance Abuse						
001-000-000-566-00-51-00	Alcohol Program 2%	$0.00	$0.00	$250.00	0.00%	$250.00
Total Substance Abuse		**$0.00**	**$0.00**	**$250.00**	**0.00%**	**$250.00**
Total Mental and Physical Health		**$0.00**	**$0.00**	**$250.00**	**0.00%**	**$250.00**
Culture and Recreation						
Libraries						
Facilities						
001-000-000-572-50-41-00	Custodian Library	$335.00	$335.00	$4,140.00	8.09%	$3,805.00
001-000-000-572-50-46-00	Insurance	$1,884.62	$1,884.62	$1,781.00	105.82%	($103.62)
001-000-000-572-50-47-00	Electricity	$847.27	$847.27	$6,500.00	13.03%	$5,652.73
001-000-000-572-50-47-01	City Water	$0.00	$0.00	$1,200.00	0.00%	$1,200.00
001-000-000-572-50-47-02	City Sewer	$0.00	$0.00	$2,200.00	0.00%	$2,200.00
001-000-000-572-50-47-03	Storm Drainage	$1,425.39	$1,425.39	$100.00	1,425.39%	($1,325.39)
001-000-000-572-50-48-00	Repairs & Maintenance	$147.63	$147.63	$900.00	16.40%	$752.37
001-000-000-572-50-49-00	Miscellaneous	$0.00	$0.00	$100.00	0.00%	$100.00
Total Facilities		**$4,639.91**	**$4,639.91**	**$16,921.00**	**27.42%**	**$12,281.09**
Total Libraries		**$4,639.91**	**$4,639.91**	**$16,921.00**	**27.42%**	**$12,281.09**
Spectator and Community Events						
001-000-000-573-90-30-00	Street Banners	$0.00	$0.00	$0.00		$0.00
001-000-000-573-90-49-00	Black Lake Fishing Derby	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
Total Spectator and Community Events		**$0.00**	**$0.00**	**$5,000.00**	**0.00%**	**$5,000.00**

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
001-000-000-575-50-40-00	Community Bldg Other - Electri	$564.85	$564.85	$6,220.00	9.08%	$5,655.15
001-000-000-575-50-40-01	Community Bldg Other-Mntc	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
001-000-000-575-50-40-02	Community Building Water	$0.00	$0.00	$0.00		$0.00
001-000-000-575-50-40-03	Community Building Sewer	$0.00	$0.00	$0.00		$0.00
001-000-000-575-50-40-04	Community Building Insurance	$0.00	$0.00	$9,120.00	0.00%	$9,120.00
Park Facilities						
General Parks						
001-000-000-576-80-10-00	Parks Salaries and Wages	$3,076.26	$3,076.26	$35,744.00	8.61%	$32,667.74
001-000-000-576-80-20-00	Parks Benefits	$1,374.60	$1,374.60	$15,039.00	9.14%	$13,664.40
001-000-000-576-80-31-00	Office & Operating Supplies	$51.36	$51.36	$4,500.00	1.14%	$4,448.64
001-000-000-576-80-34-00	Aquatic Weed Treatment	$0.00	$0.00	$19,519.00	0.00%	$19,519.00
001-000-000-576-80-35-00	Small Tools & Equipment	$0.00	$0.00	$8,000.00	0.00%	$8,000.00
001-000-000-576-80-46-00	Insurance	$396.90	$396.90	$2,294.00	17.30%	$1,897.10
001-000-000-576-80-47-00	Electricity	$94.32	$94.32	$1,000.00	9.43%	$905.68
001-000-000-576-80-47-01	Water-Parks, Sprinklers,Blk Lake	$0.00	$0.00	$2,600.00	0.00%	$2,600.00
001-000-000-576-80-47-02	Sewer-Parks, Black Lake	$200.00	$200.00	$2,400.00	8.33%	$2,200.00
001-000-000-576-80-47-03	Storm Drainage	$643.35	$643.35	$1,500.00	42.89%	$856.65
001-000-000-576-80-48-00	Repairs & Maintenance	$0.00	$0.00	$9,954.00	0.00%	$9,954.00
001-000-000-576-80-49-00	Miscellaneous	$0.00	$0.00	$0.00		$0.00
001-000-000-576-80-49-01	Other	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
Total General Parks		**$5,836.79**	**$5,836.79**	**$107,550.00**	**5.43%**	**$101,713.21**
Total Park Facilities		**$5,836.79**	**$5,836.79**	**$107,550.00**	**5.43%**	**$101,713.21**
Total Culture and Recreation		**$11,041.55**	**$11,041.55**	**$146,811.00**	**7.52%**	**$135,769.45**
Debt Service						
Redemption Of Long-Term Debt - Governmental Funds						
001-000-000-591-13-71-00	Usda RD #97-09 Bond - Prin	$0.00	$0.00	$19,332.00	0.00%	$19,332.00
001-000-000-591-22-71-00	BOP Fire Station - Prin	$23,041.95	$23,041.95	$37,282.00	61.80%	$14,240.05
001-000-000-591-48-71-01	John Deer Mower 8157-96 - Prin	$541.12	$541.12	$12,000.00	4.51%	$11,458.88
001-000-000-591-73-71-00	BOP Community Bldg - Prin	$0.00	$0.00	$15,947.00	0.00%	$15,947.00
Total Redemption Of Long-Term Debt - Governmental Funds		**$23,583.07**	**$23,583.07**	**$84,561.00**	**27.89%**	**$60,977.93**
Interest And Other Debt Service Costs						
001-000-000-592-13-83-00	Usda RD #97-09 Bond - Interest	$0.00	$0.00	$7,195.00	0.00%	$7,195.00
001-000-000-592-22-83-00	BOP Fire Station - Interest	$15,674.35	$15,674.35	$40,150.00	39.04%	$24,475.65
001-000-000-592-48-83-00	John Deer Mower 8157-96 - Interest	$541.11	$541.11	$500.00	108.22%	($41.11)
001-000-000-592-73-83-00	BOP Community Bldg - Interest	$0.00	$0.00	$13,080.00	0.00%	$13,080.00
Total Interest And Other Debt Service Costs		**$16,215.46**	**$16,215.46**	**$60,925.00**	**26.62%**	**$44,709.54**
Capital Expenditures						
001-000-000-594-62-14-00	Governmental Facility	$0.00	$0.00	$3,000.00	0.00%	$3,000.00
001-000-000-594-62-72-01	Community Building	$0.00	$0.00	$0.00		$0.00
Equipment						
001-000-000-594-64-14-00	Administrative Equipment	$0.00	$0.00	$0.00		$0.00
001-000-000-594-64-22-00	Fire Department Vehicles	$0.00	$0.00	$0.00		$0.00
001-000-000-594-64-22-01	Fire Equipment	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
001-000-000-594-64-76-00	Parks Vehicles	$371.56	$371.56	$31,200.00	1.19%	$30,828.44
Total Equipment		**$371.56**	**$371.56**	**$36,200.00**	**1.03%**	**$35,828.44**
Total Capital Expenditures		**$371.56**	**$371.56**	**$39,200.00**	**0.95%**	**$38,828.44**
001-000-000-597-00-00-00	Contingency	$0.00	$0.00	$0.00		$0.00
Total Debt Service		**$40,170.09**	**$40,170.09**	**$184,686.00**	**21.75%**	**$144,515.91**
Total Expenditure		**$100,473.02**	**$100,473.02**	**$936,373.00**	**10.73%**	**$835,899.98**
Total General Fund Current Expense		**$100,473.02**	**$100,473.02**	**$936,373.00**	**10.73%**	**$835,899.98**
City Streets						
Expenditure						
Transportation						
Road and Street Maintenance						
Roadway						
101-000-000-542-30-10-00	Salaries & Wages	$3,156.76	$3,156.76	$31,066.00	10.16%	$27,909.24
101-000-000-542-30-20-00	Benefits	$1,585.23	$1,585.23	$12,917.00	12.27%	$11,331.77
101-000-000-542-30-31-00	Roadway Operating	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
101-000-000-542-30-35-00	Roadway Equipment	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
Total Roadway		**$4,741.99**	**$4,741.99**	**$47,983.00**	**9.88%**	**$43,241.01**
Traffic And Pedestrian Services						
Street Lighting						
101-000-000-542-63-47-00	Street Light Operating	$684.74	$684.74	$6,005.00	11.40%	$5,320.26
Total Street Lighting		**$684.74**	**$684.74**	**$6,005.00**	**11.40%**	**$5,320.26**
Snow And Ice Control						
101-000-000-542-66-31-00	Ice Control Operating	$0.00	$0.00	$400.00	0.00%	$400.00
Total Snow And Ice Control		**$0.00**	**$0.00**	**$400.00**	**0.00%**	**$400.00**
Street Cleaning						
101-000-000-542-67-30-00	Street Cleaning	$383.97	$383.97	$4,000.00	9.60%	$3,616.03
Total Street Cleaning		**$383.97**	**$383.97**	**$4,000.00**	**9.60%**	**$3,616.03**
Total Traffic And Pedestrian Services		**$1,068.71**	**$1,068.71**	**$10,405.00**	**10.27%**	**$9,336.29**
Roadside						
101-000-000-542-70-31-00	Roadside Operating	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
Total Roadside		**$0.00**	**$0.00**	**$2,000.00**	**0.00%**	**$2,000.00**
Total Road and Street Maintenance		**$5,810.70**	**$5,810.70**	**$60,388.00**	**9.62%**	**$54,577.30**
Road and Street General Administration / Overhead						
101-000-000-543-30-30-00	Office And Operating	$116.95	$116.95	$4,633.00	2.52%	$4,516.05
101-000-000-543-30-30-01	Gasoline & Oil Products	$0.00	$0.00	$1,500.00	0.00%	$1,500.00
101-000-000-543-30-30-02	Small Tools & Equipment	$173.39	$173.39	$1,500.00	11.56%	$1,326.61
101-000-000-543-30-40-01	Insurance	$243.50	$243.50	$1,384.00	17.59%	$1,140.50

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
Training						
101-000-000-543-60-40-00	Safety Training	$150.00	$150.00	$500.00	30.00%	$350.00
Total Training		**$150.00**	**$150.00**	**$500.00**	**30.00%**	**$350.00**
Total Road and Street General Administration / Overhead		**$683.84**	**$683.84**	**$9,517.00**	**7.19%**	**$8,833.16**
Total Transportation		**$6,494.54**	**$6,494.54**	**$69,905.00**	**9.29%**	**$63,410.46**
Debt Service						
Roads/Streets Construction & Other Infrastructure						
Engineering						
101-000-000-595-10-41-01	Engineering-Brumbach	$0.00	$0.00	$0.00		$0.00
101-000-000-595-10-41-04	Engineering - Elizabeth	$0.00	$0.00	$0.00		$0.00
Total Engineering		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Roadway						
101-000-000-595-30-61-00	Brumbach-Construction	$0.00	$0.00	$0.00		$0.00
101-000-000-595-30-65-00	Roadway Construction	$0.00	$0.00	$0.00		$0.00
Total Roadway		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Traffic And Pedestrian Services						
Sidewalks						
101-000-000-595-61-60-01	Sidewalks	$0.00	$0.00	$0.00		$0.00
Total Sidewalks		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Traffic And Pedestrian Services		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Roads/Streets Construction & Other Infrastructure		**$0.00**	**$0.00**	**$0.00**		**$0.00**
101-000-000-597-00-00-01	Contingency	$0.00	$0.00	$0.00		$0.00
101-000-000-597-00-00-03	Transfer TO 001-Bldg. Rental	$0.00	$0.00	$11,500.00	0.00%	$11,500.00
101-000-000-597-00-00-10	Transfer TO 408	$0.00	$0.00	$8,000.00	0.00%	$8,000.00
Total Debt Service		**$0.00**	**$0.00**	**$19,500.00**	**0.00%**	**$19,500.00**
Total Expenditure		**$6,494.54**	**$6,494.54**	**$89,405.00**	**7.26%**	**$82,910.46**
Total City Streets		**$6,494.54**	**$6,494.54**	**$89,405.00**	**7.26%**	**$82,910.46**
Tourism						
Expenditure						
104-000-000-557-30-40-01	Fishing Derby	$0.00	$0.00	$0.00		$0.00
104-000-000-557-30-40-02	Ilwaco Web Page	$0.00	$0.00	$0.00		$0.00
104-000-000-557-30-40-03	Miscellaneous	$0.00	$0.00	$7,500.00	0.00%	$7,500.00
104-000-000-557-30-41-01	Heritage Museum	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
104-000-000-557-30-41-02	Visitors Bldg. - City Portion	$0.00	$0.00	$769.00	0.00%	$769.00
104-000-000-557-30-41-03	Ilwaco Merchants Association	$0.00	$0.00	$3,000.00	0.00%	$3,000.00
104-000-000-557-30-41-04	Peninsula Visitors Bureau	$0.00	$0.00	$7,875.00	0.00%	$7,875.00
104-000-000-557-30-41-05	Ilwaco Charter Association	$0.00	$0.00	$1,000.00	0.00%	$1,000.00
104-000-000-557-30-46-00	Heritage Museum - Insurance	$954.48	$954.48	$5,520.00	17.29%	$4,565.52
Culture and Recreation						
Spectator and Community Events						
104-000-000-573-90-00-00	Merchants/marketing Committee	$0.00	$0.00	$0.00		$0.00
104-000-000-573-90-00-03	Visitors Bureau	$0.00	$0.00	$0.00		$0.00
Total Spectator and Community Events		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Park Facilities						
General Parks						
Unit						
104-000-000-576-80-31-00	Office & Operating Supplies	$0.00	$0.00	$0.00		$0.00
Total Unit		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total General Parks		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Park Facilities		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Total Culture and Recreation		**$0.00**	**$0.00**	**$0.00**		**$0.00**
Debt Service						
104-000-000-597-00-00-00	Contingency	$0.00	$0.00	$36,000.00	0.00%	$36,000.00
104-000-000-597-00-00-01	Transfer TO 001	$0.00	$0.00	$2,500.00	0.00%	$2,500.00
Total Debt Service		**$0.00**	**$0.00**	**$38,500.00**	**0.00%**	**$38,500.00**
Total Expenditure		**$954.48**	**$954.48**	**$69,164.00**	**1.38%**	**$68,209.52**
Total Tourism		**$954.48**	**$954.48**	**$69,164.00**	**1.38%**	**$68,209.52**
Excise Reserve						
Expenditure						
Debt Service						
301-000-000-597-00-00-01	Transfer TO 001	$0.00	$0.00	$0.00		$0.00
301-000-000-597-00-00-10	Transfer TO 408	$0.00	$0.00	$20,000.00	0.00%	$20,000.00
Total Debt Service		**$0.00**	**$0.00**	**$20,000.00**	**0.00%**	**$20,000.00**
Total Expenditure		**$0.00**	**$0.00**	**$20,000.00**	**0.00%**	**$20,000.00**
Total Excise Reserve		**$0.00**	**$0.00**	**$20,000.00**	**0.00%**	**$20,000.00**
Water						
Expenditure						
Utilities and Environment						
Water Utilities						
401-000-000-534-00-10-00	Salaries & Wages	$26,110.98	$26,110.98	$216,634.00	12.05%	$190,523.02
401-000-000-534-00-20-00	Benefits	$8,736.20	$8,736.20	$74,490.00	11.73%	$65,753.80
401-000-000-534-00-31-00	Operation & Maintenance	$977.81	$977.81	$40,000.00	2.44%	$39,022.19
401-000-000-534-00-31-01	Chemicals	$270.00	$270.00	$40,000.00	0.68%	$39,730.00
401-000-000-534-00-31-02	Monthly Excise Tax Pay	$2,859.35	$2,859.35	$35,751.00	8.00%	$32,891.65
401-000-000-534-00-31-03	Annual Meter Calibrations	$1,583.60	$1,583.60	$2,500.00	63.34%	$916.40
401-000-000-534-00-31-04	Annual Permit Fees	$1,765.70	$1,765.70	$5,000.00	35.31%	$3,234.30

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
401-000-000-534-00-31-05	Cleaning Water Tanks	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-31-06	Office & Customer Service	$177.06	$177.06	$6,000.00	2.95%	$5,822.94
401-000-000-534-00-32-00	Gasoline	$0.00	$0.00	$7,500.00	0.00%	$7,500.00
401-000-000-534-00-33-00	Intertie Water	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-35-00	Small Tools & Equipment	$326.07	$326.07	$5,000.00	6.52%	$4,673.93
401-000-000-534-00-35-01	Small Tools & Equipment - Lab	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
401-000-000-534-00-41-00	Professional Services	$0.00	$0.00	$10,000.00	0.00%	$10,000.00
401-000-000-534-00-41-01	Attorney Fees	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-41-03	Professional Services - Electrician	$0.00	$0.00	$12,000.00	0.00%	$12,000.00
401-000-000-534-00-41-04	Professional Services - Computer system	$137.50	$137.50	$9,000.00	1.53%	$8,862.50
401-000-000-534-00-41-05	Water Comp. Plan-Engineering	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-42-00	Communications	$315.68	$315.68	$4,500.00	7.02%	$4,184.32
401-000-000-534-00-43-00	Travel/Meals/Lodging	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
401-000-000-534-00-44-00	Advertising & Printing	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-46-00	Insurance	$3,253.04	$3,253.04	$18,802.00	17.30%	$15,548.96
401-000-000-534-00-47-00	Electricity	$2,308.51	$2,308.51	$35,000.00	6.60%	$32,691.49
401-000-000-534-00-47-01	Water	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-47-02	Sewer	$0.00	$0.00	$0.00		$0.00
401-000-000-534-00-47-03	Storm Drainage	$0.00	$0.00	$660.00	0.00%	$660.00
401-000-000-534-00-48-00	Vehicle Repairs/Maintenance	$30.48	$30.48	$5,000.00	0.61%	$4,969.52
401-000-000-534-00-48-01	Water Line Replacement	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
401-000-000-534-00-49-00	Miscellaneous	$0.00	$0.00	$7,500.00	0.00%	$7,500.00
401-000-000-534-00-49-01	Safety Training	$0.00	$0.00	$500.00	0.00%	$500.00
401-000-000-534-00-49-02	Software Upgrade	$0.00	$0.00	$2,000.00	0.00%	$2,000.00
Total Water Utilities		**$48,851.98**	**$48,851.98**	**$549,837.00**	**8.88%**	**$500,985.02**
Total Utilities and Environment		**$48,851.98**	**$48,851.98**	**$549,837.00**	**8.88%**	**$500,985.02**
Debt Service						
Redemption of Long Term Debt - Proprietary Funds						
401-000-000-591-34-72-00	Principal Pwtf - 94206	$0.00	$0.00	$0.00		$0.00
401-000-000-591-34-72-01	Principal Pwtf - 04-65104-013	$0.00	$0.00	$16,985.00	0.00%	$16,985.00
401-000-000-591-34-72-02	Principal DWSRF 11-952-016	$0.00	$0.00	$20,475.00	0.00%	$20,475.00
401-000-000-591-34-72-03	Principal DWSRF 11-952-015	$0.00	$0.00	$27,000.00	0.00%	$27,000.00
401-000-000-591-34-72-04	Principal DWSRF 11-952-017	$0.00	$0.00	$3,000.00	0.00%	$3,000.00
Total Redemption of Long Term Debt - Proprietary Funds		**$0.00**	**$0.00**	**$67,460.00**	**0.00%**	**$67,460.00**
Interest And Other Debt Service Costs						
401-000-000-592-34-80-00	Interest Pwtf - 94206	$0.00	$0.00	$0.00		$0.00
401-000-000-592-34-83-01	Interest Pwtf - 04-65104-013	$0.00	$0.00	$1,864.00	0.00%	$1,864.00
401-000-000-592-34-83-02	Interest DWSRF 11-952-016	$0.00	$0.00	$5,835.37	0.00%	$5,835.37
401-000-000-592-34-83-03	Interest DWSRF 11-952-015	$0.00	$0.00	$9,437.63	0.00%	$9,437.63
401-000-000-592-34-83-04	Interest DWSRF 11-952-017	$0.00	$0.00	$500.00	0.00%	$500.00
Total Interest And Other Debt Service Costs		**$0.00**	**$0.00**	**$17,637.00**	**0.00%**	**$17,637.00**
Capital Expenditures						
401-000-000-594-34-41-01	Engineering - Plant	$1,638.18	$1,638.18	$0.00		($1,638.18)
401-000-000-594-34-41-02	Engineering - Distribution	$0.00	$0.00	$0.00		$0.00
401-000-000-594-34-62-00	Construction Project -Resvoir	$0.00	$0.00	$0.00		$0.00
401-000-000-594-34-62-01	Construction - Plant	$0.00	$0.00	$780,000.00	0.00%	$780,000.00
401-000-000-594-34-62-02	Construction - Distribution	$0.00	$0.00	$0.00		$0.00
401-000-000-594-62-34-00	Plant Improvements	$0.00	$0.00	$121,000.00	0.00%	$121,000.00
Equipment						
401-000-000-594-64-34-00	Vehicle Purchase	$0.00	$0.00	$0.00		$0.00
401-000-000-594-64-34-01	Equipment	$0.00	$0.00	$44,500.00	0.00%	$44,500.00
401-000-000-594-64-34-02	Contingency	$0.00	$0.00	$100,000.00	0.00%	$100,000.00
Total Equipment		**$0.00**	**$0.00**	**$144,500.00**	**0.00%**	**$144,500.00**
Total Capital Expenditures		**$1,638.18**	**$1,638.18**	**$1,045,500.00**	**0.16%**	**$1,043,861.82**
Transfer Out						
401-000-000-597-00-00-02	Transfer TO 001	$0.00	$0.00	$12,375.00	0.00%	$12,375.00
401-000-000-597-00-00-03	Transfer TO 403 Usda 91-01	$0.00	$0.00	$4,354.00	0.00%	$4,354.00
401-000-000-597-00-00-04	Transfer To403pwtf04-65104-013	$0.00	$0.00	$0.00		$0.00
401-000-000-597-00-00-05	Transfer to 101	$0.00	$0.00	$0.00		$0.00
Total Transfer Out		**$0.00**	**$0.00**	**$16,729.00**	**0.00%**	**$16,729.00**
Total Debt Service		**$1,638.18**	**$1,638.18**	**$1,147,326.00**	**0.14%**	**$1,145,687.82**
Total Expenditure		**$50,490.16**	**$50,490.16**	**$1,697,163.00**	**2.97%**	**$1,646,672.84**
Total Water		**$50,490.16**	**$50,490.16**	**$1,697,163.00**	**2.97%**	**$1,646,672.84**
Water & Sewer Bond Redemption						
Expenditure						
Debt Service						
403-000-000-591-34-70-01	Pwtf 97-791-007 Principal	$0.00	$0.00	$13,118.00	0.00%	$13,118.00
403-000-000-591-34-70-03	Pwtf 04-691 Principal	$0.00	$0.00	$1,496.00	0.00%	$1,496.00
403-000-000-591-34-70-04	Pwtf 05-691 Principal	$0.00	$0.00	$20,260.00	0.00%	$20,260.00
403-000-000-591-34-70-05	Pwtf 04-65104-013 Principal	$0.00	$0.00	$0.00		$0.00
403-000-000-591-34-72-00	Usda 91-01 Principal	$0.00	$0.00	$2,378.00	0.00%	$2,378.00
403-000-000-591-35-72-01	Srf 94-08 Principal Only	$52,153.94	$52,153.94	$104,308.00	50.00%	$52,154.06
403-000-000-591-35-72-04	Pwtf - 06-962-0017 Principal	$0.00	$0.00	$11,898.00	0.00%	$11,898.00
403-000-000-591-35-72-06	B of P - 2008 - Principal	$7,404.06	$7,404.06	$15,275.00	48.47%	$7,870.94
403-000-000-591-35-72-07	PWTF PR09-951-050	$0.00	$0.00	$0.00		$0.00
403-000-000-591-35-78-00	DOE SRF L1300001- Principal	$0.00	$0.00	$133,626.00	0.00%	$133,626.00
403-000-000-591-35-78-01	DOE SRF L1300003 -Principal	$0.00	$0.00	$38,964.00	0.00%	$38,964.00
403-000-000-591-35-78-02	DOE SRF L1300006 - Principal	$0.00	$0.00	$4,892.00	0.00%	$4,892.00
Interest And Other Debt Service Costs						
403-000-000-592-34-80-00	Usda 91-01 Interest	$0.00	$0.00	$1,976.00	0.00%	$1,976.00
403-000-000-592-34-80-01	Pwtf 97-791-007 Interest	$0.00	$0.00	$1,181.00	0.00%	$1,181.00
403-000-000-592-34-80-02	Pwtf - 2003 Interest	$0.00	$0.00	$0.00		$0.00
403-000-000-592-34-80-03	Ptwf 04-691 Interest	$0.00	$0.00	$150.00	0.00%	$150.00

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
403-000-000-592-34-80-04	Pwtf 05-691 Interest	$0.00	$0.00	$4,457.00	0.00%	$4,457.00
403-000-000-592-34-80-05	Pwtf 04-65104-013 Interest	$0.00	$0.00	$0.00		$0.00
403-000-000-592-34-80-07	PWTF PR09-951-050	$0.00	$0.00	$0.00		$0.00
403-000-000-592-35-80-00	Usda 92-07 Interest	$0.00	$0.00	$0.00		$0.00
403-000-000-592-35-80-01	Usda-Sbr #3 - Interest	$0.00	$0.00	$0.00		$0.00
403-000-000-592-35-80-04	Pwtf - 06-962-0017 Interest	$0.00	$0.00	$1,428.00	0.00%	$1,428.00
403-000-000-592-35-80-05	PWTF PC13-961-054 Nesadi Interest	$0.00	$0.00	$1,226.00	0.00%	$1,226.00
403-000-000-592-35-80-06	B of P - 2008 - Interest	$7,419.34	$7,419.34	$14,372.00	51.62%	$6,952.66
403-000-000-592-35-83-00	DOE SRF L1300001- Interest	$0.00	$0.00	$82,041.00	0.00%	$82,041.00
403-000-000-592-35-83-01	DOE SRF L1300003 - Interest	$0.00	$0.00	$25,641.00	0.00%	$25,641.00
403-000-000-592-35-83-02	DOE SRF L1300006 - Interest	$0.00	$0.00	$263.00	0.00%	$263.00
Total Interest And Other Debt Service Costs		**$7,419.34**	**$7,419.34**	**$132,735.00**	**5.59%**	**$125,315.66**
Total Debt Service		**$66,977.34**	**$66,977.34**	**$478,950.00**	**13.98%**	**$411,972.66**
Total Expenditure		**$66,977.34**	**$66,977.34**	**$478,950.00**	**13.98%**	**$411,972.66**
Total Water & Sewer Bond Redemption		**$66,977.34**	**$66,977.34**	**$478,950.00**	**13.98%**	**$411,972.66**
Stormwater						
Expenditure						
Utilities and Environment						
Flood Control						
408-000-000-531-38-10-00	Salaries & Wages	$1,350.39	$1,350.39	$15,704.00	8.60%	$14,353.61
408-000-000-531-38-20-00	Benefits	$529.20	$529.20	$5,437.00	9.73%	$4,907.80
408-000-000-531-38-31-01	Operations & Maintenance	$164.69	$164.69	$8,800.00	1.87%	$8,635.31
408-000-000-531-38-31-02	Excise Tax	$93.38	$93.38	$1,600.00	5.84%	$1,506.62
408-000-000-531-38-32-00	Gas/Oil Products	$0.00	$0.00	$1,000.00	0.00%	$1,000.00
408-000-000-531-38-35-00	Small Tools	$0.00	$0.00	$1,500.00	0.00%	$1,500.00
408-000-000-531-38-43-02	Training	$0.00	$0.00	$0.00		$0.00
408-000-000-531-38-46-00	Insurance	$115.66	$115.66	$692.00	16.71%	$576.34
Total Flood Control		**$2,253.32**	**$2,253.32**	**$34,733.00**	**6.49%**	**$32,479.68**
Total Utilities and Environment		**$2,253.32**	**$2,253.32**	**$34,733.00**	**6.49%**	**$32,479.68**
Debt Service						
Redemption of Long Term Debt - Proprietary Funds						
408-000-000-591-38-72-01	Strmwater -Principal #I9900038	$0.00	$0.00	$3,588.00	0.00%	$3,588.00
408-000-000-591-38-72-02	Pw-04-691 Principal	$0.00	$0.00	$1,496.00	0.00%	$1,496.00
408-000-000-591-38-72-03	Pw-05-691-023 Principal	$0.00	$0.00	$20,260.00	0.00%	$20,260.00
Total Redemption of Long Term Debt - Proprietary Funds		**$0.00**	**$0.00**	**$25,344.00**	**0.00%**	**$25,344.00**
Interest And Other Debt Service Costs						
408-000-000-592-31-83-01	Strmwater - Interest #I9900038	$0.00	$0.00	$1,131.00	0.00%	$1,131.00
408-000-000-592-31-83-02	Pw-04-691 Interest	$0.00	$0.00	$150.00	0.00%	$150.00
408-000-000-592-31-83-03	Pw-05-691-023 Interest	$0.00	$0.00	$4,457.00	0.00%	$4,457.00
Total Interest And Other Debt Service Costs		**$0.00**	**$0.00**	**$5,738.00**	**0.00%**	**$5,738.00**
Capital Expenditures						
408-000-000-594-31-64-00	Drainage Construction	$0.00	$0.00	$48,500.00	0.00%	$48,500.00
Total Capital Expenditures		**$0.00**	**$0.00**	**$48,500.00**	**0.00%**	**$48,500.00**
Transfer Out						
408-000-000-597-00-00-03	Transfer TO 001-Bldg. Rental	$0.00	$0.00	$5,500.00	0.00%	$5,500.00
Total Transfer Out		**$0.00**	**$0.00**	**$5,500.00**	**0.00%**	**$5,500.00**
Total Debt Service		**$0.00**	**$0.00**	**$85,082.00**	**0.00%**	**$85,082.00**
Total Expenditure		**$2,253.32**	**$2,253.32**	**$119,815.00**	**1.88%**	**$117,561.68**
Total Stormwater		**$2,253.32**	**$2,253.32**	**$119,815.00**	**1.88%**	**$117,561.68**
Sewer						
Expenditure						
409-000-000-520-35-83-02	DOE SRF L1300006 - Interest	$0.00	$0.00	$0.00		$0.00
Utilities and Environment						
Sewer Utilities						
409-000-000-535-00-10-00	Salaries And Wages	$14,281.43	$14,281.43	$149,612.00	9.55%	$135,330.57
409-000-000-535-00-20-00	Employee Benefits	$5,844.66	$5,844.66	$54,093.00	10.80%	$48,248.34
409-000-000-535-00-31-01	Operations And Maintenance	$288.30	$288.30	$12,000.00	2.40%	$11,711.70
409-000-000-535-00-31-02	Chemicals	$107.00	$107.00	$16,000.00	0.67%	$15,893.00
409-000-000-535-00-31-03	Excise Tax	$1,159.88	$1,159.88	$15,530.00	7.47%	$14,370.12
409-000-000-535-00-31-04	Annual Meter Calibrations	$1,592.71	$1,592.71	$3,000.00	53.09%	$1,407.29
409-000-000-535-00-31-05	Doe Annual Permit	$3,195.24	$3,195.24	$3,700.00	86.36%	$504.76
409-000-000-535-00-31-06	Screen Panels And Brushes	$0.00	$0.00	$7,200.00	0.00%	$7,200.00
409-000-000-535-00-31-07	Lab Supplies	$0.00	$0.00	$3,000.00	0.00%	$3,000.00
409-000-000-535-00-31-08	Office Supplies & Customer Service	$31.11	$31.11	$4,800.00	0.65%	$4,768.89
409-000-000-535-00-32-00	Gas/oil Products	$0.00	$0.00	$4,500.00	0.00%	$4,500.00
409-000-000-535-00-35-00	Small Tools	$0.00	$0.00	$3,000.00	0.00%	$3,000.00
409-000-000-535-00-41-00	Attorney Fees	$0.00	$0.00	$4,000.00	0.00%	$4,000.00
409-000-000-535-00-41-01	Professional Services - Electrician	$0.00	$0.00	$20,000.00	0.00%	$20,000.00
409-000-000-535-00-41-02	Professional Services - Computer	$137.50	$137.50	$5,000.00	2.75%	$4,862.50
409-000-000-535-00-41-04	Professional Services - Brush Right of	$0.00	$0.00	$0.00		$0.00
409-000-000-535-00-42-00	Communications	$415.54	$415.54	$5,000.00	8.31%	$4,584.46
409-000-000-535-00-43-01	Travel/meals & Lodging	$0.00	$0.00	$2,500.00	0.00%	$2,500.00
409-000-000-535-00-43-02	Training	$0.00	$0.00	$3,500.00	0.00%	$3,500.00
409-000-000-535-00-45-00	Spray Sludge Disposal Site	$1,333.33	$1,333.33	$45,000.00	2.96%	$43,666.67
409-000-000-535-00-46-00	Insurance	$2,403.22	$2,403.22	$13,894.00	17.30%	$11,490.78
409-000-000-535-00-47-01	Electricity	$4,658.81	$4,658.81	$60,000.00	7.76%	$55,341.19
409-000-000-535-00-47-02	Water	$0.00	$0.00	$5,000.00	0.00%	$5,000.00
409-000-000-535-00-47-03	Sewer	$0.00	$0.00	$7,200.00	0.00%	$7,200.00
409-000-000-535-00-47-04	Garbage Services	$105.69	$105.69	$2,200.00	4.80%	$2,094.31
409-000-000-535-00-47-05	Storm Drainage	$112.11	$112.11	$600.00	18.69%	$487.89
409-000-000-535-00-48-01	Repairs And Maintenance	$0.00	$0.00	$10,000.00	0.00%	$10,000.00

Account Number	Title	Period	Fiscal	Budget	% of Total	Balance
409-000-000-535-00-48-02	Annual Pipe Clean/tv Inspect	$0.00	$0.00	$10,000.00	0.00%	$10,000.00
409-000-000-535-00-48-03	Miscellaneous	$52.00	$52.00	$3,000.00	1.73%	$2,948.00
Total Sewer Utilities		**$35,718.53**	**$35,718.53**	**$473,329.00**	**7.55%**	**$437,610.47**
Total Utilities and Environment		**$35,718.53**	**$35,718.53**	**$473,329.00**	**7.55%**	**$437,610.47**
Debt Service						
Capital Expenditures						
409-000-000-594-63-35-00	Sewer Line Replace/repair	$0.00	$0.00	$10,000.00	0.00%	$10,000.00
409-000-000-594-63-35-02	Engineering - Collection System	$0.00	$0.00	$285,000.00	0.00%	$285,000.00
409-000-000-594-63-35-04	Treatment Plant Roof	$0.00	$0.00	$49,200.00	0.00%	$49,200.00
Equipment						
409-000-000-594-64-35-00	Software Upgrade	$0.00	$0.00	$0.00		$0.00
409-000-000-594-64-35-01	Machinery & Equipment	$0.00	$0.00	$202,425.00	0.00%	$202,425.00
409-000-000-594-64-35-02	Vehicle Purchase -Grit Trlr	$0.00	$0.00	$0.00		$0.00
409-000-000-594-64-35-03	Pump	$0.00	$0.00	$0.00		$0.00
409-000-000-594-64-35-04	Add'l Machinery & Equipment	$0.00	$0.00	$12,000.00	0.00%	$12,000.00
409-000-000-594-64-35-05	Contingency	$0.00	$0.00	$0.00		$0.00
Total Equipment		**$0.00**	**$0.00**	**$214,425.00**	**0.00%**	**$214,425.00**
Total Capital Expenditures		**$0.00**	**$0.00**	**$558,625.00**	**0.00%**	**$558,625.00**
Transfer Out						
409-000-000-597-00-00-02	Transfer TO 001-Bldg. Rental	$0.00	$0.00	$20,275.00	0.00%	$20,275.00
409-000-000-597-00-00-04	Wwtp - TO 403 Srf Redemption	$0.00	$0.00	$389,732.00	0.00%	$389,732.00
409-000-000-597-00-00-05	Wwtp - TO 403 Pwtf Redemption	$0.00	$0.00	$15,525.00	0.00%	$15,525.00
409-000-000-597-00-00-10	TO 403 Wwtp Pwtf 06-962-017	$0.00	$0.00	$13,326.00	0.00%	$13,326.00
409-000-000-597-00-00-11	TO 403 Wwtp Pwtf Red05-691-023	$0.00	$0.00	$24,718.00	0.00%	$24,718.00
409-000-000-597-00-00-12	TO 403 Wwtp Pwtf Red04-691-Pre	$0.00	$0.00	$1,646.00	0.00%	$1,646.00
409-000-000-597-00-00-13	WWTP to 403 PWTF PR09-951-050	$0.00	$0.00	$0.00		$0.00
409-000-000-597-00-00-14	TO 404 Wwtp B of P Reserve	$0.00	$0.00	$2,965.00	0.00%	$2,965.00
409-000-000-597-00-00-15	TO 403 Wwtp-B of P 2008 Redemp	$14,823.40	$14,823.40	$29,648.00	50.00%	$14,824.60
409-000-000-597-00-00-16	Wwtp - TO 404 Srf Reserve	$0.00	$0.00	$17,588.00	0.00%	$17,588.00
Total Transfer Out		**$14,823.40**	**$14,823.40**	**$515,423.00**	**2.88%**	**$500,599.60**
Total Debt Service		**$14,823.40**	**$14,823.40**	**$1,074,048.00**	**1.38%**	**$1,059,224.60**
Total Expenditure		**$50,541.93**	**$50,541.93**	**$1,547,377.00**	**3.27%**	**$1,496,835.07**
Total Sewer		**$50,541.93**	**$50,541.93**	**$1,547,377.00**	**3.27%**	**$1,496,835.07**
Grand Totals		**$278,184.79**	**$278,184.79**	**$4,958,247.00**	**5.61%**	**$4,680,062.21**

CITY OF ILWACO
CITY COUNCIL AGENDA ITEM BRIEFING

A. Meeting Dates: Council Workshop: Public Hearing:
Council Discussion Item: 2/9/15 Council Business Item: 2/23/15

B. Issue/Topic: **Amendment to Ordinance 834, Adopting Salary Classifications & Establishing the 2015 Pay Table**

C. Sponsor(s):
1. Cassinelli 2.

D. Background (overview of why issue is before council):
1. It appears that establishing additional grade levels for Fire Department officers would improve the City's ability to manage levels of responsibility and pay levels.

E. Discussion (specific details relevant to the issue, pros/cons, alternatives and any other decision-making details)
1. Amending the current Salary Classifications by adding additional grades will allow for a clear and consistent avenue for definition of responsibilities and pay.

F. Impacts:
1. Fiscal: Amending Ordinance 834 will have no direct fiscal impact until a promotion to a higher grade is approved by council.
2. Legal:
3. Personnel:
4. Service/Delivery:

G. Planning Commission: ☐ Recommended ☒ N/A ☐ Public Hearing on

H. Time Constraints/Due Dates:

I. Proposed Motion: **I move to (Approve/Deny) the amendment of Ordinance 834 to include the grades of Fire Administrator 8, 9, and 10; and Fire Chief 9, 10, and 11.**

CITY OF ILWACO

ORDINANCE NO. XXX

AN ORDINANCE OF THE CITY OF ILWACO, WASHINGTON, AMENDING THE 2015 SALARY CLASSIFICATIONS AS SET FORTH IN ORDINANCE 834.

WHEREAS, the City of Ilwaco is committed to a policy that places every employee on a pay scale; and

WHEREAS, the city must be financially responsible in implementing compensation plan changes; and

WHEREAS, the City Council has determined that it will have the final approval on all pay policy issues; and

WHEREAS, no change in any employee personnel status (rate of pay) is intended by this action.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ILWACO, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. The City Council of the City of Ilwaco, Washington, adopts the City of Ilwaco Position Grades and Brief Descriptions, attached hereto as Exhibit "A."

Section 2. Each employee's pay shall remain unchanged through this action even though the position grade title may be modified.

Section 3. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this ordinance.

Section 4. Referendum and Effective Date. This Ordinance, being an exercise of a power specifically delegated to the city legislative body, is not subject to referendum, and shall take effect and is in full force five (5) days after its passage, approval and publication of an approved summary of the title as provided by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF ILWACO, AND SIGNED IN AUTHENTIFICATION OF ITS PASSAGE THIS XX DAY OF XXXX, 2015

_____

Mike Cassinelli, Mayor

ATTEST:

_____

Holly Beller, City Clerk

VOTE	Jensen	Karnofski	Marshall	Chambreau	Forner	Cassinelli
Ayes						
Nays						
Abstentions						
Absent						

PUBLISHED:

EFFECTIVE:

Exhibit "A"
City of Ilwaco
Position Grades and Brief Descriptions

Administrative Position	Grade	Level
Non-Exempt Positions		
Office Assistant 3	3	Office assistant
Office Assistant 4	4	Office assistant/billing clerk
Office Assistant 5	5	Senior office assistant/billing clerk
Deputy City Clerk 5	5	Deputy city clerk
Deputy City Clerk 6	6	Deputy city clerk
Deputy City Clerk 7	7	Deputy city clerk
Deputy City Clerk 8	8	Senior deputy city clerk
Exempt Positions		
City Clerk 8	8	City clerk
City Clerk 9	9	City clerk
City Clerk 10	10	City clerk
City Clerk 11	11	Senior city clerk
Treasurer 8	8	City treasurer
Treasurer 9	9	City treasurer
Treasurer 10	10	City treasurer
Treasurer 11	11	Senior city treasurer
Treasurer 12	12	Senior city treasurer

Office Assistant 3:-Office assistant. Entry-level position. Receives work direction, guidance and supervision from senior office staff members. Develops office skills and experience with guidance from others. Assists with utility billing.

Office Assistant 4: Office assistant/billing clerk. Performs many tasks independently. Proficient with word processing and spreadsheets. Expected to handle routine city business on the telephone and with visitors. Able to do most utility billing tasks.

Office Assistant 5: Senior office assistant/billing clerk. Performs most tasks independently without guidance or supervision. Determines own priorities. Proficient with word processing, spreadsheet and databases. Configures new computers for printing, simple networking and email and application installation. Does utility billing independently. Supervises others, as necessary.

Deputy City Clerk 5: Deputy City clerk. Entry-level position. Performs or is capable of performing all duties equivalent to Office Assistant 5. Receives work direction, guidance and supervision from the city clerk, city treasurer or mayor in matters involving the city clerk's duties.

Deputy City Clerk 6: Deputy City clerk. Performs some city clerk tasks independently, with

minimum guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

Deputy City Clerk 7: Deputy City clerk. Performs many city clerk tasks independently, with minimum guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

Deputy City Clerk 8: Senior deputy city clerk. Performs most city clerk tasks independently without guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

City Clerk 8: City clerk. Entry-level position. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs some city clerk tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. *Note: A change in position from Assistant Clerk 7 to City Clerk 7 would normally be accompanied by a two-step, in-grade increase and a change from non-exempt status to exempt status.*

City Clerk 9: City clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs most city clerk tasks independently with minimum guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

City Clerk 10: City clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs all duties of the city clerk without guidance or supervision. Drafts simple legislation that can be enacted into law without undue revision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Represents the city in outside meetings, as appropriate.

City Clerk 11: Senior city clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs all duties of the city clerk without guidance or supervision. Drafts complex legislation that can be enacted into law without undue revision. Briefs the mayor and City Council on the effect of proposed legislation. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules.

Writes grant applications. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters.

Treasurer 8: City treasurer. Entry-level position. Performs some treasurer tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Trained in accounting and develops experience with accounting software and city transactions and budgeting.

Treasurer 9: City treasurer. Performs most treasurer tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Trained in accounting and develops experience with accounting software and city transactions and budgeting.

Treasurer 10: City treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has some advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Performs all the duties of the city clerk, if assigned.

Treasurer 11: Senior city treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters. Performs all the duties of the city clerk, if assigned.

Treasurer 12: Senior city treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters. Performs all the duties of the city clerk, if assigned. Experienced and possesses necessary skills for position and/or is highly capable of seeking needed resources.

Field Positions	Grade	
Non-Exempt Positions		
Utility Worker 3	3	Entry level
Utility Worker 4	4	Established (gaining experience)
Utility Worker 5	5	Experienced
Utility Worker 6	6	Experienced (works independently)
Utility Worker 7	7	Lead
Utility Supervisor 8	8	Senior lead
Utility Supervisor 9	9	Senior
Utility Supervisor 10	10	Senior
Utility Supervisor 11	11	Senior
Plant Operator 5	5	Entry level
Plant Operator 6	6	Established (gaining experience)
Plant Operator 7	7	Experienced
Plant Operator 8	8	Experienced (works independently)
Plant Operator 9	9	Senior/lead operator
Plant Operator 10	10	Senior
Plant Operator 11	11	Senior
Mechanic 7	7	Entry level
Mechanic 8	8	Experienced
Mechanic 9	9	Senior
Exempt Positions		
Utility Manager 7	7	Entry level
Utility Manager 8	8	Experienced
Utility Manager 9	9	Experienced
Utility Manager 10	10	Senior
Fire Administrator 7	7	Experienced
Fire Administrator 8	8	Experienced
Fire Administrator 9	9	Experienced
Fire Administrator 10	10	Senior
Fire Chief 8	8	Experienced
Fire Chief 9	9	Experienced
Fire Chief 10	10	Experienced
Fire Chief 11	11	Experienced
Fire Chief 12	12	Senior

Utility Worker3: Entry-level utility worker. Receives direction and guidance from others.

Utility Worker4: Established utility worker gaining experience. Receives direction and guidance from others.

Utility Worker5: Experienced utility worker. Works with some supervision and guidance.

Utility Worker 6: Experienced utility worker. Works independently.

Utility Worker 7: Lead utility worker/supervisor. Works independently and gives guidance to others. Has responsibility for one utility area (e.g. sewer or water distribution, streets and sidewalks, equipment).

Utility Supervisor 8: Utility supervisor. Receives some guidance and supervision from others. Participates in all aspects of utility operations. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Takes a lead role in configuration management. Prepares the department budgets with guidance.

Utility Supervisor 9: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Supervisor 10: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Supervisor 11: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance. Experienced and possesses necessary skills for position and/or is highly capable of seeking needed resources.

Plant Operator 5: Entry-level plant operator. Receives direction and guidance from others. Capable of some plant operations and minor repairs without assistance. Communicates plant status to others. Performs other Public Works duties.

Plant Operator 6: Established with at least one year of full-time plant operation experience. Receives direction and guidance from others. Capable of most routine plant operations and minor repairs without assistance. Communicates plant status to others verbally, in writing and through

means of computer file transfers. Primary duties are plant operations. Performs other Public Works duties.

Plant Operator 7: Experienced plant operator with at least two years of full-time plant operation experience. Receives direction and guidance from others. Capable of most routine plant operation and minor repairs without assistance. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are plant operations. Performs other Public Works duties.

Plant Operator 8: Experienced plant operator with at least four years of full-time plant operation experience. Receives some direction and guidance from others. Provides some supervision and guidance to others. Capable of plant operations requiring the exercise of judgment, including making process adjustments and moderate repairs without supervision. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are plant and systems operations.

Plant Operator 9: Lead plant operator/plant supervisor with at least five years of full-time plant operation experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are systems operations and supervision.

Plant Operator 10: Senior plant operator/plant supervisor with at least five years of full-time plant operation experience combined with demonstrated supervisory experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs at the plant and throughout the entire distribution system without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Sets priorities and assists in preparing/managing the budget. Primary duties are systems operations and supervision.

Plant Operator 10: Senior plant operator/plant supervisor with at least eight years of full-time plant operation experience combined with demonstrated supervisory experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs at the plant and throughout the entire distribution system without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Sets priorities and assists in preparing/managing the budget. Primary duties are systems operations and supervision.

Mechanic 7: Entry-level mechanic. Capable of maintaining vehicles and equipment with some supervision and guidance.

Mechanic 8: Experienced mechanic. Capable of maintaining vehicles, equipment and city infrastructure equipment with minimum supervision and guidance. Sets own priorities. Supervises others, as necessary.

Mechanic 9: Senior mechanic. Capable of maintaining vehicles, equipment and city infrastructure equipment without supervision. Sets own work schedules and priorities. Supervises others.

Utility Manager 7: Entry-level utility manager. Receives guidance and supervision from others. Participates in some aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Participates in configuration management. Assists in developing the department budget.

Utility Manager 8: Experienced utility manager. Receives some guidance and supervision from others. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Takes a lead role in configuration management. Prepares the department budgets with guidance.

Utility Manager 9: Experienced utility manager/director. Works independently. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Provides management information on status of the city infrastructure and does tradeoff analysis in problem solving and in proposing changes. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Manager 10: Senior utility manager/director. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the City Engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Provides management information on status of the city infrastructure and does tradeoff analysis in problem solving and in proposing changes. Conceives and effectively executes improvement projects without supervision. Ensures effective configuration management. Prepares the department budget without guidance.

Fire Administrator 7: Reports directly to the Fire Chief and participates in the development and maintenance of all emergency management plans, support materials, reports and related documents. Conducts directed research, as well as independent internet-based research on a variety of emergency management and related topics. Develops or compiles documents, correspondence and materials, including all programmatic reports, as well as awards from non-government funding sources. Monitors and maintains federal, state, allied organization, professional and county newsletters, reports and related documents as directed.

Fire Administrator 8: Reports directly to the Fire Chief and works with little or no supervision under the Fire Chief's directions and performs the duties of Fire Administrator 7, as required. Obtains and perform duties as an EMT and Firefighter, respiratory testing officer for SCBA face piece and M95 mask fit tests and directs the training or assigns instructors to training classes. The Fire Administrator 8, documents all training and Fire/EMS requirements for compliance with National Fire Incident Reporting System, L&I, NFPA and FEMA standards, including evaluating fire station and fire ground safety standards procedures and enforcement. Fire Administrator 8, also records vehicle, station and equipment inspections, records and files personnel accident reports, create fire department related forms, performs or directs firefighters in station maintenance duties and participates in those duties. The Fire Administrator along with the Fire Chief, councils, evaluates and gives corrective disciplinary actions to department members. In the absence of Chief Fire Officers at an emergency incident performs as the Incident Commander until relieved.

Fire Administrator 9: Reports directly to the Fire Chief and performs the duties of Fire Administrator 7 & 8, as required. Attend workshops and training on current ordinances, regulations and building codes, participates in fire safety programs and distribution of fire prevention materials and smoke detectors. Fire Administrator 9, works with other fire jurisdictions on fire and natural disaster training, drill planning and fire standards. The Fire Administrator documents arson fires, fire statistics, create fire maps, publications and presentations.

Fire Administrator 10: Reports directly to the Fire Chief and assist the Fire Chief with the inspection of properties to ensure compliance with fire codes, ordinances and laws. Review building plans with the Fire Chief and document needed changes, corrections and violations. Perform the duties of Fire Administrator 7, 8, & 9, as needed, or duties as directed by the Fire Chief.

Fire Chief 8: Reports directly to the Mayor, plans, organizes, directs and evaluates the Ilwaco Volunteer Fire Department, which protects lives and property from fire and hazardous incident damage. Provides timely emergency medical services in the City of Ilwaco and other neighboring municipalities, which have contracted for fire protection services. Ensures the department incorporates up-to-date, efficient fire prevention, fire suppression, hazardous incident mitigation and emergency medical technologies into its procedures, equipment and methods. Recruits, performs back ground checks and trains new volunteer firefighters.

Fire Chief 9: Reports directly to the Mayor, and the Fire Chief will administer, plan, direct and control all aspects of the Ilwaco Volunteer Fire Department including the administration, fire suppression, fire prevention and rescue activities of the department as authorized by and incompliance with all City Ordinances, State or Federal laws. The Fire Chiefs administrative duties include the direct control of equipment purchasing, department expenditures, the preparation of the budget and the hiring, assigning, or the appointment and termination of

Officers and Volunteer members. The Fire Chief is responsible for Fire Code review, corrective code improvements, the compliance and the approval of building plans. The Fire Chief shall carry out all of the duties included in Fire Chief 8, and additional duties as required.

Fire Chief 10: Reports directly to the Mayor, and the Fire Chief will develop a long-range capital plan for apparatus replacement, personnel changes, the need for additional fire stations, the maintenance of all of the fire facilities, the relocation and/or replacement. The Fire Chief will participate in local and regional emergency preparedness drills and the planning process. The Fire Chief shall ensure that adequate mutual aid agreements are in place for major emergency incidents. The Fire Chief shall carry out all of the duties included in Fire Chief 8 and 9, and, any additional duties as required.

Fire Chief 11 Reports directly to the Mayor and shall carry out all duties included in Fire Chief 8, 9 and 10, and, any additional duties as required. The Fire Chief shall ensure that the Mayor, Council and all Department heads, and staff participate in Natural Disaster preparedness drills, the understanding of the National Incidents Management System (NIMS), including their job requirements, responsibilities and Federal Documentation requirements during a disaster.

Fire Chief 12 Reports directly to the Mayor and shall carry out all duties included in Fire Chief 8, 9, 10 and 11, and, represents the department at various local and state training seminars, hearings and meetings. Fire Chief 12 is responsible for managing and coordinating and serving as Incident Commander (IC) in the City's Emergency Operation Center (EOC) during Major Events.

CITY OF ILWACO
ORDINANCE NO. 834 EXHBIT B

2015 PAY TABLE (Effective January 1, 2015)

2015 City of Ilwaco
Exempt Employee Annual Salary Scale

Step	1	2	3	4	5	6	7	8	9	10
Grade	Years to Step	1	1	1	2	2	2	3	3	3
3	22517	23268	24018	24769	25520	26271	27022	27773	28524	29274
4	25276	26119	26962	27804	28647	29490	30332	31175	32018	32860
5	28280	29223	30166	31109	32053	32996	33939	34882	35825	36769
6	31524	32575	33626	34678	35729	36781	37832	38883	39935	40986
7	35031	36198	37365	38533	39700	40867	42034	43202	44369	45536
8	38795	40088	41381	42674	43967	45260	46553	47846	49139	50431
9	42850	44278	45707	47135	48564	49992	51421	52849	54278	55706
10	47188	48760	50333	51906	53479	55051	56624	58197	59770	61342
11	51907	53635	55362	57078	58807	60512	62237	63965	65692	67420
12	57674	59594	61513	63420	65341	67236	69152	71072	72991	74911

2015 City of Ilwaco
Non-Exempt/Hourly Employee Hourly Rate of Pay Scale

Step	1	2	3	4	5	6	7	8	9	10
Grade	Years to Step	1	1	1	2	2	2	3	3	3
3	10.83	11.19	11.55	11.91	12.27	12.63	12.99	13.35	13.71	14.07
4	12.15	12.56	12.96	13.37	13.77	14.18	14.58	14.99	15.39	15.80
5	13.60	14.05	14.50	14.96	15.41	15.86	16.32	16.77	17.22	17.68
6	15.16	15.66	16.17	16.67	17.18	17.68	18.19	18.69	19.20	19.70
7	16.84	17.40	17.96	18.53	19.09	19.65	20.21	20.77	21.33	21.89
8	18.65	19.27	19.89	20.52	21.14	21.76	22.38	23.00	23.62	24.25
9	20.60	21.29	21.97	22.66	23.35	24.03	24.72	25.41	26.09	26.78
10	22.69	23.44	24.20	24.95	25.71	26.47	27.22	27.98	28.74	29.49
11	24.96	25.79	26.62	27.44	28.27	29.09	29.92	30.75	31.58	32.41
12	27.73	28.66	29.58	30.49	31.41	32.32	33.24	34.17	35.09	36.01

CITY OF ILWACO
CITY COUNCIL AGENDA ITEM BRIEFING

A. Meeting Dates: Council Workshop: Public Hearing:
Council Discussion Item: 2/9/15 Council Business Item: 2/23/15

B. Issue/Topic: **Department of Ecology State Revolving Fund Loan Agreement for Sahalee Sewer Improvements Project**

C. Sponsor(s):
1. Mike Cassinelli 2.

D. Background (overview of why issue is before council):
1. The DOE provides low-interest loan funds to governments for construction of water pollution control facilities. The Sahalee Sewer Improvements Project was submitted by the City of Ilwaco for loan funds, and was approved on July 10, 2012.

E. Discussion (specific details relevant to the issue, pros/cons, alternatives and any other decision-making details)
1. The City has not been able to enter into a contract for the project due to the Comprehensive Plan being out of date. The Dept. of Ecology required two items prior to entering into the grant contract. 1) A letter from Dept. of Health stating that the improvements were necessary for public health and safety, and 2) assurance from the city that the comp plan will be updated in a timely manner. Both requirements have been met.

F. Impacts:
1. Fiscal: There are three types of funds included in the total loan amount of $2,199,280.00
    a. SRF Forgivable Loan Principal of $137,105.00
    b. Grant from the Centennial Clean Water Program of $540,843.00
    c. SRF Loan of $1,521,332.00 payable over 20 years at 1.4% interest, and 1% admin fee.
2. Legal: Reviewed by City Attorney, Heather Reynolds
3. Personnel:
4. Service/Delivery:

G. Planning Commission: ☐ Recommended ☒ N/A ☐ Public Hearing on

H. Staff Comments:

I. Time Constraints/Due Dates:

J. Proposed Motion: **I move to authorize the mayor to execute the proposed Water Quality Combined Financial Assistance Agreement between the State of Washington Department of Ecology and the City of Ilwaco (WQC-2015-Ilwaco-00052).**

HEATHER REYNOLDS

ATTORNEY AT LAW
P.O. Box 145 • 800 Exchange Street, Suite 330
Astoria, Oregon 97103
(503) 325-8449
FAX (503) 338-2969
heather@reynoldsattorney.com

February , 2015

Department of Ecology
Water Quality
P.O. Box 47600
Olympia, Washington 98504-7600

RE: Agreement WQC-2015-Ilwaco-00052

To whom it may concern:

I am an attorney at law admitted to practice in the State of Washington and the duly appointed attorney of The City of Ilwaco [the Recipient], and I have examined any and all documents and records pertinent to the Loan Agreement.

Based on the foregoing, it is my opinion that:

A. The City of Ilwaco is a duly organized and legally existing municipal corporation or political subdivision under the laws of the State of Washington or a federally recognized Indian tribe;

B. The City of Ilwaco has the power and authority to execute and deliver and to perform its obligations under the Loan Agreement;

C. The Loan Agreement has been duly authorized and executed by City of Ilwaco's authorized representatives and, to my best knowledge and after reasonable investigation, all other necessary actions have been taken to make the Loan Agreement valid, binding, and enforceable against the City of Ilwaco in accordance with its terms, except as such enforcement is affected by bankruptcy, insolvency, moratorium, or other laws affecting creditors' rights and principles of equity if equitable remedies are sought;

D. To my best knowledge and after reasonable investigation, the Loan Agreement does not violate any other agreement, statute, court order, or law to which the City of Ilwaco is a party or by which it or its properties are bound;

E. There is currently no litigation seeking to enjoin the commencement or completion of the Project or to enjoin the City of Ilwaco from entering into the Loan Agreement or from accepting or repaying the Loan. The City of Ilwaco is not a party to litigation which will materially affect its ability to repay such Loan on the terms contained in the Loan Agreement; and

F. The Loan Agreement constitutes a valid obligation of the City of Ilwaco payable from the Net Revenues of the Utility.

Capitalized terms used herein will have the meanings ascribed thereto in the Loan Agreement between the City of Ilwaco and the Department.

Sincerely,

HEATHER REYNOLDS
Attorney at Law

DEPARTMENT OF ECOLOGY
State of Washington

Agreement WQC-2015-Ilwaco-00052

Water Quality Combined Financial Assistance AGREEMENT

BETWEEN THE STATE OF WASHINGTON DEPARTMENT OF ECOLOGY

AND

CITY OF ILWACO

This is a binding Agreement entered into by and between the State of Washington, Department of Ecology, hereinafter referred to as "ECOLOGY" and CITY OF ILWACO, hereinafter referred to as the "RECIPIENT" to carry out with the provided funds activities described herein.

GENERAL INFORMATION

Project Title:	Sahalee Subdivision Sewer System Improvement
Total Cost:	$2,535,280.00
Total Eligible Cost:	$2,199,280.00
Ecology Share:	$2,199,280.00
Recipient Share:	$0.00
The Effective Date of this Agreement is:	07/01/2014
The Expiration Date of this Agreement is no later than	12/31/2017
Project Type:	Wastewater Facility

Project Short Description:

The sewer system in the Sahalee Subdivision includes failing 4 and 6 inch asbestos concrete (AC) and a lift station. Sewer breaks have resulted in overflows of raw sewage to the ground and the condition of the sewers and lift station present further opportunities for inadvertent discharge of sewage and introduction of I/I into the system. This project will replace the sanitary sewer system serving the Sahalee Subdivision.

Project Long Description:

This project will replace the sanitary sewer system serving the Sahalee Subdivision with approximately 2,000 lf of 8-inch gravity sewer, 1,630 lf of 6-inch force main, 17 grinder pumps and 4,200 lf of small diameter pressure main and a submersible lift station. The proposed project will relocate the sewer on Nesadi and the lift station and discharge from the lift station to minimize potential impact from slope instability.

The RECIPIENT has prepared the 2013 Facility Plan Update/Sahalee Subdivision Preliminary Engineering Report to determine the preferred alternative for replacement of the Sahalee sewer system. The Report evaluated alternative

replacement scenarios for the sewer system in Sahalee and evaluated the project alternatives based on the 20-year life cycle cost, environmental impact and public acceptance.

The Sahalee Subdivision is located on a steep hillside in the southwest portion of the city.
The original sanitary sewer system, installed in the mid-1970s, includes 4 and 6 inch AC sewers and a lift station. The sewers and lift station are failing. The lift station is a wet pit/dry pit design with two self-priming centrifugal sewage pumps. The self-priming system is easily clogged which leads to pump shutdown and could result in overflows from the liftstation. The steel reinforced wet well/dry well structure is corroding which allows infiltration to enter the lift station and presents the possibility that sewage would discharge from the station if the water level is high. The floor separating the dry well from the wet well, which also supports the pumps, is badly corroded.

Sewer breaks have resulted in overflows of raw sewage to the ground and the condition of the sewers and lift station present further opportunities for inadvertent discharge of sewage and introduction of I/I into the system. Closed Circuit TV (CCTV) inspection of the AC sewers revealed cracked pipe, and off-set joints. The CCTV camera was not able to access approximately 1,400 lf of pipe due to severe offset joints. The existing gravity sewer on Nesadi Drive and the force main from the lift station traverse sections of the hillside that have experienced slope creep. The sewer and force main have broken several times in the past due to the slope instability.

The sewer system has exceeded its useful life and the impact of the antiquated system affects all rate payers in Ilwaco due to the cost of repairing sewer leaks, introduction of I/I into the system, and potential for environmental damage due to sewer breaks or leaks.

Overall Goal:

The overall goal of the project is to provide a reliable and cost effective sanitary sewer system for the Sahalee Subdivision.

RECIPIENT INFORMATION

Organization Name: CITY OF ILWACO

Federal Tax ID: 91-6001443
DUNS Number: 003206976

Mailing Address: PO Box 548
Ilwaco, WA, 98624

Physical Address: 120 First Avenue N
Ilwaco, Washington, 98624

Contacts

Project Manager	Nancy Lockett Engineer 701 Dexter Ave. N. Suite 200 Seattle, Washington, 98109 Email: nlockett@g-o.com Phone: (206) 284-0860
Billing Contact	Ariel Smith Treasurer PO Box 548 120 First Ave N Ilwaco, Washington, 98624 Email: treasurer@ilwaco-wa.gov Phone: (360) 642-3145
Authorized Signatory	Micheal Cassinelli Mayor PO Box 548 120 First Ave N Ilwaco, Washington, 98624 Email: mayor@ilwaco-wa.gov Phone: (360) 642-3145

ECOLOGY INFORMATION

Mailing Address: Department of Ecology
Water Quality
PO BOX 47600
Olympia, WA 98504-7600

Physical Address: Water Quality
300 Desmond Drive
Lacey, WA 98503

Contacts

Project Manager	Dave Dougherty P.O Box 47775 Olympia, Washington, 98504-7775 Email: ddou461@ecy.wa.gov Phone: (360) 407-6278
Financial Manager	Bill Hashim P.O. Box 47600 Olympia, Washington, 98504-7600 Email: bhas461@ecy.wa.gov Phone: (360) 407-6549

RECIPIENT agrees to furnish the necessary personnel, equipment, materials, services, and otherwise do all things necessary for or incidental to the performance of work as set forth in the Scope of Work.
RECIPIENT agrees to read, understand, and accept all information contained within this entire Agreement. Furthermore, RECIPIENT acknowledges that they have reviewed the terms and conditions of this Agreement, Scope of Work, attachments, all incorporated or referenced documents, as well as all applicable laws, statutes, rules, regulations, and guidelines mentioned in this Agreement.

This Agreement contains the entire understanding between the parties, and there are no other understandings or representations other than as set forth, or incorporated by reference, herein.
This Agreement shall be subject to the written approval of Ecology's authorized representative and shall not be binding until so approved.

The signatories to this Agreement represent that they have the authority to execute this Agreement.
IN WITNESS WHEREOF, the parties hereby sign this Agreement

Washington State
Department of Ecology

Program Manager Date

Heather Bartlett

Water Quality

CITY OF ILWACO

Micheal Cassinelli Date

Mayor

Mike Cassinelli

Mayor Date

SCOPE OF WORK

Task Number: 1 **Task Cost:** $5,850.00

Task Title: Project Administration/Management

Task Description:

A. The RECIPIENT will administer the project. Responsibilities will include, but not be limited to: maintenance of project records; submittal of requests for reimbursement and corresponding backup documentation, progress reports and recipient closeout report (including photos); compliance with applicable procurement, contracting, and interlocal agreement requirements; application for, receipt of, and compliance with all required permits, licenses, easements, or property rights necessary for the project; and submittal of required performance items.

B. The RECIPIENT must manage the project. Efforts will include: conducting, coordinating, and scheduling project activities and assuring quality control. Every effort will be made to maintain effective communication with the RECIPIENT's designees; ECOLOGY; all affected local, state, or federal jurisdictions; and any interested individuals or groups. The RECIPIENT must carry out this project in accordance with any completion dates outlined in this agreement.

Task Goal Statement:

Properly managed project that meets agreement and Ecology administrative requirements.

Task Expected Outcome:

* Timely and complete submittal of requests for reimbursement, quarterly progress reports and recipient closeout report.
* Properly maintained project documentation

Recipient Task Coordinator: Elaine McMillian

Project Administration/Management

Deliverables

Number	Description	Due Date
1.1	Progress Reports	12/31/2014
1.2	Recipient Closeout Report	12/31/2017
1.3	Project Outcome Summary Report	12/31/2017

SCOPE OF WORK

Task Number: 2 **Task Cost:** $274,210.00

Task Title: Project Design

Task Description:

A. The RECIPIENT will design the Sahalee Subdivision Sewer System Improvements Project. The design must comply with WAC 173-240. Elements of the design will include:

1. Approximately 2,000 lf of 8-inch gravity sewer.
2. 1,630 lf of 6-inch force main.
3. 17 grinder pumps.
4. 4,200 lf of small diameter pressure main.
5. Submersible lift station.

B. The RECIPIENT will complete the facility designs within one year after the execution of this agreement.

C. The RECIPIENT will comply with federal cross cutting requirements, and assist ECOLOGY with any consultation required by federal resource protection agencies. The RECIPIENT will submit a final Cross Cutter Report to ECOLOGY for review and final determination of impacts for each of the required federal cross cutters. Costs incurred for construction activities that occur before federal cross cutter approval will not be eligible for reimbursement.

D. Investment Grade Efficiency Audit. The RECIPIENT will procure a third party analysis of potential energy and water efficiency measures for incorporation into the design of any wastewater facilities. The analysis will identify potential efficiency measures, provide cost estimates, and evaluate their cost effectiveness.

E. The RECIPIENT will secure all required permits.

Task Goal Statement:

.

Task Expected Outcome:

.

Recipient Task Coordinator: Nancy Lockett

Project Design

Deliverables

Number	Description	Due Date
2.1	A copy of all executed contracts for engineering and design work to be performed under this task. The RECIPIENT must submit contracts before ECOLOGY will provide reimbursement for work performed under this task	
2.2	Documentation of the RECIPIENT's process for procuring engineering services	
2.3	Two copies of the draft and final design to ECOLOGY for review and approval	
2.4	Two copies of final Cross Cutter Report to ECOLOGY's Project Manager for ECOLOGY's review and concurrence	
2.5	Investment Grade Efficiency Audit documentation	

SCOPE OF WORK

Task Number: 3 **Task Cost:** $35,120.00

Task Title: Easement/Property Acquisition

Task Description:

A. The RECIPIENT will obtain any necessary construction and maintenance easements for the location of individual grinder pumps on private property and easements required for the siting of the new lift station. The locations of the individual grinder pump stations and new lift station were identified in Task 2.

B. Eligible costs under this task are limited to the work required to prepare and execute the easements. Any purchase of land is not eligible for reimbursement under this agreement.

Task Goal Statement:

.

Task Expected Outcome:

.

Recipient Task Coordinator: Nancy Lockett

Easement/Property Acquisition

Deliverables

Number	Description	Due Date
3.1	Documentation of the process used by the RECIPIENT to prepare and execute the required easements.	
3.2	.	

SCOPE OF WORK

Task Number: 4 **Task Cost:** $214,120.00

Task Title: Construction Management

Task Description:

A. The RECIPIENT will provide adequate and competent construction management and inspection for the PROJECT. This may involve the procuring of professional services.

B. The RECIPIENT will develop a detailed Construction Quality Assurance Plan (WAC 173-240-075) and submit it to ECOLOGY for approval. This plan must describe the activities which the RECIPIENT will undertake to achieve adequate and competent oversight of all construction work.

C. The RECIPIENT will ensure construction progresses according to a timely schedule developed to meet completion dates indicated in the construction contract. The RECIPIENT will revise or update the schedule whenever major changes occur and resubmit to the ECOLOGY. In the absence of any major changes, the RECIPIENT will describe progress of the construction in the quarterly progress reports.

D. Upon completion of construction, the RECIPIENT will provide ECOLOGY's Project Manager with a set of "as-built" plans (i.e., record construction drawings which reflect changes, modifications, or other significant revisions made to the project during construction).

E. Upon project completion, the RECIPIENT will submit the Declaration of Construction Completion form to the ECOLOGY in accordance with WAC 173-240-090. The form, when signed by a professional engineer, indicates that the project was completed in accordance with the plans and specifications and major change orders approved by the ECOLOGY, and is accurately shown on the as-built plans.

Task Goal Statement:

Task Expected Outcome:

Recipient Task Coordinator: Nancy Lockett

Construction Management

Deliverables

Number	Description	Due Date
4.1	Submittal of a copy of all executed contracts for engineering services and construction performed under this task. The RECIPIENT must submit executed contracts before ECOLOGY will provide reimbursement for work performed under this task.	
4.2	Documentation of the RECIPIENT's process for procuring engineering services	
4.3	Submittal of a Construction Quality Assurance Plan.	
4.4	Submittal of "as-built" plans.	
4.5	Submittal of a Declaration of Construction completion.	

SCOPE OF WORK

Task Number: 5 **Task Cost:** $1,669,980.00

Task Title: Project Construction

Task Description:

A. The RECIPIENT will include ECOLOGY's specification insert in the bid documents. The RECIPIENT will execute a contract with the low responsive responsible bidder to construct the PROJECT.

B. The RECIPIENT will complete the construction in accordance with the approved Plans and Specifications. The construction project will include:

1. Approximately 2,000 lf of 8-inch gravity sewer.
2. 1,630 lf of 6-inch force main.
3. 17 grinder pumps.
4. 4,200 lf of small diameter pressure main.
5. Submersible lift station.

C. The RECIPIENT will conduct a pre-construction conference and invite ECOLOGY staff.

D. The RECIPIENT must submit Bid Tabs, the Notice of Award, and a copy of the executed contract before the ECOLOGY will provide reimbursement for work performed under this task.

E. The RECIPIENT will negotiate any change orders to the construction contract, and submit the change orders to ECOLOGY for approval.

Task Goal Statement:

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Task Expected Outcome:

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Recipient Task Coordinator: Nancy Lockett

Project Construction

Deliverables

Number	Description	Due Date
5.1	Satisfactory completion of the PROJECT in conformance with the approved Plans and Specifications.	
5.2	Bid Tabs, the Notice of Award, and a copy of the executed contract.	
5.3	Copy of the advertisement for bids and the affidavit of publication.	
5.4	Copy of the notice to proceed	
5.5	Minutes of pre-construction meeting.	

BUDGET

Funding Distribution EF150017

Funding Title: SRF Forgivable Principal
Funding Type: forgivable loan
Funding Expiration Date: 12/31/2017
Funding Effective Date: 07/01/2014
Funding Source:

Title: CWSRF - SFY15
Type: Federal
CFDA: 66.458
Assistance Agreement:
Description: The Clean Water Act (CWA) (33 U.S.C. §1251-1387) established the State Revolving Fund (SRF) low interest loan program (40. C.F.R. Part 31, 35 Sub Part K). Funds come from a combination of Federal Capitalization Grant provided through the Environmental Protection Agency (EPA), state match, and revolved funds from repayments and interest on previous loans.

Recipient Match %: 0
InKind Interlocal Allowed: No
InKind Other Allowed: No
Is this Funding Distribution used to match a federal grant? No

SRF Forgivable Principal	Task Total
Project Administration/Management	$ 0.00
Project Design	$ 137,105.00
Easement/Property Acquisition	$ 0.00
Construction Management	$ 0.00
Project Construction	$ 0.00
Total:	**$ 137,105.00**

BUDGET

Funding Distribution EG150018

Funding Title: CCWF
Funding Type: grant
Funding Expiration Date: 12/31/2017
Funding Effective Date: 07/01/2014
Funding Source:

Title: Centennial - SFY15
Type: State
CFDA:
Assistance Agreement:
Description: The Centennial Clean Water Program provides grants for nonpoint source pollution control activity projects and wastewater facility construction projects in smaller, financially distressed communities.

Recipient Match %: 0
InKind Interlocal Allowed: No
InKind Other Allowed: No
Is this Funding Distribution used to match a federal grant? No

CCWF	Task Total
Project Administration/Management	$ 1,644.00
Project Design	$ 0.00
Easement/Property Acquisition	$ 9,867.00
Construction Management	$ 60,156.00
Project Construction	$ 469,176.00
Total:	**$ 540,843.00**

BUDGET

Funding Distribution EL150016

Funding Title: SRF Loan
Funding Type: loan
Funding Expiration Date: 12/31/2017
Funding Effective Date: 07/01/2014
Funding Source:

Title: CWSRF - SFY15
Type: Federal
CFDA: 66.458
Assistance Agreement:
Description: The Clean Water Act (CWA) (33 U.S.C. §1251-1387) established the State Revolving Fund (SRF) low interest loan program (40. C.F.R. Part 31, 35 Sub Part K). Funds come from a combination of Federal Capitalization Grant provided through the Environmental Protection Agency (EPA), state match, and revolved funds from repayments and interest on previous loans.

Recipient Match %: 0
InKind Interlocal Allowed: No
InKind Other Allowed: No
Is this Funding Distribution used to match a federal grant? No

Effective Interest Rate: 2.4% Interest Rate: 1.4% Admin Charge: 1%
Terms: 20 years
Project Start Date: 07/01/2014 Project Completion Date: 12/31/2017
Estimated Initiation of Operation date: 10/30/2017
Loan Security: Revenue Secure Lien Obligation of the Recipient
Final Accrued Interest: $
Final Loan Amount: $
Repayment Schedule Number: 2107

SRF Loan	Task Total
Project Administration/Management	$ 4,206.00
Project Design	$ 137,105.00
Easement/Property Acquisition	$ 25,253.00
Construction Management	$ 153,964.00
Project Construction	$ 1,200,804.00
	Total: $ 1,521,332.00

Funding Distribution Summary

Recipient / Ecology Share

Funding Distribution Name	Recipient Match %	Recipient Share	Ecology Share	Total
CCWF	0.00 %	$ 0.00	$ 540,843.00	$ 540,843.00
SRF Forgivable Principal	0.00 %	$ 0.00	$ 137,105.00	$ 137,105.00
SRF Loan	0.00 %	$ 0.00	$ 1,521,332.00	$ 1,521,332.00
Total		**$ 0.00**	**$ 2,199,280.00**	**$ 2.199.280.00**

AGREEMENT SPECIFIC TERMS AND CONDITIONS

N/A

SPECIAL TERMS AND CONDITIONS

SECTION 1: DEFINITIONS

Unless otherwise provided, the following terms will have the respective meanings for all purposes of this agreement:

"Administration Charge" means a charge established in accordance with Chapter 90.50A RCW and Chapter 173-98 WAC, to be used to pay Ecology's cost to administer the State Revolving Fund by placing a percentage of the interest earned in an Administrative Charge Account.

"Administrative Requirements" means the effective edition of ECOLOGY's ADMINISTRATIVE REQUIREMENTS FOR RECIPIENTS OF ECOLOGY GRANTS AND LOANS at the signing of this agreement.

"Annual Debt Service" for any calendar year means for any applicable bonds or loans including the loan, all interest plus all principal due on such bonds or loans in such year.

"Average Annual Debt Service" means, at the time of calculation, the sum of the Annual Debt Service for the remaining years of the loan to the last scheduled maturity of the loan divided by the number of those years.

"Centennial Clean Water Program" means the state program funded from various state sources.

"Contract Documents" means the contract between the RECIPIENT and the construction contractor for construction of the project.

"Cost Effective Analysis" means a comparison of the relative cost-efficiencies of two or more potential ways of solving a water quality problem as described in Chapter 173-98-730 WAC.

"Defease" or "Defeasance" means the setting aside in escrow or other special fund or account of sufficient investments and money dedicated to pay all principal of and interest on all or a portion of an obligation as it comes due.

"Effective Date" means the earliest date on which eligible costs may be incurred.

"Effective Interest Rate" means the total interest rate established by Ecology that includes the Administrative Charge.

"Estimated Loan Amount" means the initial amount of funds loaned to the RECIPIENT.

"Estimated Loan Repayment Schedule" means the schedule of loan repayments over the term of the loan based on the Estimated Loan Amount.

"Final Accrued Interest" means the interest accrued beginning with the first disbursement of funds to the RECIPIENT through such time as the loan is officially closed out and a final loan repayment schedule is issued.

"Final Loan Amount" means all principal of and interest on the loan from the Project Start Date through the Project Completion Date.

"Final Loan Repayment Schedule" means the schedule of loan repayments over the term of the loan based on the Final Loan Amount.

"Forgivable Principal" means the portion of a loan that is not required to be paid back by the borrower.

"General Obligation Debt" means an obligation of the RECIPIENT secured by annual ad valorem taxes levied by the RECIPIENT and by the full faith, credit, and resources of the RECIPIENT.

"General Obligation Payable from Special Assessments Debt" means an obligation of the RECIPIENT secured by a valid general obligation of the Recipient payable from special assessments to be imposed within the constitutional and statutory tax limitations provided by law without a vote of the electors of the RECIPIENT on all of the taxable property within the boundaries of the RECIPIENT.

"Gross Revenue" means all of the earnings and revenues received by the RECIPIENT from the maintenance and operation of the Utility and all earnings from the investment of money on deposit in the Loan Fund, except (i) Utility Local Improvement Districts (ULID) Assessments, (ii) government grants, (iii) RECIPIENT taxes, (iv) principal proceeds of bonds and other obligations, or (v) earnings or proceeds (A) from any investments in a trust, Defeasance, or escrow fund created to Defease or refund Utility obligations or (B) in an obligation redemption fund or account other than the Loan Fund until commingled with other earnings and revenues of the Utility or (C) held in a special account for the purpose of paying a rebate to the United States Government under the Internal Revenue Code.

"Guidelines" means the ECOLOGY's Funding Guidelines that that correlate to the State Fiscal Year in which the project is funded.
"Initiation of Operation Date" means the actual date the Water Pollution Control Facility financed with proceeds of the loan begins to operate for its intended purpose.

"Loan" means the Washington State Water Pollution Control Revolving Fund Loan or Centennial Clean Water Fund (Centennial) Loan made pursuant to this loan agreement.

"Loan Amount" means either an Estimated Loan Amount or a Final Loan Amount, as applicable.

"Loan Fund" means the special fund of that name created by ordinance or resolution of the RECIPIENT for the repayment of the principal of and interest on the loan.

"Loan Security" means the mechanism by which the RECIPIENT pledges to repay the loan.

"Loan Term" means the repayment period of the loan.

"Maintenance and Operation Expense" means all reasonable expenses incurred by the RECIPIENT in causing the Utility to be operated and maintained in good repair, working order, and condition including payments to other parties, but will not include any depreciation or RECIPIENT levied taxes or payments to the RECIPIENT in lieu of taxes.

"Net Revenue" means the Gross Revenue less the Maintenance and Operation Expense.

"Principal and Interest Account" means, for a loan that constitutes Revenue-Secured Debt, the account of that name created in the loan fund to be first used to repay the principal of and interest on the loan.

"Project" means the project described in this agreement.

"Project Completion Date" means the date specified in the agreement on which the Scope of Work will be fully completed.

"Project Schedule" means that schedule for the project specified in the agreement.

"Reserve Account" means, for a loan that constitutes Revenue-Secured Debt, the account of that name created in the loan fund to secure the payment of the principal of and interest on the loan.

"Revenue-Secured Debt" means an obligation of the RECIPIENT secured by a pledge of the revenue of a utility and one not a general obligation of the RECIPIENT.

"Risk-Based Determination" means an approach to sub-recipient monitoring and oversight based on risk factors associated to a RECIPIENT or project.

"Scope of Work" means the tasks and activities constituting the project.

"Section 319" means the section of the Clean Water Act that provides funding to address nonpoint sources of water pollution.

"Senior Lien Obligations" means all revenue bonds and other obligations of the RECIPIENT outstanding on the date of execution of this loan agreement (or subsequently issued on a parity therewith, including refunding obligations) or issued after the date of execution of this loan agreement having a claim or lien on the Gross Revenue of the Utility prior and superior to the claim or lien of the loan, subject only to Maintenance and Operation Expense.

"State Water Pollution Control Revolving Fund (Revolving Fund)" means the water pollution control revolving fund established by Chapter 90.50A.020 RCW.

"Termination Date" means the effective date of ECOLOGY's termination of the agreement.

"Termination Payment Date" means the date on which the RECIPIENT is required to repay to ECOLOGY any outstanding balance of the loan and all accrued interest.

"Total Eligible Project Cost" means the sum of all costs associated with a water quality project that have been determined to be eligible for ECOLOGY grant or loan funding.

"Total Project Cost" means the sum of all costs associated with a water quality project, including costs that are not

eligible for ECOLOGY grant or loan funding.

"ULID" means any utility local improvement district of the RECIPIENT created for the acquisition or construction of additions to and extensions and betterments of the Utility.

"ULID Assessments" means all assessments levied and collected in any ULID. Such assessments are pledged to be paid into the Loan Fund (less any prepaid assessments permitted by law to be paid into a construction fund or account). ULID Assessments will include principal installments and any interest or penalties which may be due.

"Utility" means the sewer system, stormwater system, or the combined water and sewer system of the RECIPIENT, the Net Revenue of which is pledged to pay and secure the loan.

SECTION 2: THE FOLLOWING CONDITIONS APPLY TO ALL RECIPIENTS OF WATER QUALITY COMBINED FINANCIAL ASSISTANCE FUNDING.

A. Architectural and Engineering Services: The RECIPIENT certifies by signing this agreement that the requirements of Chapter 39.80 RCW, "Contracts for Architectural and Engineering Services," have been, or shall be, met in procuring qualified architectural/engineering services. The RECIPIENT shall identify and separate eligible and ineligible costs in the final negotiated agreement and submit a copy of the agreement to ECOLOGY.

B. Cultural and Historic Resources Protection: The RECIPIENT must comply with all requirements listed in Section 106 of the National Historic Preservation Act (for federally funded projects) or Executive Order 05-05 (for state funded projects) prior to implementing any project that involves soil disturbing activities. A soil disturbing activity includes but is not limited to planting vegetation, installing fence posts, sloping stream banks, channel modifications, geotechnical test borings, and other construction projects. For more details regarding these requirements, please reference the Water Quality Financial Assistance Funding Guidelines available on ECOLOGY's Water Quality Program funding website.

C. Equipment Purchase: Equipment not included in the scope of work or a construction plan and specification approval must be pre-approved by ECOLOGY's project manager before purchase.

D. Funding Recognition: The RECIPIENT must inform the public about ECOLOGY or EPA funding participation in this project through the use of project signs, acknowledgement in published materials, reports, the news media, websites, or other public announcements. Projects addressing site- specific locations must utilize appropriately sized and weather-resistant signs. Sign logos are available from ECOLOGY's financial manager upon request.

E. Growth Management Planning: The RECIPIENT certifies by signing this agreement that it is in compliance with the requirements of Chapter 36.70A RCW, "Growth Management Planning by Selected Counties and Cities." If the status of compliance changes, either through RECIPIENT or legislative action, the RECIPIENT shall notify ECOLOGY in writing of this change within 30 days.

F. Interlocal: The RECIPIENT certifies by signing this agreement that all negotiated interlocal agreements necessary for the project are, or shall be, consistent with the terms of this agreement and Chapter 39.34 RCW, "Interlocal Cooperation Act." The RECIPIENT shall submit a copy of each interlocal agreement necessary for the project to ECOLOGY.

G. Post Project Assessment Survey: The RECIPIENT agrees to participate in a brief survey regarding the key project results or water quality project outcomes and the status of long-term environmental results or goals from the project approximately three years after project completion. A representative from ECOLOGY's Water Quality Program may

contact the RECIPIENT to request this data. ECOLOGY may also conduct site interviews and inspections, and may otherwise evaluate the project, as part of this assessment.

SECTION 3: THE FOLLOWING CONDITIONS APPLY TO NONPOINT ACTIVITY PROJECTS ONLY

A. Technical Assistance: Technical assistance for agriculture activities provided under the terms of this agreement will be consistent with the current U.S. Natural Resource Conservation Service ("NRCS") Field Office Technical Guide for Washington State. However, ECOLOGY may accept as eligible technical assistance, proposed practices, or project designs that do not meet these standards if approved in writing by the NRCS and ECOLOGY.

B. Project Status Evaluation: ECOLOGY will evaluate the status of this project 18 months from the effective date of this agreement. ECOLOGY's Project Manager and Financial Manager will meet with the RECIPIENT to review spending trends, completion of outcome measures, and overall project administration and performance. If the RECIPIENT fails to make satisfactory progress toward achieving project outcomes, ECOLOGY may change the scope of work, reduce grant funds, or increase oversight measures.

C. Best Management Practices (BMP) Implementation: If the RECIPIENT installs BMPs that are not approved by ECOLOGY prior to installation, the RECIPIENT assumes the risk that part or all of the reimbursement for that activity may be delayed or ineligible. For more details regarding BMP Implementation, please reference the Water Quality Financial Assistance Funding Guidelines available on ECOLOGY's Water Quality Program funding website.

SECTION 4: THE FOLLOWING CONDITIONS APPLY TO CENTENNIAL CLEAN WATER FUNDED PROJECTS BEING USED TO MATCH SECTION 319 FUNDS ONLY.

A. Centennial-Funded Projects Used to Match Section 319-Funded Projects: Projects used by ECOLOGY to meet a matching requirement for the Section 319 program require the RECIPIENT to comply with Federal Section 319 reporting requirements. Required reporting includes providing project data on BMP implementation and annual pollutant load reduction.

B. Section 319 Reporting Requirements: The RECIPIENT must complete ECOLOGY's "Clean Water Act Section 319 Initial Data Reporting Sheet." The RECIPIENT must submit this form to ECOLOGY's Financial Manager with the signed agreement. The form is available on ECOLOGY's Water Quality Program funding website.

C. The RECIPIENT must complete ECOLOGY's "Federal Clean Water Act Section 319 Grant Load Reductions Reporting Form" annually. This form is used to gather information on pollutant load reduction for each best management practice (BMP) installed for the project. The RECIPIENT must submit this form to ECOLOGY's Financial Manager by January 15 of each year, and at project close-out. ECOLOGY may hold reimbursements until the RECIPIENT has completed and submitted the form to the financial manager. This form is available on our website.

SECTION 5: THE FOLLOWING CONDITIONS APPLY TO SECTION 319 FUNDED PROJECTS ONLY.

The RECIPIENT must submit the following documents to ECOLOGY before this agreement is signed by ECOLOGY:

1. Federal Funding Accountability and Transparency Act (FFATA) Form

2. Clean Water Act Section 319 Initial Data Reporting Sheet
Contact your ECOLOGY financial manager for the forms.

A. Disadvantaged Business Enterprise (DBE):

GENERAL COMPLIANCE, 40 CFR, Part 33 - The RECIPIENT agrees to comply with the requirements of EPA's Program for Utilization of Small, Minority and Women's Business Enterprises (MBE/WBE) in procurement under assistance agreements, contained in 40 CFR, Part 33.

FAIR SHARE OBJECTIVES, 40 CFR, Part 33, Subpart D - A RECIPIENT must negotiate with the appropriate EPA award official or his/her designee, fair share objectives for MBE and WBE participation in procurement under the financial assistance agreements.

Current Fair Share Objective/Goal - The dollar amount of this assistance agreement is over $250,000; or the total dollar amount of all of the RECIPIENT's non-TAG assistance agreements from EPA in the current fiscal year is over $250,000. The Washington State Department of Ecology has negotiated the following, applicable MBE/WBE fair share objectives/goals with EPA as follows:

MBE: SUPPLIES 8.00%;SERVICES 10.00%; EQUIPMENT 8.00%; CONSTRUCTION 10.00%
WBE: SUPPLIES 4.00%; SERVICES 4.00%; EQUIPMENT 4.00%; CONSTRUCTION 6.00%

Negotiating Fair Share Objectives/Goals, 40 CFR, Section 33.404 - If the RECIPIENT has not yet negotiated its MBE/WBE fair share objectives/goals, the RECIPIENT agrees to submit proposed MBE/WBE objectives/goals based on an availability analysis, or disparity study, of qualified MBEs and WBEs in their relevant geographic buying market for construction, services, supplies and equipment.

The RECIPIENT agrees to submit proposed fair share objectives/goals, together with the supporting availability analysis or disparity study, to the Regional MBE/WBE Coordinator within 120 days of its acceptance of the financial assistance award. EPA shall respond to the proposed fair share objective/goals within 30 days of receiving the submission. If proposed fair share objective/goals are not received within the 120 day time frame, the recipient may not expend its EPA funds for procurements until the proposed fair share objective/goals are submitted.

SIX GOOD FAITH EFFORTS, 40 CFR, Part 33, Subpart C - Pursuant to 40 CFR, Section 33.301, the RECIPIENT agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under an EPA financial assistance agreement, and to ensure that sub-recipients, loan recipients, and prime contractors also comply. Records documenting compliance with the six good faith efforts shall be retained:

(a) Ensure DBEs are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State, Local and Government recipients, this shall include placing DBEs on solicitation lists and soliciting them whenever they are potential sources.

(b) Make information on forthcoming opportunities available to DBEs and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by DBEs in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of 30 calendar days before the bid or proposal closing date.

(c) Consider in the contracting process whether firms competing for large contracts could subcontract with DBEs. For Indian Tribal, State and Local Government recipients, this shall include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by DBEs in the competitive process.

(d) Encourage contracting with a consortium of DBEs when a contract is too large for one of these firms to handle individually.

(e) Use the services and assistance of the SBA and the Minority Business Development Agency of the Department of Commerce.

(f) If the prime contractor awards subcontracts, require the prime contractor to take the steps in paragraphs (a) through (e) of this section.

B. Funding Recognition: The RECIPIENT must use the following paragraph in all reports, documents, and signage developed under this agreement:
This project has been funded wholly or in part by the United States Environmental Protection Agency under an assistance agreement to the Washington State Department of Ecology. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does the mention of trade names or commercial products constitute endorsement or recommendation for use.

C. Time Extension: The RECIPIENT may request a one-time extension for up to 12 months. However, the time extension cannot exceed the time limitation established in EPA's assistance agreement. In the event a time extension is requested and approved by ECOLOGY, the RECIPIENT must complete all eligible work performed under this agreement by the expiration date.

SECTION 6: THE FOLLOWING CONDITIONS APPLY TO STATE REVOLVING FUND (SRF) LOAN FUNDED PROJECTS ONLY.

The RECIPIENT must submit the following documents to ECOLOGY before this agreement is signed by ECOLOGY:

1. Opinion of RECIPIENT's Legal Council
2. Authorizing Ordinance or Resolution
3. Pre-Award Compliance Review Report for All Applicants Requesting Federal Assistance
4. Federal Funding Accountability and Transparency Act (FFATA) Form
5. Clean Water State Revolving Fund Initial Data Reporting Sheet

A. Alteration and Eligibility of Project: During the term of this agreement, the RECIPIENT (1) shall not materially alter the design or structural character of the project without the prior written approval of ECOLOGY and (2) shall take no action which would adversely affect the eligibility of the project as defined by applicable funding program rules and state statutes, or which would cause a violation of any covenant, condition, or provision herein.

B. American Iron and Steel (Buy American): This loan provision applies to projects for the construction, alteration, maintenance, or repair of a "treatment works" as defined in the Federal Water Pollution Control Act (33 USC 1381 et seq.) The RECIPIENT shall ensure that all iron and steel products used in the project are produced in the United States. Iron and Steel products means the following products made primarily of iron or steel: lined or unlined pipes and fittings, manhole covers and other municipal castings, hydrants, tanks, flanges, pipe clamps and restraints, valves, structural steel, reinforced precast concrete, and construction materials. The RECIPIENT may request waiver from this requirement from the Administrator of the Environmental Protection Agency. The RECIPIENT must coordinate all waiver requests through ECOLOGY. This provision does not apply if the engineering plans and specifications for the project were approved by ECOLOGY prior to January 17, 2014. ECOLOGY reserves the right to request documentation of RECIPIENT'S compliance with this provision.

C. Authority of RECIPIENT: This agreement is authorized by the Constitution and laws of the state of Washington, including the RECIPIENT's authority, and by the RECIPIENT pursuant to the authorizing ordinance or resolution. The

RECIPIENT shall submit a copy of the authorizing ordinance or resolution to the ECOLOGY Financial Manager before this agreement shall be signed by ECOLOGY.

D. Clean Water State Revolving Fund Data Reporting Sheet (Data Reporting Sheet): The RECIPIENT shall submit the completed Data Reporting Sheet before this agreement is signed by ECOLOGY. ECOLOGY shall provide the Data Reporting Sheet form to the RECIPIENT.

E. Disadvantaged Business Enterprise (DBE): General Compliance, 40 CFR, Part 33. The RECIPIENT agrees to comply with the requirements of the Environmental Protection Agency's Program for Utilization of Small, Minority, and Women's Business Enterprises (MBE/WBE) 40CFR, Part 33 in procurement under this agreement.

Non-discrimination Provision. The RECIPIENT shall not discriminate on the basis of race, color, national origin or sex in the performance of this agreement. The RECIPIENT shall carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under EPA financial assistance agreements. Failure by the RECIPIENT to carry out these requirements is a material breach of this agreement which may result in the termination of this contract or other legally available remedies.

The RECIPIENT shall comply with all federal and state nondiscrimination laws, including, but not limited to Title VI and VII of the Civil Rights Act of 1964, Section 504 of the Rehabilitation Act of 1973, Title IX of the Education Amendments of 1972, the Age Discrimination Act of 1975, and Chapter 49.60 RCW, Washington's Law Against Discrimination, and 42 U.S.C. 12101 et seq, the Americans with Disabilities Act (ADA).

In the event of the RECIPIENT's noncompliance or refusal to comply with any applicable nondiscrimination law, regulation, or policy, this agreement may be rescinded, canceled, or terminated in whole or in part, and the RECIPIENT may be declared ineligible for further funding from ECOLOGY. The RECIPIENT shall, however, be given a reasonable time in which to cure this noncompliance.

Fair Share Objective/Goals, 40 CFR, Part 33, Subpart D. If the dollar amount of this agreement or the total dollar amount of all of the RECIPIENT's financial assistance agreements in the current federal fiscal year from the Revolving Fund is over $250,000, the RECIPIENT accepts the applicable MBE/WBE fair share objectives/goals negotiated with EPA by the Office of Minority Women Business Enterprises as follows:

Construction 10.00% MBE 6.00% WBE
Supplies 8.00% MBE 4.00% WBE
Services 10.00% MBE 4.00% WBE
Equipment 8.00% MBE 8.00% WBE

By signing this agreement the RECIPIENT is accepting the fair share objectives/goals stated above and attests to the fact that it is purchasing the same or similar construction, supplies, services and equipment, in the same or similar relevant geographic buying market as Office of Minority Women Business Enterprises.

Six Good Faith Efforts, 40 CFR, Part 33, Subpart C. The RECIPIENT agrees to make the following good faith efforts whenever procuring construction, equipment, services and supplies under this agreement. Records documenting compliance with the following six good faith efforts shall be retained:

1) Ensuring Disadvantaged Business Enterprises are made aware of contracting opportunities to the fullest extent practicable through outreach and recruitment activities. For Indian Tribal, State and Local and Government RECIPIENTs, this shall include placing Disadvantaged Business Enterprises on solicitation lists and soliciting them whenever they are potential sources. Qualified Women and Minority business enterprises may be found on the Internet

at www.omwbe.wa.gov or by contacting the Washington State Office of Minority and Women's Enterprises at 866-208-1064.

2) Making information on forthcoming opportunities available to Disadvantaged Business Enterprises and arrange time frames for contracts and establish delivery schedules, where the requirements permit, in a way that encourages and facilitates participation by Disadvantaged Business Enterprises in the competitive process. This includes, whenever possible, posting solicitations for bids or proposals for a minimum of thirty (30) calendar days before the bid or proposal closing date.

3) Considering in the contracting process whether firms competing for large contracts could subcontract with Disadvantaged Business Enterprises. For Indian Tribal, State and Local Government RECIPIENTs, this shall include dividing total requirements when economically feasible into smaller tasks or quantities to permit maximum participation by Disadvantaged Business Enterprises in the competitive process.

4) Encourage contracting with a consortium of Disadvantaged Business Enterprises when a contract is too large for one of these firms to handle individually.

5) Using services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

6) If the prime contractor awards subcontracts, requiring the subcontractors to take the five good faith efforts in paragraphs 1 through 5 above.

MBE/WBE Reporting, 40 CFR, Part 33, Sections 33.302, 33.502 and 33.503. The RECIPIENT agrees to provide forms: EPA Form 6100-2 DBE Subcontractor Participation Form and EPA Form 6100-3 DBE Subcontractor Performance Form to all its DBE subcontractors, and EPA Form 6100-4 DBE Subcontractor Utilization Form to all its prime contractors. These forms are available on ECOLOGY's Water Quality Program funding website.

EPA Form 6100-2 – The RECIPIENT must document that this form was received by DBE subcontractor. DBE subcontractors may submit the completed form to the EPA Region 10 DBE coordinator in order to document issues or concerns with their usage or payment for a subcontract.

EPA Form 6100-3 – This form must be completed by DBE subcontractor(s), submitted with bid, and kept with the contract.

EPA Form 6100-4 – This form must be completed by the prime contractor, submitted with bid, and kept with the contract.

The RECIPIENT also agrees to submit ECOLOGY's MBE/WBE participation report Form D with each payment request.

Contract Administration Provisions, 40 CFR, Section 33.302. The RECIPIENT agrees to comply with the contract administration provisions of 40 CFR, Section 33.302. The RECIPIENT also agrees to ensure that RECIPIENTs of identified loans also comply with provisions of 40CFR, Section 33.302.

The RECIPIENT shall include the following terms and conditions in contracts with all contractors, subcontractors, engineers, vendors, and any other entity for work or services pertaining to this agreement.

"The Contractor will not discriminate on the basis of race, color, national origin or sex in the performance of this

Contract. The Contractor will carry out applicable requirements of 40 CFR Part 33 in the award and administration of contracts awarded under Environmental Protection Agency financial agreements. Failure by the Contractor to carry out these requirements is a material breach of this Contract which may result in termination of this Contract or other legally available remedies."

Bidder List, 40 CFR, Section 33.501(b) and (c). The RECIPIENT agrees to create and maintain a bidders list. The bidders list shall include the following information for all firms that bid or quote on prime contracts, or bid or quote subcontracts, including both MBE/WBEs and non-MBE/WBEs.

1. Entity's name with point of contact
2. Entity's mailing address, telephone number, and e-mail address
3. The procurement on which the entity bid or quoted, and when
4. Entity's status as an MBE/WBE or non-MBE/WBE

F. Electronic and Information Technology (EIT) Accessibility: RECIPIENTs shall ensure that loan funds provided under this agreement for costs incurred in the development or purchase of EIT systems or products provide individuals with disabilities reasonable accommodations and an equal and effective opportunity to benefit from or participate in a program, including those offered through electronic and information technology as per Section 504 of the Rehabilitation Act, codified in 40 CFR Part 7. Systems or products funded under this agreement must be designed to meet the diverse needs of users without barriers or diminished function or quality. Systems shall include usability features or functions that accommodate the needs of persons with disabilities, including those who use assistive technology.

G. Free Service: The RECIPIENT shall not furnish utility service to any customer free of charge if providing that free service affects the RECIPIENT's ability to meet the obligations of this agreement.

H. Insurance: The RECIPIENT shall at all times carry fire and extended coverage, public liability and property damage, and such other forms of insurance with responsible insurers and with policies payable to the RECIPIENT on such of the buildings, equipment, works, plants, facilities, and properties of the Utility as are ordinarily carried by municipal or privately-owned utilities engaged in the operation of like systems, and against such claims for damages as are ordinarily carried by municipal or privately-owned utilities engaged in the operation of like systems, or it shall self-insure or participate in an insurance pool or pools with reserves adequate, in the reasonable judgment of the RECIPIENT, to protect it against loss.

I. Loan Interest Rate and Terms: This loan agreement shall remain in effect until the date of final repayment of the loan, unless terminated earlier according to the provisions herein.
When the Project Completion Date has occurred, ECOLOGY and the RECIPIENT shall execute an amendment to this loan agreement which details the final loan amount (Final Loan Amount), and ECOLOGY shall prepare a final loan repayment schedule. The Final Loan Amount shall be the combined total of actual disbursements made on the loan and all accrued interest to the computation date.
The Estimated Loan Amount and the Final Loan Amount (in either case, as applicable, a "Loan Amount") shall bear interest based on the interest rate identified in this agreement as the "Effective Interest Rate," per annum, calculated on the basis of a 365 day year. Interest on the Estimated Loan Amount shall accrue from and be compounded monthly based on the date that each payment is mailed to the RECIPIENT. The Final Loan Amount shall be repaid in equal installments semiannually over the term of this loan "Loan Term" as outlined in this agreement.

J. Loan Repayment:
Sources of Loan Repayment

1. Nature of RECIPIENT's Obligation. The obligation of the RECIPIENT to repay the loan from the sources identified

below and to perform and observe all of the other agreements and obligations on its part contained herein shall be absolute and unconditional, and shall not be subject to diminution by setoff, counterclaim, or abatement of any kind. To secure the repayment of the loan from ECOLOGY, the RECIPIENT agrees to comply with all of the covenants, agreements, and attachments contained herein.

2. For General Obligation. This loan is a General Obligation Debt of the RECIPIENT.

3. For General Obligation Payable from Special Assessments. This loan is a General Obligation Debt of the RECIPIENT payable from special assessments to be imposed within the constitutional and statutory tax limitations provided by law without a vote of the electors of the RECIPIENT on all of the taxable property within the boundaries of the RECIPIENT.

4. For Revenue-Secured: Lien Position. This loan is a Revenue-Secured Debt of the RECIPIENT's Utility. This loan shall constitute a lien and charge upon the Net Revenue junior and subordinate to the lien and charge upon such Net Revenue of any Senior Lien Obligations.
In addition, if this loan is also secured by Utility Local Improvement Districts (ULID) Assessments, this loan shall constitute a lien upon ULID Assessments in the ULID prior and superior to any other charges whatsoever.

5. Other Sources of Repayment. The RECIPIENT may repay any portion of the loan from any funds legally available to it.

6. Defeasance of the Loan. So long as ECOLOGY shall hold this loan, the RECIPIENT shall not be entitled to, and shall not affect, an economic Defeasance of the loan. The RECIPIENT shall not advance refund the loan.

If the RECIPIENT defeases or advance refunds the loan, it shall be required to use the proceeds thereof immediately upon their receipt, together with other available RECIPIENT funds, to repay both of the following:

(i) The Loan Amount with interest

(ii) Any other obligations of the RECIPIENT to ECOLOGY under this agreement, unless in its sole discretion ECOLOGY finds that repayment from those additional sources would not be in the public interest.

Failure to repay the Loan Amount plus interest within the time specified in ECOLOGY's notice to make such repayment shall incur Late Charges and shall be treated as a Loan Default.

7. Refinancing or Early Repayment of the Project. So long as ECOLOGY shall hold this loan, the RECIPIENT shall give ECOLOGY thirty days written notice if the RECIPIENT intends to refinance or make early repayment of the loan.

Method and Conditions on Repayments

1. Semiannual Payments. Notwithstanding any other provision of this agreement, the first semiannual payment of principal and interest on this loan shall be due and payable no later than one year after the project completion date or initiation of operation date, whichever comes first.

Thereafter, equal payments shall be due every six months.

If the due date for any semiannual payment falls on a Saturday, Sunday, or designated holiday for Washington State agencies, the payment shall be due on the next business day for Washington State agencies.

Payments shall be mailed to:

Department of Ecology
Cashiering Unit
P.O. Box 47611
Olympia WA 98504-7611

In lieu of mailing payments, electronic fund transfers can be arranged by working with ECOLOGY's Financial Manager.

No change to the amount of the semiannual principal and interest payments shall be made without a formal amendment to this agreement. The RECIPIENT shall continue to make semiannual payments based on this agreement until the amendment is effective, at which time the RECIPIENT's payments shall be made pursuant to the amended agreement.

2. Late Charges. If any amount of the Final Loan Amount or any other amount owed to ECOLOGY pursuant to this agreement remains unpaid after it becomes due and payable, ECOLOGY may assess a late charge. The late charge shall be one percent per month on the past due amount starting on the date the debt becomes past due and until it is paid in full.

3. Repayment Limitations. Repayment of the loan is subject to the following additional limitations, among others: those on defeasance, refinancing and advance refunding, termination, and default and recovery of payments.

4. Prepayment of Loan. So long as ECOLOGY shall hold this loan, the RECIPIENT may prepay the entire unpaid principal balance of and accrued interest on the loan or any portion of the remaining unpaid principal balance of the Loan Amount. Any prepayments on the loan shall be applied first to any accrued interest due and then to the outstanding principal balance of the Loan Amount. If the RECIPIENT elects to prepay the entire remaining unpaid balance and accrued interest, the RECIPIENT shall first contact ECOLOGY's Revenue/Receivable Manager of the Fiscal Office.

K. Loan Security

Due Regard: For loans secured with a Revenue Obligation: The RECIPIENT shall exercise due regard for Maintenance and Operation Expense and the debt service requirements of the Senior Lien Obligations and any other outstanding obligations pledging the Gross Revenue of the Utility, and it has not obligated itself to set aside and pay into the loan Fund a greater amount of the Gross Revenue of the Utility than, in its judgment, shall be available over and above such Maintenance and Operation Expense and those debt service requirements.

Levy and Collection of Taxes (if used to secure the repayment of the loan): For so long as the loan is outstanding, the RECIPIENT irrevocably pledges to include in its budget and levy taxes annually within the constitutional and statutory tax limitations provided by law without a vote of its electors on all of the taxable property within the boundaries of the RECIPIENT in an amount sufficient, together with other money legally available and to be used therefore, to pay when due the principal of and interest on the loan, and the full faith, credit and resources of the RECIPIENT are pledged irrevocably for the annual levy and collection of those taxes and the prompt payment of that principal and interest.

Not an Excess Indebtedness: For loans secured with a general obligation pledge or a general obligation pledge on special assessments: The RECIPIENT agrees that this agreement and the loan to be made do not create an indebtedness of the RECIPIENT in excess of any constitutional or statutory limitations.

Pledge of Net Revenue and ULID Assessments in the ULID (if used to secure the repayment of this loan): For so long

as the loan is outstanding, the RECIPIENT irrevocably pledges the Net Revenue of the Utility, including applicable ULID Assessments in the ULID, to pay when due the principal of and interest on the loan.

Reserve Requirement: For loans that are Revenue-Secured Debt with terms greater than five years, the RECIPIENT must accumulate a reserve for the loan equivalent to at least the Average Annual Debt Service on the loan during the first five years of the repayment period of the loan. This amount shall be deposited in a Reserve Account in the Loan Fund in approximately equal annual payments commencing within one year after the initiation of operation or the project completion date, whichever comes first.

"Reserve Account" means, for a loan that constitutes Revenue-Secured Debt, an account of that name created in the Loan Fund to secure the payment of the principal and interest on the loan. The amount on deposit in the Reserve Account may be applied by the RECIPIENT (1) to make, in part or in full, the final repayment to ECOLOGY of the loan amount or, (2) if not so applied, for any other lawful purpose of the RECIPIENT once the Loan Amount, plus interest and any other amounts owing to ECOLOGY, have been paid in full.

Utility Local Improvement District (ULID) Assessment Collection (if used to secure the repayment of the loan): All ULID Assessments in the ULID shall be paid into the loan Fund and used to pay the principal of and interest on the loan. The ULID Assessments in the ULID may be deposited into the Reserve Account to satisfy a Reserve Requirement if a Reserve Requirement is applicable.

L. Maintenance and Operation of a Funded Utility: The RECIPIENT shall at all times maintain and keep a funded Utility in good repair, working order and condition and also shall at all times operate the Utility and the business in an efficient manner and at a reasonable cost.

M. Opinion of RECIPIENT's Legal Counsel: The RECIPIENT must submit an "Opinion of Legal Counsel to the RECIPIENT" to ECOLOGY before this agreement shall be signed. ECOLOGY will provide the form.

N. Payment to Consultants: The RECIPIENT shall ensure that loan funds provided under this agreement to reimburse for costs incurred by individual consultants (excluding overhead) is limited to the maximum daily rate for Level IV of the Executive Schedule (formerly GS-18), to be adjusted annually. This limit applies to consultation services of designated individuals with specialized skills who are paid at a daily or hourly rate. This rate does not include transportation and subsistence costs for travel performed. Contracts for services awarded using the procurement requirements in 40 CFR Parts 30 or 31, as applicable, are not affected by this limitation unless the terms of the contract provide the RECIPIENT with responsibility for the selection, direction, and control of the individuals who shall be providing services under the contract at an hourly or daily rate of compensation. See 40 CFR 30.27(b) or 40 CFR 31.36(j) for additional information.

O. Prevailing Wage (Davis-Bacon Act): The RECIPIENT agrees, by signing this agreement, to comply with the Davis-Bacon Act prevailing wage requirements. This applies to the construction, alteration, and repair of treatment works carried out in whole or in part with assistance made available by the State Revolving Fund as authorized by Section 513, title VI of the Federal Water Pollution Control Act (33 U.S.C. 1372). Laborers and mechanics employed by contractors and subcontractors shall be paid wages not less often than once a week and at rates not less than those prevailing on projects of a character similar in the locality as determined by the Secretary of Labor.

The RECIPIENT shall obtain the wage determination for the area in which the project is located prior to issuing requests for bids, proposals, quotes or other methods for soliciting contracts (solicitation). These wage determinations shall be incorporated into solicitations and any subsequent contracts. The RECIPIENT shall ensure that the required EPA contract language regarding Davis-Bacon Wages is in all contracts and sub contracts in excess of $2,000. The RECIPIENT shall maintain records sufficient to document compliance with the Davis-Bacon Act, and make such

records available for review upon request.

The RECIPIENT also agrees, by signing this agreement, to comply with State Prevailing Wages on Public Works, Chapter 39.12 RCW, as applicable. Compliance may include the determination whether the project involves "public work" and inclusion of the applicable prevailing wage rates in the bid specifications and contracts. The RECIPIENT agrees to maintain records sufficient to evidence compliance with Chapter 39.12 RCW, and make such records available for review upon request.

P. Litigation; Authority: No litigation is now pending, or to the RECIPIENT's knowledge, threatened, seeking to restrain, or enjoin:

(i) the execution of this agreement; or

(ii) the fixing or collection of the revenues, rates, and charges or the formation of the ULID and the levy and collection of ULID Assessments therein pledged to pay the principal of and interest on the loan (for revenue secured lien obligations); or

(iii) the levy and collection of the taxes pledged to pay the principal of and interest on the loan (for general obligation-secured loans and general obligation payable from special-assessment-secured loans); or

(iv) in any manner questioning the proceedings and authority under which the agreement, the loan, or the project are authorized. Neither the corporate existence or boundaries of the RECIPIENT nor the title of its present officers to their respective offices is being contested. No authority or proceeding for the execution of this agreement has been repealed, revoked, or rescinded.

Q. Representations and Warranties: The RECIPIENT represents and warrants to ECOLOGY as follows:

Application: Material Information. All information and materials submitted by the RECIPIENT to ECOLOGY in connection with its loan application were, when made, and are, as of the date the RECIPIENT signs this agreement, true and correct. There is no material adverse information relating to the RECIPIENT, the project, the loan, or this agreement known to the RECIPIENT which has not been disclosed in writing to ECOLOGY.

Existence; Authority. It is a duly formed and legally existing municipal corporation or political subdivision of the state of Washington or a federally recognized Indian Tribe. It has full corporate power and authority to execute, deliver, and perform all of its obligations under this agreement and to undertake the project identified herein.

Certification. Each payment request shall constitute a certification by the RECIPIENT to the effect that all representations and warranties made in this loan agreement remain true as of the date of the request and that no adverse developments, affecting the financial condition of the RECIPIENT or its ability to complete the project or to repay the principal of or interest on the loan, have occurred since the date of this loan agreement. Any changes in the RECIPIENT's financial condition shall be disclosed in writing to ECOLOGY by the RECIPIENT in its request for payment.

R. Sale or Disposition of Utility: The RECIPIENT shall not sell, transfer, or otherwise dispose of any of the works, plant, properties, facilities, or other part of the Utility, or any real or personal property comprising a part of the Utility unless one of the following applies:

1. The facilities or property transferred are not material to the operation of the Utility; or have become unserviceable, inadequate, obsolete, or unfit to be used in the operation of the Utility; or are no longer necessary, material, or useful to

the operation of the Utility.

2. The aggregate depreciated cost value of the facilities or property being transferred in any fiscal year comprises no more than three percent of the total assets of the Utility.

3. The RECIPIENT receives from the transferee an amount which shall be in the same proportion to the net amount of Senior Lien Obligations and this loan then outstanding (defined as the total amount outstanding less the amount of cash and investments in the bond and loan funds securing such debt) as the Gross Revenue of the Utility from the portion of the Utility sold or disposed of for the preceding year bears to the total Gross Revenue for that period.
The proceeds of any transfer under this paragraph shall be used (1) to redeem promptly or irrevocably set aside for the redemption of, Senior Lien Obligations and to redeem promptly the loan; or (2) to provide for part of the cost of additions to and betterments and extensions of the Utility.

S. Sewer-Use Ordinance or Resolution: If not already in existence, the RECIPIENT shall adopt and shall enforce a sewer-use ordinance or resolution. The sewer use ordinance must include provisions to:

1) Prohibit the introduction of toxic or hazardous wastes into the RECIPIENT's sewer system.

2) Prohibit inflow of stormwater.

3) Require that new sewers and connections be properly designed and constructed.

4) Require all existing and future residents to connect to the sewer system. Such ordinance or resolution shall be submitted to ECOLOGY upon request by ECOLOGY.

T. Termination and Default:

Termination and Default Events

1. For Insufficient ECOLOGY or RECIPIENT Funds. ECOLOGY may terminate this loan agreement for insufficient ECOLOGY or RECIPIENT funds.

2. For Failure to Commence Work. ECOLOGY may terminate this loan agreement for failure of the RECIPIENT to commence project work.

3. Past Due Payments. The RECIPIENT shall be in default of its obligations under this loan agreement when any loan repayment becomes 60 days past due.

4. Other Cause. The obligation of ECOLOGY to the RECIPIENT is contingent upon satisfactory performance in full by the RECIPIENT of all of its obligations under this loan agreement. The RECIPIENT shall be in default of its obligations under this loan agreement if, in the opinion of ECOLOGY, the RECIPIENT has unjustifiably failed to perform any obligation required of it by this loan agreement.

Procedures for Termination. If this loan agreement is terminated prior to project completion, ECOLOGY shall provide to the RECIPIENT a written notice of termination at least five working days prior to the effective date of termination (the "Termination Date"). The written notice of termination by the ECOLOGY shall specify the Termination Date and, when applicable, the date by which the RECIPIENT must repay any outstanding balance of the loan and all accrued interest (the "Termination Payment Date").

Termination and Default Remedies

No Further Payments. On and after the Termination Date, or in the event of a default event, ECOLOGY may, at its sole discretion, withdraw the loan and make no further payments under this agreement.

Repayment Demand. In response to an ECOLOGY initiated termination event, or in response to a loan default event, ECOLOGY may at its sole discretion demand that the RECIPIENT repay the outstanding balance of the Loan Amount and all accrued interest.

Interest after Repayment Demand. From the time that ECOLOGY demands repayment of funds, amounts owed by the RECIPIENT to ECOLOGY shall accrue additional interest at the rate of one percent per month, or fraction thereof.

Accelerate Repayments. In the event of a default, ECOLOGY may at its sole discretion declare the principal of and interest on the loan immediately due and payable, subject to the prior lien and charge of any outstanding Senior Lien Obligations upon the Net Revenue. Repayments not made immediately upon such acceleration shall incur late charges.

Late Charges. All amounts due to ECOLOGY and not paid by the RECIPIENT by the Termination Payment Date or after acceleration following a default event, as applicable, shall incur late charges.

Intercept State Funds. In the event of a default event and in accordance with Chapter 90.50A.060 RCW, "Defaults," any state funds otherwise due to the RECIPIENT may, at ECOLOGY's sole discretion, be withheld and applied to the repayment of the loan.

Property to ECOLOGY. In the event of a default event and at the option of ECOLOGY, any personal property (equipment) acquired under this agreement may, in ECOLOGY's sole discretion, become ECOLOGY's property. In that circumstance, ECOLOGY shall reduce the RECIPIENT's liability to repay money by an amount reflecting the fair value of such property.

Documents and Materials. If this agreement is terminated, all finished or unfinished documents, data studies, surveys, drawings, maps, models, photographs, and reports or other materials prepared by the RECIPIENT shall, at the option of ECOLOGY, become ECOLOGY property. The RECIPIENT shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials.

Collection and Enforcement Actions. In the event of a default event, the state of Washington reserves the right to take any actions it deems necessary to collect the amounts due, or to become due, or to enforce the performance and observance of any obligation by the RECIPIENT, under this agreement.

Fees and Expenses. In any action to enforce the provisions of this agreement, reasonable fees and expenses of attorneys and other reasonable expenses (including, without limitation, the reasonably allocated costs of legal staff) shall be awarded to the prevailing party as that term is defined in Chapter 4.84.330 RCW.

Damages. Notwithstanding ECOLOGY's exercise of any or all of the termination or default remedies provided in this agreement, the RECIPIENT shall not be relieved of any liability to ECOLOGY for damages sustained by ECOLOGY and/or the state of Washington because of any breach of this agreement by the RECIPIENT. ECOLOGY may withhold payments for the purpose of setoff until such time as the exact amount of damages due ECOLOGY from the RECIPIENT is determined.

U. User-Charge System: The RECIPIENT certifies that it has the legal authority to establish and implement a user-charge system and shall adopt a system of user-charges to assure that each user of the utility shall pay its

proportionate share of the cost of operation and maintenance, including replacement during the design life of the project.
In addition, the RECIPIENT shall regularly evaluate the user-charge system, at least annually, to ensure the system provides adequate revenues necessary to operate and maintain the utility, to establish a reserve to pay for replacement, to establish the required Loan Reserve Account, and to repay the loan.

GENERAL FEDERAL CONDITIONS

If a portion or all of the funds for this agreement are provided through federal funding sources or this agreement is used to match a federal grant award, the following terms and conditions apply to you.

CERTIFICATION REGARDING SUSPENSION, DEBARMENT, INELIGIBILITY OR VOLUNTARY EXCLUSION:

1. The RECIPIENT/CONTRACTOR, by signing this agreement, certifies that it is not suspended, debarred, proposed for debarment, declared ineligible or otherwise excluded from contracting with the federal government, or from receiving contracts paid for with federal funds. If the RECIPIENT/CONTRACTOR is unable to certify to the statements contained in the certification, they must provide an explanation as to why they cannot.
2. The RECIPIENT/CONTRACTOR shall provide immediate written notice to ECOLOGY if at any time the RECIPIENT/CONTRACTOR learns that its certification was erroneous when submitted or had become erroneous by reason of changed circumstances.
3. The terms covered transaction, debarred, suspended, ineligible, lower tier covered transaction, participant, person, primary covered transaction, principal, proposal, and voluntarily excluded, as used in this clause, have the meaning set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department for assistance in obtaining a copy of those regulations..
4. The RECIPIENT/CONTRACTOR agrees it shall not knowingly enter into any lower tier covered transaction with a person who is proposed for debarment under the applicable Code of Federal Regulations, debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction.
5. The RECIPIENT/CONTRACTOR further agrees by signing this agreement, that it will include this clause titled "CERTIFICATION REGARDING SUSPENSION, DEBARMENT, INELIGIBILITY OR VOLUNTARY EXCLUSION" without modification in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
6. Pursuant to 2CFR180.330, the RECIPIENT/CONTRACTOR is responsible for ensuring that any lower tier covered transaction complies with certification of suspension and debarment requirements.
7. RECIPIENT/CONTRACTOR acknowledges that failing to disclose the information required in the Code of Federal Regulations may result in the delay or negation of this funding agreement, or pursuance of legal remedies, including suspension and debarment.
8. RECIPIENT/CONTRACTOR agrees to keep proof in its agreement file, that it, and all lower tier recipients or contractors, are not suspended or debarred, and will make this proof available to ECOLOGY before requests for reimbursements will be approved for payment. RECIPIENT/CONTRACTOR must run a search in <http://www.sam.gov> and print a copy of completed searches to document proof of compliance.

Federal Funding Accountability And Transparency Act (FFATA) Reporting Requirements:

RECIPIENT must complete the FFATA Data Collection Form (ECY 070-395) and return it with the signed agreement to ECOLOGY.

Any RECIPIENT that meets each of the criteria below must also report compensation for its five top executives, using FFATA Data Collection Form.

- Receives more than $25,000 in federal funds under this award; and
- Receives more than 80 percent of its annual gross revenues from federal funds; and
- Receives more than $25,000,000 in annual federal funds

ECOLOGY will not pay any invoice until it has received a completed and signed FFATA Data Collection Form. ECOLOGY is required to report the FFATA information for federally funded agreements, including the required DUNS number, at www.fsrs.gov <http://www.fsrs.gov> within 30 days of agreement signature. The FFATA information will be available to the public at www.usaspending.gov <http://www.usaspending.gov>.

For more details on FFATA requirements, see www.fsrs.gov <http://www.fsrs.gov>.

GENERAL TERMS AND CONDITIONS

1. ADMINISTRATIVE REQUIREMENTS

a) RECIPIENT shall follow the "Administrative Requirements for Recipients of Ecology Grants and Loans – EAGL Edition". https://fortress.wa.gov/ecy/publications/SummaryPages/1401002.html

b) RECIPIENT shall complete all activities funded by this Agreement and be fully responsible for the proper management of all funds and resources made available under this Agreement.

c) RECIPIENT agrees to take complete responsibility for all actions taken under this Agreement, including ensuring all subgrantees and contractors comply with the terms and conditions of this Agreement. ECOLOGY reserves the right to request proof of compliance by subgrantees and contractors.

d) RECIPIENT's activities under this Agreement shall be subject to the review and approval by ECOLOGY for the extent and character of all work and services.

2. AMENDMENTS AND MODIFICATIONS

This Agreement may be altered, amended, or waived only by a written amendment executed by both parties. No subsequent modification(s) or amendment(s) of this Agreement will be of any force or effect unless in writing and signed by authorized representatives of both parties. ECOLOGY and the RECIPIENT may change their respective staff contacts and administrative information without the concurrence of either party.

3. ARCHAEOLOGICAL AND CULTURAL RESOURCES

RECIPIENT shall take reasonable action to avoid, minimize, or mitigate adverse effects to archeological or cultural resources. Activities associated with archaeological and cultural resources are an eligible reimbursable cost subject to approval by ECOLOGY.

RECIPIENT shall:

a) Immediately cease work and notify ECOLOGY if any archeological or cultural resources are found while conducting work under this Agreement.

b) Immediately notify the Department of Archaeology and Historic Preservation at (360) 586-3064, in the event historical or cultural artifacts are discovered at a work site.

c) Comply with Governor Executive Order 05-05, Archaeology and Cultural Resources, for any capital construction projects prior to the start of any work.

d) Comply with RCW 27.53, Archaeological Sites and Resources, for any work performed under this Agreement, as applicable. National Historic Preservation Act (NHPA) may require the RECIPIENT to obtain a permit pursuant to Chapter 27.53 RCW prior to conducting on-site activity with the potential to impact cultural or historic properties.

4. ASSIGNMENT

No right or claim of the RECIPIENT arising under this Agreement shall be transferred or assigned by the RECIPIENT.

5. COMMUNICATION

RECIPIENT shall make every effort to maintain effective communications with the RECIPIENT's designees, ECOLOGY, all affected local, state, or federal jurisdictions, and any interested individuals or groups.

6. COMPENSATION

a) Any work performed prior to effective date of this Agreement will be at the sole expense and risk of the RECIPIENT. ECOLOGY must sign the Agreement before any payment requests can be submitted.

b) Payments will be made on a reimbursable basis for approved and completed work as specified in this Agreement.

c) RECIPIENT is responsible to understand if costs are eligible. Any questions regarding eligibility should be clarified with ECOLOGY prior to incurring costs. Costs that are conditionally eligible may require approval by ECOLOGY prior to purchase.

d) RECIPIENT shall not invoice more than once per month unless agreed on by ECOLOGY.

e) ECOLOGY will not process payment requests without the proper reimbursement forms, Progress Report and supporting documentation. ECOLOGY will provide instructions for submitting payment requests.

f) ECOLOGY will pay the RECIPIENT thirty (30) days after receipt of a properly completed request for payment.

g) RECIPIENT will receive payment through Washington State Department of Enterprise Services' Statewide Payee Desk. RECIPIENT must register as a payee by submitting a Statewide Payee Registration form and an IRS W-9 form at the website, http://www.des.wa.gov/services/ContractingPurchasing/Business/VendorPay/Pages/default.aspx. For any questions about the vendor registration process contact the Statewide Payee Help Desk at (360) 407-8180 or email payeehelpdesk@des.wa.gov.

h) ECOLOGY may, at its sole discretion, withhold payments claimed by the RECIPIENT if the RECIPIENT fails to satisfactorily comply with any term or condition of this Agreement.

i) Monies withheld by ECOLOGY may be paid to the RECIPIENT when the work described herein, or a portion thereof, have been completed if, at ECOLOGY's sole discretion, such payment is reasonable and approved according to this Agreement and, as appropriate, or upon completion of an audit as specified herein.

j) RECIPIENT should submit final requests for compensation within thirty (30) days after the expiration date of this Agreement. Failure to comply may result in delayed reimbursement.

7. COMPLIANCE WITH ALL LAWS

RECIPIENT agrees to comply fully with all applicable Federal, State and local laws, orders, regulations, and permits related to this Agreement, including but not limited to:

a) RECIPIENT agrees to comply with all applicable laws, regulations, and policies of the United States and the State of Washington which affect wages and job safety.

b) RECIPIENT agrees to be bound by all federal and state laws, regulations, and policies against discrimination.

c) RECIPIENT certifies full compliance with all applicable state industrial insurance requirements.

d) RECIPIENT agrees to secure and provide assurance to ECOLOGY that all the necessary approvals and permits required by authorities having jurisdiction over the project are obtained. RECIPIENT must include time in their project timeline for the permit and approval processes.

ECOLOGY shall have the right to immediately terminate for cause this Agreement as provided herein if the RECIPIENT fails to comply with above requirements.

If any provision of this Agreement violates any statute or rule of law of the state of Washington, it is considered modified to conform to that statute or rule of law.

8. CONFLICT OF INTEREST

RECIPIENT and ECOLOGY agree that any officer, member, agent, or employee, who exercises any function or responsibility in the review, approval, or carrying out of this Agreement, shall not have any personal or financial interest, direct or indirect, nor affect the interest of any corporation, partnership, or association in which he/she is a part, in this Agreement or the proceeds thereof.

9. CONTRACTING FOR GOODS AND SERVICES

RECIPIENT may contract to buy goods or services related to its performance under this Agreement. RECIPIENT shall award all contracts for construction, purchase of goods, equipment, services, and professional architectural and engineering services through a competitive process, if required by State law. RECIPIENT is required to follow procurement procedures that ensure legal, fair, and open competition.

RECIPIENT must have a standard procurement process or follow current state procurement procedures. RECIPIENT may be required to provide written certification that they have followed their standard procurement procedures and applicable state law in awarding contracts under this Agreement.

ECOLOGY reserves the right to inspect and request copies of all procurement documentation, and review procurement practices related to this Agreement. Any costs incurred as a result of procurement practices not in compliance with state procurement law or the RECIPIENT's normal procedures may be disallowed at ECOLOGY's sole discretion.

10. DISPUTES

When there is a dispute with regard to the extent and character of the work, or any other matter related to this Agreement the determination of ECOLOGY will govern, although the RECIPIENT shall have the right to appeal decisions as provided for below:

a) RECIPIENT notifies the funding program of an appeal request.
b) Appeal request must be in writing and state the disputed issue(s).
c) RECIPIENT has the opportunity to be heard and offer evidence in support of its appeal.
d) ECOLOGY reviews the RECIPIENT's appeal.
e) ECOLOGY sends a written answer within ten (10) business days, unless more time is needed, after concluding the review.

The decision of ECOLOGY from an appeal will be final and conclusive, unless within thirty (30) days from the date of such decision, the RECIPIENT furnishes to the Director of ECOLOGY a written appeal. The decision of the Director or duly authorized representative will be final and conclusive.

The parties agree that this dispute process will precede any action in a judicial or quasi-judicial tribunal.

Appeals of the Director's decision will be brought in the Superior Court of Thurston County. Review of the Director's decision will not be taken to Environmental and Land Use Hearings Office.

Pending final decision of a dispute, the RECIPIENT agrees to proceed diligently with the performance of this Agreement and in accordance with the decision rendered.

Nothing in this contract will be construed to limit the parties' choice of another mutually acceptable method, in addition to the dispute resolution procedure outlined above.

11. ENVIRONMENTAL STANDARDS

a) RECIPIENTS who collect environmental-monitoring data must provide these data to ECOLOGY using the Environmental Information Management System (EIM). To satisfy this requirement these data must be successfully loaded into EIM, see instructions on the EIM website at: http://www.ecy.wa.gov/eim.

b) RECIPIENTS are required to follow ECOLOGY's data standards when Geographic Information System (GIS) data are collected and processed. More information and requirements are available at: http://www.ecy.wa.gov/services/gis/data/standards/standards.htm. RECIPIENTS shall provide copies to ECOLOGY of all final GIS data layers, imagery, related tables, raw data collection files, map products, and all metadata and project documentation.
c) RECIPIENTS must prepare a Quality Assurance Project Plan (QAPP) when a project involves the collection of environmental measurement data. QAPP is to ensure the consistent application of quality assurance principles to the planning and execution of all activities involved in generating data. RECIPIENTS must follow ECOLOGY's Guidelines for Preparing Quality Assurance Project Plans for Environmental Studies, July 2004 (Ecology Publication No. 04-03-030). ECOLOGY shall review and approve the QAPP prior to start of work. The size, cost, and complexity of the QAPP should be in proportion to the magnitude of the sampling effort.

12. GOVERNING LAW
This Agreement will be governed by the laws of the State of Washington, and the venue of any action brought hereunder will be in the Superior Court of Thurston County.

13. INDEMNIFICATION
ECOLOGY will in no way be held responsible for payment of salaries, consultant's fees, and other costs related to the project described herein, except as provided in the Scope of Work.

To the extent that the Constitution and laws of the State of Washington permit, each party will indemnify and hold the other harmless from and against any liability for any or all injuries to persons or property arising from the negligent act or omission of that party or that party's agents or employees arising out of this Agreement.

14. INDEPENDENT STATUS
The employees, volunteers, or agents of each party who are engaged in the performance of this Agreement will continue to be employees, volunteers, or agents of that party and will not for any purpose be employees, volunteers, or agents of the other party.

15. KICKBACKS
RECIPIENT is prohibited from inducing by any means any person employed or otherwise involved in this Agreement to give up any part of the compensation to which he/she is otherwise entitled or, receive any fee, commission, or gift in return for award of a subcontract hereunder.

16. MINORITY AND WOMEN'S BUSINESS ENTERPRISES (MWBE)
RECIPIENT is encouraged to solicit and recruit, to the extent possible, certified minority-owned (MBE) and women-owned (WBE) businesses in purchases and contracts initiated under this Agreement.

Contract awards or rejections cannot be made based on MWBE participation; however, the RECIPIENT is encouraged to take the following actions, when possible, in any procurement under this Agreement:
a) Include qualified minority and women's businesses on solicitation lists whenever they are potential sources of goods or services.
b) Divide the total requirements, when economically feasible, into smaller tasks or quantities, to permit maximum participation by qualified minority and women's businesses.
c) Establish delivery schedules, where work requirements permit, which will encourage participation of qualified minority and women's businesses.
d) Use the services and assistance of the Washington State Office of Minority and Women's Business Enterprises (OMWBE) (866-208-1064) and the Office of Minority Business Enterprises of the U.S. Department of Commerce, as appropriate.

17. ORDER OF PRECEDENCE

In the event of inconsistency in this Agreement, unless otherwise provided herein, the inconsistency shall be resolved by giving precedence in the following order: (a) applicable Federal and State statutes and regulations; (b) Scope of Work; (c) Special Terms and Conditions; (d) Any provisions or terms incorporated herein by reference including the "Administrative Requirements for Recipients of Ecology Grants and Loans"; and (e) the General Terms and Conditions.

18. PRESENTATION AND PROMOTIONAL MATERIALS

RECIPIENT shall obtain ECOLOGY's approval for all communication materials or documents related to the fulfillment of this Agreement, steps for approval:

a) Provide a draft copy to ECOLOGY for review and approval ten (10) business days prior to production and distribution of any documents or materials compiled or produced.

b) ECOLOGY reviews draft copy and reserves the right to require changes until satisfied.

c) Provide ECOLOGY two (2) final copies and an electronic copy of any tangible products developed.

Copies include any printed materials, and all tangible products developed such as brochures, manuals, pamphlets, videos, audio tapes, CDs, curriculum, posters, media announcements, or gadgets, such as a refrigerator magnet with a message as well as media announcements, and any other online communication products such as Web pages, blogs, and Twitter campaigns. If it is not practical to provide a copy, then the RECIPIENT must provide a complete description including photographs, drawings, or printouts of the product that best represents the item.

RECIPIENT shall include time in their project timeline for ECOLOGY's review and approval process.

RECIPIENT shall acknowledge in the materials or documents that funding was provided by ECOLOGY.

19. PROGRESS REPORTING

a) RECIPIENT must satisfactorily demonstrate the timely use of funds by submitting payment requests and progress reports to ECOLOGY. ECOLOGY reserves the right to amend or terminate this Agreement if the RECIPIENT does not document timely use of funds.

b) RECIPIENT must submit a progress report with each payment request. Payment requests will not be processed without a progress report. ECOLOGY will define the elements and frequency of progress reports.

c) RECIPIENT shall use ECOLOGY's provided progress report format.

d) Quarterly progress reports will cover the periods from January 1 through March 31, April 1 through June 30, July 1 through September 30, and October 1 through December 31. Reports shall be submitted within thirty (30) days after the end of the quarter being reported.

e) RECIPIENT shall submit the Closeout Report within thirty (30) days of the expiration date of the project, unless an extension has been approved by ECOLOGY. RECIPIENT shall use the ECOLOGY provided closeout report format.

20. PROPERTY RIGHTS

a) Copyrights and Patents. When the RECIPIENT creates any copyrightable materials or invents any patentable property, the RECIPIENT may copyright or patent the same but ECOLOGY retains a royalty free, nonexclusive, and irrevocable license to reproduce, publish, recover, or otherwise use the material(s) or property, and to authorize others to use the same for federal, state, or local government purposes.

b) Publications. When the RECIPIENT or persons employed by the RECIPIENT use or publish information of ECOLOGY; present papers, lectures, or seminars involving information supplied by ECOLOGY; use logos, reports, maps, or other data, in printed reports, signs, brochures, pamphlets, etc., appropriate credit shall be given to ECOLOGY.

c) Presentation and Promotional Materials. ECOLOGY shall have the right to use or reproduce any printed or graphic materials produced in fulfillment of this Agreement, in any manner ECOLOGY deems appropriate. ECOLOGY shall

acknowledge the RECIPIENT as the sole copyright owner in every use or reproduction of the materials.

d) Tangible Property Rights. ECOLOGY's current edition of "Administrative Requirements for Recipients of Ecology Grants and Loans," shall control the use and disposition of all real and personal property purchased wholly or in part with funds furnished by ECOLOGY in the absence of state and federal statutes, regulations, or policies to the contrary, or upon specific instructions with respect thereto in this Agreement.

e) Personal Property Furnished by ECOLOGY. When ECOLOGY provides personal property directly to the RECIPIENT for use in performance of the project, it shall be returned to ECOLOGY prior to final payment by ECOLOGY. If said property is lost, stolen, or damaged while in the RECIPIENT's possession, then ECOLOGY shall be reimbursed in cash or by setoff by the RECIPIENT for the fair market value of such property.

f) Acquisition Projects. The following provisions shall apply if the project covered by this Agreement includes funds for the acquisition of land or facilities:

a. RECIPIENT shall establish that the cost is fair value and reasonable prior to disbursement of funds provided for in this Agreement.

b. RECIPIENT shall provide satisfactory evidence of title or ability to acquire title for each parcel prior to disbursement of funds provided by this Agreement. Such evidence may include title insurance policies, Torrens certificates, or abstracts, and attorney's opinions establishing that the land is free from any impediment, lien, or claim which would impair the uses intended by this Agreement.

g) Conversions. Regardless of the agreement expiration date, the RECIPIENT shall not at any time convert any equipment, property, or facility acquired or developed under this Agreement to uses other than those for which assistance was originally approved without prior written approval of ECOLOGY. Such approval may be conditioned upon payment to ECOLOGY of that portion of the proceeds of the sale, lease, or other conversion or encumbrance which monies granted pursuant to this Agreement bear to the total acquisition, purchase, or construction costs of such property.

21. RECORDS, AUDITS, AND INSPECTIONS

RECIPIENT shall maintain complete program and financial records relating to this Agreement, including any engineering documentation and field inspection reports of all construction work accomplished.

All records shall:

a) Be kept in a manner which provides an audit trail for all expenditures.

b) Be kept in a common file to facilitate audits and inspections.

c) Clearly indicate total receipts and expenditures related to this Agreement.

d) Be open for audit or inspection by ECOLOGY, or by any duly authorized audit representative of the State of Washington, for a period of at least three (3) years after the final grant payment or loan repayment, or any dispute resolution hereunder.

RECIPIENT shall provide clarification and make necessary adjustments if any audits or inspections identify discrepancies in the records.

ECOLOGY reserves the right to audit, or have a designated third party audit, applicable records to ensure that the state has been properly invoiced. Any remedies and penalties allowed by law to recover monies determined owed will be enforced. Repetitive instances of incorrect invoicing or inadequate records may be considered cause for termination.

All work performed under this Agreement and any property and equipment purchased shall be made available to ECOLOGY and to any authorized state, federal or local representative for inspection at any time during the course of this Agreement and for at least three (3) years following grant or loan termination or dispute resolution hereunder.

RECIPIENT shall provide right of access to ECOLOGY, or any other authorized representative, at all reasonable times, in order to monitor and evaluation performance, compliance, and any other conditions under this Agreement.

22. RECOVERY OF FUNDS

The right of the RECIPIENT to retain monies received as reimbursement payments is contingent upon satisfactory performance of this Agreement and completion of the work described in the Scope of Work.

All payments to the RECIPIENT are subject to approval and audit by ECOLOGY, and any unauthorized expenditure(s) or unallowable cost charged to this agreement shall be refunded to ECOLOGY by the RECIPIENT.

RECIPIENT shall refund to ECOLOGY the full amount of any erroneous payment or overpayment under this Agreement.

RECIPIENT shall refund by check payable to ECOLOGY the amount of any such reduction of payments or repayments within thirty (30) days of a written notice. Interest will accrue at the rate of twelve percent (12%) per year from the time ECOLOGY demands repayment of funds.

Any property acquired under this Agreement, at the option of ECOLOGY, may become ECOLOGY's property and the RECIPIENT's liability to repay monies will be reduced by an amount reflecting the fair value of such property.

23. SEVERABILITY

If any provision of this Agreement or any provision of any document incorporated by reference shall be held invalid, such invalidity shall not affect the other provisions of this Agreement which can be given effect without the invalid provision, and to this end the provisions of this Agreement are declared to be severable.

24. STATE ENVIRONMENTAL POLICY ACT (SEPA)

RECIPIENT must demonstrate to ECOLOGY's satisfaction that compliance with the requirements of the State Environmental Policy Act (Chapter 43.21C RCW and Chapter 197-11 WAC) have been or will be met. Any reimbursements are subject to this provision.

25. SUSPENSION

When in the best interest of ECOLOGY, ECOLOGY may at any time, and without cause, suspend this Agreement or any portion thereof for a temporary period by written notice from ECOLOGY to the RECIPIENT. RECIPIENT shall resume performance on the next business day following the suspension period unless another day is specified by ECOLOGY.

26. SUSTAINABLE PRACTICES

In order to sustain Washington's natural resources and ecosystems, the RECIPIENT is fully encouraged to implement sustainable practices and to purchase environmentally preferable products under this Agreement.

a) Sustainable practices may include such activities as: use of clean energy, use of double-sided printing, hosting low impact meetings, and setting up recycling and composting programs.

b) Purchasing may include such items as: sustainably produced products and services, EPEAT registered computers and imaging equipment, independently certified green cleaning products, remanufactured toner cartridges, products with reduced packaging, office products that are refillable, rechargeable, and recyclable, and 100% post consumer recycled paper.

For more suggestions visit ECOLOGY's web pages: Green Purchasing, http://www.ecy.wa.gov/programs/swfa/epp and Sustainability, www.ecy.wa.gov/sustainability.

27. TERMINATION

a) For Cause

ECOLOGY may terminate for cause this Agreement with a seven (7) calendar days prior written notification to the

RECIPIENT, at the sole discretion of ECOLOGY, for failing to perform an Agreement requirement or for a material breach of any term or condition. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination.

Failure to Commence Work. ECOLOGY reserves the right to terminate this Agreement if RECIPIENT fails to commence work on the project funded within four (4) months after the effective date of this Agreement, or by any date mutually agreed upon in writing for commencement of work, or the time period defined within the Scope of Work.

Non-Performance. The obligation of ECOLOGY to the RECIPIENT is contingent upon satisfactory performance by the RECIPIENT of all of its obligations under this Agreement. In the event the RECIPIENT unjustifiably fails, in the opinion of ECOLOGY, to perform any obligation required of it by this Agreement, ECOLOGY may refuse to pay any further funds, terminate in whole or in part this Agreement, and exercise any other rights under this Agreement.

Despite the above, the RECIPIENT shall not be relieved of any liability to ECOLOGY for damages sustained by ECOLOGY and the State of Washington because of any breach of this Agreement by the RECIPIENT. ECOLOGY may withhold payments for the purpose of setoff until such time as the exact amount of damages due ECOLOGY from the RECIPIENT is determined.

b) For Convenience

ECOLOGY may terminate for convenience this Agreement, in whole or in part, for any reason when it is the best interest of ECOLOGY, with a thirty (30) calendar days prior written notification to the RECIPIENT. If this Agreement is so terminated, the parties shall be liable only for performance rendered or costs incurred in accordance with the terms of this Agreement prior to the effective date of termination.

Non-Allocation of Funds. ECOLOGY's ability to make payments is contingent on availability of funding. In the event funding from state, federal or other sources is withdrawn, reduced, or limited in any way after the effective date and prior to the completion or expiration date of this agreement, ECOLOGY, at its sole discretion, may elect to terminate the agreement, in whole or part, or renegotiate the agreement, subject to new funding limitations or conditions. ECOLOGY may also elect to suspend performance of the agreement until ECOLOGY determines the funding insufficiency is resolved. ECOLOGY may exercise any of these options with no notification or restrictions.

If payments have been discontinued by ECOLOGY due to unavailable funds, the RECIPIENT shall not be obligated to repay monies which had been paid to the RECIPIENT prior to such termination.

RECIPIENT's obligation to continue or complete the work described in this Agreement shall be contingent upon availability of funds by the RECIPIENT's governing body.

c) By Mutual Agreement

ECOLOGY and the RECIPIENT may terminate this Agreement, in whole or in part, at any time, by mutual written agreement.

d) In Event of Termination

All finished or unfinished documents, data studies, surveys, drawings, maps, models, photographs, reports or other materials prepared by the RECIPIENT under this Agreement, at the option of ECOLOGY, will become property of ECOLOGY and the RECIPIENT shall be entitled to receive just and equitable compensation for any satisfactory work completed on such documents and other materials.

Nothing contained herein shall preclude ECOLOGY from demanding repayment of all funds paid to the RECIPIENT in accordance with Recovery of Funds, identified herein.

28. THIRD PARTY BENEFICIARY

RECIPIENT shall ensure that in all subcontracts entered into by the RECIPIENT pursuant to this Agreement, the state of Washington is named as an express third party beneficiary of such subcontracts with full rights as such.

29. WAIVER

Waiver of a default or breach of any provision of this Agreement is not a waiver of any subsequent default or breach, and will not be construed as a modification of the terms of this Agreement unless stated as such in writing by the authorized representative of ECOLOGY.

CITY OF ILWACO
CITY COUNCIL AGENDA ITEM BRIEFING

A. Meeting Dates: Council Workshop: Public Hearing:
Council Discussion Item: 02/09/15 Council Business Item: 2/23/15

B. Issue/Topic: **Development Standards vs. Developer Standards**

C. Sponsor(s):
1. Marshall 2.

D. Background (overview of why issue is before council):
1. This amendment is an effort to clarify the term developer, which may be more likely associated with a professional builder; from the term development, which should reflect the action of developing.

E. Discussion (specific details relevant to the issue, pros/cons, alternatives and any other decision-making details)
1. The full length of the ordinance and the proposed amendments are attached hereto.
2. The amendment will change the term "developer standards" to "development standards" throughout Title 14, and the title of the "Developer Standards" Manual to "Development Standards" Manual.

F. Impacts:
1. Fiscal:
2. Legal: Per Heather Reynolds, "No ordinance or any section or subsection thereof shall be revised or amended unless the new ordinance sets forth the revised ordinance or the amended section or subsection at full length."
3. Personnel: Nancy Lockett has reviewed the ordinance and provided an amended Development Standards Manual to reflect the changes.
4. Service/Delivery:

G. Planning Commission: ☐ Recommended ☒ N/A ☐ Public Hearing on

H. Staff Comments:
1.

I. Time Constraints/Due Dates:

Proposed Motion: **I move to enact the Ordinance that modifies the language "Developer Standards" to "Development Standards" within the Ilwaco Municipal Code TITLE 14.**

CITY OF ILWACO
ORDINANCE NO.XXX

AN ORDINANCE AMENDING THE CITY OF ILWACO, WASHINGTON MUNICIPAL CODE ADOPTING THE LANGUAGE OF "DEVELOPMENT STANDARDS" IN PLACE OF "DEVELOPER STANDARDS".

WHEREAS, the City Council recognizes the need for clarity of language used and efficiency of City staff processes; and

WHEREAS, the City Council recognizes that the use of "Development Standards" is appropriate inasmuch as the standards apply to the City as well as private developers; and

WHEREAS, the City Council did meet at said time and place and did then consider the matter of said proposed policies; and

WHEREAS, the said proposed legislation is within the authority of the City Council to establish,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ILWACO, WASHINGTON, DOES ORDAIN AS FOLLOWS:

SECTION 1. Title 14 of the Ilwaco Municipal Code shall be amended to read as follows:

TITLE 14 ~~DEVELOPER~~ DEVELOPMENT STANDARDS

CHAPTER 14.02 CITY OF ILWACO ~~DEVELOPER~~ DEVELOPMENT STANDARDS ADOPTED

14.02.010 Adoption by Reference.

The "City of Ilwaco ~~Developer~~ Development Standards" manual has been prepared to provide a graphic and written representation of minimum standards for construction of public improvement within the public right-of-way, easement, City properties, and on private property relating to utilities which are connected to the utility systems maintained by the City of Ilwaco.

The City of Ilwaco ~~Developer~~ Development Standards and Pacific County Road Standards are adopted by reference upon the effective date of the ordinance codified

herein. Future amendments to the ~~Developer~~ Development Standards established hereafter shall automatically become a part of this section upon publication:

14.02.020 Definitions.

For the purpose of this Chapter and the City of Ilwaco ~~Developer~~ Development Standards, the following terms, in addition to their common meaning, are defined:

a. "City Engineer" shall mean an Engineer employed or contracted by the City on either a part-time or full-time basis.

14.02.030 Minor Revisions Administratively Approved.

The City Engineer is authorized to adopted, administratively, minor revisions to the City of Ilwaco ~~Developer~~ Development Standards to better implement the Standards or allow for changes in design and construction technology and methods occurring after the effective date of this Ordinance.

14.02.040 Copy on File.

One copy of the City of Ilwaco ~~Developer~~ Development Standards shall be available in the office of the City Clerk for review and copying by members of the public. Additionally, any minor administrative revisions made by the City Engineer subsequent to the effective date of this Ordinance shall be dated by the City Engineer, and a copy of the revised City of Ilwaco ~~Developer~~ Development Standards shall be made available in the office of the City Clerk for review and copying by members of the public.

SECTION 3. *SEVERABILITY.*

If any section, sentence, or phrase of this Ordinance should be held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, sentence, clause or phrase of this ordinance.

SECTION 4 *PUBLICATION AND SUMMARY.*

This Ordinance or summary thereof consisting of the title shall be published in the official newspaper of the City.

SECTION 5. *EFFECTIVE DATE.*

This Ordinance shall be in full force and effect five (5) days after publication of the summary consisting of the title.

PASSED BY THE CITY COUNCIL OF THE CITY OF ILWACO, AND SIGNED IN AUTHENTIFICATION OF ITS PASSAGE THIS XX DAY OF _____,2015

_____
Mike Cassinelli, Mayor

ATTEST:

_____
Holly Beller, Deputy City Clerk

VOTE	Jensen	Karnofski	Marshall	Chambreau	Forner	Cassinelli
Ayes						
Nays						
Abstentions						
Absent						

PUBLISHED:

EFFECTIVE:

Title 14

DEVELOPER STANDARDS

Chapters:

Chapter 14.02

CITY OF ILWACO DEVELOPER STANDARDS ADOPTED

Sections:

14.02.010 Adoption by reference.

The "City of Ilwaco Developer Standards" manual has been prepared to provide a graphic and written representation of minimum standards for construction of public improvement within the public right-of-way, easement, city properties, and on private property relating to utilities which are connected to the utility systems maintained by the city of Ilwaco.

The city of Ilwaco developer standards and Pacific County road standards are adopted by reference upon the effective date of the ordinance codified in this chapter. Future amendments to the developer standards established hereafter shall automatically become a part of this section upon publication. (Ord. 832 § 1 (part), 2014)

14.02.020 Definitions.

For the purpose of this chapter and the city of Ilwaco developer standards, the following terms, in addition to their common meaning, are defined:

A. "City engineer" shall mean an engineer employed or contracted by the city on either a part-time or full-time basis. (Ord. 832 § 1 (part), 2014)

14.02.030 Minor revisions administratively approved.

The city engineer is authorized to adopt, administratively, minor revisions to the city of Ilwaco developer standards to better implement the standards or allow for changes in design and construction technology and methods occurring after the effective date of the ordinance codified in this title. (Ord. 832 § 1 (part), 2014)

14.02.040 Copy on file.

One (1) copy of the city of Ilwaco developer standards shall be available in the office of the city clerk for review and copying by members of the public. Additionally, any minor administrative revisions made by the city engineer subsequent to the effective date of the ordinance codified in this chapter shall be dated by the city engineer, and a copy of the revised city of Ilwaco developer standards shall be made available in the office of the city clerk for review and copying by members of the public. (Ord. 832 § 1 (part), 2014)

Chapter 14.04

STREETS

Sections:

14.04.010 Purpose.

The purpose of this chapter is to define the requirements for street planning and construction to be followed in the development, review and approval of site plans, subdivisions, short subdivisions and new development in existing plats. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.010)

14.04.020 Construction standards and specifications.

A. Construction and design standards and specifications for streets are contained in the most recent edition of the document entitled "Pacific County Road Standards," and all streets must be completed in accordance with these standards.

B. Curbs, gutters and sidewalks are required in the city's commercial zones. When required, curbs, gutters and sidewalks must be constructed according to construction and design standards and specifications for curbs, gutters and sidewalks contained in the most recent edition of the document entitled "Pacific County Road Standards."

C. If a development accesses an existing street or is proposed at the end of an existing street that is not designed to accommodate the expected increase in traffic caused by the new development, then the developer must improve the existing street leading to the development up to the standards required for the expected increase in traffic (see Section 14.04.050B). Residential developments of up to four (4) units are exempt from this requirement. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.020)

14.04.030 Approval of construction drawings required before installation.

A. The city engineer must approve construction plans before any right-of-way improvements may be installed.

B. The right-of-way improvement plans must be prepared by a licensed engineer on twenty-four (24) inch by thirty-six (36) inch size mylar reproducible sheet for approval by the city engineer before starting construction.

C. The city engineer may require a survey before construction begins. If a survey is required, a copy of the survey must be given to the city. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.030)

14.04.040 Inspection of public improvements required before final permits are issued.
The city engineer or his or her representative must inspect all public improvement work before any final land use permit or building permit is issued. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.040)

14.04.050 Street classification.
A. If a street is dedicated to public use, the street must be classified as provided in subsection B of this section. Classification will be based on the following considerations:

1. The projected volume of traffic to be carried by the street, stated in terms of the number of trips per day;

2. The number of dwelling units to be served by the street may be used as an indicator of the number of trips but is not conclusive;

3. Whenever a subdivision street continues an existing street that used to end outside the subdivision, the classification of the street will be based upon the street in its entirety, both within and outside of the subdivision.

B. The classification of streets must comply with the most current edition of the Pacific County roads standards. The following are road or right-of-way classifications based on the anticipated average daily traffic (ADT) ten (10) years hence:

1. Major collector (ADT 2000+);

2. Minor collector (ADT 400-2000);

3. Access collector (ADT 0-400);

4. Cul-de-sac;

5. Private road. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.050)

14.04.060 Street in existing plat used as driveway.
A. In some existing plats in the city, a street is being used as a driveway because all of the lots created at the time that the area was platted have not yet been built upon.

B. In these situations in existing plats, if a street is used as a driveway, the property owner using the street as a driveway must improve it to city street standards and the city will maintain it. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.060)

14.04.070 Dedications.
A. Required minimum street right-of-way width is according to construction standards in the Pacific County road standards.

B. Easements must be provided for all public facilities and utilities as required by the city.

C. Additional rights-of-way may be required to be dedicated as a condition of development approval. In order to conform to minimum standards where developments abut an existing public road or private right-of-way, dedications may be required for extension of the existing public streets or new streets in order to provide continuity with the circulation system. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.070)

14.04.080 General layout of streets, blocks, lots and driveways.
A. All streets must be straight, whenever practicable, to the extent necessary to preserve and continue a grid system.

B. All subdivisions and site plans must provide direct access to at least one (1) existing improved and publicly dedicated street.

C. Proposed streets should extend to the boundary lines of the proposed subdivision in order to provide for the future development of adjacent tracts, unless prevented by natural or manmade conditions, or unless an extension is determined to be unnecessary or undesirable by the decision-making body.

D. Street patterns should be designed to expedite traffic movement to be able to move heavy emergency vehicles without obstruction.

E. Blocks must have sufficient width to provide for a maximum of two (2) tiers of lots of appropriate depths (according to zoning standards), unless existing conditions make this requirement impractical in the judgment of the decision-making body.

F. The maximum length of residential blocks should be six hundred (600) feet, and minimum length should be three hundred (300) feet, unless existing conditions make this requirement impractical in the judgment of the decision-making body.

G. Streets must be laid out so that the lengths, widths and shapes of blocks adequately address the following:

1. Provision of adequate building sites suitable to the type of use contemplated;

2. The zoning requirements are able to be met on future building permits;

3. The limitations and opportunities of the topography;

4. The needs for convenient access, circulation, control and safety of vehicular and pedestrian traffic are considered.

H. Lots to be created must comply with the following requirements:

1. Every lot must have access to allow emergency vehicles to enter and exit, as well as for all those likely to need or desire access to the property in its intended use;

2. Lot lines must be at right angles to street lines or radial to curvilinear streets, unless a variation will result in a better street or lot plan in the opinion of the decision-making body;

3. Dimensions of corner lots must be large enough to allow for front yard setbacks off both streets; and

4. Corner lots must be graded to provide sufficient sight clearance at intersections.

I. If a driveway connects to a city street, the property owner shall maintain the driveway to where it connects with the city street pavement. All driveways to be constructed connecting to the city street must obtain a permit, and must be designed and constructed to city standards. All driveway construction connecting to the city street will be inspected by city staff. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.080)

14.04.090 Coordination with surrounding streets.

A. The street system of a new subdivision or in an existing plat where new development is proposed must be coordinated with existing, proposed and anticipated streets outside the subdivision or existing plat (hereafter referred to as "surrounding streets").

B. Minor collector streets must intersect with surrounding major collector streets at safe and convenient locations.

C. Access collector streets must connect with surrounding streets where necessary:

1. To permit the convenient movement of traffic between residential neighborhoods;

2. To facilitate access to neighborhoods by emergency service vehicles; or

3. For other sufficient reasons, but connections will not be permitted where the effect would be to encourage the use of such streets by substantial through traffic.

D. Whenever connections to anticipated or proposed surrounding streets are required by this section:

1. The street right-of-way must be extended; and

2. The street must be developed to the property line of the subdivided property or existing plat at the point where the connection to the anticipated or proposed street is expected.

E. In addition, the permit-issuing authority may require temporary turnarounds to be constructed at the end of the streets described in subsection D of this section, pending their extension when such turnarounds appear necessary to facilitate the flow of traffic or accommodate emergency vehicles.

F. No temporary dead end streets in excess of six hundred (600) feet may be created unless no other practicable alternative is available. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.090)

14.04.100 Relationship of streets to topography.

A. Streets must be designed to facilitate drainage and stormwater runoff, and street grades must conform as closely as practicable to the original topography.

B. The maximum grade at any point on a street must not exceed fifteen percent (15%) unless no other practicable alternative is available. However, in no case may streets be constructed with grades that create a substantial danger to the public safety in the professional opinion of the city engineer. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.100)

14.04.110 Cul-de-sacs/turnarounds.

Cul-de-sacs and turnarounds on both public and private streets must conform to the construction standards listed in the Pacific County road standards. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.110)

14.04.120 Entrances to streets (driveways).

Driveway standards in new subdivisions and new development in existing plats must conform to the construction standards listed in the Pacific County road standards. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.120)

14.04.130 Street intersections.

In addition to the intersection standards outlined in the construction standards listed in the Pacific County road standards, the following standards apply to new subdivisions and new development in existing plats:

A. Streets must intersect as nearly as possible at right angles, and no two (2) streets may intersect at less than sixty (60) degrees.

B. Not more than two (2) streets may intersect at any one (1) point, unless the city superintendent certifies to the permit-issuing authority that such an intersection can be constructed with no extraordinary danger to public safety.

C. Whenever possible, proposed intersections along one (1) side of a street must coincide with existing or proposed intersections on the opposite side of such street. In any event, where a centerline offset (jog) must occur at an intersection, the distance between centerlines of the intersecting streets must be evaluated and designed according to accepted traffic safety standards. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.130)

14.04.140 Public streets and private roads.

For purposes of this subsection, the term "public street" means and includes a pre-existing public street as well as a street created by a subdivider that meets the public street standards of this chapter and is dedicated for public use. The recording of a plat must dedicate the street. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.140)

14.04.145 Private streets.

A. While community street requirements are usually best served by public streets, owned and maintained by the city, private streets may be appropriate in some instances.

B. Private streets and roads shall be approved only when they are:

1. Permanently established by right-of-way, tract or easement providing legal access to each affected lot, dwelling unit or business and sufficient to accommodate required improvements, to include provisions for future use by adjacent property owners when applicable; and

2. Serving properties and development that is zoned R-3; and

3. Maintained by a capable and legally responsible owner or homeowner's association or the legal entity made up of all benefited property owners, under provisions of subsection D of this section; and

4. Designed and built to Pacific County road standards. Pavement width of all private streets shall be twenty-two (22) feet or more; radius of horizontal curves and vertical grade of private streets shall be based upon the topography of the site; any vertical grade in excess of fifteen percent (15%) shall be approved by the city engineer; design and construction of private streets shall be subject to the same city engineering inspection and approval as for public streets; modifications to these standards may be granted by the city engineer if adequate consideration of the following factors is made during the plat review:

a. Provision of off-street parking,

b. Restriction of on-street parking,

c. Provision of adequate clearance for emergency vehicles,

d. Provision of clear vision at intersections,

e. Provision of alternative bicycle and/or pedestrian paths,

f. Provision of adequate utility easements outside of street,

g. Future street revision or extension is not planned; and

5. Provision is made for private streets to be open at all times for emergency and public service vehicles; an easement or other right of access shall be recorded which runs in favor of the city; such right of access shall provide the right of ingress and egress for the city and its employees to carry out any lawful city purpose, including but not limited to fire, police, water and sewer services; such easements shall also provide access to all other urban service providers such as refuse haulers, television cable operators, electric utility providers, emergency medical services and others; and

6. Private streets shall not obstruct public street circulation; and

7. At least one (1) of the following conditions exist:

a. Existing abutting development precludes the construction of a public street, or

b. Topographic, geological or soil conditions make development of a public street undesirable, or

c. The streets are within a private community with a corporate or a functional identity, or

d. Neighborhood traffic circulation and lot access can be met more logically by private streets than by public streets, or

e. Streets are a part of a planned unit development (PUD), or

f. Streets serve commercial facilities where no circulation continuity is necessary, or

g. The city engineer and fire department determine that no other access is available and the private street is adequate.

C. Notice. The following statement is required on the face of any plat, short plat, site plan or binding site plan containing a private street:

> City of Ilwaco has no responsibility to improve or maintain private streets contained within or private streets providing access to the property described in this plat. Any private street shall remain a private street unless it is upgraded to public street standards including standards meeting ADA (Americans with Disabilities Act) requirements at the expense of the subdivider or adjoining lot owners to include hard surface paving and is accepted by the City for public ownership and maintenance.

D. Maintenance Agreement. The city will not maintain roadways, signs or drainage improvements on private streets. A private maintenance covenant recorded with the county auditor will be required for any private street. The covenant will set out the terms and conditions of responsibility for maintenance, maintenance methods, standards, distribution of expenses, remedies, for noncompliance with the terms of the agreement, right of use easements, and other considerations. The covenant shall be submitted to the city engineer or his designee for approval prior to recording.

All private streets shall be maintained by the owners of the property served by them and kept in good repair at all times. In order to insure the continued good repair, a declaration of covenant and requiring maintenance of the private street shall be recorded with the Pacific County auditor's office concurrent with recording of the subdivision plat.

The covenant shall include the following terms:

1. The covenant shall establish minimum annual assessments in amount adequate to defray costs of ordinary maintenance and procedures for approval of additional needed assessments.

2. The covenant shall include a periodic maintenance schedule.

3. The covenant for maintenance shall be enforceable by any property owner served by the street.

4. The means shall be established for assessing maintenance and repair costs equitably to property owners served by the private street.

5. The covenant shall run with the land.

6. "Maintenance" means and includes, but is not limited to street surfacing, shoulders, gates, signs, pavement markings, street lighting, storm drainage facilities and vegetation control.

7. The city shall have the right to inspect the condition of private streets and if in the opinion of a licensed professional engineer, the condition of private streets have deteriorated to the level where improvements are needed, the city has the right to order that this work be done. If the property owners associated or the developer do not carry out the improvements in a timely manner, the city has the right to order the improvements.

E. Street Signs. Private street signs with street designations shall be provided by the developer at the intersection of private streets with private and public streets. Such signs shall meet the specifications of Pacific County road standards and, in the case of intersections with public streets, shall be located within the public right-of-way or within a separate maintenance easement. Road signs shall be included in the maintenance agreement.

F. Inspection. Private streets will be subject to the same inspection schedule as public streets.

G. Developer Maintenance Obligation. The developer of a residential plat shall be responsible to insure the maintenance of the private street for a period of two (2) years from the date of recording of the plat or short plat. Thereafter, the developer's maintenance responsibility will depend upon the number of lots under the developer's

continuing ownership, as stated in the recorded maintenance agreement. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.145)

14.04.150 Right-of-way improvements and dedication to precede development or building.

A. Except as noted under subsection C of this section, no land use permit or building permit will be issued by the city unless or until the public rights-of-way upon which the subject property abuts are:

1. Considered fully improved (see subsection B of this section) to the standards of the right-of-way classification (as specified in Section 14.04.070); and

2. Offered for dedication to the public.

B. The city engineer will consider subsection A of this section fulfilled if the circumstances listed below are met. It will be at the discretion of the city engineer, based on knowledge of upcoming projects in the vicinity, safety issues or sound engineering judgment, as to which method will be allowed or not allowed. Improvements will be considered fully installed:

1. Where the rights-of-way are already improved to their classification standards and dedicated to the city;

2. Where the city chooses to purchase rights-of-way and install the improvements. However, under no circumstances is the city obligated to do this;

3. Where the applicant installs the improvements himself at his own cost and offers the rights-of-way to the public;

4. Where the applicant has dedicated the rights-of-way to the public and posted a completion security with the city engineer in accordance with Section 15.02.130. The completion security will guarantee the completion of road and/or drainage improvements that are required;

5. If subsections B1 through B4 of this section are declared unfeasible by the city engineer, then improvements will be considered fully installed if the applicant has dedicated the rights-of-way to the public and elected to pay to the city an amount equal to the cost of installing the improvements. In such circumstances, the funds would be maintained in an account to be used specifically for improvements on that right-of-way within the general vicinity of the project;

6. A maintenance security may be required if work is not complete at the time of the first sale of property out of the developer's possession.

C. This section does not apply to:

1. Building permits for additions, alterations or repairs within any twelve (12) month period which does not increase the gross floor space of an existing building or facility by more than fifty percent (50%); or

2. Building permits for residential garages, carports or accessory structures not intended as a dwelling unit. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.150)

14.04.160 Attention to disabled persons in street and sidewalk construction.

A. Whenever curb and gutter construction is used on public streets (see Section 14.04.020B) wheelchair ramps for disabled persons must be provided at intersections and other major points of pedestrian flow.

B. Wheelchair ramps and depressed curbs must be constructed in accordance with published standards of the Washington State Building Code addressing accessibility. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.160)

14.04.170 Street names and house numbers.

A. Public street names will be assigned by the developer subject to the approval of the permit-issuing authority.

B. Building numbers will be assigned by the city.

C. The city council may by resolution name or rename streets. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.170)

14.04.180 Bridges.
Bridges, whether on public roads or private roads, must be designed and constructed to meet minimum requirements set forth in the AASHTO bridge specifications and in accordance with the Pacific County road standards. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.180)

14.04.190 Utilities.
Utilities to be located within the street right-of-way must be constructed in accordance with current franchise and permit procedures and in compliance with the Pacific County road standards. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.190)

14.04.200 Vacation of public rights-of-way.
Applications for vacations of public rights-of-way will be processed in accordance with Chapter 35.79 RCW and Chapter 15.94. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.200)

14.04.210 Right-of-way permit required.
Before performing any work within a right-of-way, the person performing the work must obtain a right-of-way permit from the city engineer. The city engineer may condition the permit as necessary to protect the public health, safety and welfare. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.74.210)

CHAPTER 1

INTRODUCTION

These standards shall apply to all improvements within the public right-of-way and/or public easements, to all improvements required within the proposed public right-of-way of new subdivisions, for all improvements intended for ownership, operations on maintenance by the City and for all other improvements (on or offsite) for which the City Code requires approval from the City's Public Works Superintendent, City Planner, Fire Chief, and/or the City Council as appropriate. These standards are intended as guidelines for designers and developers in preparing their plans and for the City in reviewing plans. Where minimum values are stated, greater values should be used whenever practical; where maximum values are stated, lesser values may be used, with City approval, where practical. The developer/proponent is however cautioned that higher standards and/or additional studies and/or environmental mitigation measures may, and will, in all likelihood, be imposed by the City when developing on, in, near, adjacent, or tributary to sensitive areas to include, but not be limited to, steep embankments, creeks, ponds, lakes, certain wildlife habitat, unstable soils, etc.

Alternate design standards will be accepted when it can be shown, to the satisfaction of the City, that such alternate standards will provide a design equal to or superior to that specified. In evaluating the alternate design, the City shall consider appearance, durability, ease of maintenance, public safety and other appropriate factors.

Any improvements not specifically covered herein by these Standards must meet or exceed the current version of the Standard Specification for Road, Bridge & Municipal Construction, State of Washington, and current amendments thereto, revised as to form to make reference to Local Governments. Said specifications shall be referred to hereafter as the "Standard Specifications". Where improvements are not covered by these details, by the Standard Specifications or by the standard details, the City will be the sole judge in establishing appropriate standards. Where these "standards" conflict with any existing City ordinances or discrepancies exist within the body of this text, the higher "standards" shall be utilized as determined by the Public Works Superintendent.

Plans for major improvements in the public right-of-way, within public easements, or improvements to be "deeded" or "gifted" to the City, shall bear an approval signature from the City. Absent such an authorized approval, said attempted transfer of property to the City shall be invalid.

The designer shall submit calculations or other appropriate materials supporting the design of utilities, pavements and storm drainage facilities. The designer shall submit calculations for structures and other designs when requested by the City Engineer and/or

Building Official.

1. Definitions (as used herein)

(a) "Developer". The party having an agreement with the City to cause the installation of certain improvements, to become a part of the City's utility and/or roadway system upon completion and acceptance. The term shall also include the Developer's contractor employed to do the work or the Contractor's employees.

(b) "Development" shall mean the construction, reconstruction, conversion, structural alteration, relocation, enlargement, or change in use of any structure or property, or any project which will increase vehicle trips per day during peak hour traffic, or any project which negatively impacts the service level, safety, or operational efficiency of serving roads.

(c) "Plans" mean drawings, including reproductions thereof, of the work to be done as an extension to the City's water distribution system, prepared by an Engineer licensed in the State of Washington.

(d) "Specifications" means the directions, provisions, and requirements designated by an Engineer licensed in the State of Washington for the performance of the work and for the quantity and quality of materials, as contained or referenced herein.

(e) "Performance Bond" means a bond furnished by the Developer and written by a corporate body qualified to write surety in the State of Washington, guaranteeing that the work will be completed in accordance with the plans and specifications.

(f) "Maintenance Bond" means a bond furnished by the Developer and written by a corporate body qualified to write surety in the State of Washington, guaranteeing that the Developer will repair any defects found in the work within the time period as further identified herein.

(g) "Contract Documents": The contract documents shall consist of the following and in case of conflicting provisions, the first mention shall have precedence.

(1) Developers Agreement
(2) City Development Guidelines and Public Works Standards

(3) Other Applicable City Municipal Codes
(4) City Right-of-Way Use Permit
(5) Plans
(6) Standard Details (WSDOT Specifications)
(7) Specifications - Conditions and Standards of the Contract (As Approved by City)
(8) City Approved Addenda
(9) City Approved Change Orders

These documents shall form the Contract.

(h) "Work": The labor or materials or both, superintendence, equipment, transportation, and other facilities necessary to complete the Contract.

(i) "City": City of Ilwaco, Pacific County, Washington, a municipal corporation, existing under and by virtue of the laws of the State of Washington. Actions designated as taken by the City are the acts of the Council acting through the Mayor.

(j) "Mayor" means mayor of the City of Ilwaco or his/her authorized representative.

(k) "Contractor" means the Developer's contractor or subcontractor.

(l) "City Engineer" means the City's Engineer, whether a staff engineer, contacted engineer, or consultant.

(m) "Public Works Superintendent" means the City's duly appointed Public Works Superintendent, or in his absence, the Mayor.

(n) "Operations and Maintenance Supervisor" means the City's utilities superintendent, or operations and maintenance supervisor, or Public Works Superintendent.

2. Exclusions

(a) A one time enlargement of less than 800 square feet of total footprint on any parcel of property, or, a one-time net increase of less than 25% of the total aggregate area of the existing footprint(s) of building(s) on the site, whichever is less.

3. Developer to be Informed: The Developer is expected to be fully informed regarding the nature, quality, and the extent of the work to be done, and, if in doubt, to secure specific instructions from the City.

4. Authority of Mayor: The Mayor or his authorized representative shall have the authority to stop work whenever, in his/her opinion, the same shall be necessary to insure compliance with the plans and specifications, and shall have authority to reject work and materials which do not so conform and to decide questions which may arise in the execution of the work.

5. Authority of the Public Works Superintendent: The Public Works Superintendent or his/her authorized representative shall have the authority to determine the amount, quality, acceptability and fitness of the several kinds of work, material and equipment and to decide all questions relative to the classification of materials and the fulfillment of this Contract, and to reject or condemn all work or material which does not conform to the terms of this Contract. The Public Works Superintendent decision in all matters is the decision of the City, and can only be changed by the City. Moreover, the City has not so delegated, and the Public Works Superintendent or his/her authorized representative(s) does (do) not purport to be a safety expert, is not so engaged in that capacity under this Contract, and has neither the authority nor the responsibility to enforce construction safety laws, rules, regulations or procedures, or to order the stoppage of work for claimed violations thereof but may report flagrant safety violations to proper authorities.

   The furnishing by the City of resident project representation and/or inspection shall not be construed by the Contractor or Development that the City is responsible for the identification or enforcement of such laws, rules or regulations.

6. Payment for City Services: The Developer shall be responsible for promptly reimbursing the City for all costs and expenses incurred by the City in the pursuit of project submittal, review, approval, and construction. These costs include, but are not limited to, the utilization of staff and "other" outside consultants as may be necessitated to adequately review and inspect construction of the project(s). All legal, administrative, and engineering fees for project review, meetings, approvals, site visits, construction inspection, etc., shall be subject to prompt reimbursement. The Developer is cautioned that project approval (City acceptance) and occupancy permits will be denied until all bills are paid in full.

CHAPTER 2

PERMITS

2.1 SPECIAL PERMIT PROCESS

No person, firm or corporation shall commence work on the construction, alteration or repair of any facility located either in the public right-of-way or a public easement without any necessary permit or permits first having been obtained from the City.

Any party requesting such permit shall file written application therefore with the City at least twenty-eight (28) days before construction is proposed to start. An application will be deemed complete if the city does not provide a written determination to the applicant that the application is incomplete within twenty-eight (28) days after receiving the application. Such application shall be made on a standard City form provided for that purpose, and shall include:

(1) The name and address of the applicant (name and address of property owner if different than applicant);

(2) The name and address of the owner of the property abutting the street where the work is proposed;

(3) The street location of the proposed work, giving the street address or legal description of the property involved;

(4) A detailed plan showing the dimensions of the abutting properties and the dimensions and location of all existing and/or proposed facilities and other pertinent features to understand the proposed work;

(5) The plan shall also show the location of buildings or facilities, including loading platforms and roof overhangs (if significant) being served, or to be served by the new construction.

The City may require, at its discretion, the filing of any other information when in its opinion such information is necessary to properly enforce the provisions of this ordinance.

No permit shall be issued until the proposed work has been approved by the appropriate official. Adjudication of disagreements regarding approvals shall be made by the Public Works Superintendent and his decision shall be final.

No plan shall be approved nor a permit issued where it appears that the proposed work, or any part thereof, conflicts with the provisions of this ordinance or any other ordinance of

the City of Ilwaco, nor shall issuance of a permit be construed as a waiver of a Zoning Ordinance or other ordinance requirements concerning the plan.

A fee of an amount as designated by the City shall accompany all applications for permits.

2.2 VARIANCES

A. GENERAL

The City Council shall have the authority to grant a variance from the requirements of these specifications and from the requirements of this ordinance after considering the matter. The Public Works Superintendent shall upon request of the proponent refer the variance request on to the City Council, and the Council shall sit, in judgment of same, at a public hearing duly called in accordance with the procedures specified in its Municipal Code. No application for a variance shall be granted by the council unless the council finds:

(1) That special conditions and circumstances exist which are peculiar to the land such as size, shape, topography or location, not applicable to other lands in the same neighborhood, and that literal interpretation of the provisions of this ordinance would deprive the property owner of rights commonly enjoyed by other properties similarly situated in the same neighborhood;

(2) That the special conditions and circumstances do not result from the actions of the applicant, and are not self-imposed hardships;

(3) That granting the variance requested will not confer a special privilege to the subject property that is denied other lands in the same neighborhood;

(4) That the granting of the variance will not be materially detrimental to the public welfare or injurious to the property or improvements in the neighborhood in which the subject property is situated;

(5) That the granting of the variance requested will be in harmony with the general purpose and intent of these standards, and any applicable Land Use Ordinance(s); and

(6) That the purpose of the variance is not merely to permit the subject property to be utilized more profitably by the owner or to economize on the cost of improving the property.

B. CONDITIONS

In granting any variance the City Council may prescribe appropriate conditions and safeguards that will ensure that the purpose and intent of the specifications shall not be violated. Further, the City Council will require the applicant to post a performance bond guaranteeing compliance with such conditions.

C. EFFECTIVE DATE OF VARIANCE

The decision granting or denying a variance shall not become final until the expiration of ten (10) days from the date of entry of such decision in the official records of the City Council.

An aggrieved party may file an appeal of such decision to the Pacific County Superior Court (as applicable) within said ten-day period; if no such appeal is filed, the decision shall thereupon become final.

D. PROCEDURE FOR APPLICATION OF A VARIANCE

Application for a variance shall be filed with the City in writing and shall be accompanied by an appropriate fee as stated in the City's Municipal Code, to pay for the cost of processing the application and the costs of publishing and posting the required public notices. All applications shall be accompanied by a current copy of the Pacific County assessor's record showing the legal owners of all property within five hundred feet (500') of the requested variance area. All applications shall contain a statement as to why the variance is necessary, and why it would meet the criteria of this chapter. The application shall also contain scaled drawings of the variance area, abutting roads, and all property within five hundred feet (500') thereof.

E. PUBLIC NOTICE AND HEARING

Proper notice of a hearing on a variance application before the Council shall be as follows:

(1) One publication in the official newspaper for the City at least fifteen days prior to the date of hearing;

(2) Posting of copies of the notice of hearing at least fifteen days prior to the hearing in;

(A) Ilwaco City Hall
(B) The United States Post Office in the City of Ilwaco, and
(C) In a conspicuous place on the property which is the subject matter of the application;

(3) Written notice mailed to the owner or reputed owners of property within three hundred feet (300') of the property which is the subject matter of the application, which ownership is deemed to be that of the last owner of record in the current files of the Pacific County Assessor, said notice to be mailed at least fifteen calendar days prior to the date of the hearing by the City Planner.

(4) The City Clerk shall be responsible for the mailing and publication of all required notices. The Clerk shall diligently observe the foregoing requirements, but minor inaccuracies in giving such notice shall not invalidate the proceedings.

CHAPTER 3

PUBLIC WORKS CONSIDERATIONS

3.1 BONDING

Developers and contracts performing work within the public right-of-way or publicly owned easement(s) shall be prepared to satisfy the following two bonding requirements. The City will only accept an assignment of funds as bonds. The funds will be held by the City in an interest bearing account.

A. Furnishing a performance bond that shall be conditioned upon faithful completion of that portion of the work performed pursuant to the permit which will require completion by the City should the permittee or his contractor default. The amount of such bond shall be 150% of the outstanding value of the improvements. The City engineer shall review and provide approval, as may be applicable of the submitted amount.

B. Furnishing a Maintenance Bond. All work shall be guaranteed by the Contractor for a two-year period from the time of inspection and final approval of the construction by the City. The maintenance bond shall be equal to 15% of the total cost of the improvements.

3.2 HOLD HARMLESS CLAUSE

The Developer shall indemnify and hold harmless the City and the City Engineer, and their agents and employees, from and against all claims damages, losses, and expenses, including attorney's fees, arising out of or resulting from the performance of the work, and shall, after reasonable notice, defend and pay the expense of defending any suit and will pay any judgment, provided that any such claim, damage, loss, or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury or destruction of tangible property (other than the work itself), including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission or by any other action giving rise to strict liability of the Developer, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

In any and all claims against the City or City Engineer, or any of their agents or employees, by any employee of the Developer, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation under this article shall not be limited in any way be any limitation on the amount or type of damages, compensation, or

under workman's compensation acts, disability benefit acts, or other employee's benefit acts.

The obligations of the Developer under this article shall not include the sole negligence of the City or the City Engineer.

3.3 DEVELOPER'S PUBLIC LIABILITY & PROPERTY DAMAGE INSURANCE

The Developer shall not commence work until he has furnished evidence (in duplicate copy) of insurance required hereunder, and such insurance has been approved by the City Attorney; nor shall the Developer allow any contractor or subcontractor to commence work on his contract or subcontract until the same insurance requirements have been complied with by such contractor or subcontractor. Approval of the insurance by the City Attorney shall not relieve or decrease the liability of the Developer thereby.

Companies writing the insurance under this article shall be licensed to do business in the State of Washington or be permitted to do business under the Surplus Line Law of the State of Washington.

The Developer shall maintain, during the life of the Contract, Comprehensive General and Automobile Liability Insurance, as detailed herein. The insurance shall include, as Additional Named Insured, the City of Ilwaco. All insurance policies shall be endorsed to provide that the policy shall not be canceled or reduced in coverage until after ten (10) days prior written notice, as evidenced by return receipt of registered letter has been given to the City of Ilwaco.

Comprehensive General Bodily Injury and Property Damage Insurance shall include:

a. Premises & Operations;
b. Developer's Protective Liability;
c. Products Liability, including Completed Operations Coverage;
d. Contractual Liability; and
e. Broad Form Property Damage.

Comprehensive Automobile Bodily Injury and Property Damage Insurance shall include:

a. All owned automobiles;
a. Non-owned automobiles; and
b. Hired automobiles.

The insurance coverage's listed above shall protect the Developer from claims for damages for bodily injury, including death resulting therefrom, as well as claims for property damage, which may arise from operations under this contract, whether such operations be by himself or by any subcontractor or by anyone directly employed by either of them, it being understood that it is the Developer's obligation to enforce the requirements of this article as respects any contractor or subcontractor.

Comprehensive General and Automobile Liability Insurance shall provide coverage for both bodily injury and property damage, as follows:

A. Comprehensive General and Automobile Bodily Injury Liability Insurance on an occurrence basis of not less than One Million dollars ($1,000,000.00) for bodily injury, sickness or disease, including death resulting therefrom, sustained by each person; and for limits of not less than One Million Dollars ($1,000,000.00) for each occurrence;

B. Comprehensive General Property Damage Liability Insurance on an occurrence as is for limits of not less than One Million Dollars ($1,000,000.00) for damage to or destruction of property, including loss of use thereof, arising from each occurrence, and in an amount of not less than One Million Dollars ($1,000,000.00) in aggregate;

C. Comprehensive Automobile Property Damage Liability Insurance on an occurrence basis for limits of not less than One Million Dollars ($1,000,000.00) for damage to or destruction of property, including loss of use thereof, arising from each occurrence;

D. Comprehensive Liability Insurance shall include the City and the as Additional Named Insured;

E. Comprehensive General Property Damage Liability Insurance shall include liability coverage for damage to or destruction of property of other, including loss of use of property damaged or destroyed, and all other indirect and consequential damage for which liability exists in connection with such damage to or destruction of property of others, and shall include coverage for:

("X") Injury to or destruction of any property arising out of blasting or explosion;

("C") Injury to or destruction of any property arising out of the collapse of/or structural injury to any building or structure due;

(1) to excavation, including borrowing, filling or backfilling in connection therewith, or tunneling, pile driving, coffer-dam work or caisson work; or

(2) to moving, shoring, underpinning, raising or demolition of any building or structure or removal or rebuilding of any structural support thereof;

("U") 1. Injury to or destruction of wires, conduits, pipes, mains, sewers or other similar property or any apparatus in connection therewith, below the surface of the ground, if such injury or destruction is caused by and occurs during the use of mechanical equipment for the purpose of excavating or drilling; or

2. Injury to or destruction of property at any time resulting therefrom.

There shall be included in the liability insurance, contractual coverage sufficiently broad to insure the provisions of "Hold Harmless Clause".

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Developer's responsibility for payment of damages resulting from his operations under this Contract.

In the event the Developer is required to make corrections on the premises after the work has been inspected and accepted, he shall obtain, at his own expense, and prior to commencement of any corrective work, full insurance coverage, as specified herein.

The Developer shall furnish, upon request by the City, certified copies of the insurance policy or policies within two weeks of the City's request.

3.4 COMPENSATION & EMPLOYER'S LIABILITY INSURANCE

The Developer shall maintain Workmen's Compensation Insurance or, as may be applicable, Maritime Workmen's Insurance, as required by state or federal statute for all of his employees to be engaged in work on the Project and, in case any such work is sublet, the Developer shall require the contractor or subcontractor similarly to provide Workmen's Compensation Insurance or Maritime Workmen's Insurance for all of the latter's employees to be engaged in such work. The Developer's Labor & Industries account number shall be noted in the Proposal in the space provided.

In the event any class of employees engaged in work at the site of the Project is not covered under the Workmen's Compensation Insurance or Maritime

Workmen's Insurance, as required by state and federal statute, the Developer shall maintain and shall cause each contractor or subcontractor to maintain Employer's Liability Insurance with a private insurance company for limits of at least One Hundred Thousand Dollars ($100,000.00), each person, and Three Hundred Thousand Dollars ($300,000.00), each accident, and furnish satisfactory evidence of same.

3.5 NON-INTERFERENCE

The permittee shall be responsible for minimum interference with:

- Traffic Routing
- Fire Facility Clearance
- Adjoining Property
- Utility Facilities
- Natural Surface Drainage

Prior to construction, these items are to be discussed with the City Public Works Department, and/or City Fire and Police Departments and/or the City Building Inspector, and special provisions may be included in any applicable City Permit(s).

3.6 WORK STANDARDS

All work and workmanship performed shall be done in accordance with minimum standards published in the current Standard Specifications for Road, Bridge & Municipal Construction, State of Washington, and current amendments thereto, revised as to form to make reference to Local Governments.

The latest edition of the following additional standards shall be applicable when pertinent, when specifically cited in the standards or when required by state or federal funding authority:

a. Pacific County Road Standards
b. Local Agency Guidelines, WSDOT, as amended.
c. Guidelines for Urban Arterial Program, WSDOT, as amended.
d. American Water Works Association Standards.
e. Design criteria of federal agencies including the Federal Housing Administration, Department of Housing and Urban Development, the Federal Highway Administration and Department of Transportation,
f. A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), 2001, or current edition when adopted by WSDOT.
g. Standard Specifications for Highway Bridges, adopted by AASHTO, current edition.

h. U.W. Department of Transportation Manual on Uniform Traffic Control Devices, "MUTCD", as amended and approved by Washington State Department of Transportation, current edition.
i. Guide for the Development of Bicycle Facilities, adopted by AASHTO, current edition.
j. Associated Rockery Contractors (ARC), Standard Rock Wall Construction Guidelines.
k. American Society for Testing and Materials (ASTM).
l. Illuminating Engineering Society of America (IES) National Standard Practices for Roadway Lighting, RP-8, Current Edition, as modified herein.
m. The WSDOT/APWA Standard Plans for Road and Bridge Construction, to be referred to as the "Standard Plans or Standard Details," current edition as amended.
n. WSDOT Design Manual, current edition as amended.
o. City and County Design Standards for the Construction of Urban and Rural Arterial and Collector Roads, adopted per RCW 35.78.030 and RCW 43.32.020, May 24, 1989, current edition as amended.
p. Institute of Transportation Engineers, Traffic Engineering handbook, current edition.
q. Water System Design Manual, Washington Department of Health, current edition.
r. Criteria for Sewage Works Design, Washington Department of Ecology, current edition.

3.7 INSPECTION

A. General

The City shall exercise full right of inspection of all excavating, construction, and other invasions of City right-of-way or public easements. The City Public Works Superintendent or designated official shall be notified on the working day prior to commencing any work in the City's right-of-way or public easements. The City Public Works Superintendent and/or his authorized representative is authorized to and may issue immediate stop work orders in the event of noncompliance with this chapter and/or any of the terms and provisions of the permit or permits issued hereunder.

B. Final Inspection

Prior to final approval of construction, a visual inspection of the job site will be made by the City. Restoration of the area shall be complete with all improvements being restored to their original or superior condition. Final approval of construction shall not be given earlier than thirty (30) days after satisfactory completion of construction, as witnessed by the City.

3.8 RECORD DRAWINGS

Permittees or their representatives who install systems within, on, or below the City's public rights-of-way or public easements shall furnish the City with accurate drawings, plans and profiles, showing the location and curvature of all underground structures installed, including existing facilities where encountered and abandoned installations. Horizontal locations of utilities are to be referenced to street centerlines, as marked by survey monuments, and shall be accurate to a tolerance of plus or minus one-half (1/2) foot. The depth of such structure may be referenced to the elevation of the finished street above said utility, with depths to the nearest one-tenth foot being shown at a minimum fifty-foot interval along the location of said utility.

Such record drawings shall be submitted to the City within thirty (30) calendar days after completion of the work. Record drawings shall be stamped, signed and dated by an engineer currently licensed in the State of Washington.

In the event that the permittee or his/her representatives does not have qualified personnel to furnish the record drawings required by this section, he shall advise the City Public Works Superintendent in order that necessary field measurement may be taken during construction for the preparation of record drawings. All costs of such field inspection and measurement, to include the preparation of the record drawings, shall be at the sole expense of the permittee.

Drawing Standards:

Minimum scale - 1" = 50' horizontal; 1" = 5' vertical
Detail scale - Larger as necessary

Record drawings shall be submitted on permanent, stable reproducible mylar with a signature and data, which verifies the "finished" condition of the project. All data as shown on the drawings shall be "fixed line" or ink. Sticky back (glue) reproductions or "sepia" mylars shall not be considered acceptable. Electronic files in the most recent version of "AutoCAD shall be also provided to the City.

The drawings shall be referenced to NGYD 1929 and shall include at a minimum two (2) existing City utility features such as sanitary or storm sewer, manholes, water valves or fire hydrants. Referencing to electrical features such as street lights, telephones or power poles is not acceptable.

3.9 DEVELOPER AGREEMENT REQUIREMENTS

All Contractors, land developers, or others, whether persons or entities, constructing curbs, gutters, storm-drainage systems, streets, water or sewer systems, or additions thereto, to be connected to the storm sewers, sanitary sewer lines and/or water lines of the City of Ilwaco, shall, as a prerequisite to securing approval for the construction of such system, execute a Developer Agreement in the form set forth in the attached documents.

CHAPTER 4

STREET, PATH AND BIKEWAY STANDARDS

4.1 GENERAL CONSIDERATIONS

The overall goal of this chapter is to encourage the uniform development of an integrated, fully accessible public transportation system that will facilitate present and future travel demand with minimal environmental impact to the community as a whole.

A. Development of properties on or tributary to substandard or unsafe roadways may, depending on the size and type of development, be cause for "off-site" improvements to the substandard or unsafe corridors, to include road drainage facilities. The Public Works Superintendent shall determine when such conditions exist. At a minimum "half street improvements" will be required as a condition of development in and along the entire property as it abuts City rights-of-way. The City shall determine what qualifies as "development".

B. This chapter provides minimum street design standards as well as minimum design standards for "stand alone" pedestrian and/or bike trails/paths. Higher design and construction standards may be warranted due to localized design and construction parameters.

C. Construction and design standards and specifications for streets are contained in the most recent edition of the document entitled "Pacific County Road Standards" and this chapter. All streets must be completed in accordance with these standards.

D. Curbs, gutters and sidewalks are required in the City's commercial zones. When required, curbs, gutters, and sidewalks must be constructed according to construction and design standards and specifications for curbs, gutters, and sidewalks contained in the most recent edition of the Pacific County Road Standards.

E. If a development accesses an existing street or is proposed at the end of an existing street that is not designed to accommodate the expected increase in traffic caused by the new development, then the developer must improve the existing street leading to the development up to the standards required for the expected increase in traffic. Residential developments of up to four units are exempt from this requirement.

F. In order to conform to minimum standards where developments abut an existing public road or private right-of-way, dedications may be required for extension of the existing public streets or new streets in order to provide continuity with the circulation system.

G. Easements must be provided for all public facilities and utilities including streets. Additional right-of-way may be required to be dedicated as a condition of development approval.

4.2 PUBLIC STREETS

A. The term "public street" includes a pre-existing public street as well as a street created by a subdivider that meets the public street standards of this Chapter and is dedicated for public use. The recording of a plat must dedicate the street.

4.3 PRIVATE STREETS

A. Community street requirements are usually best served by public streets, owned and maintained by the City, private streets may be appropriates in some instances.

B. Private streets and roads shall be approved only when they are:

1. Permanently established by right-of-way, tract or easement providing legal access to each affected lot, dwelling unit, or business and sufficient to accommodate required improvements, to include provisions for future use by adjacent property owners when applicable; and
2. Serving properties and development that is zoned R-3; and homeowner's association of the legal entity made up of all benefited property owners, under provisions of Section 15.74.145D of this ordinance; and
3. Designed and built to Pacific County Road Standard. Pavement width of all private street shall be 22 feet or more; radius of horizontal curves and vertical grade of private streets shall be based upon the topography of the site: any vertical grade in excess of fifteen (15) percent shall be approved by the City Engineer; design and construction of private streets shall be subject to the same City engineering inspection and approval as for public streets; modifications to these standards may be granted by the City Engineer if adequate consideration of the following factors is made during the plat review;

    i. Provision of off-street parking
    ii. Restriction of on-street parking
    iii. Provision of adequate clearance for emergency vehicles
    iv. Provision of clear vision at intersections
    v. Provision of alternative bicycle and/or pedestrian paths
    vi. Provision of adequate utility easements outside of street
    vii. Future street revision or extension is not planned, and

4. Provision is made for private streets to be open at all times for emergency and public service vehicles; an easement or other right of access shall be recorded which runs in favor of the City of Ilwaco; said right of access shall provide the right of ingress and egress for the City and its employees to carry out any lawful City purpose, including but not limited to fire, police, water, and sewer services; said easements shall also provide access

to all other urban service providers such as refuse haulers, television cable operators, electric utility providers, emergency medical services and others; and

5. Private streets shall not obstruct public street circulation; and
6. At least one of the following conditions exist:
    i. Existing abutting development precludes the construction of a public street, or
    ii. Topographic, geological and soil conditions make development of a public street undesirable, or
    iii. The streets are within a private community with a corporate or a functional identity, or
    iv. Neighborhood traffic circulation and lot access can be met more logically by private streets than by public streets, or
    v. Streets are a part of a planned unit development (PUD), or
    vi. Streets serve commercial facilities where no circulation continuity is necessary, or
    vii. The City Engineer and Fire Department determine that no other access is available and the private street is adequate.

C. Notice. The following statement is required on the face of any plat, short plat, site plan, or binding site plan containing a private street:

> "City of Ilwaco has no responsibility to improve or maintain private streets contained within or private streets providing access to the property described in this plat. Any private street shall remain a private street unless it is upgraded to public street standards including standards meeting ADA (Americans with Disabilities Act) requirements at the expense of the subdivider or adjoining lot owners to include hard surface paving and is accepted by the City for public ownership and maintenance."

D. Maintenance agreement. The City will not maintain roadways, signs or drainage improvements on private streets. A private maintenance covenant recorded with the County Auditor will be required for any private street. The covenant will set out the terms and conditions of responsibility for maintenance, maintenance methods, standards, distribution of expenses, remedies, for non-compliance with the terms of the agreement, right of use easements, and other considerations. The covenant shall be submitted to the City Engineer or his designee for approval prior to recording.

All private streets shall be maintained by the owners of the property served by them and kept in good repair at all times. In order to insure the continued good repair, a declaration of convent and requiring maintenance of the private street shall be recorded with the Pacific County Auditor's office concurrent with recording of the subdivision plat.

The covenants shall include the following terms:

1. The Covenant shall establish minimum annual assessments in amount adequate to defray costs of ordinary maintenance and procedures for approval of additional needed assessments.
2. The Covenant shall include a periodic maintenance schedule.
3. The covenants for maintenance shall be enforceable by any property owner served by the street.
4. The means shall be established for assessing maintenance and repair costs equitably to property owners served by the private street.
5. The covenants shall run with the land.
6. "Maintenance" shall include, but not be limited to street surfacing, shoulders, gates, signs, pavement markings, street lighting, storm drainage facilities and vegetation control.
7. The City shall have the right to inspect the condition of Private Street and if in the opinion of a licensed professional engineer, the condition of private streets have deteriorated to the level where improvements are needed, the City has the right to order that this work be done. If the property owners associated or the developer do not carry out said improvements in a timely manner, the City has the right to order the improvements.

E. Street signs. Private street signs with street designations shall be provided by the developer at the intersection of Private Street with private and public streets. Such signs shall meet the specifications of Pacific county Road Standards and, in the case of intersections with public streets, shall be located within the public right-of-way or within a separate maintenance easement. Road signs shall be included in the maintenance agreement.

F. Inspection. Private streets will be subject to the same inspection schedule as public streets.

G. Developer maintenance obligation. The developer of a residential plat shall be responsible to insure the maintenance of the private street for a period of two (2) years from the date of recording of the plat or short plat. Thereafter, the developer's maintenance responsibility will depend upon the number of lots under the developer's continuing ownership, as stated in the recorded maintenance agreement.

4.4 STREETS

A. All street design and construction must provide for the maximum traffic loading and capacity conditions anticipated based upon existing land use and zoning. The width and grade of the pavement must conform to specific standards set forth herein for safety and uniformity.

B. The design of streets and roads shall depend upon their type and usage. If a street is dedicated to public use, the street must be classified as provided in Table 4-1. Classification will be based on the following considerations:

1. The projected volume of traffic to be carried by the street, stated in terms of the number of trips per day;
2. The number of dwelling units to be served by the street may be used as an indicator of the number of trips but is not conclusive;
3. Whenever a subdivision street continues an existing street that used to end outside the subdivision, the classification of the street will be based upon the street in its entirety, both within and outside of the subdivision.
4. The classification of streets must comply with the most current edition of the Pacific county Roads Standards. Table 4-1 includes road or right-of-way classifications based on the anticipated Average Daily Traffic (ADT) in ten years.

Table 4-1
Street Classification
(Pacific County Road Standards)

Average Daily Trips (ADT)	Street Classification
2000+	Major Collector
400 - 2000	Minor Collector
0 - 400	Access Collector
NA	Private Road

C. Except where these standards provide otherwise, design detail, construction workmanship, and materials shall be in accordance with the current edition of the Washington State Department of Transportation (WSDOT) and American Public Works Association (APWA) Standard Specifications for Road, Bridge, and Municipal Construction and the WSDOT/APWA Standards for Road and Bridge Construction.

D. All subdivisions and site plans must provide direct access to at least one existing improved and publicly-dedicated street.

E. The layout of streets shall provide for the continuation of existing arterial streets in adjoining subdivisions or of their proper projection when adjoining property is not subdivided. Local access streets, which serve primarily to provide access to abutting property, shall be designed to discourage through traffic.

F. The maximum length of residential blocks should be six hundred (600) feet, and minimum length should be three hundred (300 feet), unless existing conditions make this requirement impractical in the judgment of the City Council.

G. Streets must be laid out so that the lengths, widths, and shapes of blocks adequately address the following:
1. Provision of adequate building sites suitable to the type of use contemplated:
2. The zoning requirements are able to be met on future building permits:
3. The limitations and opportunities of the topography;

4. The needs for convenient access, circulation, control and safety of vehicular and pedestrian traffic are considered.

H. Lots to be created must comply with the following requirements:
1. Every lot must have access to allow emergency vehicles to enter and exit, as well as, for all those likely to need to desire access to the property in its intended use;
2. Lot lines must be at right angles to street lines or radial to curvilinear streets, unless a variation will result in a better street or lot plan in the opinion of the decision-making body:
3. Dimensions of corner lots must be large enough to allow for front yard setbacks off both streets; and
4. Corner lots must be graded to provide sufficient sight clearance at intersections.
5. If a driveway connects to a City street, the property owner shall maintain the driveway to where it connects with the City street pavement. All driveways to be constructed connecting to the City street must obtain a permit, must be designed and constructed to City standards. All driveway construction connecting to the City street will be inspected by City staff.

I. Proposed streets should extend to the boundary lines of the proposed subdivision in order to provide for the future development of adjacent tracts, unless prevented by natural or man-made conditions, or unless an extension is determined to be unnecessary or undesirable by the City. The resulting dead-end street shall be provided with a temporary cul-de-sac. The temporary cul-de-sac shall be appropriately signed as "temporary" and further paved, to include furnishing and installing concrete curbs, gutters and sidewalks and constructed to City standards. Temporary dead-end streets in excess of six hundred (600) feet will not be allowed unless no other practicable alternative is available.

J. The street system (in residential subdivisions and short subdivisions) shall be laid out with a minimum number of intersections with other arterial streets. Arterials shall not intersect with other arterials at intervals closer than one thousand three hundred twenty feet and no streets shall intersect at intervals closer than one hundred twenty five feet, unless, in the judgment of the Public Works Superintendent, an exception to this rule would be in the public interest and welfare.

K. Streets shall be laid out so as to intersect as nearly as possible at right angles, and in any event, no street shall intersect with any other street at an angle of less than sixty degrees, without specific written City approval.

L. Access roadways or driveways must be located to provide the following minimum sight distances:

Existing Speed Limit	Sight Distance
50*	450'
40	320'
30	200'

*This value shall be used for major and minor collectors regardless of existing speed limit unless prior approval is obtained from the City Engineer.

M. Maintenance of approach roads/driveways shall be the responsibility of the owner whose property they serve.

N. No approach road/driveway shall be constructed in such a manner that restricts existing drainage or constitutes a hazard to a street lighting standard, utility pole, traffic control device, fire hydrant or other public facility. Relocation shall be arranged through the appropriate agency and the cost shall be borne by the developer.

O. Whenever possible, proposed intersections along one side of a street must coincide with existing or proposed intersections on the opposite side of such street. In any event, where a centerline offset (jog) must occur at an intersection, the distance between centerlines of the intersecting streets must be evaluated and designed according to accepted traffic safety standards.

Q. Street profile grade should conform closely to the natural contour of the land. Streets must be designed to facilitate drainage and stormwater runoff, and street grades must conform as closely as practicable to the original topography.

R. The maximum grade at any point on a street must not exceed fifteen percent (15%) unless no other practicable alternative is available. However, in no case may streets be constructed with grades that create a substantial danger to the public safety in the professional opinion of the City Engineer.

T. The developer is required to retain a licensed geotechnical engineer to make soils tests and to provide engineering recommendations for design of the sub-base and roadway sections based on "in place" soils, depth of "free draining" structural materials, projected pavement loadings, roadway classification, average daily traffic volume, etc.

U. In special circumstances, as may be specifically approved or required by the City Council, due to local conditions and/or geometric restrictions, paving widths or improvement standards may be required which are different than those specifically listed herein.

V. The location and alignment of streets shall generally conform to existing streets and to the City's official street naming policy or ordinance except where, in the opinion of the Public Works Superintendent, topography or some physical features eliminate the possibility of connecting these streets in the future. The County's E-911 Coordinator and the City Council shall approve all street names.

X. The design of any proposed street that intersects with a state highway shall be submitted to WSDOT for approval. Improvements to the state highway are to be the sole responsibility of the developer.

Y. Street jogs with centerline offsets less than one hundred twenty-five feet are prohibited.

Z. In some existing plats in the City a street is being used as a driveway because all of the lots created at the time that the area was platted have not yet been built. In these situations the property owner using the street as a driveway must improve it to City street standards and then dedicate the street to the City.

AA. Intersecting streets shall be laid out so that blocks between street lines are not more than one thousand three hundred twenty feet in length, except where in the opinion of the Public Works Superintendent extraordinary conditions justify a departure from the maximum.

BB. Streets shall conform to all requirements of the latest edition of the Uniform Fire Code adopted by the City.

CC. All street construction plans shall be submitted to the City and shall include the following required information:

1. Plan and profile;
2. Street name;
3. Centerline bearings;
4. Centerline/baseline stationing;
5. Centerline elevations every fifty feet;
6. Gutterline elevations every fifty feet if not standard crown;
7. Slope shall be in percent;
8. Transverse slope: Two percent standard crown (to be used unless approved/required by City;
9. Longitudinal slope - see design standard table;
10. Horizontal and vertical curves shall be required when a change of centerline grade occurs greater than one percent:
    a. Fifty feet minimum length;
    b. Elevations required at twenty five feet stations and at the P.C., P.I., P.T. and low point or high point;
11. Longitudinal gutterline slope - see design standard table;
12. Pavement cross sections per City standard detail;
13. Accurate locations of monuments at all centerline intersections, cul-de-sacs, P.C.'s, P.T.'s, and P.R.C's;
14. Length and width of sidewalks and driveways;
15. The location of all existing fire hydrant within 300 feet of the project shall be indicated;
16. Curb and gutter;
17. Wheelchair ramps;
18. Illumination. (Illumination not required to be shown on same street as on plan/profile, but approval at location of miscellaneous utilities (i.e., gas, power, CATV, cable) as required. Plan shall be submitted to City Engineer for approval prior to installation.)

a. Luminaries - location, material, height and wattage.
b. Service cabinet - location and material.
c. Conduits and wire - location, material size and depth.
d. Junction boxes - location and material;

19. Channelization and Signing:
    a. Lane markers - location and type.
    b. Pavement markings - location and type.
    c. Signs - location and type.
20. Grades (slopes).
    a. Arterials, eight percent maximum.
    b. Allow an average maximum grade on all other streets as follows: eight percent maximum with the following exceptions: A grade of up to twelve over a distance not to exceed three hundred feet and a maximum grade of fifteen percent for a distance not to exceed seventy-five feet.
    c. Grades of pedestrian ways or crosswalks shall not be more than eight percent (unless otherwise approved in writing by the Public Works Superintendent).

DD. All vertically aligned profile grade changes shall be connected with a vertical curve which shall have a minimum sight distance of one thousand feet on arterials, five hundred feet on collector streets and three hundred feet on all other streets.

EE. At street intersections, property line corners shall be rounded by an arc, the minimum radii of which shall be fifteen feet for alleys, twenty-five feet for local access streets and 30 feet for all other street classifications. In business districts, a chord may be substituted for such arc if specifically approved by the Public Works Superintendent.

FF. Street intersections with centerline offsets of less than three hundred feet shall not be allowed.

GG. All topsoil, organic, and structurally unsuitable soils shall be removed from beneath the proposed street section as located between the outside edges of sidewalks.

HH. All new utility systems such as power, cable TV and telephone shall be buried, except where topography or site conditions prohibit reasonable installation. Design and installation of the system shall be done by the franchised utility company. Design shall be submitted to the Public Works Superintendent for review and approval prior to installation.

II. Street lighting shall be provided in accordance with Pacific County PUD standards.

JJ. Any project of sixteen dwelling units or more, accessing off of an arterial road requires a center turn lane and right hand turn lanes.

KK. Roads are to be saw cut before permanent patch is made or new AC pavement is installed abutting the existing road.

LL. The General Notes numbered 1 through 6, as shown and further referenced herein, shall be included or referenced on any plans submitted to the City for construction approval dealing with street design.

4.5 GENERAL NOTES (STREET CONSTRUCTION)

1. All workmanship and materials shall be in accordance with current Developer Standards and current amendments hereto, and current WSDOT/APWA Standard Specifications for Road, Bridge, and Municipal Construction and any current amendments thereto, amended as per City Standards.
2. The contractor shall be responsible for all traffic control in accordance with the MUTCD manual. Prior to disruption of any traffic, traffic control plans shall be prepared and submitted to the City for possible approval. No work shall commence until all approved traffic control is in place. Work shall cease when traffic control fails to meet minimum requirements.
3. All curb and gutter, street grades, sidewalk grades, and any other vertical and/or horizontal alignment shall be staked by engineering or surveying firm capable of performing such work. Such firms shall be currently licensed in the State of Washington to perform such work.
4. Where new asphalt joins existing, the existing asphalt shall be cut to a neat vertical edge and tacked with Asphalt Emulsion type CSS-1 in accordance with the standard specifications. The new asphalt shall be feathered back over existing to provide for a seal at the saw cut location and the joint sealed with grade AR-4000W paving asphalt. A sand blanket shall be applied to the surface to minimize "tracking" of same.
5. Compaction of subgrade, rock, and asphalt shall be in accordance with the WSDOT Standard Specifications.
6. Form and subgrade inspection by the City is required before pouring concrete. A minimum forty-eight hours' notice is required to be provided to the Public Works Superintendent for form inspection.

See Section 4.19 for testing and sampling frequencies.

4.6 DESIGN STANDARDS

A. Pavement and right-of-way width depends upon the street classification. The table of Minimum Street Design Standards, Table 4-2, show the minimum widths allowed. Street widths shall be measured from face of vertical curb to face of vertical curb on streets with cement concrete curb and gutter, and from edge of

pavement to edge of pavement on streets "approved" by the City without concrete vertical curb and gutter.

Table 4-2
Minimum Roadway Dimension

Classification	Average Daily Trips	Right-of-Way Width (feet)	Street Width (feet)	Lane Width (feet)	Shoulder Width[1] (feet)
Collector - Access	0-400	60	22	11	3
Collector - Minor	400-2000	60	22	11	6
Collector - Major	2,000 +	60	24	12	8
Private Road	NA	Note 2	12	NA	2

1- Minimum shoulder width if curb and gutter are not provided.
2- Right-of-way as required to construct and maintain roadway facility, plus provisions for any utilities unless utilities provided for by separate easement outside roadway easement, but not less than forty (40) feet.

4.7 STREET NAMES

A. The developer must secure the approval of the City Council regarding the naming of streets; such approval shall not be unreasonably withheld. This should be done at the time the preliminary plat is submitted and again upon approval of the final plat. A private road will be designated "Lane". The Public Works Superintendent will insure that the name assigned to a new street is consistent with policies of the City and the County Emergency Management Director.

B. An address number will be assigned to all new buildings at the time the building permit is issued. It is then the owner's responsibility to see that the house numbers are placed clearly and visibly at the main entrance to the property or at the principal place of ingress.

4.8 SIGNING

A. The developer is responsible for furnishing and providing all temporary and permanent traffic control signs. Traffic control signing shall comply with the provisions as established by the U.S. Department of Transportation Manual on Uniform Traffic Control devices (MUTCD). Street designation signs, including poles and hardware, shall be furnished and installed by the developer. Street designation signs shall display street names or grid numbers as applicable.

4.9 RIGHT-OF-WAY

A. Right-of-way is determined by the functional classification of street. Arterials, collectors, and local access streets shall have a right-of-way width of not less than 60 feet. Private roads shall have a right-of-way not less than 40 feet. Private road right-of-way may need to be greater than 40 feet to accommodate utility easements. See Minimum Roadway Dimensions (Table 4-2) for specific additional information.

B. Additional roadside easements will be required to facilitate future roadway widening at the discretion of the City or as a condition of development approval. In order to conform to minimum standards where developments abut an existing public road or private right-of-way, dedications may be required for extension of existing public roads or new roads to provide continuity with the circulation system.

C. Right-of-way requirements may be increased if additional lanes, pockets, transit lanes, bus loading zones, operational speed, bike lanes, utilities, schools or other factors are proposed and/or required by the City.

D. Right-of-way shall be conveyed to the City on a recorded plat or by a right-of-way dedication deed. All costs of same to be borne by the property owner/developer.

4.10 STREET FRONTAGE IMPROVEMENTS

A. All industrial, commercial, or residential development or redevelopment shall install street frontage improvements at the time of construction. Such improvements shall generally include concrete curb and gutter, concrete sidewalk, street storm drainage, street lighting system, utility relocation, landscaping and irrigation, undergrounding aerial utilities and street pavement widening all per these Standards. Plans shall be prepared and signed by a registered engineer currently licensed in the State of Washington.

B. All frontage improvements shall be made across the full frontage of the property.

C. All frontage improvements shall provide for a smooth transition to neighboring property.

D. Exceptions:

1. When the proponent requests that the City Council evaluate if the required frontage improvements cannot be reasonably performed due to unique conditions, the city council will consider a request from the proponent that an "equal" and voluntary monetary amount be deposited with the City and retained by the City for such use per applicable State law. The equivalent

cost shall be approved by the city and include design, administration, and construction costs.

2. When improvements cannot be reasonably accomplished in a timely manner a recorded agreement (performance bond or equal) on forms provided by the City shall be completed which provide for these improvements to be installed at a later date by the proponent.

4.11 CUL-DE-SAC

A. A cul-de-sac is required on all dead end access road serving two (2) or more parcels, or an approved turn around for driveway access roads in excess of three hundred (300') feet.

1. Minimum right-of-way diameter is ninety (90') feet for cul-de-sacs.
2. Minimum pavement width for cul-de-sacs is seventy (70') feet in diameter.
3. There shall be no islands in the center of any cul-de-sac without specific approval of the City.

B. Proposed streets should extend to the boundary lines of the proposed subdivision in order to provide for the future development of adjacent tracts, unless prevented by natural or man-made conditions, or unless an extension is determined to be unnecessary or undesirable by the City. The resulting dead-end street shall be provided with a temporary cul-de-sac. The temporary cul-de-sac shall be appropriately signed as "temporary" and further paved, to include furnishing and installing concrete curbs, gutters and sidewalks and constructed to City standards. Temporary dead-end streets in excess of six hundred (600) feet will not be allowed unless no other practicable alternative is available.

C. There shall be no islands in the center of any cul-de-sac without specific approval of the City.

4.12 TEMPORARY DEAD ENDS

Where a street is temporarily dead ended, turn around provisions must be provided where the road serves more than one lot. A turn around may be a hammerhead as shown in the Miscellaneous Detail Section of these Standards only if pre-approved by the local fire marshal and the City Council.

4.13 INTERSECTIONS

A. Traffic control will be as specified in the Manual on Uniform Traffic Control Devices (MUTCD) or as may be specifically modified by the Public Works Superintendent as a result of appropriate traffic engineering studies.

B. Street intersections shall be laid out so as to intersect as nearly as possible at right angles. Sharp angled intersections shall be avoided. No two streets may intersect at less than sixty (60) degrees.

C. Not more than two streets may intersect at any one point.

D. Whenever possible, proposed intersections along one side of a street must coincide with existing or proposed intersections on the opposite side of such street. In any event, where a centerline offset (jog) must occur at an intersection, the distance between centerlines of the intersecting streets must be evaluated and designed according to accepted traffic safety standards.

E. Spacing between adjacent intersecting streets, whether crossing or "T" should be as follows:

When highest classification involved is:	Minimum centerline offset should be:
Major Arterial	350 feet
Minor Arterial	300 feet
Collector Street	300 feet
Local Access Street	150 feet

F. When different class streets intersect, the higher standard shall apply on curb radii. Deviations to this may be allowed at the discretion of the Public Works Superintendent.

G. On sloping approaches at an intersection, landings shall be provided with grade not to exceed one foot difference in elevation for a distance of 30 feet approaching any arterial or collector or 20 feet approaching a local access street, measured from nearest right-of-way line (extended) of intersecting street.

4.14 DRIVEWAYS

A. Driveway details are located in the Pacific County Road Standards

B. Residential driveways are those serving less than five (5) single family dwelling units. All others shall be considered commercial.

C. Residential driveways minimum width is fourteen (14'). Commercial driveways minimum width is twenty-eight (28') feet.

D. An access plan shall be submitted for all proposed development for review by the City Engineer. The following guidelines shall be followed for developments using a city road for access from individual lots.

E. Design Standard:

Major Collectors. Internal collection of traffic will be achieved whenever possible. The number of access points shall be a function of traffic

volume on the major collector, but generally then shall not exceed one (1) access point per nine hundred (900') feet of frontage.
Minor Collectors. The same general guidelines apply as major collectors. The maximum number of access points shall be one (1) access point per seven hundred (700') feet.
Local Access. Internal collection of traffic desirable. Individual driveways will be allowed for roads with 150 ADT or less including projected traffic from development. For roadways with 150 to 400 ADT, individual driveways may be allowed. Roadways with 400 to 10000 ADT will meet the provisions of minor collectors. Roadways with greater than 1,000 ADT will meet the provisions of major collectors.

F. Access roadways or driveways will be located to provide the following minimum sight distance:

Major and Minor Collectors	450 feet
Local Access (40 mph)	320 feet
Local Access (30 mph or less)	200 feet

G. Driveways and accesses will approach the City street at ninety degrees (90°) or as close as possible. In no case will an approach angel of sixty degrees (60°) or less be permitted.

H. All abandoned driveway areas on the same frontage shall be removed and the curbing and sidewalk or shoulder and ditch section shall be properly restored, at the Property Owner's expense.

I. All driveway approaches shall be constructed of Portland Concrete Cement, and shall be at least 6-inches thick, over a 4-inch crushed surfacing (5/8" minus) top course. Driveways shall be subject to the same testing and inspection requirements as curb, gutter, and sidewalk construction.]

J. Driveways may be constructed of cast in place or precast concrete paving blocks to reduce impervious area as approved by the Public Works Superintendent.

K. Grade breaks, including the tie to the roadway, shall be constructed as smooth vertical curves. The maximum change in driveway grade shall be 8 percent within any 10 feet of distance on a crest and 12 percent within any 10 feet of distance in a sag vertical curve. The grades of all driveway approaches are to be approved by the City.

L. No commercial or industrial type driveway shall be constructed, if reasonably possible, where backing onto the sidewalk or street is required.

M. No driveway aprons shall extend into the street further than the face of the curb.

N. Generally, the two edges of each driveway shall be parallel.

O. Every driveway must provide access to a garage, carport, parking area or other structure on private or public property requiring the entrance of vehicles. No public curb shall be cut unless a driveway is installed.

P. Maintenance of driveway approaches shall be the responsibility of the owners whose property they serve.

Q. A driveway permit shall be required. No person shall begin work on the construction, alteration, repair or removal of any driveway or the paving of any parking strip on and/or adjacent to any street, alley or other public place in the City without first obtaining a permit from the City. Exceptions to permit acquisition requirements may be granted at the discretion of the Public Works Superintendent and/or Building Official.

R. No driveway shall be located as to create a hazard to pedestrians, bicyclists or motorists or to invite or compel illegal or unsafe traffic movements.

S. No driveway shall be constructed in such a manner as to be a hazard to any existing street lighting standard, utility pole, and traffic regulating device or fire hydrant. The cost of relocating any such street structure when necessary to do so shall be paid by the abutting property owner. The relocation of any street structure shall be allowed with the specific written approval of the Owner of the structure involved.

T. Except as otherwise provided, the width of any residential driveway shall not exceed twenty-four feet (exclusive of the radii of the returns). The maximum width for any commercial driveway shall be sixty feet. The Public Works Superintendent may authorize additional residential driveway widths for three-car garages or for access driveways necessary for off-street parking or recreational vehicles.

U. The total width of all driveways for any one ownership on a street shall not exceed thirty percent of that ownership along the street. Any driveway which has become abandoned or unused through a change of the conditions for which it was originally intended or which for any other reason has become unnecessary, shall be closed and the owner shall replace any such driveway curb-cut with a standard curb according to the City's standards.

V. The length of any driveway shall not exceed one hundred fifty feet, without approval of the Public Works Superintendent.

W. There shall not be more than two driveways on one street for any one ownership except where a single ownership is developed into more than one unit of operation, each unit sufficient in itself to meet the requirements of off-street parking and loading as required by the zoning ordinance and where the necessity

for separate access to the street is evident. In such cases, there shall not be more than two driveways on the street for any one unit of operation.

X. Driveway slopes or grades shall not exceed eight percent unless otherwise authorized/approved by the Public Works Superintendent in writing. The Public Works Superintendent will consider authorizing driveway slopes exceeding eight percent, up to a maximum of twelve percent, if it is determined that:

1. The driveway is the only economically and environmentally reasonable alternative.
2. The driveway will not present a traffic, pedestrian, bicycle or safety hazard.
3. The police and fire chief concur in allowing the increased driveway slope.
4. The public health, safety and general welfare will not be adversely affected.

Y. No driveway may access any street within 75 feet (measured along the street) of any other street access on either side.

Z. No driveway access shall be allowed onto an arterial street within 150 feet of the nearest right-of-way line of an intersecting street. No driveway shall be located within 20 feet of a crosswalk.

AA. Within the limitations set forth above, access to arterial streets within the City shall be limited to one driveway for each tract of property separately owned, except that automobile service stations may be allowed two driveways as further stated herein.

BB. Driveways giving direct access onto arterials may be denied if alternate access is available. Deviations of these standards may be permitted by the Public Works Superintendent.

CC. Parking lot circulation and signing needs shall be met on site. The public right-of-way shall not be utilized as part of a parking lot flow.

DD. Road approaches and/or ingress and egress tapers may be required in industrial and commercially zoned areas as directed by the Public Works Superintendent.

4.14 SURFACING REQUIREMENTS

A. All streets in the City of Ilwaco will be paved with either Asphalt Concrete or Cement Concrete, in strict compliance with these standards.

B. The pavement design shall meet the requirements in the latest publication of the AASHTO Guide for Design of Pavement Structures. The pavement section shall be designed and stamped by an engineer currently licensed in the State of Washington.

C. One soil sample per each 500 LF of centerline with 3 minimum per project representative of the roadway subgrade shall be taken by the Developer and delivered to a City approved soils lab in order to determine a statistical representation of the existing soil conditions.

D. Soil tests shall be performed by an engineering firm specializing in soils analysis and currently licensed in the State of Washington.

E. The soils report, signed and stamped by a soils engineer licensed by the State of Washington, shall be based on actual soils tests and submitted with the plans. All depths indicated are a minimum compacted depth.

F. Construction of streets paved with Asphalt Concrete shall conform to Section 5-04 of the Washington State DOT Standard Specifications. Pavement material will be HMA Cl. ½" PG 58-22 asphalt concrete and be constructed at least two (2) inches thick (minimum compacted thickness) over the prepared crushed surface, top course, or asphalt treated base. Mechanical spreading and finishing will be as described in Section 5-04.3(9) of the Standard Specifications. Compaction will be performed by the equipment and methods presented in Section 5-04.3(10) of the Standard Specifications, and Surface Smoothness shall satisfy the requirement of Section 5-04.3(13) of the Standard Specifications.

G. Cement concrete streets will be constructed as specified in Section 5-05 of the Standard Specifications.

H. Permanent pavement patching will be performed as described in the pavement repair detail listed herein, and in compliance with Section 5-04 of the Standard Specifications. All fill material will be placed in lifts no thicker than six inches and mechanically compacted to 95 percent of standard density, as described in Section 2-03 of the Standard Specifications and to the satisfaction of the Public Works Superintendent.

4.15 TEMPORARY STREET PATCHING

A. Temporary restoration of trenches shall be accomplished by using 2" HMA Cl. ½" PG 58-22 Asphalt Concrete Pavement when available or 4" medium-curing (MC-250) liquid asphalt (cold mix), 3" Asphalt Treated Base (ATB), or steel plates suitable for H-20 traffic loading conditions. Steel plates shall be provided with a cold mix "lip" to accommodate a smooth transition from pavement to steel plate.

B. ATB used for temporary restoration may be dumped directly into the trench, bladed and rolled. After rolling, the trench must be filled flush with asphalt concrete pavement to provide a smooth riding surface.

C. All temporary patches shall be maintained by the contractor until such time as the permanent pavement patch is in place. All temporary patch materials shall be loaded and hauled to waste by the Developer, in compliance with applicable governmental regulations.

D. If the contractor is unable to maintain a patch for whatever reason, the City will patch it at actual cost plus overhead and materials. The property owner/developer/permittee shall be invoiced for any City expenses incurred to comply with this Contractor requirement.

4.16 TRENCH BACKFILL AND RESTORATION

A. All trench and pavement cuts shall be made by saw cuts or roller cut if approved by the Public Works Superintendent. The cuts shall be a minimum of 1 foot outside the trench width.

B. All trenching shall be backfilled with gravel base, Class B, or crushed surfacing materials conforming to Section 4 of the WSDOT Standard Specifications. The trench shall be compacted to 95 percent maximum density, as described in Section 2-03 of the WSDOT Standard Specifications. The City will be the sole judge of approving materials to be utilized for backfill. Typically, crushed rock (5/8-inch minus) or control density fill (CDF) shall be placed and compacted in the trench sections for all right angle (±) street crossings.

C. If the existing material is determined by the City to be suitable for backfill, the contractor may use the native material except that the top 12 inches of the trench section shall be 5/8-inch minus crushed rock or other structurally suitable material as approved by the City Inspector or Engineer. Exceptions may be granted by the City based on site evaluation of excavated materials. All trench backfill materials shall be compacted to 95% density.

D. Backfill compaction shall be performed in 6 inch lifts, unless otherwise approved by the City.

E. Replacement of the asphalt concrete or Portland concrete cement shall match existing asphalt concrete or Portland concrete cement depth, except asphalt shall be a minimum compacted thickness of 2 inches and concrete cement shall be a minimum compacted thickness of 6 inches.

F. Tack shall be applied to the existing pavement and edge of cut and shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the WSDOT Standard Specifications. Tack coat shall be applied as specified in Section 5-04 of the WSDOT Standard Specifications.

G. Asphalt concrete HMA CL. ½" PG 58-22 shall be placed on the prepared surface by an approved paving machine and shall be in accordance with the applicable requirements of Section 5-04 of the WSDOT Standard Specifications, except that longitudinal joints between successive layers of asphalt concrete shall be displaced laterally a minimum of 12 inches unless otherwise approved by the City. Fine and coarse aggregate for asphalt concrete shall be in accordance with Section 9-03.8 of the WSDOT Standard Specifications. Asphalt concrete over 2 inches thick shall be placed and compacted in equal lifts not to exceed 2 inches each.

H. All street surfaces, walks or driveways within the street trenching areas affected by the trenching shall be feathered and shimmed to an extent that provides a smooth-riding connection and expeditious drainage flow for the newly paved surface. Shimming and feathering as required by the City Inspector shall be accomplished by raking out the oversized aggregates from the Class B mix as appropriate.

I. Surface smoothness shall be per Section 5-04.3(13) of the WSDOT Standard Specifications. The paving shall be corrected by removal and repaving of the trench only.

J. All joints shall be sealed using paving asphalt AR4000W.

K. When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

L. The final patch shall be completed as soon as possible and shall be completed within 30 days after first opening the trench. This time frame may be adjusted if delays are caused by inclement paving weather, or other adverse conditions that may exist. However, delaying of final repair is allowable only subject to the Public Works Superintendent's approval. The Public Works Superintendent may deem it necessary to complete the work within the 30 days' time frame and not

allow any time extension. If this occurs, the Contractor shall perform the necessary work as required by the City.

4.17 SURVEY STAKING

A. All surveying and staking shall be performed by an engineering or surveying firm employed by the Developer and capable of performing such work. The engineer or surveyor performing and directing such work shall be currently licensed by the State of Washington to perform said task.

B. A pre-construction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

C. The minimum staking of streets shall be as follows:

1. Stake centerline alignment every 25 feet (50 feet in tangent sections) with cuts and/or fills to subgrade.
2. Stake top of ballast and top of crushed surfacing at centerline and edge of pavement every 25 feet.
3. Stake top back of curb at a consistent offset for vertical and horizontal alignment.

4.18 MATERIAL AND CONSTRUCTION TESTING

A. Testing shall be required at the developer's or contractor's expense. The testing shall be ordered by the developer or contractor and the chosen testing lab shall be preapproved by the City. Testing shall be done on all materials and construction as specified in the WSDOT Standard Specifications and with frequency as specified herein.

B. In addition, the City shall be notified before each phase that street construction commences (i.e., staking, grading, subgrade, ballast, base, top course, and surfacing).

4.19 SIDEWALKS, CURBS AND GUTTERS

A. Curbs, gutters, and sidewalks are required in the City's commercial zones. When required , curbs, gutters, and sidewalks must be constructed in accordance with these design standards and the latest ADA and WSDOT/APWA Standard Specifications.

B. Plans for the construction of sidewalks, curbs and gutters will be submitted as part of the street plans when applicable.

C. Sidewalks shall be constructed of Portland Cement Concrete, 4 inches thick (6-inch thick at driveway sections) per Section 8-14 of WSDOT Standard Specifications. When the sidewalk, curb and gutter are contiguous, the width of the sidewalk shall be measured from back of curb to back of sidewalk.

D. Sidewalks will be constructed on a compacted gravel base (Class B) or 5/8-inch minus crushed rock of suitable thickness to provide a firm and unyielding base. Sidewalks will be constructed of Portland Cement Concrete as described in Section 8-14 of the WSDOT Standard Specifications and be designed and constructed in compliance with those details as shown herein. Typically, in commercially zoned areas the sidewalks shall abut the curb. The City Council may vary sidewalk dimensional characteristics and location to meet localized or existing conditions.

E. Sidewalks shall be at least 4" thick. Those sections of a sidewalk which serve as a driveway shall be at least 6" thick. :

F. The sidewalks will be divided into five foot lengths by contraction joints and expansion joints will be at intervals of no more than 15 feet. Joints shall be filled with an asphalt mastic material.

G. Sidewalk width may vary from a minimum of 5 feet to 10 feet in width at the discretion of the City Council in commercial corridors or match existing widths if greater than 10 feet wide.

K. The design and construction of all sidewalks, curbs, gutters and walkways shall meet or exceed minimum standards.

L. The design of all sidewalks shall provide for a gradual taper rather than an abrupt transition between sidewalks of different widths or alignments.

M. A form and subgrade inspection by the City is required before any sidewalks are poured.

N. Monolithic pour of curb, gutter and sidewalk is not allowed.

O. Driveway requirements are covered in Section 4.14.

P. Cement concrete curb and gutter shall be used for all street edges unless otherwise approved by the Public Works Superintendent. All curbs and gutters shall be constructed of Class "B" Cement Concrete in accordance with Section 6-02 of WSDOT Standard Specifications. Curbs shall be of the vertical face type. No rolled curb and gutter profile will be allowed without specific approval of the

Public Works Superintendent. If rolled curbs are approved, all sidewalks within the Plat shall be a minimum 5 inches thick.

Q. Extruded curb and gutter per WSDOT Standard Specifications is allowed only with the specific approval of the Public Works Superintendent.

R. Form and subgrade inspection by the City are required before curb and gutter are poured.

S. Forms, wood or steel, shall be staked securely in place, true to line and grade.

T. Sufficient support shall be given to the form to prevent movement in any direction, resulting from the weight of the concrete or the concrete placement. Forms shall not be set until the subgrade has been compacted within one inch of the established grade. Forms shall be clean and well-oiled prior to setting in place. When set, the top of the form shall not depart from grade more than one-eighth (1/8) inch when checked with a ten-foot straightedge. The alignment shall not vary more than one-fourth (1/4) inch in ten (10) feet. Immediately prior to placing the concrete, forms shall be carefully inspected for proper grading, alignment and rigid construction. Adjustments and repairs as needed shall be completed before placing concrete.

U. The subgrade shall be properly compacted and brought to specified grade before placing concrete. The subgrade shall be thoroughly dampened immediately prior to the placement of the concrete. Concrete shall be spaded and tamped thoroughly into the forms to provide a dense, compacted concrete free of rock pockets. The exposed surfaces shall be floated, finished and brushed longitudinally with a fiber hair brush approved by the City's inspector and/or engineer.

V. The face form of the curb shall be stripped at such time in the early curing as will enable inspection and correction of all irregularities that appear thereon.

W. Forms shall not be removed until the concrete has set sufficiently to retain its true shape. The face of the curb shall be trawled with a tool cut to the exact section of the curb and at the same time maintain the shape, grade and alignment of the curb. The exposed surface of the curb shall be brushed with a fiber hair brush.

X. White pigmented or transparent curing compounds shall be applied to all exposed surfaces immediately after finishing. Transparent curing compounds shall contain a color dye of sufficient strength to render the film distinctly visible on the concrete for a minimum period of four (4) hours after application.

Y. When the curb section is to be placed separately, the surface of the gutter directly underneath the curb section shall be covered with a protective cover to protect that

area from the curing agent when the gutter is sprayed. This cover must remain in place until the curb is placed. Care shall be taken in the placing of this cover to prevent the steel dowels from puncturing the cover.

Z. If, at any time during the curing period any of the forms are removed, a coat of curing compound shall be applied immediately to the exposed surface. The curing compound shall be applied in sufficient quantity to obscure the natural color of the concrete. Additional coats shall be applied if the City Inspector determines that the coverage is not adequate. The concrete shall be cured for the minimum period of 72 hours' time set forth in Section 8-04 of the Standard Specifications.

AA. Joints shall be constructed in the manner and at the locations shown in Details SW-1 and SW-2. They shall be cleaned and edged as shown on the drawings. All expansion and contraction joints shall extend entirely through the curb section above the pavement surface. Joint filler in the curb shall be normal to the pavement and in full and constant contact with pavement joint filler.

BB. High visibility handicap ramps shall be constructed as integral parts of all sidewalks in accordance with the current standards of applicable state law.

CC. Sidewalks shall be constructed to provide for high visibility handicap ramps in accordance with the current standards of applicable state law. Details provided herein are minimum and subject to change. It is the Developer's responsibility to verify current ADA requirements and install same per current standards even if City has approved of construction drawings with non-compliant ADA requirements.

DD. Handicap Ramps shall be constructed of Portland Cement Concrete. Form and subgrade inspection by the City are required before handicap ramps are poured.

EE. All surveying and staking shall be performed by an engineer or surveying firm employed by the Developer and capable of performing such work. The engineering or surveyor directing and/or performing such work shall be currently licensed by the State of Washington to perform said task.

FF. A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

GG. Stake top back of curb at a consistent offset for vertical and horizontal alignment every 25 feet (50 feet in tangent sections).

HH. Testing shall be required at the developer's or contractor's expense on all materials and construction as specified in the WSDOT Standard Specifications.

II. At a minimum, one slump test and 2 test cylinders shall be taken once per day. All other testing frequencies shall be as specified in the Testing and Sampling Table in Section 4B.18.

JJ. City shall be notified before each phase of sidewalk, curb, and gutter construction commences.

4.20 ILLUMINATION

A. Illumination shall be required unless otherwise directed by the City Council. All illumination shall be in compliance with the requirements specified by the Pacific County PUD. The style shall be compatible with the structural grade aluminum poles and luminaires presently existing on south First Avenue and Howerton Boulevard. Light pollution shall be avoided.

4.21 SIGNALIZATION

A. Signalization will be required if warranted as determined by an existing study and/or transportation study performed by the Developer at the request of the City. The developer shall pay the entire cost of signalization if signalization is warranted.

4.22 PARKING LOTS

A. A building permit is required prior to surfacing any unsurfaced designated parking area.

B. Storm water detention shall be provided and shall follow the criteria as set forth in Chapter 5 of these standards.

C. Four sets of plans and specifications shall be required to be submitted for review and approval by the City with respect to storm drainage discharge and on site retention or detention, matching street and/or sidewalk grades, access locations, parking layout, and to check for future street improvement conformity and City zoning regulations.

D. Parking lot surfacing materials shall satisfy the requirement for a permanent all-weather surface. Asphalt concrete pavement and cement concrete pavement satisfy this requirement and are approved materials. Gravel surfaces are not acceptable. Other surface material types may be approved by the City on a case by case basis.

CHAPTER 5

STORM DRAINAGE STANDARDS

5.1 GENERAL

The standards established by this chapter are intended to represent the minimum standards for the design and construction of storm drainage facilities. Greater or lesser requirements may be mandated by the City due to localized conditions. Storm drainage revisions, additions, modification, or changes shall be made in compliance with City standards, ordinances, and Best Management Practices as identified by the current version of the 2012 Washington State Department of Ecology Stormwater Management Manual for Western Washington (hereinafter called "Stormwater Manual") or as modified in this chapter. Adequate provisions shall be made for storm drainage, storm sewers, and associated appurtenances sufficient to transmit maximum runoff from the 100 year, 24 hour event.

If warranted based on the condition and capacity of the existing storm drainage infrastructure (or lack thereof) and, impacts caused by the proposed development, off-site improvements may be required, at the Public Works Superintendent's discretion, to mitigate impacts caused by the proposed development.

5.2 DESIGN STANDARDS

On-site detention or infiltration systems shall be provided to ensure that stormwater flow rates following development do not exceed the pre-development rate in accordance with the Stormwater Manual. The design of storm drainage and detention system shall depend on their type and local site conditions. The design elements of storm drainage systems shall conform to City Standards as set forth herein. The following design considerations shall apply:

A. The use of commercial parking lots for detention of stormwater will be reviewed by the Public Works Superintendent and approved or denied based on the design, location and general parameters of the project. The detention area shall be situated away from areas of pedestrian movement unless means for rapid closing of the areas is incorporated in the design. The maximum depth of water in parking lot storage shall be limited to 6 inches. Curbs cannot be used for retaining storage.

B. Maximum catch basin spacing shall be 200 feet on road grades up to 3%, 300 feet when the road grade is 3% or greater and 500 feet maximum on main storm drains between access structures, whether catch basins or manholes. No surface water (unless otherwise approved in writing by the City Engineer) shall cross any roadway. In addition, catch basins shall be placed whenever the length of surface

drainage exceeds 300 feet on road grade, extending either direction from crest or sag on vertical curves. Vaned grates shall be employed on street grades exceeding 6% slope.

C. Plans for storm drainage shall indicate where the stormwater will be treated, detained, and discharged or infiltrated. The plans and drainage calculations must show that the pipes and channels downstream from the discharge point (a minimum of 1/4 mile) can carry the runoff without damage to the adjoining properties or surcharging of the system. The Public Works Superintendent may require that the downstream analysis be continued to incorporate sensitive areas such as steep slopes. Provisions shall be made for detainage and/or retainage of stormwater in order to control the amount of storm runoff to the standards in the Stormwater Manual.

D. Where storm drains run outside an existing public right-of-way, permanent easements will be required for public or private maintenance as may be required and warranted. Such easement shall be a minimum of 15 feet in width unless otherwise approved or required by the City. Where the City is to maintain the storm drain, a permanent easement will be required having a minimum width of 15 feet. A construction (temporary) easement of suitable width shall also be provided.

E. Storm Drain Detention Systems shall be, at a minimum, designed and constructed in strict compliance with the Stormwater Manual and any amendments thereto. Local prevailing conditions may warrant higher standards as determined by the Public Works Superintendent. The Developer and/or Homeowners' Association shall enter into a formal, legally binding agreement, as approved by the City Attorney, regarding the landowner's duties and obligations regarding their ownership, operation and maintenance of the system.

F. The maximum infiltration rate used for design purposes shall be 20-inches/hr unless onsite Pilot Infiltration Tests are performed, as discussed in the Stormwater Manual.

G. All portions of publicly owned and maintained detention and or infiltration facilities shall be in public right-of-way or dedicated land tracts.

H. All infiltration systems shall be open at the top to allow for maintenance. No underground, open bottom tanks, vaults, pipes or similar structures are allowed for infiltration.

I. The General Notes, numbered 1 thru 10, as shown and further referenced herein shall be included or referenced on any plans submitted to the City for construction approval dealing with storm system design.

J. Storm Drainage Ponds shall have a minimum side slope of 3:1 (H:V). The perimeter fence shall be 4 feet high and landscaped so as to hide the fence.

K. The downstream analysis shall extend for a distance of one-mile or to the receiving water whichever is less. In no case shall the downstream analysis extend for less than 1/4-mile. Downstream erosion protection may be required at the direction of the Public Works Superintendent.

GENERAL NOTES (STORM DRAIN CONSTRUCTION)

1. All workmanship and materials shall be in accordance with City of Ilwaco Standards and the most current version of the State of Washington Standard Specifications for Road, Bridge and Municipal Construction (WSDOT/APWA). Where a conflict between the two standards exists, the more restrictive shall apply.

2. Temporary erosion/water pollution measures shall be required in accordance with Section 1-07.15 of the Standard Specifications.

3. Comply with all other permits and other requirements by the City of Ilwaco or other governing authority or agency as may be applicable.

4. A preconstruction meeting shall be held with the City prior to the start of construction.

5. All storm mains, catch basins, curb inlets, culverts, outlet control structures and detention or infiltration areas shall be staked for grade and alignment by an engineering or surveying firm capable of performing such work, and currently licensed in the State of Washington to do so.

6. Storm drain pipe shall meet the following requirements:

   A. PVC pipe shall conform to ASTM D 3034-73 SDR 35 for 4" thru 15" diameter PVC pipe, and shall conform to ASTM F 679 for 18" thru 27" diameter PVC pipe, with joints and gaskets conforming to ASTM D 3212 and ASTM F 477.

   B. Polyethylene smooth wall pipe per Advanced Drainage Systems (ADS) N-12, bell and spigot, constructed per WSDOT Standard Specifications 7-04. Note: This type of pipe will only be approved with the City's specific written approval. Approval shall be based on site specific conditions and if additional on-site inspection time for witnessing proper pipe installation can be scheduled by the City.

7. Special structures, oil/water separators and outlet controls shall be installed per plans and manufacturers recommendations.

8. Provide traffic control plan(s) as required in accordance with MUTCD.

9. Call underground locate line 1-800-424-5555 minimum 48 hours prior to any excavations.

10. Where connections require "field verifications", connection points will be exposed by contractor and fittings verified 48 hours prior to distributing shut-down notices.

11. Storm drain pipelines shall be installed to the far property line(s) to serve adjacent tributary areas a may be warranted. They shall be appropriately sized to accommodate flows as further identified herein. Pipes shall be designed to facilitate a minimum 3 feet/second flow unless otherwise approved by the Public Works Superintendent.

5.3 CONVEYANCE

A. Pipe: Storm drain pipe within a public right-of-way or easement shall be sized to carry the 100-year runoff from the contributing tributary area.

B. The minimum pipe size shall be 12 inches diameter. Runoff shall be computed and, if the flow requires it, a larger pipe shall be used. Nothing shall preclude the City from requiring the installation of a larger sized main if the Public Works Superintendent determines a larger size is needed to serve adjacent areas or for future service.

C. Storm drain gradients shall in be compliance Table C1-1, Minimum Slopes of Sewers, by Size, Dept. of Ecology "Criteria for Sewage Works Design".

D. All pipe for storm mains shall be "pre-approved" by the Public Works Superintendent based on localized conditions and comply with one of the following types:

1. PVC pipe shall conform to ASTM D 3034-73 SDR 35 for 4" thru 15" diameter PVC pipe, and shall conform to ASTM F 679 for 18" thru 27" diameter PVC pipe, with joints and gaskets conforming to ASTM D 3212 and ASTM F 477.

2. Polyethylene smooth wall pipe per Advanced Drainage Systems (ADS) N-12, bell and spigot, constructed per WSDOT Standard Specifications 7-04.

Note: This type of pipe will only be approved with the City's specific written approval

5.4 CONNECTIONS

A. Connections of storm drain pipe leading from an existing street inlet location may be made into an existing main storm drain only with a new structure, subject to case-by-case review and approval of the Public Works Superintendent and subject to the following additional requirements:

1. The inletting structure shall be a catch basin and not a simple inlet lacking a catch or drop section.

2. Length of inlet connection shall be as approved by the Public Works Superintendent.

5.5 SURVEY STAKING

A. All surveying and staking shall be performed by an engineering or surveying firm employed by the Developer and capable of performing such work. The engineer or surveyor directing and/or performing such work shall be currently licensed by the State of Washington to perform said tasks.

B. A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

C. The minimum staking of storm sewer systems shall be as follows:

1. Stake centerline alignment every 25 feet with cuts and/or fills to bottom of trench.

2. Stake location of all catch basins/manholes and other fixtures for grade and alignment.

3. Stake location, size and depth of retention/detention facility.

4. Stake finished grade of catch basin/manhole rim elevation and invert elevations of all pipes in catch basins, manholes, and those that daylight.

5.6 TRENCH EXCAVATION

A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris

resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.

B. Trenches shall be excavated to the line and depth designated by the City to provide a minimum of 36-inches of cover over the pipe. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as allowed by the governing agency and in compliance with all safety requirements of the prevailing agencies. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The contractor shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.

C. The contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below storm line grade. Where materials are removed from below the pipeline grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

D. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe laying without specific written approval of the City, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.

E. The bedding course shall be finished to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to facilitate the construction of pipe joints.

5.7 BEDDING

A. Gravel backfill for pipe bedding shall be installed in conformance with Section 2-09 of the Standard Specifications (WSDOT).

5.8 BACKFILLING

A. Backfilling and surface restoration shall closely follow installation of pipe so that not more than 100 feet is left exposed during construction hours without approval of the City. Selected material shall be placed and compacted around and under the storm drain by hand tools. Special precautions should be provided to protect the pipe to a point 12 inches above the crown of the pipe. The remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas or CDF, 90 percent outside driveway, roadways, road prism, shoulders, parking or

other traveled areas. Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction. Typically, trench sections crossing existing roadways, in roadway "prisms" or beneath traffic bearing areas shall be backfilled and compacted with 5/8-inch minus crushed rock. Due to localized conditions, the City may allow/permit the backfill of the trench section with suitable excavated material, as determined by the City, or if this material is not available from trenching operations, the City may order the placing and compaction of gravel base conforming with Section 9-03.10 of the Standard Specifications (WSDOT) for backfilling the trench. Under certain circumstances, the City may require CDF in lieu of gravel or other back-fill material. Where CDF is required, it shall meet WSDOT standards and requirements. All excess material shall be loaded and hauled to waste.

5.9 STREET PATCHING AND RESTORATION

A. See Chapter 4 for requirements regarding street patching and trench restoration.

5.10 EROSION CONTROL

A. The detrimental effects of erosion and sedimentation shall be minimized by conforming to the following general principles:

1. Soil shall be exposed for the shortest possible time;

2. Reducing the velocity and controlling the flow of runoff;

3. Detaining runoff on the site to trap sediment; and

4. Releasing runoff safely to downstream areas.

B. In applying these principles, the Developer and/or Contractor shall provide for erosion control by conducting work in workable units; minimizing the disturbance to cover crop materials; providing mulch and/or temporary cover crops, sedimentation basins, and/or diversions in critical areas during construction; controlling and conveying runoff; and establishing permanent vegetation and installing erosion control structures as soon as possible.

C. Trench mulching will be required where there is danger of backfill material being washed away due to steepness of the slope along the direction of the trench, backfill material shall be compacted and held in place by covering the disturbed area with straw and held with a covering of jute matting or wire mesh anchored in place.

D. Cover Crop Seeding.

1. A cover crop shall be sown in all areas excavated or disturbed during construction that were not paved, landscaped and/or seeded prior to construction. Areas landscaped and/or seeded prior to construction shall be restored to their original or superior condition.

2. Contact the City Clerk for water charges if use of City water is contemplated and the Public Works Superintendent for use of a hydrant for water in furtherance of seeding.

3. Hydrants shall only be opened and closed by members of the City crew.

4. Cover-crop seeding shall follow backfilling operations. The Developer and/or Contractor shall be responsible for protecting all areas from erosion until the cover crop affords such protection.

5. The cover crop shall be re-seeded if required and additional measures taken to provide protection from erosion until the cover crop is capable of providing protection.

6. During winter months, the Contractor may postpone seeding, if conditions are such that the seed will not germinate and grow. The Developer and/or Contractor will not, however, be relieved of the responsibility of protecting all areas until the cover crop has been sown and affords protection from erosion.

7. The cover crop shall be sown at a rate of 10 to 15 pounds of seed per acre using a hand or power operated mechanical seeder capable of providing a uniform distribution of seed.

5.11 FINISHING AND CLEANUP

A. After all other work on this project is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and

construction areas shall be neatly finished to the lines, grades and cross sections of a new roadway consistent with the original section, and as hereinafter specified.

B. On water system construction where all or portions of the construction is in undeveloped areas, the entire area which has been disturbed by the construction shall be shaped so that upon completion the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met. All pipes, valves, tanks, reservoirs, boost pumps, boost pump stations and building associated therewith shall be cleaned of all debris and foreign material.

C. Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to the required cross section and grade by means of a grading machine insofar as it is possible to do so without damaging existing improvements, trees and shrubs. Machine dressing shall be supplemented by hand work to meet requirements outlined herein, to the satisfaction of the City Inspector and/or the Public Works Superintendent.

D. Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All graded areas shall be true to line and grade. Where the existing surface is below sidewalk and curb, the area shall be filled and dressed out to the walk. Wherever fill material is required in the planting area, the finished grade shall be elevated to allow for final settlement, but nevertheless, the raised surface shall present a uniform appearance.

E. All rocks in excess of one (1) inch diameter shall be removed from the entire construction area and shall be disposed of the same as required for other waste material. In no instance shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly so as to present a uniform, natural, well-sloped surface.

F. All excavated material at the outer lateral limits of the project shall be removed entirely. Trash of all kinds resulting from clearing and grubbing or grading operations shall be removed and not placed in areas adjacent to the project. Where machine operations have broken down brush and trees beyond the lateral limits of the project, the Developer and/or Contractor shall remove and dispose of same and restore said disturbed areas at his own expense.

G. Drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all debris, which is the result of the Developer and/or Contractor's operations.

H. All pavements and oil mat surfaces, whether new or old, shall be thoroughly cleaned. Existing improvements such as Portland cement concrete curbs, curb

and gutters, walls, sidewalks, and other facilities, which have been sprayed by the asphalt cement, shall be cleaned and re-painted where needed, all to the satisfaction of the Public Works Superintendent.

I. Castings for monuments, water valves, vaults and other similar installations which have been covered with the asphalt material shall be cleaned to the satisfaction of the Public Works Superintendent.

5.12 GENERAL GUARANTEE AND WARRANTY

A. The Developer shall be required, upon completion of the work and prior to acceptance by the City, to furnish the City a written guarantee covering all material and workmanship for a period of three years after the date of final acceptance and he shall make all necessary repairs during that period at his own expense, if such repairs are necessitated as the result of furnishing poor materials and/or workmanship.

B. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required, and shall deliver copies to the City upon completion of the work. Delivery of such warranties to the City shall not relieve the Developer of liability under his guarantee.

C. Easement documents, if applicable, shall be filed and recorded with the County Auditor's office and the documents reviewed by the City prior to project acceptance.

CHAPTER 6

SANITARY SEWER STANDARDS

6.1 GENERAL

A. The standards established by this chapter are intended to represent the minimum standards for the design and construction of sanitary sewer facilities. Greater or lesser requirements may be mandated by the City due to localized conditions. Washington State Department of Ecology's Design Standards shall also be employed by the City in its review and approval of system connections, extensions, and/or modifications.

B. "Off-site" improvements may be warranted based on (1) the existing condition and capacity of the existing sanitary infrastructure and, (2) impacts caused by the proposed development. These off-site improvements (in addition to "on-site" improvements as may be warranted) will be as determined by the Public Works Superintendent so as to reasonably mitigate impacts caused by development.

C. All wastewater mains shall have a capacity at least 150% of the expected maximum size required for the development.

D. All wastewater systems shall have telemetry satisfactory to the Public Works Superintendent on all associated lines, tanks, reservoirs, pumps, valves, vents, and associated vaults and buildings for sampling and monitoring those items such as essential chemistry, turbidity, pressure, levels, flow, and status, which may be required by the Public Works Superintendent.

E. If a lot is to have a use on it which requires sewage disposal, the property owner or developer must install a connecting line to the City sewer line.

F. A building or structure requiring sewage disposal must be connected to a City sewer line before the completion of the construction of a building or structure.

G. Each service (primary structure) shall have a separate lateral connecting it to the main and a separate clean out. If more than one primary structure is connected to the public sewer system by a single connection, a mutually beneficial easement must be granted to the respective properties over the shared portions of the connection, thus assuring that all properties involved will have perpetual use of the side sewer. Provisions must also be made for maintenance and access for repair. The property owner must:

1. Record the easements(s) with the County Auditor; and

2. give a copy to the City.

6.2 DESIGN STANDARDS

The design of sanitary sewer systems shall be dependent on local site conditions. The design elements of sanitary sewer systems shall conform to minimum City Standards set forth in this Chapter.

A. Detailed plans which provide the location, size, type and direction of flow of the proposed sewers and the connection with existing sewers shall be submitted for the City's review. These plans shall be separate from water plans.

B. Project plans should have a horizontal scale of not more than 50 feet to the inch and a vertical scale of not more than 5 feet to the inch. Plan views shall be drawn to a corresponding horizontal scale. Plans and profiles shall show:

1. Locations of streets, right-of-ways, existing utilities, and sewers;

2. Ground surface, pipe type, class and size, manhole stationing, invert and surface elevation at each manhole, and grade of sewer between adjacent manholes. All manholes shall be numbered on the plans and correspondingly numbered on the profile. Where there is any question of the sewer being sufficiently deep to serve any residence, the elevation and location of the basement floor, if basements are served, shall be plotted on the profile of the sewer, which is to serve the house in question. The Developer shall state that all sewers are sufficiently deep to serve adjacent basements, except where otherwise noted on the plans;

3. All known existing structures, both above and below ground, which might interfere with the proposed construction, particularly water mains, gas mains, storm drains, overhead and underground power lines, telephones lines, and television cables;

4. All utility easements, including County recording numbers; and

5. Details in scale drawings that clearly show special sewer joints and cross-sections, and sewer appurtenances such as manholes and related items and all other items as required by the City to clearly identify construction items, materials, and/or methods.

C. Construction of new sewer systems or extensions of existing systems will be allowed only if the existing receiving system is capable of supporting the added hydraulic load. Sewers shall be extended to the far property line(s) to facilitate future extensions of same.

D. Collection and interceptor sewers shall be designed and constructed for the ultimate development of the tributary areas.

E. Sewer systems shall be designed and constructed to achieve total containment of sanitary wastes and maximum exclusion of infiltration and inflow.

F. Computations and other data used for design of the sewer system shall be submitted to the City for approval.

G. The sewage facilities shall be constructed in conformance with the current version of the Washington State Department of Transportation, Standard Specifications for Road, Bridge, & Municipal Construction, and current amendments thereto, State of Washington, revised as to form to make reference to Local Governments, and as modified by any special City requirements and standards.

H. Material and installation specifications shall contain appropriate requirements that have been established by the industry in its technical publications, such as ASTM, AWWA, WPCF, UPC and APWA standards. Requirements shall be set forth in the specifications for the pipe and methods of bedding and backfilling so as not to damage the pipe or its joints, impede cleaning operations and future tapping, nor create excessive side fill pressure or ovalation of the pipe, nor seriously impair flow capacity.

I. All sewers shall be designed to prevent damage from superimposed loads. Proper allowance for loads on the sewer because of the width and depth of trench should be made. When standard-strength sewer pipe is not sufficient, extra-strength pipe shall be used.

J. All pipe shall be laid in straight lines and at uniform rate of grade between manholes. Variance from established line and grade shall not be greater than one-half inch (1/2"), provided that such variation does not result in a level of reverse sloping invert; provided, also, that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one-sixty-fourth inch (1/64") per inch of pipe diameter, or one-half inch (1/2") maximum. Any corrections required in line and grade shall be reviewed with the City and/or the Public Works Superintendent and shall be made at the expense of the Developer and/or Contractor.

K. Deflection tests shall be performed on all PVC sewer mains and the deflection test limit shall be 5.0 percent of the base inside diameter of the pipe.

L. Prior to final inspection, all pipelines shall be tested, flushed and cleaned and all debris removed. A pipeline "cleaning ball" of the proper diameter for each size of pipe shall be flushed through all pipelines prior to final inspection. Hydrant meters shall be acquired (deposit required) from the City and utilized by the Contractor for all water withdrawn from the City of Ilwaco system for flushing purposes.

M. Before sewer lines are accepted, the Contractor/Developer shall perform a complete televised inspection of the sewer pipe and appurtenances and shall provide to the City an audio-visual tape recording of these inspections. All equipment and materials shall be compatible with existing City equipment. It shall be the Contractor/Developer's responsibility to confirm equipment compatibility with the City prior to inspection.

N. At all times during the televised inspection process, the City's Utility Superintendent and/or his designated representative shall be present. The City's Public Works Superintendent shall be notified forty-eight (48) hours prior to any televised inspection.

O. After all other work is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross sections for a new roadway consistent with the original section.

P. The Developer shall be required, upon completion of the work and prior to acceptance by the City, to furnish the City with a written guarantee covering all material and workmanship for a period of two years after the date of final acceptance and the Developer shall make all necessary repairs during that period at his own expense, if such repairs are necessitated as the result of furnishing poor materials and/or workmanship. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required, and shall deliver copies to the City upon completion of the work.

6.3 GENERAL REQUIREMENTS

A. Prior to construction, the sewer plans shall be reviewed and approved by the Department of Ecology and an affidavit stating such be on file at the City's Public Works Department.

B. Prior to construction, the Contractor shall notify the City for a pre-construction meeting.

C. Work shall be performed only by licensed and bonded contractors with a demonstrated experienced in laying public sewer mains of the type being proposed for construction.

D. Prior to any work being performed, the Contractor shall contact the Public Works Superintendent and provide the Public Works Superintendent with the Contractor's construction schedule. The Contractor will submit changes in the construction schedule to the Public Works Superintendent in a timely manner.

E. The Contractor shall obtain approval of materials to be used from the City prior tIo ordering or delivery of materials.

F. Sewer mains shall be laid only in dedicated street right-of-way or easements shown on preliminary plats or which have been exclusively granted to the City. A street is normally not officially recognized until the plat, which created it has been filed (recorded) with the County Auditor.

G. Sewer mains shall run parallel to and 5 feet southerly or westerly of street centerline where possible. Sewer mains shall maintain a minimum 10 foot horizontal separation from proposed or existing water mains.

H. The maximum distance between manholes shall be 400 feet unless specifically approved otherwise by the Public Works Superintendent.

I. All pipe shall have a minimum of thirty six (36) inches of cover (18" in the case of a side sewer on private property). The City reserves the right to require a minimum of three feet of cover unless topography, existing facilities or other future improvements prohibit this minimum cover for installation.

J. The minimum slope for 8" gravity mains shall be 0.5% (except the minimum slope for dead end runs shall be 1.0% for 8" gravity mains) and the minimum slope for 6" side sewer laterals shall be 2.0%.

K. All side sewer laterals shall be of the same material as the main line.

L. Each side sewer lateral shall be equipped with a 6" x 6" tee, with an approved water-tight cap, located adjacent to, but within, the public right-of-way, to be utilized as a clean-out. When required by either the City's Inspector or Public Works Superintendent, a watertight six-inch capped stub shall be installed which extends vertically from the 6" x 6" tee to within 18 inches of finished grade.

M. Each side sewer lateral shall have an approved water-tight cap at the termination of the stub. The cap shall be adequately "blocked" to satisfactorily resist air pressure testing.

N. Each side sewer lateral shall have a twelve (12) foot long 2" x 4" wood "marker" at the termination of the stub. The "marker" shall extend from the bottom of the trench to above finished grade. Above the ground surface, it shall be painted "white" with "S/S" and the depth, in feet, stenciled in black letters 2" high.

O. Front lot corners shall be staked by a surveyor prior to construction for side sewer tee location(s).

P. Side sewers shall generally be located at the lowest property corner and located a minimum of 10 feet from the side lot line and extend a minimum of 10 feet past the street right-of-way line (or property line).

Q. Side sewer connections if allowed directly into manholes shall be constructed to match the sewer main crown (outlet) and the manhole channeled accordingly.

R. Manholes, where sewer extension may occur, shall be provided with knock-outs and channeled accordingly.

S. Manholes shall be provided with a 0.10 foot drop across the channel. Pre-channeled manholes are <u>not</u> allowed.

T. Locking lids shall be provided for all manholes located outside pavement areas and all manhole lids shall have the word "sewer" cast integrally onto its surface. See Standard Details, attached hereto and incorporated herein for all purposes.

U. Concrete collars shall be placed around all frames per the Standard Detailsfor manholes located in non-paved areas.

V. Pipe connections to manholes shall be as follows:

1. PVC Pipe - Cast or grout a watertight manhole coupling (see detail) into manhole wall.

2. D.I. Pipe - Both bell and spigot joints and flexible couplings shall be 12" maximum distance from manhole wall.

3. PVC and D.I. pipe, optional - Core the manhole and connect sewer pipe with a water-tight flexible rubber boot in manhole wall, Kor-N-Seal boot or equal.

W. Provide the Public Works Superintendent and City Inspector a copy of the cut sheets prior to construction.

X. Pipe trenches shall not be backfilled until pipe and bedding installation have been inspected and approved by the City's Inspector.

Y. Final air testing shall not be accepted until after the finished paving is accomplished, all other underground utilities have been installed, and the lines have been flushed, cleaned, and deflection tested.

Z. Manhole rim and invert elevations shall be field verified after construction by the Developer's engineer(s) and the "record" drawings individually stamped by a Washington State licensed professional engineer or surveyor who shall attest to the fact that the information is correct.

AA. All commercial, industrial, or school food establishments shall be equipped with an approved grease interceptor. The grease interceptor shall be located to facilitate inspection and maintenance.

6.4 MATERIALS AND TESTING

A. Sewer Mains, Laterals and Force Mains

1. Sewer mains to be installed shall be of material noted below:

   a. Gravity Sewer and Laterals:
      1. PVC Pipe 3'-25' Cover
      2. DI Pipe (Class 52) <3' cover; 25' and over cover or slopes of 18 percent or greater
      3. HDPE - 3' – 25' Cover

   b. Force Main:
      1. DI Pipe Class 52
      2. HDPE (SDR 9 – minimum)

2. Gravity PVC pipe (15" diameter and smaller) shall be a minimum Class SDR 35 and be manufactured in accordance with ASTM D3034. The pipe and fittings shall be furnished with bells and spigots, which are integral with the pipe wall. Pipe joints shall use flexible elastomeric gaskets conforming to ASTM D3212. Nominal laying lengths shall be 20 feet and 13 feet.

4. The ductile iron pipe shall conform to ANSI/AWWA C151/A21.51-91 Standards, and current amendments thereto, except the ductile iron pipe

shall be thickness Class 52 for gravity sewers and Class 52 for force mains. Grade of iron shall be a minimum of 60-42-10. The pipe shall be cement lined to a minimum thickness of 1/16", and the exterior shall be coated with an asphaltic coating. Each length shall be plainly marked with the manufacturer's identification, year case, thickness, class of pipe and weight.

5. HDPE pipe shall manufactured in accordance with ASTM D3035 for gravity sewers and AWWA C901/C906 for pressure sewers.

6. Type of joint shall be mechanical joint or push-on type, employing a single gasket, such as "Tyton", except where otherwise calling for flanged ends. Bolts furnished for mechanical joint pipe and fittings shall be high strength ductile iron, with a minimum tensile strength of 50,000 psi.

7. Restrained joint pipe, where required shall be push-on joint pipe with "Fast Tight" gaskets as furnished by U.S. Pipe or equal for 12" diameter and smaller pipe and "TR FLEX" as furnished by U.S. Pipe or equal for 16" and 24" diameter pipes. Mechanical joint pipe with retainer glands (grip rings) as manufactured by "Romac" may also be required at the discretion of the City. The restrained joint pipe shall meet all other requirements of the non-restrained pipe.

8. All pipe shall be jointed by the manufacturer's standard coupling, be all of one manufacturer, be carefully installed in complete compliance with the manufacturer's recommendations.

9. All fittings shall be short-bodied, ductile iron complying with applicable ANSI/AWWA C110 or C153 Standards for 350 psi pressure rating for mechanical joint fittings and 250 psi pressure rating for flanged fittings. All fittings shall be lined and either mechanical joint or flanged, as indicated on the Plans.

10. Fittings in areas shown on the Plans for restrained joints shall be mechanical joint fittings with a mechanical joint restraint device. The mechanical joint restraint device shall have a working pressure of at least 250 psi with a minimum safety factor of 2:1 and shall be EBAA Iron, Inc., MEGALUG, or ROMAC "Grip Ring", as required and approved by the Public Works Superintendent.

11. All couplings shall be ductile iron mechanical joint sleeves.

12. The sewer pipe, unless otherwise approved by the Public Works Superintendent, shall be laid upgrade from point of connection on the

existing sewer or from a designated starting point. The sewer pipe shall be installed with the bell end forward or upgrade. When pipe laying is not in progress, the forward end of the pipe shall be kept tightly closed with an approved temporary plug. Wherever movable shoring (steel box) is used in the ditch, pipe shall be restrained by use of a winch mounted in the downstream manhole and a line of sufficient strength threaded through the pipe and set tight before each move. Any indication that joints are not being held shall be sufficient reason for the City to require restraints, whether or not movable shoring is being used.

13. All pipe shall be laid in straight lines and at uniform rate of grade between manholes. Variance from established line and grade shall not be greater than one-half inch (1/2"), provided that such variation does not result in a level of reverse sloping invert; provided, also, that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one-sixty-fourth inch (1/64") per inch of pipe diameter, or one-half inch (1/2") maximum. Any corrections required in line and grade shall be reviewed with the Public Works Superintendent and shall be made at the expense of the Developer.

14. All extensions, additions and revisions to the sewer system, unless otherwise indicated, shall be made with sewer pipe jointed by means of a flexible gasket, which shall be fabricated and installed in accordance with the manufacturer's specifications.

15. All joints shall be made up in strict compliance with the manufacturer's recommendations and all sewer pipe manufacture and handling shall meet or exceed the ASTM and CPAW recommended specifications, current revisions.

16. Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position, or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed, cleaned, relubricated if required, and replaced before the rejoining is attempted.

17. Care shall be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned. Since most flexible gasketed joints tend to creep apart when the end pipe is deflected and straightened, such movement shall be held to a minimum once the joint is home.

18. Sufficient pressure shall be applied in making the joint to assure that it is home, as described in the installation instructions provided by the pipe manufacturer. Sufficient restraint shall be applied to the line to assure that joints once home are held so, until fill material under and alongside the pipe has been sufficiently compacted. Great care shall be exercised when dragging a trench box up or down trench after backfilling to avoid dragging the pipe. Such dragging can result in joint separation. At the end of the work day, the last pipe laid shall be blocked in an effective way to prevent creep during "down time."

19. For the joining of dissimilar pipes suitable adapter couplings shall be used which have been approved by the City Inspector and/or the Public Works Superintendent

20. All gravity sewer pipe shall be bedded with pea gravel. The PVC pipe shall be bedded from a depth of four (4) inches below the pipe to eight (8) inches above the pipe and ductile iron gravity sewer pipe shall be bedded from a depth of four (4) inches below the pipe to the springline of the pipe. The bedding material shall extend across the full width of the trench and shall be compacted under the haunches of the pipe.

21. Special concrete bedding shall consist of a pipe cradle constructed of Portland cement concrete containing not less than four (4) sacks of cement per cubic yard. Sand, gravel and water proportions are subject to approval by the Engineer. Maximum aggregate size shall be 1-1/2". Maximum slump shall be 4". The bottom of the trench shall be fully compacted before the placement of pipe cradle. The Contractor shall protect pipe against flotation and disturbing the horizontal alignment of the pipe during the pouring of the concrete. (Washington State Department of Transportation Standard Specifications for "Class A" concrete bedding will be acceptable.)

22. Clay or Controlled Density Fill (CDF) dams shall be installed across the trench and to the full depth of the granular material in all areas of steep slopes, stream crossings and wetland to prevent migration of water along the pipeline.

23. All backfill shall be placed and compacted in accordance with City, County, or State requirements as may be applicable and copies of the compaction results shall be provided to the Public Works Superintendent.

B. Manholes

1. Manholes shall be of the offset type and shall be precast concrete sections with either a cast in place base, or a precast base made from a 3,000 psi structural concrete. Joints between precast wall sections shall be confined O-ring or as otherwise specified.

2. For connections to existing systems, a concrete coring machine, suitable for this type of work, shall be utilized in making the connection. The existing manhole shall be rechanneled as required. The new pipe connection shall be plugged (water tight) until the new pipe system has been installed and approved. The Contractor shall be responsible for any existing defects in the existing manhole unless these defects are witnessed by a representative of the City prior to any work being performed to make the connection. The Contractor shall be required to remove any and all deleterious material in the existing manhole and downstream reaches as a result of his/her work.

3. The minimum diameter manhole shall be 48 inches to a depth of 20 feet, and 54 inches for a depth greater than 20 feet. The City may require an increased manhole diameter for future connections.

    a. Manhole sections shall be placed and aligned so as to provide vertical sides and vertical alignment of the ladder steps. The completed manhole shall be rigid, true to dimension, and be water tight. Rough, uneven surfaces will not be permitted.

    b. The mortar used between the joints in the precast sections and for laying manhole adjusting bricks shall be composed of epoxy grout. All joints and pick holes shall be wetted and completely filled with grout, smoothed both inside and outside to insure water tightness.

    c. Masonry units (manhole adjusting brick) shall conform to the ASTM C-32, Grade MA. The outside and inside of manhole adjusting bricks and the joints of precast concrete sections shall be plastered and troweled smooth with 1/2" (minimum) of mortar in order to attain a watertight surface.

    d. Manhole steps shall be polypropylene, Lane International Corp. No. P13938 or equal. Ladders (maximum 3 foot length) shall be polypropylene Lane International Corp. or equal, and shall be compatible with steps.

    e. Grade Adjustment. Where work is located in public right of way, not less than 18" or more than 26" shall be provided between the top of the cone or slab and the top of the manhole frame.

f. Channels shall be field poured and made to conform accurately to the sewer grade and shall be brought together smoothly with well rounded junctions, satisfactory to the City Inspector. The channels shall be field poured after the inlet and outlet pipes have been laid and firmly grouted into place at the proper elevation. Allowances shall be made for a one-tenth foot (0.1') drop in elevation across the manhole in the direction of flow. Channel sides shall be carried up vertically from the invert to three-quarters of the diameter of the various pipes. The concrete shelf shall be warped evenly and sloped 3/8" per foot to drain. Rough, uneven surfaces will not be permitted. Channels shall be constructed to allow the installation and use of a mechanical plug or flow meter of the appropriate size.

g. Drop manholes shall, in all respects, be constructed as a standard manhole with the exception of the drop connection as further detailed herein.

h. All lift holes shall be completely filled with expanding mortar, smoothed both inside and outside, to insure water tightness.

i. All steel loops shall be removed, flush with the manhole wall. The stubs shall be covered with mortar and smoothed. Rough, uneven surfaces will not be permitted.

j. Frames and covers shall be ductile iron. Castings shall be free of porosity, shrink cavities, cold shuts or cracks, or any surface defects which would impair serviceability. Repair of defects by welding, or by the use of "smooth-on" or similar material, will not be permitted. Frames and covers shall be machine finished or ground on seating surfaces so as to assure non-rocking fit in any position and interchangeability of covers. Frames and covers shall be provided with three bolt locking lids. Rings and covers shall be positioned so one of the three locking bolts is located over the manhole steps and shall be adjusted to conform to the final finished surface grade of the street or easement to the satisfaction of the City or agent for the City. Manhole frames and covers shall be as manufactured by "Sather" Manufacturing Company, Model No. 6024-R, or City approved equal.

C. Side Sewer Laterals

1. A side sewer lateral is considered to be that portion of a sewer line that will be constructed between a main sewer line and a property line or easement limit line.

2. All applicable specifications given herein for sewer construction shall be held to apply to side sewer laterals.

3. Side sewers shall be for a single connection only and be a minimum six inch (6") diameter pipe. Side sewers shall be connected to the tee, provided in the sewer main where such is available, utilizing approved fittings or adapters. The side sewer shall rise at a maximum of 45° and a minimum of 2%, from the sewer main.

4. Where there are no basements, the minimum side sewer depth shall be six (6) feet below existing curb line and five (5) feet below ground at the property line, except where existing improvements, proposed improvements or topography may dictate additional depth. The elevations of the side sewer connections shall be of sufficient depth to serve all existing and potential future basements.

5. The Contractor shall provide for each 6 inch side sewer service a twelve (12) foot long 2 inch x 4 inch wooden post which extends from the invert of the end of the 6 inch pipe to above the existing ground. The exposed area of this post shall be painted white and shall have selected thereon in two inch letters (black paint) "S/S" and shall also indicate the depth of the sewer service stub from finished grade.

6. Where no tee or wye is provided or available, connection shall be made by machine-made tap and saddle, only with specific written authorization of the City. The City shall review the exact location and material, list in its evaluation.

7. The maximum bend permissible at any one fitting shall not exceed forty-five degrees (45°). The maximum bend of any combination of two adjacent fittings shall not exceed 45° unless straight pipe of not less than three (3) feet in length is installed between such adjacent fittings, or unless one of the fittings is a wye branch with a cleanout provided on the straight leg.

D. Private Side Sewers

1. Private side sewers are the extension of side sewer laterals located outside of the public rights-of-way or easements granted to the City of Ilwaco.

2. Side sewer pipe located on private property shall be 4" (larger if specifically approved by the City), ductile iron or PVC ASTM D3034 pipe, and shall be installed at a 2% minimum grade (1/4 inch fall per foot). Construction on private property may be performed by owner, but requires a permit and approval by the City.

3. Pipe shall be bedded with pea gravel or clean free draining sand.

4. Six inch sewer pipe is required in the street right-of-way and shall have a 2% minimum grade. Construction in street rights-of-way shall be performed by a licensed side sewer contractor and requires a permit.

5. Side sewer shall be inspected by the City Inspector and/or Public Works Superintendent prior to backfilling. Side sewer shall be plugged and tested in the presence of the City Inspector by filling with water. Leakage rate shall not exceed 0.31 gal./hr. for 4 inch pipe and 0.47 gal./hr. for 6 inch pipe, per 100 feet of pipe.

6. On private property, minimum cover shall be 18" over top of pipe from the point, which is 30" out from house and continuing to the connection with the City's sewer system.

7. Parallel water and sewer lines shall be a minimum of 10 feet apart horizontally wherever possible and have a vertical separation of at least 18" if a vertical crossing is necessary.

8. No more than 100 feet is allowed between cleanouts. Cleanouts are required for bends equal to or greater than 45°. Cleanout shall be a watertight plugged gasketed tee or wye lateral.

9. All pipe joints shall be rubber gasket type.

10. Provide "grease trap" of a size and type approved by the City at all such locations as may be deemed necessary by the City.

E. Testing Gravity Sewers for Acceptance

1. The Contractor and/or Developer shall furnish all facilities and personnel for conducting tests under the observation of the Public Works Superintendent and/or City Inspector. Methods other than Part "B" shall be subject to the approval of the Public Works Superintendent.

2. By way of preparation for testing for leakage, the Contractor and/or Developer shall be required, prior to testing, to clean and flush all gravity sewer lines with an approved cleaning ball and clean water. The

completed gravity sewer, including side sewer stubs, after completion of backfill and cleaning shall be televised inspected. This will be permitted prior to paving.

3. The sewer shall then be tested by the low pressure air test method and/or an infiltration test but only after all utilities are installed and the project paved. Except, however, that in certain conditions an exfiltration test may be required by the Public Works Superintendent.

4. The first section of pipe not less than 300' in length installed by each crew shall be tested, in order to qualify the crew and/or the material. A successful installation of this first section shall be a prerequisite to further pipe installation by the crew. At the Contractor's option, crew and/or material qualification testing may be performed at any time during the construction process after at least two (2) feet of backfill has been placed over the pipe.

5. Before the test is performed, the pipe installation shall be cleaned. The Contractor shall furnish an inflatable diagonally ribbed rubber ball of a size that will inflate to fit snugly into the pipe to be tested. The ball may, at the option of the Contractor, be used without a tag line, or a rope or cord may be fastened to the ball to enable the Contractor to know and control its position at all times. The ball shall be placed in the last cleanout, or manhole on the pipe to be cleaned, and water shall be introduced behind it.

6. The ball shall pass through the pipe with only the pressure of the water impelling it. All debris flushed out ahead of the ball shall be removed at the first manhole where its presence is noted. In the event cemented or wedged debris or a damaged pipe shall stop the ball, the Contractor and/or Developer shall remove the obstruction, and/or repair any damaged pipe. All visible leaks showing flowing water in pipelines or manholes shall be stopped even if the test results fall within the allowable leakage. The cleaning shall be carried out in such a manner to not infiltrate existing facilities. Precautions shall be taken to prevent any damage caused by cleaning and testing. Any damage resulting shall be repaired by the Contractor and/or Developer at his own expense. The manner and time of testing shall be subject to approval of the Public Works Superintendent.

7. Deflection tests shall be performed on all PVC gravity sewer mains by pulling a mandrel through the pipe and the deflection test limit shall be 5.0 percent of the base inside diameter or for example 7.28 inches for 8-inch diameter pipe. The sewer lines shall be thoroughly cleaned prior to the deflection test.

8. The sewer pipe shall be air tested for leaks in the following manner (unless the method in paragraph 9 and 10 below is approved):

a. Immediately following the pipe cleaning and televised inspection, the pipe installation shall be tested with low pressure air. Air shall be slowly supplied to the plugged pipe installation until the internal air pressure reaches 4.0 pounds per square inch greater than the average back pressure of any ground water that may submerge the pipe. At least two minutes shall be allowed for temperature stabilization before proceeding further.

b. The rate of air loss shall then be determined by measuring the time interval required for the internal pressure to decrease from 3.5 to 2.5 pounds per square inch greater than the pipe section's average adjacent groundwater back pressure.

c. The pipeline shall be considered acceptable, when tested at an average pressure of 3.0 pounds per square inch greater than the pipe section's adjacent groundwater back pressure if the total time of air loss from any section tested in its entirety between manholes, cleanouts or pipe ends does not exceed the following table:

AIR TESTING PERFORMANCE
(Test time in minutes and seconds)

Length of 8" Pipe (ft)	Length of 6" Pipe (ft)								
	0	**50**	**100**	**150**	**200**	**250**	**300**	**350**	**400**
0	0	0:40	1:20	1:58	2:38	3:18	3:58	4:38	5:16
50	1:10	1:50	2:30	3:10	3:48	4:28	5:08	5:48	5:56
100	2:20	3:00	3:40	4:20	5:00	5:38	6:14	6:12	6:08
150	3:32	4:10	4:50	5:30	6:10	6:30	6:26	6:22	6:18
200	4:42	5:22	6:00	6:40	6:44	6:38	6:34	6:30	6:26
250	5:52	6:32	6:48	6:58	6:50	6:44	6:40	6:36	6:32
300	7:02	7:20	7:10	7:02	6:56	6:50	6:44	6:40	6:36
350	7:34	7:22	7:14	7:06	7:00	6:54	6:50	6:44	6:42
400	7:34	7:24	7:16	7:08	7:02	6:58	6:52	6:48	6:44

d. Test times will be provided by the Public Works Superintendent upon request for combinations other than 8-inch mains and 6-inch laterals.

e. If the pipe installation fails to meet these requirements, the Developer and/or Contractor shall determine at his own expense the source or sources of leakage, and he shall repair (if the extent and type of repairs proposed by the Developer and/or Contractor appear reasonable to the Public Works Superintendent) or replace all defective materials or workmanship. The completed pipe installation shall meet the requirements of this low pressure air test or the alternative water exfiltration test before being considered for acceptance.

f. Plugs used to close the sewer pipe for the air test shall be securely braced to prevent the unintentional release of a plug which can become a high velocity projectile. Gauges, air piping manifolds and valves shall be located at the top of the ground. No one shall be permitted to enter a manhole where a plugged pipe is under pressure. Air testing apparatus shall be equipped with a pressure release device such as a rupture disk or a pressure relief valve designed to relieve pressure on the pipe under test at 6 psi.

9. Exfiltration Test (if approved by City)

a. All pipe shall be cleaned before the exfiltration test. Prior to making exfiltration leakage tests, the Developer and/or Contractor may fill the pipe with clear water to permit normal absorption into the pipe walls; provided however, that after so filling the pipe he shall complete the leakage test within twenty-four (24) hours after filling.

b. Leakage shall be no more than 0.15 gallons per hour per inch of diameter per one hundred (100) feet of sewer pipe, with a minimum test pressure of six (6) feet of water column above the crown at the upper end of the pie or above the active groundwater table, whichever is higher as determined by the City. The length of pipe tested shall be limited so that the pressure on the invert of the lower end of the section tested shall not exceed sixteen (16) feet of water column. For each increase in pressure of two (2) feet above a basic six (6) feet measured above the crown at the lower end of the test station, the allowable leakage shall be increased by 10 percent.

c. The Developer and/or Contractor shall furnish all equipment, materials, and labor necessary for making test. The equipment shall be to the approval of the City Public Works Superintendent and/or City Engineer. The manner and time of testing shall be

subject to approval of the Public Works Superintendent. It shall be the Developer's and/or Contractor's responsibility to determine the level of the water table at each manhole. If leakage exceeds the allowable amount, corrective measures shall be taken and the line then be retested to the satisfaction of the City's designated inspector.

10. Infiltration Test (if approved by City)

    a. Infiltration testing shall take place during jetting of backfill, except when the natural groundwater table is above the crown of the higher end of the test section.

    b. The maximum allowable limit for infiltration shall be 0.15 gallon per hour per inch of internal diameter per 100 feet of length with no allowance for external hydrostatic head.

F. Testing Force Main

1. The Developer and/or Contractor shall conduct preliminary tests to assure the section to be tested is in an acceptable condition before requesting the City Inspector and/or Public Works Superintendent to witness the test.

2. Final testing of all force mains shall be done tested prior to acceptance of work. All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished, installed and operated by the Contractor. Feed for the pump shall be from a barrel or other container within the actual amount of "makeup" water, so that it can be measured periodically during the test period.

3. The pipeline shall be backfilled sufficiently to prevent movement of the pipe under pressure. All thrust blocks shall be in place and time allowed for the concrete to cure before testing. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking.

4. The pipeline shall be subjected to a pressure and leakage test of a minimum of 150 pounds per square inch for a period of not less than one (1) hour. The test pressure shall be applied at the low end of the section tested.

5. The quantity of water lost from the main shall not exceed the number of gallons per hour determined by the formula:

$$L = \underline{ND(P)}^{0.5}$$

7,400

in which

L = Allowable leakage, gallons/hour
N = Number of joints in the length of pipeline tested
D = Nominal diameter of the pipe in inches
P = Average test pressure during the leakage test, psi

6. Defective materials or workmanship, discovered as a result of the tests, shall be replaced by the Contractor at the Contractor's expense. Whenever it is necessary to replace defective material or correct the workmanship, the tests shall be re-run at the Contractor's expense until a satisfactory test is obtained.

7. All fittings shall be blocked with concrete in order to prevent movement and separation of pipe joints. Timber will not be permitted as permanent blocking. Sufficient time shall be allowed for concrete to set before commencement of pressure tests. The type and size of blocks and anchors shall be in accordance with the standards set forth by the AWWA and designed by the Developer's engineer. **They shall be constructed to the minimum dimensional configuration as shown herein.** A visqueen barrier shall be provided to protect glands, bolts, and other miscellaneous materials required for this type of connection from the concrete.

6.5 VIDEO TAPING

After the gravity sewer lines have been cleaned, flushed and manhole channeled, the Developer shall provide a complete televised inspection.

The Developer shall perform a complete televised inspection of the sewer pipe and appurtenances and shall provide to the City, a DVD color audio-visual recording of the inspections together with a written log of the television inspection. The camera shall be a pan and tilt type equipped with adequate light and focusing to allow inspection of sewer main, side sewers and full circumference inspection of main line joints and fittings. The City shall determine if the quality of the televising is acceptable.

Immediately prior to the televised inspection, the Developer shall run water through each sewer line for 5- to 10-minutes to provide water for detection of any adverse grade sections visible by the presence of ponded water. The camera shall be stopped periodically at the ponded areas and the depth of water shall be measured with a ball of known diameter on the pull line. During the inspection, all tees and other fittings shall be logged as to exact location within 1 percent maximum error in measurement, wherein accuracy is checked with various fittings and the terminating manhole.

The City shall be notified 48 hours prior to any television inspection and this work shall be performed on a schedule to allow the City to witness the inspection.

Any defects in material or installation identified by the television inspection shall be repaired as required by the City at the Developer's expense.

6.6 STATE HIGHWAY CROSSINGS

All state highway and stream crossings shall be encased with a steel casing or ductile iron or PVC sleeve, as approved by the City and prevailing regulatory agencies. The welded steel casing or sleeve shall be of sufficient diameter, size and strength to enclose the sewer pipe and to withstand maximum highway or railroad loading. Sizing and wall thickness of casing is subject to approval by the Public Works Superintendent. Sand backfill or grout fill between the casing and the sewer pipe shall be required. In order to prevent the sand from being washed from the casing the ends of the casing shall be bricked and cemented after installation, backfill and testing of the pipe are completed. The ductile iron sleeve shall be completed with restrained joints within the casing.

6.7 STAKING

A. All surveying and staking shall be performed by an engineering or surveying firm employed by the Developer and which firm shall be capable of performing such work. The engineer or surveyor directing or performing such work shall be currently licensed by the State of Washington to perform said tasks.

B. A preconstruction meeting shall be held with the City prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

C. The following minimum staking of sanitary sewer systems shall apply:

1. Stake centerline alignment at a minimum of fifty foot intervals unless otherwise approved by the City;

2. Stake location of all manholes and side sewer laterals for grade and alignment;

3. Provide a copy of "cut sheets" to City inspector; and

4. Stake finished manhole rim elevation and invert elevations of all pipes in manholes.

6.8 TRENCH EXCAVATION

A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.

B. Trenches shall be excavated to the line and depth as shown on the City approved drawings, or as otherwise designated in the field by the City Inspector so as to provide a City approved minimum depth of cover over the pipe. See Construction Details as applicable. Except for unusual circumstances, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as mandated by the regulatory agency and in compliance with all safety requirements of the prevailing agencies. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The owner shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.

C. The contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below sewer line grade. Where materials are removed from below pipe grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

D. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe lying without specific written approval of the City, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.

E. The bedding course shall be constructed to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to make up the joint.

6.9 BEDDING

A. Gravel backfill for pipe bedding shall be installed in conformance with Section 2-09 of the Standard Specifications (WSDOT).

B. Gravel backfill for rigid pipe bedding shall consist of crushed, processed, or naturally occurring granular material. It shall be essentially free from various types of wood waste or other extraneous or objectionable materials. It shall have

such characteristics of size and shape that it will compact readily and shall meet the following specifications for grading and quality:

Sieve Size	Percent Passing*
3/4" Square	100
3/8" Square	95-100
U.S. No. 8	0-10
U.S. No. 200	0-3
Sand Equivalent	35 MIN.

*All percentages are by weight.

C. Gravel backfill for flexible pipe (P.V.C. pipe) bedding shall consist of crushed, processed, or naturally occurring granular material. It shall be essentially free from various types of wood waste or other extraneous or objectionable materials. It shall have such characteristics of size and shape that it will compact readily and shall meet the following specifications for grading and quality:

Sieve Size	Percent Passing*
3/4" Square	100
3/8" Square	95-100
U.S. No. 8	0-10
U.S. No. 200	0-3
Sand Equivalent	35 MIN.

*All percentages are by weight.

D. Native Material shall not be used for bedding, unless approved by the Public Works Superintendent.

6.10 BACKFILLING

Backfilling and surface restoration shall closely follow installation of pipe so that not more than 100 feet is left exposed during construction hours without approval of the City. Selected backfill material shall be placed and compacted around and under the sewer pipe by hand tools. Special precautions shall be provided to protect the pipe to a point 12 inches above the crown of the pipe. The remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas and road "prisms", 90 percent outside driveway, roadways, road prism, shoulders, parking or other traveled areas. Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the satisfaction of the agency having jurisdiction. Typically, all utility trenches located in roadway sections, roadway "prisms", or beneath traffic bearing

areas shall be backfilled with 5/8-inch minus crushed rock, or other City approved structural material. Due to localized conditions, the City may allow/permit the backfill of the trench section with suitable excavated material, as determined by the City Inspector, or if suitable native material is not available from trenching operations, the City may order the placing and compaction of gravel base conforming to Section 9-03.10 of the Standard Specifications (WSDOT) for backfilling the trench. All excess material shall be loaded and hauled to waste.

6.11 SANITARY SEWER LIFT STATIONS

A. Lift stations and ancillary equipment shall not be constructed in City rights-of-way, unless otherwise approved by the City. The station site shall be paved and fenced and a dedicated access to the lift station provided with a minimum width of 20-feet.

B. The Developer shall submit to the City for review and approval, complete sewage lift station plans and design which provide for the lift station, electrical service/controls and telemetry system, and auxiliary generator/transfer switch together with all accessories for a complete, automatically operating installation per Chapter 9. Odor control and/or corrosion control facilities may also be required.

C. Design material and drawings shall provide all civil, mechanical and electrical details and align with all applicable codes and regulations, and good engineering practice. The Developer shall be required to acquire all permits and approvals for the installation/construction of this facility as required from regulatory agencies.

6.12 STREET PATCHING AND RESTORATION

See Chapter 4.15 and 4.16 for requirements regarding street patching and trench restoration.

6.13 EROSION CONTROL

A. The detrimental effects of erosion and sedimentation shall be minimized.

1. Soil shall be exposed for the shortest possible time;
2. Reducing the velocity and controlling the flow of runoff;
3. Detaining runoff on the site to trap sediment; and
4. Releasing runoff safely to downstream areas.

B. The Developer and/or Contractor shall provide for erosion control by conducting work in workable units; minimizing the disturbance to cover crop materials; providing mulch and/or temporary cover crops, sedimentation basins, and/or diversions in critical areas during construction; controlling and conveying runoff; and establishing permanent vegetation and installing erosion control structures as soon as possible.

C. Trench mulching shall be used where there is danger of backfill material being washed away due to steepness of the slope along the direction of the trench. Backfill material shall be compacted and held in place by covering the disturbed area with straw and held with a covering of jute matting or wire mesh anchored in place.

D. Cover-Crop Seeding

1. A cover crop shall be sown in all areas excavated or disturbed during construction that were not paved, landscaped and/or seeded prior to construction. Areas landscaped and/or seeded prior to construction shall be restored to their original or superior condition. Cover-crop seeding shall follow backfilling operations.

2. The Developer and/or Contractor shall be responsible for protecting all areas from erosion until the cover crop affords such protection. The cover crop shall be re-seeded if required and additional measures taken to provide protection from erosion until the cover crop is capable of providing protection.

3. During winter months, the Contractor may postpone seeding, if conditions are such that the seed will not germinate and grow. The Developer and/or Contractor will not, however, be relieved of the responsibility of protecting all areas until the cover crop has been sown and affords protection from erosion.

4. The cover crop shall be sown at a rate of 10 to 15 pounds of seed per acre using a hand or power operated mechanical seeder capable of providing a uniform distribution of seed.

6.14 ADJUSTMENT TO GRADE

A. All new and existing utility structures encountered on the project shall be constructed and/or adjusted to finished grade.

B. On asphalt concrete paving projects, the manholes shall not be adjusted until the pavement is completed, at which time the center of each manhole lid shall be

relocated from references previously established by the Developer and/or Contractor. The pavement shall be cut as further described and base material removed to permit removal of the cover. The manhole shall then be brought to proper grade.

C. Prior to commencing adjustment, a plywood and visqueen cover as approved by the City Inspector shall be placed over the manhole base and channel to protect them from debris.

D. The asphalt concrete pavement shall be cut and removed to a neat circle, the diameter of which shall not exceed 48" or 14" from the outside diameter of the ductile iron frame, whichever is smaller. The ductile iron frame shall be brought up to desired grade, which shall conform to surrounding road surface.

E. Adjustment to desired grade shall be made with the use of concrete or bricks. No cast or ductile iron adjustment rings will be allowed. An approved class or mortar (one part cement to two parts of plaster sand) shall be placed between manhole sections; adjustment rings or bricks and ductile iron frame to completely fill all voids and to provide a watertight seal. No rough or uneven surfaces will be permitted inside or out. Adjustment rings or brick shall be placed and aligned to provide vertical sides and vertical alignment of manhole steps and ladder.

F. Manhole specifications for minimum and maximum manhole adjustment and step requirements will be met. Special care shall be exercised in all operations in order not to damage the manhole, frames and lids or other existing facilities.

G. As soon as the street is paved past each manhole, the asphalt concrete mat shall be scored around the location of the manhole, catch basin, meter boxes or valve box. After rolling has been completed and the mat has cooled, it shall be cut along the scored lines. The manholes, catch basins, meter boxes and valve boxes shall then be raised to finished pavement grade and the annular spaces filled with cement concrete to within 1-1/2 inches of the finished grade. The remaining 1-1/2 inches shall be filled with asphalt concrete Class B to give a smooth finished appearance. See detail in Project Plans.

H. After pavement is in place, all joints shall be sealed with hot asphalt cement (AR 4000W). A sand blanket shall be applied to the surface of the AR 4000W hot asphalt cement binder to help alleviate "tracking".

I. Asphalt concrete patching shall not be carried out during wet ground conditions or when the ambient air temperature is below 50°F. Asphalt concrete mix shall be at required temperature when placed. Before making the asphalt concrete repair, the edges of the existing asphalt concrete pavement and the outer edge of the casting shall be tack coated with hot asphalt cement. The remaining 2" shall then be

filled with Class B asphalt concrete and compacted with hand tampers and a patching roller.

J. The completed patch shall match the existing paved surface for texture, density and uniformity of grade. The joint between the patch and the existing pavement shall then be carefully painted with hot asphalt cement or asphalt emulsion and shall be immediately covered with dry paving sand before asphalt cement solidifies. All debris such as asphalt pavement, cement bags, etc., shall be removed and disposed of by the Developer and/or his Contractor.

K. Prior to acceptance of a project, manholes shall be cleaned of all debris and foreign material. All manhole steps and ladders shall be cleaned free of grout. Any damage occurring to the existing facilities due to the Developer's and/or Contractor's operations shall be repaired at his/her own expense.

L. Manholes in easement areas shall be adjusted to insure drainage away from the manhole frame and cover. The manhole frame and cover shall be set approximately 0.1 foot above finished grade. Concrete collars shall be set about the structure, as detailed herein, in all non-paved areas.

M. Adjustment of valve box castings (force main valving) shall be made in the same manner as for manholes.

6.15 FINISHING AND CLEANUP

Before acceptance of sewer system construction, all pipes, manholes, catch basins, and other appurtenances shall be cleaned of all debris and foreign material. After all other work on this project is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross sections of a new roadway consistent with the original section.

A. On sewer construction where all or portions of the construction is in undeveloped areas, the entire area which has been disturbed by the construction shall be shaped so that upon completion the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met.

B. Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to the required cross section and grade by means of a grading machine insofar as it is possible to do so without damaging existing improvements, trees and shrubs. Machine dressing shall be supplemented by handwork to meet

requirements outlined herein, to the satisfaction of the City Inspector and/or the Public Works Superintendent.

C. Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All graded areas shall be true to line and grade. Where the existing surface is below sidewalk and curb, the area shall be filled and dressed out to the walk. Wherever fill material is required in the planting area, the finished grade shall be elevated to allow for final settlement, but the raised surface shall present a uniform appearance.

D. All rocks in excess of one (1) inch diameter shall be removed from the entire construction area and shall be disposed of the same as required for other waste material. In no instance shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly to present a uniform, natural, well-sloped surface.

E. All excavated material at the outer lateral limits of the project shall be removed entirely. Trash of all kinds resulting from clearing and grubbing or grading operations shall be removed and not placed in areas adjacent to the project. Where machine operations have broken down brush and trees beyond the lateral limits of the project, the Developer and/or Contractor shall remove and dispose of same and restore said disturbed areas at his own expense.

F. Drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all debris, which is the result of the Developer and/or Contractor's operations.

G. All pavements and oil mat surfaces, whether new or old, shall be thoroughly cleaned. Existing improvements such as Portland cement concrete curbs, curb and gutters, walls, sidewalks, and other facilities, which have been sprayed by the asphalt cement, shall be cleaned to the satisfaction of the City Inspector and/or Public Works Superintendent.

H. Castings for manholes, valves, lamp holes, vaults and other similar installations, which have been covered with the asphalt material, shall be cleaned to the satisfaction of the City.

I. All curb and pavement markings such as, but not limited to, crosswalks, bike lanes, and handicapped symbols shall be preformed fused thermoplastic or as approved by the Public Works Superintendent.

6.16 FINAL ACCEPTANCE

A. Prior to final inspection, all pipelines shall be flushed and cleaned and all debris removed.

B. A pipeline "cleaning ball" of the proper diameter for each size of pipe shall be flushed through all pipelines prior to final inspection.

C. Each sanitary sewer line shall be "videotaped" in its entirety using a remote controlled camera.

D. Acceptable "As Built Drawings", signed, stamped and acknowledged by a licensed engineer, shall be delivered to the City.

E. Operations and Maintenance manual, where applicable, shall be delivered to the City.

6.17 GENERAL GUARANTEE AND WARRANTY

A. The Developer shall be required, upon completion of the work, and acceptance by the City, to furnish the City a written guarantee covering all material and workmanship for a period of three years after the date of final acceptance. The Developer shall make all necessary repairs during that period at Developer's sole expense, if such repairs are necessitated as the result of furnishing, poor materials and/or workmanship. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required, and shall deliver copies to the City upon completion of the work. The existence of such warranties does not relieve the Developer from liability under Developer's guarantee.

B. Easement documents, if applicable, shall be filed and recorded with the County Auditor's office and the documents reviewed by the City and/or its Attorney prior to project acceptance.

CHAPTER 7

WATER SYSTEM STANDARDS

7.1 GENERAL

A. The standards established by this chapter are intended to represent the minimum standards for the design and construction of water system facilities. Greater or lesser requirements may be mandated by the City due to localized conditions. Extensions, connections or modifications to the existing system shall be in compliance with the requirements of the State Department of Health and the Department of Ecology as applicable.

B. Off-site improvements to the existing system may be warranted based on (1) the condition and capacity of the existing water system and (2) impacts caused by the proposed development. These off-site improvements (in addition to "on-site improvements") shall be completed as determined by the Public Works Superintendent to mitigate impacts caused by the development.

C. All water mains shall have a capacity at least 150% of the expected maximum size required for the development.

D. All water systems shall have telemetry satisfactory to the Public Works Superintendent on all associated lines, tanks, reservoirs, pumps, valves, and associated vaults and buildings for sampling and monitoring those items such as chlorination, turbidity, pressure, levels, flow, and status, which may be required by the Public Works Superintendent.

E. All water booster pump stations shall be equipped with on-site auxiliary power capability sufficient to ensure the station is operable during a power outage.

F. Every principal use and every lot within a subdivision or in any existing plat must be served by a water supply system that:

1. Is adequate to accommodate the reasonable needs of the use or subdivision lot; and
2. Complies with all laws of the Washington State Department of Health and all City ordinances.

G. The following criteria must be met, unless otherwise waived by the City Engineer, before water facilities are conveyed to the City.

1. A public utility easement of adequate dimensions must be concurrently granted to the City.
2. The facilities must be inspected for conformance with the standards specified in the most current edition of the Department of Health Water System Design Manual and the facilities meet bacteriological testing.
3. The applicant has paid all required fees.
4. A maintenance bond to cover the cost of replacing or repairing the improvements and to warrant against defects in labor and material and against any damage or defects caused by construction activity on the site for a period of two years from acceptance of the improvement by the City.

7.2 DESIGN STANDARDS

A. The design of water system improvements shall depend on their type and local site conditions. The design elements of water system improvements shall conform to the standards as set forth in this Chapter.

B. Detailed plans which provide the locations, size, and type of the proposed water system and points of connection shall be submitted for the City's review. These plans shall be separate from sewer plans.

C. Project plans shall have a horizontal scale of not more than 50 feet to the inch. Plans shall show:

1. Locations of streets, right-of-ways, existing utilities, and water system facilities;
2. Ground surface, pipe type and size, water valves, and hydrants stationing;
3. All known existing structures, both above and below ground, which might interfere with the proposed construction, particularly sewer lines, gas mains, storm drains, telephone lines, television cables, and overhead and underground power lines; and
4. All utility easements, and applicable County recording number(s).
4. Computations and other data used for design of the water system shall be submitted to the City for approval.

D. The water system facilities shall be constructed in conformance with the current version of the WSDOT/APWA Standard Specifications for Road, Bridge, & Municipal Construction and current amendments thereto, and State of Washington Department of Health Water System Design Manual, revised as to form to make reference to Local Governments and as modified by the City's requirements and standards.

E. Material and installation specifications shall contain appropriate requirements that have been established by the industry in its technical publications, such as ASTM, AWWA, WPCF, and APWA standards. Requirements shall be set forth in the

specifications for the pipe and methods of bedding and backfilling so as not to damage the pipe or its joints.

F. Except as otherwise noted herein, all work shall be accomplished as recommended in applicable American Water Works Association (AWWA) Standards, and according to the recommendations of the manufacturer of the material or equipment concerned.

G. The location of the water mains, valves, hydrants, and principal fittings including modifications shall be staked by the Developer. No deviation shall be made from the required line or grade. The Contractor shall verify and protect all underground and surface utilities encountered during the progress of this work.

H. Prior to final inspection, all pipelines shall be tested and disinfected.

I. Before acceptance of the water system by the City, all pipes, assemblies, and other appurtenances shall be cleaned of all debris and foreign material. After all other work is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross sections for a new roadway consistent with the original section.

J. The Developer shall be required, upon completion of the work and prior to acceptance by the City, to furnish the City with a written guarantee covering all material and workmanship for a period of three years after the date of final acceptance and he shall make all necessary repairs during that period at his own expense, if such repairs are necessitated as the result of furnishing poor materials and/or workmanship. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required and shall deliver copies to the City upon completion of the work.

7.3 GENERAL REQUIREMENTS

A. Prior to construction, the Contractor shall schedule a pre-construction meeting with the Public Works Superintendent, stakeholders, and all other interested parties.

B. Work shall be performed only by contractors experienced in laying public water mains.

C. Prior to any work being performed, the Contractor shall contact the Public Works Superintendent to set forth his proposed work schedule.

D. Contractor shall obtain approval of materials to be used from the Public Works Superintendent prior to ordering of materials.

E. Water mains shall be laid only in dedicated street, rights-of-ways or easements shown on preliminary plats or which have been granted to the City. A street is normally not considered dedicated until the plat which created it has been officially filed with the County Auditor.

F. All water main distribution pipeline construction shall have a minimum 36" cover from finished grade and 42-inch cover over transmission mains (Standard Detail W1). Mains shall generally be located parallel to and 10 feet northerly or easterly of street centerline. Water mains shall be extended to the far property line(s) of the property being served. Off-site extensions may be required to hydraulically loop existing and new systems. Oversizing of water mains may be required to be installed per City's current Water System Plan.

G. Minimum distance between sewer and water lines shall be 10 feet horizontally and 1 foot vertically. Refer to Standard Detail G4 for requirements regarding utility separation and crossing.

H. Water main pie and service connections shall be a minimum of 10 feet away from building foundations and/or roof lines.

I. Air relief valves are required at high points in water lines. Air relief valves shall be installed in accordance with Standard Detail W9.

J. Fire hydrants are generally required approximately every 600 feet in residential areas, and every 300 feet in commercial areas. However, fire hydrants shall be furnished and installed at all locations as specifically mandated by the local fire marshall and/or per City Building Code. Refer to Standard Details W2 and W4 for information regarding fire hydrant installation.

K. Fire hydrants on dead end streets and roads shall be located within approximately 300 feet from the frontage center of the farthest lot. Distances required herein shall be measured linearly along street or road.

L. Pipes connecting hydrants to mains shall be at least 6 inch in diameter and be less then 17 feet in length.

M. Dead end lines are not permitted except where the Developer can demonstrate to the City's satisfaction that it would be impractical to extend the line at a future date. Water mains on platted cul-de-sacs shall extend to the plat line beyond the

cul-de-sac to neighboring property for a convenient future connection, and extended off-site to create a hydraulic loop, or, as minimum, have a four (4") inch blow off assembly installed at the termination point (Standard Detail W7).

N. All materials shall be new and undamaged.

O. Unless otherwise approved or required by the Public Works Superintendent, the water main shall be HDPE or C-900 PVC. Ductile iron pipe may be appropriate in special circumstances and must receive specific approval from the Public Works Superintendent. The minimum nominal size for water mains shall be 8 inches, unless otherwise approved/required by City.

EXCEPTION: 6-inch hydrant spools and pipelines located beneath rock or retaining walls shall be Class 53 ductile iron.

P. Fittings shall be compatible with HDPE, C-900 PVC, and ductile iron as appropriate. Ductile iron fittings shall be cement-lined.

Q. Provide bends in field to suit construction and in accordance with pipe manufacturer's recommendations so as not to exceed allowable deflection at pipe joints.

R. Provide thrust blocking and/or restrained joints at all fittings and bends in accordance with the City standards and conditions (Standard Details G2 and G3). Blocking is to be designed by Developer's Engineer.

S. Provide anchor blocking at all up-thrust vertical bends in accordance with City standards (Standard Detail G1). Blocking is to be designed by Developer's Engineer.

T. Water valves shall be located in clusters when possible and shall be located so that each leg of the main line system can be isolated separately.

U. All water valve marker posts shall be painted blue and marked with the distance to valve being referenced (Standard Detail W14).

V. Residential water service pipe shall be one-inch diameter copper or PE pipe (no joints beneath pavement areas), meeting or exceed ASTM D2239, SDR-7 as manufactured by Driscopipe (CL 200), or City approved equal (Standard Details W10A and W10B).

W. Minimum size service lines between the water main and the water meter shall be 1 inch unless otherwise specified (W-D8). All service lines shall be the minimum size otherwise specified by the Uniform Plumbing Code in accordance with fixture units, unless otherwise specified.

X. Meter services and meter boxes shall be set to final grade and all adjustments shall be made prior to final pressure testing of the system, centerline of service inlets shall be located to match bottom elevation of meter box in such a manner that meter inlet and outlet will be the same elevation as bottom of meter box. Refer to Standard Details 10A and 10B for required materials and installation information for water services 1" and smaller, Standard Details 11A and 11B for water 1-1/2" and 2". Refer to Standard DetailsW12A and W12B for required materials and installation information for water services 3" and larger.

Y. All water services shall end within road right-of-way or easements.

Z. All meters shall be installed by the City, and the Developer shall pay the current meter installation charge.

AA. All meters shall be compatible with the radio-read meter system used by the City.

BB. Contractor shall install water sampling stations. Contractor shall furnish the location of water sample stations to City Utilities Department. One station is required for development in size of 1 to 10 lots. One additional station is required for each additional 50 lots or portions thereof.

CC. All new buildings and residences shall include in their water service a suitable pressure reducing valve to protect the plumbing from excessive pressures, unless waived on the application form of the City. Refer to Standard Detail W18A for installation requirements for pressure reducing stations.

DD. All new construction shall comply with the "Accepted Procedure and Practice in Cross Connection Control Manual" as published by the Pacific Northwest Section of the American Water Works Committee", November 1995, Sixth Edition, and current amendments thereto. A copy of such is available for review at the City office. Where required, backflow and cross-control devises will be installed.

EE. Cut in connections shall <u>not</u> be made on Fridays, holidays or weekends. All tapping sleeves and tapping valves shall be pressure tested prior to making connection to existing mains.

FF. Contractor shall notify the Public Works Superintendent and obtain approval from him prior to any water shut-off or turn-on, affecting the water system, a minimum of 48 hours in advance.

GG. Biological test samples will be taken by the City and paid for by the contractor.

HH. All water mains and appurtenances shall be hydrostatically tested at 200 psi in accordance with City Standards.

II. Resilient seated wedge gate valves shall be used for 10-inch mains and smaller. Butterfly valves shall be used for mains greater than 10 inches.

JJ. Road restoration shall be in accordance with City, County and State design and construction standards, as may be applicable. Developer and Contractor shall become familiar with all City, County and State conditions of required permits, and shall adhere to all conditions and requirements.

7.4 MATERIALS

A. Water Mains & Fittings

1. Water mains to be installed shall be HDPE or if approved by the Public Works Superintendent, C-900 PVC. Under special circumstances the Public Works Superintendent may approve the limited use of ductile iron of an appropriate class.

B. HDPE Pipe and Fittings

1. HDPE pipe for water mains shall be manufactured from PE 3408.3608 resin conforming to ASTM D3350. 4" and greater pipe shall be IPS/DIPS, DR9 conforming to ASTM F714, AWWA C906, NSF. ½" through 3" pipe shall be IPS, DR9, conforming to D3035, AWWA C901, NFS.

2. All HDPE molded fittings and fabricated fittings shall be fully pressure rated to match the pipe DR pressure rating to which they are made. All fittings shall be molded or fabricated by the manufacturer. No Contractor fabricated fittings shall be used unless approved by the City.

3. The manufacture of the HDPE pipe shall supply all HDPE fittings and accessories as well as any adapters and/or specials required to perform the work.

4. All fittings shall be installed using butt-fused fittings, thermo-fused fittings/couplings, or flanged adapters and must be approved by the City.

5. All transition from HDPE pipe to ductile iron or PVC shall be made per the approval of the City and per the HDPE pipe manufacturer's recommendations and specifications. A molded flange connector adapter

within a carbon steel back-up ring assembly shall be used for pie type transitions. Ductile iron back-up rings shall mate with cast iron flanges per ANSI B16.1. A 316 stainless steel back-up ring shall mate with a 316 stainless steel flange per ANSI B16.1.

C. PVC Pipe and Fittings

1. PVC pipe for water mains shall C-900 be made from material conforming to ASTM C1784. The pipe shall be DR 18 and conform to ANSI/AWWA C900 specification, with gaskets meeting ASTM F477 and joints in compliance with ASTM D3139. Pipe joints shall be gasketed. Solvent-cement joints are not acceptable.

2. PVC Schedule 80 fittings shall conform to ASTM D 2467. PVC Schedule 80 threaded fittings shall conform to ASTM D 2464.Pipe and fittings shall be manufactured as a system and be the product of one manufacturer. Pipe and fittings shall conform to National Sanitation Foundation (NSF) Standard 61 or the health effects portion of NSF Standard 14.

D. Ductile Iron Pipe and Fittings:

1. If approved, ductile iron pipe shall conform to ANSI/AWWA C151/A21.51-91 Standards, and current amendments thereto, except the ductile iron pipe shall be thickness Class 52 for 4" through 14" diameter pipe (except for 6-inch hydrant spools which shall be Cl. 53) and Class 50 for 16" and larger. Grade of iron shall be a minimum of 60-42-10. The pipe shall be cement lined to a minimum thickness of 1/16", and the exterior shall be coated with an asphaltic coating. Each length shall be plainly marked with the manufacturer's identification, year case, thickness, class of pipe and weight.

2. If approved, ductile iron joints shall be mechanical joint or push-on type, employing a single gasket, such as "Tyton", except where otherwise calling for flanged ends. Bolts furnished for mechanical joint pipe and fittings shall be high strength ductile iron, with a minimum tensile strength of 50,000 psi.

3. If approved, restrained ductile iron joint pipe, where shown on the plans shall be push-on joint pipe with "Fast Tight" gaskets as furnished by U.S. Pipe or equal for 12" diameter and smaller pipe and "TR FLEX" as furnished by U.S. Pipe or equal for 16" and 24" diameter pipes. The restrained joint pipe shall meet all other requirements of the non-restrained pipe.

4. All ductile iron fittings shall be short-bodied and comply with applicable ANSI/AWWA C110 or C153 Standards for 350 psi pressure rating for mechanical joint fittings and 250 psi pressure rating for flanged fittings. All fittings shall be lined and either mechanical joint or flanged, as indicated on the plans.

E. All pipe shall be jointed by the manufacturer's standard coupling, be all of one manufacturer, and be carefully installed in complete compliance with the manufacturer's recommendations.

F. Joints shall be "made up" in accordance with the manufacturer's recommendations. Standard joint materials, including rubber ring gaskets, shall be furnished with the pipe. Material shall be suitable for the specified pipe size and pressures.

G. Fittings in areas shown on the plans for restrained joints shall be mechanical joint fittings with a mechanical joint restraint device. The mechanical joint restraint device shall have a working pressure of at least 250 psi with a minimum safety factor of 2:1 and shall be City approved.

H. The pipe and fittings shall be inspected for defects and prepped prior to installation. HDPE and PVC piping shall be wiped clean. If ductile iron has been approved, all lumps, blisters and excess coal tar coating shall be removed from the bell and spigot end of each pipe, and the outside of the spigot and the inside of the bell shall be wire-brushed and wiped clean and dry, and free from oil and grease before the pipe is laid.

I. Every precaution shall be taken to prevent foreign material from entering the pipe while it is being placed in the line. After placing a length of pipe in the trench, the spigot end shall be centered in the bell and pipe forced home and brought to correct line and grade. The pipe shall be secured in place with select backfill tamped under it. Precaution shall be taken to prevent dirt from entering the joint space. At times when pipe laying is not in progress, the open ends of pipe shall be closed by a water-tight plug. If water is in the trench when work resumes, the seal shall remain in place until the trench is pumped completely dry. No pipe shall be laid in water or when trench conditions are unsuitable.

J. The cutting of pipe for inserting fittings or closure pieces shall be done in a neat and workmanlike manner, without damage to the pipe or lining, and so as to leave a smooth end at right angles to the axis of the pipe. Pipe shall be laid with bell ends facing in the direction of the laying, unless directed otherwise by the City. Wherever it is necessary to deflect pipe from a straight line, the amount of deflection allowed shall not exceed pipe manufacturer's recommendations.

K. For connection of mechanical joints, the socket, plain end of each pipe and gasket shall be cleaned of dirt before jointing, and shall be jointed according to manufacturer's directions. Bolts shall be tightened alternately at top, bottom and sides, so pressure on gasket is even.

L. For connection of "Tyton" joints, the jointing shall be done according to manufacturer's recommendations, with special care used in cleaning gasket seat to prevent any dirt or sand from getting between the gasket and pipe. Lubricant to be used on the gasket shall be non-toxic and free from contamination. When a pipe length is cut, the outer edge of the cut shall be beveled with a file to prevent injury to the gasket during jointing.

M. Valves, fittings, plugs and caps shall be set and jointed to pipe in the manner as required. All dead ends on new mains shall be closed with dead end M.J. caps and thrust blocks.

N. Fittings shall be "blocked" with poured-in-place concrete, with a firm minimum bearing against an undisturbed earth wall per Standard Detail G2 or Standard Detail G3. Thrust blocks shall be poured as soon as possible after setting the fittings in place to allow the concrete to "set" before applying the pressure test. The concrete thrust blocks shall be in place before beginning the pressure test. Anchor blocks shall be allowed to set sufficiently to develop the necessary bond strength between the reinforcing rods and the concrete anchor before beginning the pressure test.

O. All of the new piping, valves and blocking shall have been installed, disinfected and tested up to the point of cutting into existing lines before the crossover is made. The crossover to the existing system shall be in full readiness, including the cut and sized specials. Forty-eight (48) hour notice shall be given the City in advance of the planned "cut-ins".

P. Valves

1. All valves larger than 10" shall generally be furnished and installed as butterfly valves. All valves 10" and smaller shall generally be furnished and installed as resilient seat gate valves.

Q. Resilient-Seated Gate Valves.

1. All gate valves shall conform to ANSI/AWWA C509-87 Standards for resilient-seated, high strength, bronze stemmed gate valves. The valves shall be iron-bodied, iron disk completely encapsulated with polyurethane rubber and bronze, non-rising stem with "O" ring seals. The polyurethane sealing rubber shall be fusion bonded to the wedge to meet ASTM tests for rubber to metal bond ASTM D429. The valves shall open counter-clockwise and be furnished with 2-inch square operating nuts except valves in vaults shall be furnished with handwheels. All surfaces, interior and exterior shall be fusion bonded epoxy coated, acceptable for potable water.

2. For applications with working pressure above 175 psi, a ductile iron valve rated as 250 psi or higher shall be used.

3. The valves shall be set with stems vertical. The axis of the valve box shall be common with the axis projected off the valve stem. The tops of the adjustable valve boxes shall be set to the existing or established grade, whichever is applicable.

4. Valves shall be Dresser, M&H, Waterous, or Mueller.

R. Butterfly Valves.

1. Butterfly valves shall be ductile iron body of the tight closing rubber seat type with rubber seat either bonded to the body or mechanically retained in the body with no fasteners or retaining hardware in the flowstream. The valves shall meet the full requirements of AWWA C504, Class 150B except the valves shall be able to withstand 200 psi differential pressure without leakage. The valves may have rubber seats mechanically affixed to the valve vane. Where threaded fasteners are used, the fasteners shall be retained with a locking wire or equivalent provision to prevent loosening. Rubber seats attached to the valve vane shall be equipped with stainless steel seat ring integral with the body, and the body internal surfaces shall be epoxy coated to prevent tuberculations buildup, which might damage the disc-mounted rubber seat.

2. No metal-to-metal sealing surfaces shall be permitted. The valves shall be bubble-tight at rated pressures with flow in either direction, and shall be satisfactory for applications involving valve operations after long periods of inactivity. Valve discs shall rotate ninety (90) degrees from the full open position to the tight shut position. The valve shall be Henry Pratt Company *"Groundhog"*, or owner approved equal.

S. Tapping Sleeves & Tapping Valves

1. Connections to existing water mains typically shall be wet taps through a tapping tee and tapping valve and shall be made by a city approved contractor. The tapping sleeves shall be rated for a working pressure of 250 psi minimum and furnished complete with joint accessories. Refer to Standard Detail W5 for detailed information regarding tapping sleeves.

2. Size-on-size tapping sleeves shall be stainless steel. Stainless steel sleeves only shall be used on AC pipe. Ductile iron tapping tees shall be allowed if tap is at least 2" smaller in diameter than the existing water main.

3. Cut in connections shall not be made on Fridays, holidays or weekends.

4. All tapping sleeves and tapping valves shall be pressure tested to a minimum of 200 psi prior to making connection to existing mains.

T. Pressure Reducing and Relief Valves.

1. Pressure reducing valves in the water service pipe are required when street main pressure exceeds 80 psi, as follows:

2. When street main pressure exceeds 80 psi, an approved pressure reducing valve with an approved pressure relief device shall be installed in the water service pipe near its entrance to the building to reduce the pressure to 80 psi or lower, except where the water service pipe supplies water directly to a water-pressure boost system, an elevated water gravity tank, or to pumps provided in connection with a hydro pneumatic or elevated gravity water-supply tank system. Pressure at any fixture shall be limited to no more than 80 psi under no-flow conditions. Refer to Standard Details W18A and W18B – Pressure Reducing Stations.

U. All Valves

1. All valves with operating nuts located more than 42" below finished grade shall be equipped with extension stems to bring the operating nut to within 18" of the finished grade. Cast iron or PVC adjustable valve boxes shall be provided for all valves.

2. At the top of the extension stem, there shall be a two-inch (2") standard operating nut, complete with a centering flange that closely fits the five-inch (5") pipe encasement of the extension stem. The valve box shall be

set in a telescoping fashion around the five-inch (5") pipe cut to the correct length to allow future adjustment up or down.

V. Fire Hydrants

1. All fire hydrants shall be Mueller Super Centurion – 250, Model A-421 in conformance with AWWA Standard Specification C-502. Each hydrant shall be equipped with one (1) 4-1/2" and two (2) 2-1/2" hose ports with permanent Storz hydrant adaptor and Storz blind cap. Refer to Standard Detail W-D2 for fire hydrant details.

2. The hydrant shall be prime coated with Steelcote SR53 Heavy Duty brush type enamel. Top coat shall be two coats of Sherwin/Williams blue industrial enamel (#B54W101) or Krylon Industrial Rust Tough blue enamel.

3. A blue reflective pavement marker shall be furnished and installed 6 to 12 inches off center on the hydrant side of the road adjacent to the hydrant.

4. The holding spools between the gate valve and fire hydrant shall be made from six-inch (6") Class 52 ductile iron pipe, 3 foot minimum length and 17 foot maximum length without restrained joints.

W. Blow-offs & Air Relief Assemblies

1. Two (2") or Four (4") inch blowoff assemblies shall be installed at the terminus of all dead end water mains (Standard Detail W-D7). Blowoffs utilized by the Contractor for flushing the water main shall be sufficient size to obtain 2.5 feet per second velocity in the main. Temporary blow-offs shall be removed and replaced with a suitably sized watertight brass plug.

2. Two (2") inch air and vacuum release valves shall be installed at principal high points in the system (Standard Detail W-D4 and Standard Detail W-D5).

3. The installation of these items shall include connection piping, gate valve, valve box, and all accessories. Valve markers shall be installed.

X. Water Sampling Station

1. One water sampling station shall be provided to the City for each development in size of 1 to 10 lots. One additional sampling station shall be provided for each additional 50 lots or portion thereof. The water

sampling station shall be furnished and installed at a location as determined by the Public Works Superintendent.

7.5 WATER PIPE TESTING & DISINFECTING

A. A water hydrant meter shall be required and procured from the City for all water utilized for flushing pipelines. All pumps, gauges, plugs, saddles, corporation stops, miscellaneous hose and piping, and measuring equipment necessary for performing the test shall be furnished, installed and operated by the Contractor.

B. Feed for the pump shall be from a barrel or other container within the actual amount of "makeup" water, so that it can be measured periodically during the test period.

C. The pipeline shall be backfilled sufficiently to prevent movement of the pipe under pressure. All thrust blocks shall be in place and time allowed for the concrete to cure before testing. Where permanent blocking is not required, the Contractor shall furnish and install temporary blocking.

D. As soon as pipe is secured against movement under pressure, it may be filled with water. Satisfactory performance of all valves shall be checked while the line is filling.

E. Contractor shall preflush all water mains after water has remained in the main for 24 hours and before pressure testing the main.

F. After the pipe is filled and all air expelled, it shall be pumped to a test pressure of 250 psi, and this pressure shall be maintained for a period of not less than thirty (30) minutes to insure the integrity of the thrust and anchor blocks. **The contractor/developer is cautioned regarding pressure limitations on butterfly valves.** All tests shall be made with the hydrant auxiliary gate valves open and pressure against the hydrant valve. Hydrostatic tests shall be performed on every complete section of water main between two valves, and each valve shall withstand the same test pressure as the pipe with no pressure active in the section of pipe beyond the closed valve.

G. In addition to the hydrostatic pressure test, a leakage test shall be conducted on the pipeline. The leakage test shall be conducted at 150 psi for a period of not less than one (1) hour. The quantity of water lost from the main shall not exceed the number of gallons per hour determined by the formula:

$$L = \frac{ND(P)^{0.5}}{7,400}$$

in which

L = Allowable leakage, gallons/hour
N = Number of joints in the length of pipeline tested
D = Nominal diameter of the pipe in inches
P = Average test pressure during the leakage test, psi

H. Defective materials or workmanship, discovered as a result of the tests, shall be replaced by the Contractor at the Contractor's expense. Whenever it is necessary to replace defective material or correct the workmanship, the tests shall be re-run at the Contractor's expense until a satisfactory test is obtained.

I. As sections of pipe are constructed and before pipelines are placed in service, they shall be sterilized in conformance with the requirements of the State of Washington Department of Health Services.

J. The Contractor shall be responsible for flushing all water mains prior to water samples being acquired. The water mains shall be flushed at a rate to provide a minimum 2.5 feet per second velocity in the main.

K. In all disinfection processes, the Contractor shall take particular care in flushing and wasting the chlorinated water from the mains to assure that the flushed and chlorinated water does no physical or environmental damage to property, streams, storm sewers or any waterways. The Contractor shall chemically or otherwise treat the chlorinated water to prevent damage to the affected environment, particularly aquatic and fish life of receiving streams.

L. Chlorine shall be applied in one of the following manners, listed in order of preference, to secure a concentration in the pipe of at least 50 ppm.

1. Injection of chlorine-water mixture from chlorinating apparatus through corporation cock at beginning of section after pipe has been filled, and with water exhausting at end of section at a rate controlled to produce the desired chlorine concentration;

2. Injection similarly of a hypochlorite solution;

3. Other City pre-approved method(s) selected by the Developer and/or Contractor.

4. After the desired chlorine concentration has been obtained throughout the section of line, the water in the line shall be left standing for a period of twenty-four (24) hours. Following this, the line shall be thoroughly flushed and a water sample collected. The line shall not be placed in service until a satisfactory bacteriological report has been received.

M. Only City employees only will be allowed to operate existing and new tie-in valves. The Contractor, his subcontractors, and their respective employees are expressly forbidden to operate any valve on any section of line which has been accepted by the City.

7.6 BACKFLOW PREVENTION AND SPRINKLER SYSTEMS

A. All water systems connected to the public water system shall have backflow prevention as required by WAC 248-54-285. Refer to Standard Detail W19 regarding Reduced Pressure Backflow Assembly ¾" to 2" and Standard Detail W20 regarding Reduced Pressure Backflow Assembly 2-1/2" and Larger.

B. Fire sprinkler systems as mandated, proposed, or required by the local Fire Marshal and/or City Ordinance that have a fire department connection shall have backflow prevention as required by WAC 248-54-285. Refer to Standard Detail W23 regarding Fire Line Connection.

C. Building sprinkler systems may be required based on Building Codes and Fire Marshall requirements.

7.7 STAKING

A. All surveying and staking shall be performed by an engineering or surveying firm employed by the Developer and capable of performing such work. The engineer or surveyor directing and/or performing such work shall be currently licensed by the State of Washington to perform said tasks.

B. A preconstruction meeting shall be held with the Public Works Superintendent prior to commencing staking. All construction staking shall be inspected by the City prior to construction.

C. The minimum staking of water systems shall be as follows:

1. Provide staking sufficient to satisfy Public Works Superintendent. In new plat development roadway centerline staking must be readily identifiable; and

2. Stake locations of all proposed fire hydrant, blow-off, air-vac,valves, meters, etc.

7.8 TRENCH EXCAVATION

A. Clearing and grubbing where required shall be performed within the easement or public right-of-way as permitted by the City and/or governing agencies. Debris

resulting from the clearing and grubbing shall be disposed of by the owner or contractor in accordance with the terms of all applicable permits.

B. Trenches shall be excavated to the line and depth designated by the City to provide a minimum of 36 inches of cover over the pipe. Except for unusual circumstances where approved by the City, the trench sides shall be excavated vertically and the trench width shall be excavated only to such widths as are necessary for adequate working space as allowed by the governing agency and in compliance with all safety requirements of the prevailing agencies. See Standard Detail W1. The trench shall be kept free from water until joining is complete. Surface water shall be diverted so as not to enter the trench. The owner shall maintain sufficient pumping equipment on the job to insure that these provisions are carried out.

C. The contractor shall perform all excavation of every description and whatever substance encountered and boulders, rocks, roots and other obstructions shall be entirely removed or cut out to the width of the trench and to a depth 6 inches below the pipeline grade. Where materials are removed from below the pipeline grade, the trench shall be backfilled to grade with material satisfactory to the City and thoroughly compacted.

D. Trenching and shoring operations shall not proceed more than 100 feet in advance of pipe laying without approval of the City, and shall be in conformance with Washington Industrial Safety and Health Administration (WISHA) and Office of Safety and Health Administration (OSHA) Safety Standard.

E. The bedding course shall be finished to grade with hand tools in such a manner that the pipe will have bearing along the entire length of the barrel. The bell holes shall be excavated with hand tools to sufficient size to make up the joint.

7.9 BACKFILLING

A. Backfilling and surface restoration shall closely follow installation of pipe. The City, based on the location of construction, shall designate the amount of trenching which may be left exposed. In no case shall more than 100 feet be left exposed during construction hours without approval of the Public Works Superintendent.

B. Selected material shall be placed and compacted around and under the storm drain by hand tools. Special precautions should be provided to protect the pipe to a point 12 inches above the crown of the pipe. The remaining backfill shall be compacted to 95 percent of the maximum density in traveled areas and road prisms, 90 percent outside driveway, roadways, road prism, shoulders, parking or other traveled areas. Where governmental agencies other than the City have jurisdiction over roadways, the backfill and compaction shall be done to the

satisfaction of the agency having jurisdiction. Typically, all trenches located in roadway sections, roadway "prisms", and in traffic bearing areas shall be required to be backfilled and compacted with 5/8-inch minus crushed rock.

C. Due to local conditions, as may be specifically approved by the Public Works Superintendent, suitable excavated backfill material or sand, as determined by the Public Works Superintendent, may be utilized as backfill, or if such material is not available from trenching operations, the Public Works Superintendent may order the placing of CDF or gravel base conforming with Section 9-03.10 of the Standard Specifications (WSDOT) as appropriate for backfilling the trench. All excess material shall be promptly loaded and hauled to waste.

7.10 STREET PATCHING AND RESTORATION

A. See Chapter 4 and Standard Details for requirements regarding street patching and trench restoration.

7.11 EROSION CONTROL

A. The detrimental effects of erosion and sedimentation shall be minimized by conforming to the following general principles:

1. Soil shall be exposed for the shortest possible time;

2. Reducing the velocity and controlling the flow of runoff;

3. Detaining runoff on the site to trap sediment; and

4. Releasing runoff safely to downstream areas.

B. In applying these principles, the Developer and/or Contractor shall provide for erosion control by conducting work in workable units; minimizing the disturbance to cover crop materials; providing mulch and/or temporary cover crops, sedimentation basins, and/or diversions in critical areas during construction; controlling and conveying runoff; and establishing permanent vegetation and installing erosion control structures as soon as possible.

C. Trench mulching will be required where there is danger of backfill material being washed away due to steepness of the slope along the direction of the trench, backfill material shall be compacted and held in place by covering the disturbed area with straw and held with a covering of jute matting or wire mesh anchored in place.

D. Cover Crop Seeding.

1. A cover crop shall be sown in all areas excavated or disturbed during construction that were not paved, landscaped and/or seeded prior to construction. Areas landscaped and/or seeded prior to construction shall be restored to their original or superior condition.

2. Contact the City Clerk for water charges if use of City water is contemplated and the Public Works Superintendent for use of a hydrant for water in furtherance of seeding.

3. Hydrants shall only be opened and closed by members of the City crew.

4. Cover-crop seeding shall follow backfilling operations. The Developer and/or Contractor shall be responsible for protecting all areas from erosion until the cover crop affords such protection.

5. The cover crop shall be re-seeded if required and additional measures taken to provide protection from erosion until the cover crop is capable of providing protection.

6. During winter months, the Contractor may postpone seeding, if conditions are such that the seed will not germinate and grow. The Developer and/or Contractor will not, however, be relieved of the responsibility of protecting all areas until the cover crop has been sown and affords protection from erosion.

7. The cover crop shall be sown at a rate of 10 to 15 pounds of seed per acre using a hand or power operated mechanical seeder capable of providing a uniform distribution of seed.

7.12 FINISHING AND CLEANUP

A. After all other work on this project is completed and before final acceptance, the entire roadway, including the roadbed, planting, sidewalk areas, shoulders, driveways, alley and side street approaches, slopes, ditches, utility trenches, and construction areas shall be neatly finished to the lines, grades and cross sections of a new roadway consistent with the original section, and as hereinafter specified.

B. On water system construction where all or portions of the construction is in undeveloped areas, the entire area which has been disturbed by the construction shall be shaped so that upon completion the area will present a uniform appearance, blending into the contour of the adjacent properties. All other requirements outlined previously shall be met. All pipes, valves, tanks, reservoirs,

boost pumps, boost pump stations and building associated therewith shall be cleaned of all debris and foreign material.

C. Slopes, sidewalk areas, planting areas and roadway shall be smoothed and finished to the required cross section and grade by means of a grading machine insofar as it is possible to do so without damaging existing improvements, trees and shrubs. Machine dressing shall be supplemented by hand work to meet requirements outlined herein, to the satisfaction of the City Inspector and/or the Public Works Superintendent.

D. Upon completion of the cleaning and dressing, the project shall appear uniform in all respects. All graded areas shall be true to line and grade. Where the existing surface is below sidewalk and curb, the area shall be filled and dressed out to the walk. Wherever fill material is required in the planting area, the finished grade shall be elevated to allow for final settlement, but nevertheless, the raised surface shall present a uniform appearance.

E. All rocks in excess of one (1) inch diameter shall be removed from the entire construction area and shall be disposed of the same as required for other waste material. In no instance shall the rock be thrown onto private property. Overhang on slopes shall be removed and slopes dressed neatly so as to present a uniform, natural, well-sloped surface.

F. All excavated material at the outer lateral limits of the project shall be removed entirely. Trash of all kinds resulting from clearing and grubbing or grading operations shall be removed and not placed in areas adjacent to the project. Where machine operations have broken down brush and trees beyond the lateral limits of the project, the Developer and/or Contractor shall remove and dispose of same and restore said disturbed areas at his own expense.

G. Drainage facilities such as inlets, catch basins, culverts, and open ditches shall be cleaned of all debris, which is the result of the Developer and/or Contractor's operations.

H. All pavements and oil mat surfaces, whether new or old, shall be thoroughly cleaned. Existing improvements such as Portland cement concrete curbs, curb and gutters, walls, sidewalks, and other facilities, which have been sprayed by the asphalt cement, shall be cleaned and re-painted where needed, all to the satisfaction of the Public Works Superintendent.

I. Castings for monuments, water valves, vaults and other similar installations which have been covered with the asphalt material shall be cleaned to the satisfaction of the Public Works Superintendent.

7.13 GENERAL GUARANTEE AND WARRANTY

A. The Developer shall be required, upon completion of the work and prior to acceptance by the City, to furnish the City a written guarantee covering all material and workmanship for a period of two years after the date of final acceptance and he shall make all necessary repairs during that period at his own expense, if such repairs are necessitated as the result of furnishing poor materials and/or workmanship.

B. The Developer shall obtain warranties from the contractors, subcontractors and suppliers of material or equipment where such warranties are required, and shall deliver copies to the City upon completion of the work. Delivery of such warranties to the City shall not relieve the Developer of liability under his guarantee.

C. Easement documents, if applicable, shall be filed and recorded with the County Auditor's office and the documents reviewed by the City prior to project acceptance.

Chapter 8

SEWAGE LIFT STATIONS

8.1. OBJECTIVE

This chapter is intended to present information and provide an outline of the minimum general standards to be accomplished in planning a sewage lift station or grinder pump installation within the City of Ilwaco service area.

The Developer shall submit to the City for review and approval, complete sewage lift station or grinder pump plans and design which provide for the lift station, electrical service, SCADA controls, and auxiliary generator/transfer switch together with all accessories for a complete, automatically operating installation. The City, at its option, may direct the City's Engineer to prepare a feasibility study, at the Developer's expense and under a separate agreement with the Developer, prior to granting conceptual approval for the use of a lift station. This feasibility study will address specific design and planning issues identified by the City as necessary for evaluation of the proposal.

The grinder pump standards contained herein are intended to apply to a typical residential grinder pump station and to express the City's general policy with regard to standardization of grinder pump station design and operation. The grinder pump standards are supplemental to the general standards for sanitary sewer systems presented in Chapter 6 of these standards.

The lift station standards contained herein are intended to apply to a typical duplex sewage lift station within the typical size range for developer-constructed stations and to express the City's general policy with regard to standardization of lift station design and operation. At the City's discretion, stations with non-typical service requirements, such as high flows, high head pressures, flow monitoring, multiple pump operation, critical service or unusual site constraints, may be subject to additional or alternative design requirements.

The lift station standards are supplemental to the general standards for sanitary sewer systems presented in Chapter 6 of these standards.

Due to the inherent complexity of lift station design, and the associated health and safety risks, the lift station design shall be prepared by a professional engineer registered in the State of Washington and with demonstrable experience in lift station design. At the request of the City, the Developer shall provide a resume for the proposed lift station designer, listing similar projects designed by that individual, with references and phone numbers. After the lift station design is complete and has been approved by the City, the design engineer shall remain responsible for the preparation of all design documents, including the design report, plans, specifications and permit submittals. The design

engineer shall also be responsible for construction management-related engineering duties, including the coordination of submittals and shop drawings for City review, and the preparation of field change requests, record drawings, control description, and maintenance and operation materials. Engineering responsibilities shall not be reassigned by the Developer without the City's approval.

Design material and drawings shall provide all civil, mechanical and electrical details and align with all applicable codes and regulations, and good engineering practice.

8.2 GRINDER PUMP STATION

The minimum requirements for a residential sewage pumping system connecting a single residence to the City's system are specified as follows. The City accepts no responsibility for the design, operation and maintenance of such privately owned and operated systems.

A. All equipment and accessories shall be standard manufactured items and those coming in contact with sewage shall be specifically manufactured for sewage use.

B. Lift station must be located outside the building. If the station is completely buried, install 48" I.D. manhole with frame and cover over station for access.

C. The pump shall be a custom designed, integral, vertical rotor, submersible grinder progressing cavity type pump with a single mechanical seal, as manufactured by Environment One Corporation. The manufacturer supplied station shall be completely factory-built and tested wetwell grinder pump station consisting of a grinder pump suitably mounted in a basin constructed of high-density polyethylene (HDPE) with a minimum 70 gallon capacity, NEMA 6P electrical quick disconnect (EQD), pump removal system, stainless steel discharge assembly/shut-off valve, anti-siphon-valve/check valve, each assembled in the basin, electrical alarm panel and all necessary internal wiring and controls.

D. The grinder pump station shall be either a wired model (cable connects the motor controls to the level controls through a watertight penetration) or w wireless model (wireless technology – "radio frequency identification" – communicates between the level controls and the motor controls.

E. Wetwell shall be equipped with factory installed 4-inch diameter inlet grommet and 1.25-inch NPT female thread discharge connection.

F. A factory supplied stainless steel check valve must be installed between the grinder pump station and the street main to protect against backflow from the sanitary sewer.

G. A factory supplied NEMA 4X, corrosion-proof, thermoplastic enclosure shall include an audible alarm with manual silence, manual run feature and run

indicator, redundant start function with high-level alarm, a generator receptacle with auto transfer switch and GFCI receptacle.

8.3. LIFT STATION

8.3.1 DESIGN CALCULATIONS:

A. The Developer shall perform a study and make the determination to assure that the lift station installation is sized to serve the overall sewage flows generated within the potential service area. The flow study shall include the Developer's plat boundary area as well as adjacent and future service areas. The service areas shall be the areas within that which could be served by the installation of the lift station(s).

B. The station's design flow capacity shall be based on an average daily per capita flow with related peaking factors and inflow/infiltration allowances.

C. Documentation of present and future service area flow rates for lift station size and capacity determination shall be provided to the City.

D. The effects of the minimum flow conditions shall be estimated to be sure that retention of the sewage in the wet well will not create a nuisance and that pumping equipment will not operate too infrequently. The wet well shall be sized to provide full submergence on the pumps as recommended by the pump manufacturer and a minimum of three (3) minutes between pump cycles at pump design capacity.

E. Lift station capacity shall meet the maximum rate of flow expected. The capacity of the receiving sewer shall also match the flow expected. At least two (2) pumping units shall be provided at each lift station installation. The pump shall have sufficient capacity and capability to efficiently handle the peak design flow with one (1) pump out of service and to ensure a minimum velocity of three (3) feet per second velocity in the force main.

F. The force main shall be sized for a minimum velocity of three (3) feet per second and a maximum of eight (8) feet per second. The minimum diameter of the force main shall be six (6) inches.

G. Three (3) copies of the Design Calculations shall be submitted to the City for review. As a minimum, the report shall include.

1. Project description
2. Projected flows
3. Connection point with downstream capacity
4. Wet well sizing

5. Run time calculations based on peak hourly and average annual flows for start-up and ultimate design conditions
6. Cycle time calculations to verify pump start frequency is within allowable limits, including operation on backup float control
7. Pump station head calculation to establish system curve
8. Pump selection
9. Force main size, length and material, local high and low points, and air/vacuum relief valve locations
10. Generator and fuel supply sizing
11. Odor potential calculations
12. Wet well buoyancy calculations

H. The above calculations and evaluation shall be provided for City review and approval in the form of a design report prior to, or together with, the plans for the developer extension, which shall be stamped by a professional engineer licensed in the State of Washington.

I. A geotechnical evaluation of the proposed site shall be provided by the Developer, and shall be stamped by a licensed geotechnical engineer. Site or project characteristics to be evaluated shall include, but are not necessarily limited to: steep slopes; groundwater; erosion hazards; unusual drainage conditions; unstable soils; proposed construction on fill; proposed retaining wall construction; wet weather construction; recommendation for backfill, subgrade and foundation materials; and a determination of seismic potential in accordance with local building code. The geotechnical evaluation may be submitted as a supplement to the geotechnical report for the underlying plat, and shall include a minimum of one boring at the proposed wet well/dry well site to a minimum depth of 15 feet below the deepest structure foundation.

8.3.2 LOCATION:

A. The Developer shall furnish a site layout for the lift station installation. The site plan shall clearly show the existing and proposed facilities as specified herein.

B. The lift station shall be located as far as practicable from present or proposed built-up residential areas, and an asphalt concrete access road shall be provided. Access to the lift station should be directly from a street or road. Sites for sewage lift stations shall be of sufficient size for future expansion or addition, if applicable.

C. The easement for the lift station site shall be submitted to the City for review prior to construction of the lift station. Lift station sites not located within the plat boundary shall be deeded to the City of Ilwaco.

D. As a minimum, the site shall provide for the following:

1. Lift station, including wet well, effluent valving and emergency bypass pump connection
2. Auxiliary power, including automatic transfer switch
3. Electrical service and distribution
4. Telemetry/SCADA
5. 3/4-inch water service with reduced pressure backflow preventor and hose bib installed in an above ground slab enclosure on concrete. Furnish 50 feet of 3/4-inch heavy-duty rubber hose.
6. Odor control, as applicable for location and capacity.
7. Cuts and fills to provide level site for maintenance.
8. Asphalt or cement concrete pavement for access and maintenance areas.
9. Six (6') foot high black powder coated chain link fence with vertical vinyl slats in-laid for screening, enclosing the site and a 12-foot wide access gate. Landscaping may be incorporated on site for screening to eliminate the vinyl slats.
10. Overhead weather protection for all electrical panels normally accessed by City personnel for system maintenance and operation; weather protection shall extend over the electrical equipment but without blocking vactor access to the wet well, and over the generator unit where feasible.
11. Area lighting as required by the City
12. Site drainage in accordance with City or County standards
13. Adequate clearances between equipment items and other facilities as required by all applicable codes, and as necessary for reasonable access for maintenance and repair, including access through all doors, hatches and lids
14. Separation from easements for stormwater detention facilities and other major utility structures

8.3.3. LIFT STATION REQUIREMENTS:

A. The sewage lift station shall be Flygt submersible, centrifugal, nono-clogging pumps and a Flygt Mix-Flush valve as approved by the City. Construction shall be in compliance with O.S.H.A., U.L., A.S.T.M., N.E.C. and other applicable codes and regulations. The station shall be constructed and anchored to comply with Seismic Zone 3 requirements.

B. The lift station shall have, as a minimum, two sewage pumps. The pumps shall have sufficient capacity and capability to efficiently handle the peak design flow with one pump and to ensure a minimum velocity of 3 feet per second in the force main. Design calculations and pump curves indicating the same shall be provided with the submittal information.

C. The sewage lift station supplier shall check the station during installation to determine if the installation is correct. Written confirmation of each visit and recommendations shall be provided to the City.

D. All pumps shall be tested to ensure that the vibration limits are within the standards of the current Hydraulic Institute Standards. Rotating assemblies shall be spin balanced by the pump station manufacturer prior to vibration testing. Factory test results shall be provided to the District prior to station delivery. Following installation of the pump station at the site and prior to startup, the pumps shall be retested for vibration by the pump station manufacturer. Copies of all test results shall be included in the maintenance and operation information.

E. The sewage lift station supplier shall provide a minimum of four (4) hours of training for City personnel at the station site during start-up.

F. The sewage lift station supplier shall provide four (4) complete copies of maintenance and operation material to the City. Maintenance and operation material shall include a complete discussion of pump control strategy in narrative form, including operational troubleshooting procedures, startup and reset procedures, and the calibration, set up and testing of level set points, gauges and alarms.

G. At a minimum, the station shall include the following:

1. 6-foot diameter wet well.
2. Aluminum double leaf locking wet well hatch positioned to allow removal of pumps and access to wet well.
3. Wet well access ladder with ladder up safety post.
4. Hoist socket installed adjacent to wet well.
5. Stainless steel guide rails and supports.
6. Discharge connection elbow and frame.
7. Grip eye system consisting of a sufficient length of nylon line for the application, short length of high tensile strength proof-tested 316 stainless steel chain and forged steel "grip eye" for use with mechanical lifting device. System shall be appropriately sized of for the weight of the pump to be lifted.
8. All wet well and valve vault hardware must be 316L stainless steel.
9. Valve vault including resilient seat gate valves and pressure gauge.
10. Aluminum double leaf locking valve vault hatch.
11. Valve vault access ladder with ladder up safety post.
12. Ductile iron piping between wet well and valve vault.
13. Intrinsically safe circuits for intrusion switches and level switches.
14. Intrusion alarm that will be triggered upon opening of the primary lid. Wire intrusion switches to be open-circuited in the hatch open position.
15. Explosion proof J-box mounted on a vertical wall of the valve vault.

16. The wet well, valve vault and seal off vault shall be considered classified environments.
17. NEMA 4X stainless steel central control panel with circuit breakers and intrinsically safe circuits.
18. Control panel, electric meter, transfer switch, and motor starters installed in a building or mounted on single aluminum plate. If equipment is located out-of-doors the equipment must be covered with a roof structure with minimum 3-foot overhang.
19. Yard lighting.
20. Extended warranty – 24 months from start-up or 30 months from time of shipment whichever is first.
21. Document certifying the lift station is in compliance with the NEC.

- Convenience receptacles, white, duplex, 20A, GFCI, in cast aluminum weatherproof boxes with full in-service covers. NEMA 3R GFI duplex receptacle.
- 3/4" conduit connection in electric panel for connection to the telemetry sub panel.

22. A permanent davit base shall be provided that is compatible with the City's portable jib crane.
23. Spare parts each pump:
    - Replacement pump shaft seal
    - Filter element for the seal filters
    - Volute gaskets
24. Touch up paint kit.

8.3.4. MOTORS

A. The pump and motor shafts shall be the maximum diameter available for these units.

B. Pump motors shall be 3-phase, 60-cycle, 480-voltage. Motors larger than 25 HP shall be furnished with soft start or variable frequency drives equipped with start rated bypass contactors. Where motors are used with VFDs, the motors shall be inverter duty rated and shall meet the applicable requirements of NEMA MG1.

C. The motors shall have 1.15 service factor and be non-overloading for the full range of the curve unless otherwise approved by the City.

8.3.5. WET WELL:

A. The wet well shall be precast concrete manhole sections and shall conform to manhole specification per Chapter 6 of these Standards, as modified herein. Joints between precast wall sections shall be confined O-ring or as otherwise approved.

B. The wet well shall be provided with polypropylene manhole steps as specified for manholes.

C. The wet well shall be checked to ensure all joints are watertight to prevent infiltration into and exfiltration from the wet well.

D. The wet well floor, walls and underside of the top shall be coated to comply with the following:

Surface Preparation: Allow 28 days cure time for concrete. Sweep blast to provide a surface profile. Surface shall be clean, dry and free of contaminants.

Primer: Tnemec Series 201 Epoxoprime Applied at 6.0 to 8.0 mils dry film thickness.

Intermediate Filler and Surfacer: Tnemec Series 201 Filler and Surfacer. Applied as needed. After the application of the prime coat, the bugholes and surface voids shall be filled to ensure that the finish coat is monolithic and pinhole free.

Finish: Tnemec Series 280 Tneme-Glaze Applied at 8.0 to 10.0 mils dry film thickness.

Total System: 14.0 to 18.0 mils dry film thickness.

E. The wet well shall provide for the volute of the pumps to be fully submerged and a minimum of three (3) minutes between pump cycles at pump capacity. The high water alarm shall be set a minimum of seven (7) inches below the invert of the lowest gravity sewer inlet pipe, or at an elevation as may be set by the City.

F. The wet well shall be of pre-cast concrete construction with aluminum hatch covers for access. The flat slab concrete cover shall be provided with a 4-inch vent which is "hooked and screened".

8.3.6. CONTROLS:

A. The control panel shall include:

- Main disconnect
- Panel mounted running light for each pump
- Panel mounted overtemp light for each pump
- Panel mounted prime fail light for each pump
- Panel mounted ammeter for each pump to read percentage of load
- Panel mounted running time meter for each pump

- Panel mounted HOA switches for each pump
- Spare contact on HOA switches to remotely indicate when the switch is in Auto position.
- Operator- in-Trouble push button, located on the panel outer door within 3 feet of the ground .
- Contact to allow remote start (same as hand operation – not auto off).
- HOA switches to be Cuttler Hammer and in hand mode not to be spring return.
- Mounting bracket for telemetry sub panel in station (size: 13 ½" L x 10" W x 6 ½" Deep).
- Local/Remote contact for the following alarms:
  a) Low Alarm
  b) High
  c) Power/Phase Failure (single & 3-phase)
  d) Pump Failure
- Panel mounted wet well gauge. Minimum 3" dial and read for depth of wet well
- Voltage monitor relays to protect the pump motors from single-phase reversal and low voltage
- Discharge check valve limit switches on each pump discharge
- Pump alternator, each cycle
- Panel mounted digital level displays connected in the loop outputs for each of the two pressure transmitters
- Panel mounted pressure transmitter "active" (green) and "available" (yellow) lights, one set for each pressure transmitter (energized by remote contacts).
- Uninterruptible power supply (UPS) of adequate capacity to maintain the connected alarm load in the control panel for a period of at least 10 minutes
- Control relays as required for pump starting, pump protection, and alarming functions; plus space for mounting 20% additional relays
- Twenty percent spare terminals for future use.

B. A terminal cabinet shall be provided within the pump station enclosure for the wet well mounted pump station for connection of all 120V/240V single phase circuits between the control panel and the pump station, to include:

- Sufficient terminals for connection of all 120V/240V circuits to the pump station, with 20% additional spare terminals, minimum
- Key activation/deactivation switch for the intrusion alarm, located on the outer door of the enclosure

8.3.7. ELECTRICAL SERVICE/CONTROLS & TELEMETRY SYSTEM:

A. Codes and regulations exist at the federal, state, and local level dictating minimum acceptable requirements for electrical systems. The following standards shall be used as a basis for design and review.

- National Electric Code (NEC)
- Occupational Safety & Health Act (OSHA)
- State & Local Building Codes
- National Electrical Code (NESC)
- National Electrical Manufacturers Association (NEMA)
- Underwriters' Laboratory (UL)
- Insulated Power Conductor Engineering Association (IPCEA)
- American National Standards Institute (ANSI)
- Institute of Electrical & Electronic Engineers (IEEE)

8.3.8. ELECTRICAL SERVICE

A. The local electric utility will be the primary source of electrical power. The Developer shall ascertain proper coordination between the nominal secondary delivery voltage supplied by Pacific County P.U.D. No. 2 and the connection to the lift station equipment. The electrical service shall be 4-wire, 3-phase, 60 hertz, with a solid neutral terminal at the disconnect or as may otherwise be required by Pacific County P.U.D. No. 2. This shall be confirmed with the Pacific County P.U.D. No. 2 and confirmed by the suppliers.

B. All installation shall be approved by Pacific County P.U.D. No. 2 and shall be in conformance with the N.E.C. (current issue) U.L., O.S.H.A. and County and State electrical codes. Particular attention is directed to the fact that the State of Washington requires that electrical equipment and electrically powered equipment be listed or labeled by a testing laboratory (U/L or other Nationally Recognized Testing Laboratory) acceptable to the Washington State Department of Labor and Industries.

C. The City shall be furnished with a certificate of final inspection by the inspecting agency.

D. All wire shall be copper.

E. All exposed conduit shall be rigid galvanized. All underground conduits shall be PVC with rigid galvanized PVC-coated elbows and rigid galvanized PVC coated transitions to exposed conduit.

F. All underground conduits shall be marked with polyethylene tape placed 6-inches below finished grade and directly above the conduit.

G. All conduit shall have a minimum of 24 inches of cover.

H. Heating strips shall be provided for outside electrical enclosures.

I. A service entrance shall be provided with a pedestal on which shall be mounted, as a minimum, the following equipment:

1. Meter and meter can (as required by the P.U.D.)
2. Meter C.T.S. (as required by the P.U.D.)
3. Main disconnect circuit breaker in a NEMA, 3R, enclosure, with padlock to City standards.
4. Service voltage shall be 277/480 volts, 3 phase, 4-wire, except as required by Pacific County P.U.D. NO. 2.
5. Single phase services shall be 240/120 volt, 3 wire. Panels shall conform with NEMA 3R.
6. A 120-volt duplex in NEMA 3R enclosure with padlock to City standards.
7. Ground rod and connector wire in conduit to N.E.C. standards.
8. Telemetry panel in a NEMA 3R enclosure with locking 3-point latch with PLC and radio, operator interface, annunciator, and auto dialer installed.
9. Spread spectrum radio (Cellnet Series 4) and antenna, 902-928 MHz frequency range, tuned to 915 MHz of the type and length required to provide a signal compliant with the City's present radio system.
10. Provide electrical single-line diagram showing all components and control between pedestal, lift station and generator with wire and conduit sizes.
11. The City shall be provided with a complete reproducible set of as-constructed plans and details showing final location of all equipment, conduit and wire.

8.3.9. CONTROLS

A. Control and instrument system plans shall thoroughly and completely depict system design. The plans, in conjunction with the specifications, shall define the type of control system, the type of components in the system, set points and the interface between the instrumentation and control system and the lift station system. To accomplish this, the control and instrument plan(s) shall include, as a minimum, the following:

1. Control and instrumentation system legend and general notes
2. Control, instrumentation and distribution diagram
3. Plans showing location of all control, instrument, and distribution system equipment and components, both electrical and pneumatic
4. All equipment and installation details

B. The power, control and instrumentation systems shall be designed with both operational reliability and maintainability. Use standard products wherever possible.

C. All components within the lift station system, including both internally and face-mounted instruments and devices, shall be clearly identified with phenolic nameplates of black background with white letters.

D. All wiring between cabinet, equipment and components shall be marked and multiple color coded where applicable.

E. All pump motors shall have an independent circuit breaker located within the lift station and the lift station shall have a main circuit breaker located outside the lift station.

F. The pump controls shall be ultrasonic level controller type or pressure transducer type with float level sensor back-up, and shall provide for both pumps to operate at high water conditions. The control elevations shall be indicated on the plans, i.e., on-off, first pump on, second pump on, and high water alarm.

G. The single-phase transformer for the lift station shall be as required for proper operation of the single phase side system.

H. The lift station electrical circuit shall include generator starting and telemetry.

I. A complete set of spare fuses shall be provided for all fused equipment.

8.3.10. TELEMETRY

A. The City's telemetry system utilizes RUG9 RTUs for SCADA functions related to the wastewater collection systems. The RTUs report to a master unit at the City Wastewater Treatment Plant (WWTP). The master unit communicates with a personal computer running Wonderware *Intouch* software to allow Supervisory Control and Data Acquisition functions to take place.

B. The RTUs shall be provided in enclosures with auxiliary equipment to facilitate connection of external signals to the RTU, and to monitor voltage and similar status signals. Communication with the RUG9 PLC at the WWTPmust be via leased telephone lines to the City's WWTP office. Provide an OID complementary to the RUG9 PLC that matches existing Rugid pump station hardware used through the City of Ilwaco water/wastewater system. OID shall allow local display and change of all set points. It shall display all alarms and allow for Reset/Acknowledge functions. The OID shall be mounted in the face of the control panel and be rated such that the panel's UL rating shall be maintained.

C. For each new lift station the Developer shall provide a RUG9 RTU that matches existing Rugid pump station hardware used throughout the City of Ilwaco water/wastewater system along with an enclosure, power supply, relays, surge protection devices for power and telephone lines, and other auxiliary devices as required for proper operation of the system. Typical discrete inputs for a station include:

- Commercial Power Fail
- Three Phase Power Fail
- Generator Run
- Generator Fail
- Wet Well High Level
- Wet Well Low Level
- Pump No. 1 Run
- Pump No. 2 Run
- Pump No. 1 Fail
- Pump No. 2 Fail
- Station High Temperature
-
-
-

D. Typical discrete outputs include:

- Start Generator (with an interposing relay driven by the RTU)

E. Typical analog inputs include:

- Pump No. 1 Amperes
- Pump No. 2 Amperes
- Wet Well Level
- Flow

F. Provisions shall also be made for additional I/O signals by providing 20% spare terminals within the telemetry panel.

G. The telemetry panel and all items contained therein shall be provided by Calvert Technologies, (509) 244-1839.

H. The Developer shall also be responsible for correct set-up of the RTU with respect to the existing system configuration. This includes coordinating configuration parameters such as:

- RTU addressing
- Master unit configuration
- RTU configuration,
- I/O point configuration (enable/disable format)
- Debounce time
- NO/NC inputs
- Percent change reporting
- High/low alarm limits
- Accumulator sampling rates
- Momentary/latched outputs
- Signal adjustments (receive gain, transmit gain).
- Incorporate pump station into the Wonderware computer screens at the WWTP.

I. The Developer shall coordinate with the telephone utility and the City for obtaining proper telephone service to the site. The developer shall be responsible for obtaining, installing, and starting up the RTU for the new lift station. The Developer shall coordinate obtaining, installing and starting up the RTU with the City to ensure that the station is properly configured and functions correctly in conjunction with the existing system.

J. All major components, including relays, timers, and power supplies shall be identified using phenolic or vilam engraved labels.

K. Provide a 600 ohm impedance matching transformer for the telephone line.

L. A line (surge) protector unit shall be provided for the telemetry equipment. The unit shall protect the equipment from transient and electrical surges on the telephone line. Protection shall include line fuses and clamps for voltages over 25 volts, gas tubes shall be provided as an integral part of the lighting protection unit.

8.3.11. .AUXILIARY POWER SYSTEM:

A. Emergency power generation equipment shall be provided at the lift station site which will operate the lift station in the event of a commercial power outage.

B. It is essential that the emergency system be designed with capacity and rating to carry safely the entire connected lift station load, including all pumps and ancillary loads unless otherwise approved by the City.

C. The auxiliary power unit shall be complete in every respect and shall include, but not be limited to, the following:

1. Generator, control panel & circuit breaker.

2. Engine, radiator & exhaust system.
3. Fuel tank. (Capacity for 24 hours full load plus 25%.)
4. Generator set enclosure, lockable to City Standards.
5. Automatic transfer switch.
6. Block Heater
7. Battery & rack.
8. Battery charger.
9. Conduit, wire and piping.

D. The generator set and transfer switch shall be Cunnins/Onan complying with the latest edition of Onan Corporation standard specifications and with the City Standards.

E. The generator set shall be spark-ignited, liquid propane, or diesel if approved by the City, 60 Hertz, 1800 RPM, 3-phase, 277/480 volt standby power.

F. The generator set shall include the following:

1. Engine
   a. Single phase, 1500 watt coolant heater (115 VAC)

2. Generator Set
   a. Mainline circuit breaker
   b. Weather-protective enclosure with mounted silencer (maximum noise level of 68 dBA at 23 feet)
   c. 5-year basic power warranty

3. Accessories
   a. Batteries
   b. Battery Charger, 2 AMP, 12 VDC, 120 VAC Input
   c. Vibration Isolators, Pad Type

4. Control Panel
   a. Annunciator relays (12)
   b. Run relay package (3)
   c. Low coolant level shutdown
   d. Anti-condensation space heater, 120 VAC
   e. Oil temperature gauge
   f. Wattmeter
   g. Emergency stop switch

5. Fuel Systems
   a. Liquid LPG or diesel if approved by the City

6. Alternator

a. Anti-condensation heater, 120 VAC

7. Exhaust System

a. Exhaust silencer (68 dBA at 23 feet)

8. Control Features

a. Run-stop-remote switch
b. Remote starting, 12-volt, 2 wire
c. Coolant temperature gauge
d. Field circuit breaker
e. DC voltmeter
f. Running time meter
g. Lamp test switch
h. Oil pressure gauge
i. Fault reset switch
j. Cycle cranking
k. 12-light engine monitor with individual 1/2 amp relay signals and a common alarm contact for each of the following conditions:
    i. Run (Green Light)
    ii. Pre-Warning For Low Oil Pressure (Yellow Light)
    iii. Pre-Warning For High Coolant Temp (Yellow Light)
    iv. Low Oil Pressure Shutdown (Red Light)
    v. High Coolant Temperature Shutdown (Red Light)
    vi. Overcrank Shutdown (Red Light)
    vii. Overspeed Shutdown (Red Light)
    viii. Switch Off (Flashing Red Light- Indicates Generator Set Not In Automatic Start Mode)
    ix. Low Coolant Temperature (Yellow Light)
    x. Low Fuel (Yellow Light)
    xi. Two Customer Selected Faults (Red Light)

9. AC Meter Package

a. Order with NFPA 110 monitor to meet code requirements.
b. AC voltmeter (dual range)
c. AC ammeter (dual range)
d. Voltmeter/ammeter phase selector switch with an off position
e. Dual scale frequency meter/tachometer
f. AC Rheostat (panel mounted) for + 5% voltage adjust

10. Transfer Switch

a. The transfer switch shall include the following:
    i. Sized for full station and auxiliary equipment load plus 25%.
    ii. Delayed transition, including dry contacts for signaling the generator to start on commercial power failure.

iii. Contacts for signaling commercial power fail, generator power fail, connected to utility power, and connected to generator power.

11. Pole Configuration
a. Poles - 3 (Solid Neutral)

12. Frequency
a. 60 Hertz

13. Application
a. Appl - Utility to Genset

14. System Options
a. Three phase, 3-wire or 4-wire

15. Enclosure
a. B002 Type 3R; Intended for outdoor use (dustproof and rainproof)

16. Listing
a. Listing - UL 1008

17. Programmed Transition
a. Programmed Transition, 1-60 sec.

18. Exerciser Clock
a. 7-day solid-state exerciser clock, programmable as to day and time of day for generator exercising.

19. Applications Modules
a. Monitor - Phase Sequence/Balance

G. Suitable guards shall be provided on all electrical parts to minimize the personal shock hazard.

H. Generator shall be broken-in sufficiently to permit application of full load immediately upon installation.

I. Generator supplier shall provide all tools for the generator set as recommended and required by the manufacturer.

J. Generator installation shall be checked by the supplier after installation to determine that the installation is correct. Written confirmation shall be provided to the City. Generator supplier shall perform a full load test for two (2) hours after installation is complete. Provide resistive load bank for this test.

K. Generator supplier shall provide a minimum of four (4) hours of training for City personnel at the station site during start-up.

L. Generator manufacturer shall provide four (4) copies of the maintenance and operation manual. These manuals shall be complete and shall include all information necessary to allow City personnel to maintain the generator.

M. Generator mounting pad shall be reinforced concrete to carry the weight of the unit and shall extend a minimum of 3 inches beyond generator housing. Chamfer all edges 3/4-inch.

N. Propane tank support pad shall be as above.

O. Diesel tanks (if diesel generator is approved by the City) shall be a subbase tank.

P. The generator shall be provided with a 2 year service agreement and set of manufacturer's recommended spare parts, including filters, belts, hoses, and similar items.

8.3.12. FORCE MAIN

A. The force main shall be a minimum 6-inch diameter ductile iron Class 52 polyethylene or epoxy lined or high0density polyethylene (HDPE) and provided with a continual positive slope. There shall be no intermediate high point between the pump station and the force main discharge point (depth shall be a minimum of 4'-0"). All pipes (gravity and pressure) entering and leaving the wet pit or dry pit shall have flexible couplings within 18-inches of the structure.

B. Discharge of the force main to the gravity sewer shall be made at a manhole with the force main penetration core drilled and the force main aligned to discharge towards the downstream pipe. The invert of the force main shall be 0.1 – foot above the invert of the downstream pipe. Channel the manhole as required.

C. An emergency pump connection equipped with a Cam Lock fitting and cap shall be located near the wet well.

8.3.13. LIFT STATION TEST PROGRAM

A. The Developer shall perform, as a minimum, the following tests and provide the City written documentation of the date performed and results obtained. Pump tests shall meet or exceed specified capacity. The City shall be informed of the testing schedule 48 hours prior to the test.

1. Demonstrate proper station operation under normal operating and individual alarm conditions
2. Pump capacity by drawdown test, for each pump operating alone and each combination of multiple pump operation. Record amperes and furnish pressure gauge to record static head and total dynamic head for each condition, across a representative wet well range as specified by the City's Engineer
3. Ultrasonic level sensor or pressure transducer operation, float switch operation
4. Generator load test
5. Automatic transfer to and from auxiliary power; generator load test; generator operation under pump load
6. Telemetry control to terminal strip
7. Sewage pump vibration test

B. Fill water for testing shall be obtained in accordance with the cross-connection policies of the local water purveyor.

C. Documentation of satisfactory installation shall be provided for the pump station and the auxiliary generator. Documentation of satisfactory installation shall be in the form of a notarized manufacturer's affidavit submitted by the manufacturer or an authorized representative, certifying that:

1. the equipment has been properly installed and lubricated,
2. the equipment is in accurate alignment,
3. the manufacturer was present when the equipment was placed into operation,
4. the manufacturer has checked, inspected, and adjusted the equipment as necessary,
5. the equipment is free from any undue stress imposed by connecting piping or anchor bolts,
6. the equipment is not imposing any undue stress on any connecting members,
7. the equipment has been operated satisfactorily under full load conditions,
8. the manufacturer has inspected his equipment during the operational demonstrations and system validation tests to the extent specified, and the equipment is fully covered under the terms of the guarantee.

8.3.14. OPERATIONS AND MAINTENANCE INFORMATION:

A. Record (as-constructed) information for the lift station shall recorded by the Contractor on site during construction, and shall be incorporated into the record drawings for the developer extension. In addition, the Developer shall submit operations and maintenance information for the lift station equipment.

B. The following information shall be furnished for all items of equipment installed on the project requiring operational and/or maintenance procedures, and for any additional items indicated by the Engineer. Level of detail and format shall conform to current City specifications.

1. Lubrication Information: This shall consist of the manufacturer's recommendations regarding the lubricants to be used and the lubrication schedule to be followed.

2. Drawings and Diagrams: Drawings shall include record (as-constructed) version of dimensional outline drawings in either full-size (22"x34") or half-size (11"x17") format. Diagrams shall include record (as-constructed) versions of schematic electrical and connection diagrams, showing points of connection, numbers of circuits, size and number of conduits and conductors.

3. Start-Up Procedures: These instructions shall consist of equipment manufacturer's recommendations for installation, adjustment, calibration, and troubleshooting.

4. Operating Procedures: These instructions shall consist of the equipment manufacturer's recommended step-by-step procedures for starting, operating, and stopping the equipment under specified modes of operation.

5. Preventive Maintenance Procedures: These instructions shall consist of the equipment manufacturer's recommended steps and schedules for maintaining the equipment.

6. Overhaul Instructions: These instructions shall consist of the manufacturer's directions for the disassembly, repair and reassembly of the equipment and any safety precautions that must be observed while performing the work.

7. Parts List: This list shall consist of the generic title and identification number of each component part of the equipment. Component equipment items provided by other manufacturers shall be identified with the manufacturer's name, part description, and part number.

8. Spare Parts List: This list shall consist of the manufacturer's recommendations of number of parts and quantities that should be stored by the Owner and any special storage precautions that may be required. Note spares provided.

9. Exploded View: Exploded or cut views of equipment shall be provided if available as a standard item of the manufacturer's information. When

exploded or cut views are not available, plan and section views shall be provided with detailed callouts.

10. Copies of factory test results, startup check lists, manufacturer's affidavits of proper installation, initial equipment set points and related documentation

11. Maintenance Information Summaries as specified herein.

C. A minimum of two preliminary review copies of the manufacturer's equipment O&M manuals shall be submitted to the City for review at the time of equipment delivery and not later than 7 days prior to product training. Additional copies may be submitted to expedite review or if return of markups is desired. A minimum of two preliminary copies of the manuals will be retained (one by the City and one by the Engineer) until the final versions of the manual are approved. Allow 14 days for Engineer's review.

D. Four (4) copies of the final acceptable operational and maintenance materials shall be submitted to the Engineer prior to project acceptance.

E. Maintenance Information Summaries (MIS) shall be provided for the following component equipment items, within the appropriate section of the equipment manuals, prepared according to the format specified herein:

1. non-clog pumps
2. sump pumps
3. heating and ventilation equipment
4. standby generator
5. valves (larger than 1" in size)

F. Maintenance information summaries shall contain the following information compiled from manufacturer's recommendations in the order shown.

1. Description or name of item of equipment.
2. Manufacturer.
3. Name, address, and telephone number of local manufacturer's representative.
4. Serial number (where applicable).
5. Equipment nameplate data including model number.
6. Recommended maintenance procedures:
    i. Description of procedures.
    ii. Maintenance frequency required.
    iii. Lubricant(s) or other materials required (where applicable), including type of lubricant, lubricant manufacturer, and specific compound.

iv. Additional information as required for proper maintenance.

7. Spare parts provided (where applicable).

G. All operation and maintenance information shall be comprehensive and detailed, and shall contain information adequately covering all normal operation and maintenance procedures. The information shall be organized in high quality D-style 3-ring binders. The binders shall be provided with spine labels, cover inserts, a table of contents and tab sheets to permit easy location of desired information. Each volume shall contain an index for the entire set. Sheets shall be 3-hole punched, and not otherwise punched for comb binding or spiral binding.

H. All information shall be specifically for items of equipment installed in the Project. Material not directly applicable shall be removed, neatly lined out, or omitted from catalogs or other printed information.

I. Lubricants shall be described in detail, including type, recommended manufacturer, and manufacturer's specific compound to be used.

J. If manufacturer's standard brochures and manuals are used to describe operating and maintenance procedures, such brochures and manuals shall be modified to reflect only the model or series of equipment used on this project. Extraneous material shall be crossed out neatly or otherwise annotated or eliminated.

CHAPTER 9

MISCELLANEOUS UTILITY SERVICES AND ADDITIONAL DEVELOPMENT REQUIREMENTS

9.1 GENERAL

The standards established by this chapter represent the minimum standards for the design and construction of additional facilities. More restrictive standards may be mandated by the City due to localized conditions. The following design and construction considerations shall apply.

9.2 UTILITY SERVICES

All utility lines, including electric, telephone, fire alarm and television cables shall be placed underground prior to paving. Easement for maintenance of all utilities, both on and off-site, shall be provided as applicable to the satisfaction of the Public Works Superintendent.

9.3 STREET LIGHTING

Street lighting shall be provided by the Developer to the guidelines established by the Public Works Superintendent. All costs of such, including, but not limited to, design, underground wiring, light standard base and luminaire shall be borne by the developer. The City shall approve of all street lighting plans as furnished by the developer to include size, spacing, height and type of pole/illuminaire.

9.4 CABLE TELEVISION

Service lines (suitable empty conduits placed and capped) for cable television shall be installed underground (location as approved by the Public Works Superintendent) on all subdivisions regardless of whether or not cable television service is currently available.

9.5 STREET NAME AND TRAFFIC SIGNS

All street name signs and traffic directional signs shall be approved by the County E-911 Coordinator in conjunction with the City. All costs of providing the signs, to include the installation, labor, materials, and other relevant costs associated with determining the type, location, and associated work items shall be invoiced to and paid by the developer. Preference will be given to short easily understood names which do not bear resemblance to similar street and place names within the area.

9.6 LANDSCAPING

Street landscaping shall be provided by the developer and a landscaping plan shall be submitted as part of the plan package for City review and approval.

CITY OF ILWACO
CITY COUNCIL AGENDA ITEM BRIEFING

A. Meeting Dates: Council Workshop: Public Hearing:
Council Discussion Item: 02/23/15 Council Business Item:

B. Issue/Topic: **Promotion for Water Operator**

C. Sponsor(s):
1. Mike Cassinelli 2.

D. Background (overview of why issue is before council):
1. Troy was hired at the end of June to fill a water operator position. Over the recent months, he became familiar with operating the water the plant, preparing lab work, and being of assistance when needed for other projects. He has also taken his certification for Cross Connection and is on his way to getting his Water Operator 1 permit. He has demonstrated that he can work independently, can oversee a project, and take direction well.

E. Discussion (specific details relevant to the issue, pros/cons, alternatives and any other decision-making details)
1. Based on his abilities to quickly step into the new position and master the assigned tasks, the mayor is recommending that Troy be promoted to a grade 9 step 1. He is currently a grade 8 step 2.

F. Impacts:
1. Fiscal: The increase was incorporated into the 2015 proposed budget.
2. Legal:
3. Personnel:
4. Service/Delivery:

G. Time Constraints/Due Dates:

H. Proposed Motion: **I move to approve the mayor's recommended promotion of Troy Richardson to Grade 9 Step 1 on the 2015 pay scale effective March 1, 2015.**

CITY OF ILWACO
ORDINANCE NO. 834

AN ORDINANCE OF THE CITY OF ILWACO, WASHINGTON, ADOPTING SALARY CLASSIFICATIONS & ESTABLISHING THE 2015 PAY TABLE.

WHEREAS, the City of Ilwaco is committed to a policy that places every employee on a pay scale; and

WHEREAS, the city must be financially responsible in implementing compensation plan changes; and

WHEREAS, the City Council has determined that it will have the final approval on all pay policy issues; and

WHEREAS, no change in any employee personnel status (rate of pay) is intended by this action.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ILWACO, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. The City Council of the City of Ilwaco, Washington, adopts the City of Ilwaco Position Grades and Brief Descriptions, attached hereto as Exhibit "A."

Section 2. Each employee's pay shall remain unchanged through this action even though the position grade title may be modified.

Section 3. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this ordinance.

Section 4. Referendum and Effective Date. This Ordinance, being an exercise of a power specifically delegated to the city legislative body, is not subject to referendum, and shall take effect and is in full force five (5) days after its passage, approval and publication of an approved summary of the title as provided by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF ILWACO, AND SIGNED IN AUTHENTIFICATION OF ITS PASSAGE THIS 27TH DAY OF OCTOBER, 2014

Mike Cassinelli, Mayor

ATTEST:

Ariel Smith, City Clerk

VOTE	Jensen	Mulinix	Marshall	Chambreau	Forner	Cassinelli
Ayes	x	x	x	x	x	
Nays						
Abstentions						
Absent						

PUBLISHED: November 5, 2014

EFFECTIVE: November 10, 2015

Exhibit "A"
City of Ilwaco
Position Grades and Brief Descriptions

Administrative Position	Grade	Level
Non-Exempt Positions		
Office Assistant 3	3	Office assistant
Office Assistant 4	4	Office assistant/billing clerk
Office Assistant 5	5	Senior office assistant/billing clerk
Deputy City Clerk 5	5	Deputy city clerk
Deputy City Clerk 6	6	Deputy city clerk
Deputy City Clerk 7	7	Deputy city clerk
Deputy City Clerk 8	8	Senior deputy city clerk
Exempt Positions		
City Clerk 8	8	City clerk
City Clerk 9	9	City clerk
City Clerk 10	10	City clerk
City Clerk 11	11	Senior city clerk
Treasurer 8	8	City treasurer
Treasurer 9	9	City treasurer
Treasurer 10	10	City treasurer
Treasurer 11	11	Senior city treasurer
Treasurer 12	12	Senior city treasurer

Office Assistant 3:-Office assistant. Entry-level position. Receives work direction, guidance and supervision from senior office staff members. Develops office skills and experience with guidance from others. Assists with utility billing.

Office Assistant 4: Office assistant/billing clerk. Performs many tasks independently. Proficient with word processing and spreadsheets. Expected to handle routine city business on the telephone and with visitors. Able to do most utility billing tasks.

Office Assistant 5: Senior office assistant/billing clerk. Performs most tasks independently without guidance or supervision. Determines own priorities. Proficient with word processing, spreadsheet and databases. Configures new computers for printing, simple networking and email and application installation. Does utility billing independently. Supervises others, as necessary.

Deputy City Clerk 5: Deputy city clerk. Entry-level position. Performs or is capable of performing all duties equivalent to Office Assistant 5. Receives work direction, guidance and supervision from the city clerk, city treasurer or mayor in matters involving the city clerk's duties.

Deputy City Clerk 6: Deputy city clerk. Performs some city clerk tasks independently, with minimum guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

Deputy City Clerk 7: Deputy city clerk. Performs many city clerk tasks independently, with minimum guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

Deputy City Clerk 8: Senior deputy city clerk. Performs most city clerk tasks independently without guidance or supervision, as assigned by the city clerk, city treasurer or mayor. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

City Clerk 8: City clerk. Entry-level position. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs some city clerk tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. *Note: A change in position from Assistant Clerk 7 to City Clerk 7 would normally be accompanied by a two step, in-grade increase and a change from non-exempt status to exempt status.*

City Clerk 9: City clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs most city clerk tasks independently with minimum guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications.

City Clerk 10: City clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs all duties of the city clerk without guidance or supervision. Drafts simple legislation that can be enacted into law without undue revision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Represents the city in outside meetings, as appropriate.

City Clerk 11: Senior city clerk. An administrative position with primary duties that includes exercising discretion and independent judgment with respect to matters of significance. Performs all duties of the city clerk without guidance or supervision. Drafts complex legislation that can be enacted into law without undue revision. Briefs the mayor and City Council on the effect of proposed legislation. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules.

Writes grant applications. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters.

Treasurer 8: City treasurer. Entry-level position. Performs some treasurer tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Trained in accounting and develops experience with accounting software and city transactions and budgeting.

Treasurer 9: City treasurer. Performs most treasurer tasks independently with guidance and supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Trained in accounting and develops experience with accounting software and city transactions and budgeting.

Treasurer 10: City treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has some advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Performs all the duties of the city clerk, if assigned.

Treasurer 11: Senior city treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters. Performs all the duties of the city clerk, if assigned.

Treasurer 12: Senior city treasurer. Performs treasurer tasks independently without guidance or supervision. Performs or is capable of performing all duties equivalent to Office Assistant 5. Supervises office staff as necessary, including setting priorities and work schedules. Writes grant applications. Has advanced training in accounting and has experience with accounting software and city transactions and budgeting. Prepares and briefs the city budget to the mayor and City Council, including coordinating with department heads. Represents the city in outside meetings, as appropriate. Acts as senior advisor to the mayor and City Council in city matters. Performs all the duties of the city clerk, if assigned. Experienced and possesses necessary skills for position and/or is highly capable of seeking needed resources.

Field Positions	Grade	
Non-Exempt Positions		
Utility Worker 3	3	Entry level
Utility Worker 4	4	Established (gaining experience)
Utility Worker 5	5	Experienced
Utility Worker 6	6	Experienced (works independently)
Utility Worker 7	7	Lead
Utility Supervisor 8	8	Senior lead
Utility Supervisor 9	9	Senior
Utility Supervisor 10	10	Senior
Utility Supervisor 11	11	Senior
Plant Operator 5	5	Entry level
Plant Operator 6	6	Established (gaining experience)
Plant Operator 7	7	Experienced
Plant Operator 8	8	Experienced (works independently)
Plant Operator 9	9	Senior/lead operator
Plant Operator 10	10	Senior
Plant Operator 11	11	Senior
Mechanic 7	7	Entry level
Mechanic 8	8	Experienced
Mechanic 9	9	Senior
Exempt Positions		
Utility Manager 7	7	Entry level
Utility Manager 8	8	Experienced
Utility Manager 9	9	Experienced
Utility Manager 10	10	Senior
Fire Administrator 7	7	Experienced
Fire Chief 8	8	Senior

Utility Worker3: Entry-level utility worker. Receives direction and guidance from others.

Utility Worker4: Established utility worker gaining experience. Receives direction and guidance from others.

Utility Worker5: Experienced utility worker. Works with some supervision and guidance.

Utility Worker 6: Experienced utility worker. Works independently.

Utility Worker 7: Lead utility worker/supervisor. Works independently and gives guidance to others. Has responsibility for one utility area (e.g. sewer or water distribution, streets and sidewalks, equipment).

Utility Supervisor 8: Utility supervisor. Receives some guidance and supervision from others. Participates in all aspects of utility operations. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Takes a lead role in configuration management. Prepares the department budgets with guidance.

Utility Supervisor 9: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Supervisor 10: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Supervisor 11: Senior utility supervisor. Works independently and supervises others. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Sets priorities and assigns tasks. Ensures effective configuration management. Prepares the department budgets with some guidance. Experienced and possesses necessary skills for position and/or is highly capable of seeking needed resources.

Plant Operator 5: Entry-level plant operator. Receives direction and guidance from others. Capable of some plant operations and minor repairs without assistance. Communicates plant status to others. Performs other Public Works duties.

Plant Operator 6: Established with at least one year of full-time plant operation experience. Receives direction and guidance from others. Capable of most routine plant operations and minor repairs without assistance. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are plant operations. Performs other Public Works duties.

Plant Operator 7: Experienced plant operator with at least two years of full-time plant operation experience. Receives direction and guidance from others. Capable of most routine plant

operation and minor repairs without assistance. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are plant operations. Performs other Public Works duties.

Plant Operator 8: Experienced plant operator with at least four years of full-time plant operation experience. Receives some direction and guidance from others. Provides some supervision and guidance to others. Capable of plant operations requiring the exercise of judgment, including making process adjustments and moderate repairs without supervision. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are plant and systems operations.

Plant Operator 9: Lead plant operator/plant supervisor with at least five years of full-time plant operation experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Primary duties are systems operations and supervision.

Plant Operator 10: Senior plant operator/plant supervisor with at least five years of full-time plant operation experience combined with demonstrated supervisory experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs at the plant and throughout the entire distribution system without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Sets priorities and assists in preparing/managing the budget. Primary duties are systems operations and supervision.

Plant Operator 10: Senior plant operator/plant supervisor with at least eight years of full-time plant operation experience combined with demonstrated supervisory experience. Works independently and supervises others. Capable of plant operations requiring the exercise of judgment, including making any and all process adjustments and complex repairs at the plant and throughout the entire distribution system without supervision. Submits reports to DOH/DOE. Communicates plant status to others verbally, in writing and through means of computer file transfers. Sets priorities and assists in preparing/managing the budget. Primary duties are systems operations and supervision.

Mechanic 7: Entry-level mechanic. Capable of maintaining vehicles and equipment with some supervision and guidance.

Mechanic 8: Experienced mechanic. Capable of maintaining vehicles, equipment and city infrastructure equipment with minimum supervision and guidance. Sets own priorities. Supervises others, as necessary.

Mechanic 9: Senior mechanic. Capable of maintaining vehicles, equipment and city infrastructure equipment without supervision. Sets own work schedules and priorities. Supervises others.

Utility Manager 7: Entry-level utility manager. Receives guidance and supervision from others. Participates in some aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Participates in configuration management. Assists in developing the department budget.

Utility Manager 8: Experienced utility manager. Receives some guidance and supervision from others. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Takes a lead role in configuration management. Prepares the department budgets with guidance.

Utility Manager 9: Experienced utility manager/director. Works independently. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the city engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Provides management information on status of the city infrastructure and does tradeoff analysis in problem solving and in proposing changes. Ensures effective configuration management. Prepares the department budgets with some guidance.

Utility Manager 10: Senior utility manager/director. Participates in all aspects of utility operations and management. Sets work priorities and tasking. Ensures quality and efficiency of operations. Makes continual improvements for efficiency and quality of operations. Works closely with the City Engineer in planning improvements to city infrastructure. Acts as city liaison for construction projects. Provides management information on status of the city infrastructure and does tradeoff analysis in problem solving and in proposing changes. Conceives and effectively executes improvement projects without supervision. Ensures effective configuration management. Prepares the department budget without guidance.

Fire Administrator 7: Participates in the development and maintenance of all emergency management plans, support materials, reports and related documents. Conducts directed research, as well as independent internet-based research on a variety of emergency management and related topics. Develops or compiles documents, correspondence and materials, including all programmatic reports required for reimbursement of expenses related to federal, state and other government grants, as well as awards from non-governmental funding sources. Monitors and maintains federal, state, allied organization, professional and county newsletters, reports and related documents as directed. The Fire Administrator shall be paid 5.5% of the assigned grade and step salary on the Exempt Employee Annual Salary Scale for this part-time position.

Fire Chief 8: Plans, organizes, directs and evaluates the Ilwaco Volunteer Fire Department, which protects lives and property from fire and hazardous incident damage. Provides timely emergency medical services in the City of Ilwaco and other neighboring municipalities that have contracted for fire protection services. Ensures the department incorporates up-to-date, efficient fire prevention, fire suppression, hazardous incident mitigation and emergency medical technologies into its procedures, equipment and methods. Recruits and trains new volunteer

firefighters. The Fire Chief shall be paid 25% of the assigned grade and step salary on the Exempt Employee Annual Salary Scale for this part-time position.

CITY OF ILWACO
ORDINANCE NO. 834 EXHBIT B

2015 PAY TABLE (Effective January 1, 2015)

2015 City of Ilwaco
Exempt Employee Annual Salary Scale

Step	1	2	3	4	5	6	7	8	9	10
Grade	Years to Step	1	1	1	2	2	2	3	3	3
3	22517	23268	24018	24769	25520	26271	27022	27773	28524	29274
4	25276	26119	26962	27804	28647	29490	30332	31175	32018	32860
5	28280	29223	30166	31109	32053	32996	33939	34882	35825	36769
6	31524	32575	33626	34678	35729	36781	37832	38883	39935	40986
7	35031	36198	37365	38533	39700	40867	42034	43202	44369	45536
8	38795	40088	41381	42674	43967	45260	46553	47846	49139	50431
9	42850	44278	45707	47135	48564	49992	51421	52849	54278	55706
10	47188	48760	50333	51906	53479	55051	56624	58197	59770	61342
11	51907	53635	55362	57078	58807	60512	62237	63965	65692	67420
12	57674	59594	61513	63420	65341	67236	69152	71072	72991	74911

2015 City of Ilwaco
Non-Exempt/Hourly Employee Hourly Rate of Pay Scale

Step	1	2	3	4	5	6	7	8	9	10
Grade	Years to Step	1	1	1	2	2	2	3	3	3
3	10.83	11.19	11.55	11.91	12.27	12.63	12.99	13.35	13.71	14.07
4	12.15	12.56	12.96	13.37	13.77	14.18	14.58	14.99	15.39	15.80
5	13.60	14.05	14.50	14.96	15.41	15.86	16.32	16.77	17.22	17.68
6	15.16	15.66	16.17	16.67	17.18	17.68	18.19	18.69	19.20	19.70
7	16.84	17.40	17.96	18.53	19.09	19.65	20.21	20.77	21.33	21.89
8	18.65	19.27	19.89	20.52	21.14	21.76	22.38	23.00	23.62	24.25
9	20.60	21.29	21.97	22.66	23.35	24.03	24.72	25.41	26.09	26.78
10	22.69	23.44	24.20	24.95	25.71	26.47	27.22	27.98	28.74	29.49
11	24.96	25.79	26.62	27.44	28.27	29.09	29.92	30.75	31.58	32.41
12	27.73	28.66	29.58	30.49	31.41	32.32	33.24	34.17	35.09	36.01

CITY OF ILWACO
CITY COUNCIL AGENDA ITEM BRIEFING

A. Meeting Dates: Council Workshop: Public Hearing:
Council Discussion Item: 2/23/15 Council Business Item:

B. Issue/Topic: **Amendment to Title 14 for Side Sewers & Private Sewers**

C. Sponsor(s):
1. Marshall 2.

D. Background (overview of why issue is before council):
1. The term "side sewer" is used in the Ilwaco Municipal Code ("IMC") but is not defined.
2. The City has identified obvious sewer ***main*** lines as "private". The term "side sewer" is being used by the City government in reference to these lines. They are, for all intents and purposes, "private sewer mains". Yet, "private sewer mains" are not defined in the IMC. This lack of distinction and definition has led to misunderstanding and confusion.
3. That they exist as such has been documented by the City but the list has not been published. Accordingly, these sewer lines cannot be properly understood by property owners and cannot be referred to for corrective actions.
4. New construction of private sewer mains has been ad hoc and often substandard.

E. Discussion (specific details relevant to the issue, pros/cons, alternatives and any other decision-making details):
1. Proposed sewer provisions have been incorporated as an amendment to Title 14.
2. The sewer aspects of this language was discussed by the City Council during their October 27, 2014 Meeting.
3. The City Attorney has commented on the sewer aspects and comments have been incorporated.

F. Impacts:
1. Fiscal:
2. Legal:
3. Personnel:
4. Service/Delivery:

G. Planning Commission: ☐ Recommended ☒ N/A ☐ Public Hearing on

H. Time Constraints/Due Dates: None

Proposed Motion: ***I move to enact Ordinance 2015-XX which amends Title 14 of the Ilwaco Municipal Code and establishes provisions for private sewers, and I move to enact Resolution 2015-XXX requiring publication of the City's identification of private sewer mains."***

CITY OF ILWACO
ORDINANCE NO. XXX

AN ORDINANCE OF THE CITY OF ILWACO, WASHINGTON, ESTABLISHING PROVISIONS FOR PRIVATE SEWERS AND AMENDING TITLE 14 OF THE ILWACO MUNICIPAL CODE

WHEREAS, IMC Title 14 refers to "side sewers" but has no definition for side sewers; and,

WHEREAS, the City has identified private sewer mains but has no definition for private sewer mains; and,

WHEREAS, the IMC does have terms and conditions for the construction and maintenance of (by definition) private ***side sewers***; and,

WHEREAS, the IMC does not have explicit terms and conditions for the construction and maintenance of private sewer ***mains***; and,

WHEREAS, the City has used ad hoc identification of private sewer mains and imposed terms and conditions regarding private maintenance those sewer mains; and,

WHEREAS, the IMC has no corresponding terms and conditions for construction and maintenance to match the current terms and conditions for construction and maintenance for (by definition) private side sewers; and

WHEREAS, the City Council recognizes the need for clarity of language used regarding private ownership and responsibility of certain sewers in general; and,

WHEREAS, the City Council did meet at said time and place and did then consider the matter of said proposed policies; and

WHEREAS, the said proposed legislation is within the authority of the City Council to establish,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ILWACO, WASHINGTON, DOES ORDAIN AS FOLLOWS:

Section 1. Chapter 14.02.020, is amended to read as follows:

Definitions.

For the purpose of this chapter and the city of Ilwaco developer standards, the following terms, in addition to their common meaning, are defined:

A. "City engineer" shall mean an engineer employed or contracted by the city on either a part-time or full-time basis. (Ord. 832 § 1 (part), 2014)

B. **"Side sewer" means a privately owned and maintained sewer connection between a building approved wastewater outlet, or other approved facility, to the nearest or most reasonable sewer system main line, public or private, or other approved discharge point.**

C. **"Private sewer main" means a privately owned and maintained sewer main which has any one of the characteristics: 1) running generally in or along a city street or platted city street right of way or in an established utility easement whether improved or not; 2) connected or connectable to receive wastewater from adjacent parcel side sewers whether improved or not improved; 3) discharges either directly or indirectly into an established City sewer main or other approved discharge point.**

Section 2. Chapter 14.06, is amended to read as follows:

D. UTILITIES

E. Sections:

F. Article I. General

G.	14.06.010	Utility ownership and easement rights.
H.	14.06.020	Right-of-way permit required.
I.	14.06.030	Plan approval required.
J.	14.06.040	As-built drawings required.
K.	14.06.050	Utilities to be consistent with internal and external development.

L. Article II. Sewer

M.	14.06.060	Construction standards and specifications.
N.	14.06.070	Serving lots with sewage disposal systems.
O.	14.06.080	Sewage disposal facilities required before construction is complete.
P.	14.06.090	Compliance with standards.
Q.	14.06.100	Conveyance of facilities to the city.
R.	14.06.110	Side sewer permits required.
S.	**14.06.115**	**Private sewer main permits required.**
T.	**14.06.116**	**New private sewer mains must meet City standards for sewer mains**
U.	**14.06.117**	**New private sewer mains to become part of the City Wastewater Utility**
V.	14.06.120	Costs of side sewer borne by owner.
W.	**40.06.122**	**Costs of private sewer main repairs borne by owners**
X.	14.06.130	Side sewer permitting process.
Y.	14.06.140	Side sewer contractor registration required.
Z.	14.06.150	Each side sewer to have individual side sewer connection, unless exception granted.

AA. 14.06.160 Protection of excavations—Restoration of public property.

14.06.110 Side sewer permits required.

A. A developer must obtain a side sewer permit for any connection to the city sewer system.

B. A permit which includes side sewer work in a public area or the connection with or opening into any public sewer other than through the normal connection point of a "Y," "T," or stub, will only be issued to a registered side sewer contractor or qualified city employee.

C. A permit which includes side sewer work on private property will only be issued to:

1. The owner of the property (but such permit does not allow the owner to connect the side sewer to a public sewer except through the normal opening of a "Y," "T," or stub under the supervision of the city engineer or his representative);

2. A registered sewer contractor; or

3. A qualified city employee.

D. Side sewer permits are not transferable. No authorized person, including any sewer contractor or qualified city employee, may lay any pipe pursuant to any other person's permit.

E. No permit will be issued for side sewer connection before the main sewer is accepted by the city. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.76.110)

14.06.115

Private sewer main permits required.

A. A developer must obtain a permit for any private sewer main installation (generally in a City right of way whether improved or unimproved or in an established utility easement on private property) and connection to the city sewer system. Permits will be issued in accordance with the requirements of .76.116

B. A permit which includes sewer main installation in a public area or the connection with or opening into any public sewer will only be issued to a registered sewer contractor or qualified city employee.

C. A permit for sewer main installation on private property will only be issued if there is a City-approved, established and recorded, public utility easement.

D. Sewer main installation permits are not transferable. No authorized person, including any sewer contractor or qualified city employee, may lay any pipe pursuant to any other person's permit.

E. The developer must indemnify the city from any loss or damage that may directly or indirectly be caused by the installation of the private sewer main. (Ord. 812 § 1 (part), 2012; Ord. 627 (part), 1999)

14.06.116

New private sewer mains must meet City standards for sewer mains.

A. Sewer main installation permits must be based on a design that meets the City Development Standards per 14.02.10 and is approved by the City Engineer. This requirement includes, and is not limited to, location, materials, manholes and similar accessibility for maintenance.

14.06.117

New private sewer mains to become part of the City Wastewater Utility

A. Upon completion of construction and acceptance by the City, the owner shall convey ownership and responsibility for sewer mains constructed after January 1, 2015 in accordance with 14.06.010. In extraordinary circumstances and upon approval of the City Council, the City may opt to decline such transfer.

14.06.120 Costs of side sewer borne by owner.

A. The property owner must pay all costs and expenses related to the installation and connection of the side sewer, as well as the cost of repairs when:

1. There is a break or blockage in the side sewer within private property or within the building plumbing.

2. The blockage is located within the public right-of-way or easement and is caused by one (1) or more of the following:

a. Roots from trees or shrubs located outside public rights-of-way or easements.

b. Side sewer or mainline is blocked from sewage contents originating from private property.

c. Side sewer within the public right-of-way or easement is blocked by debris originating from a break in the side sewer within private property.

d. An investigation revealed that the source of the blockage originated from private property including adjacent private properties.

B. The owner must indemnify the city from any loss or damage that may directly or indirectly be caused by the installation of the side sewer. (Ord. 832 § 1 (part), 2014; Ord. 812 § 1 (part), 2012; Ord. 627 (part), 1999. Formerly 15.76.120)

14.06.122

Costs of private sewer main repairs borne by owners.

A. The property owners with side sewers connecting to a private sewer main must pay all costs and expenses related to the repairs of the private sewer main, including any necessary resulting repairs, meeting City standards, to sidewalks and streets.

B. Failure to act in a timely manner to effect necessary repairs by the property owners with side sewers connecting to a private sewer main can result in the City taking the necessary action to assure public health and safety. In addition to effecting necessary repairs, such action may include provisions to assure payment such as terminating public utility services and imposing liens on the properties. In such case, the City shall apply City standards for construction and replacement.

C. The owner must indemnify the city from any loss or damage that may directly or indirectly be caused by the installation of the private sewer main. (Ord. 812 § 1 (part), 2012; Ord. 627 (part), 1999)

D. Any agency or entity performing maintenance and construction of streets, sidewalks, pipelines and similar activities that causes damage to the integrity of a private sewer line shall pay all costs and expenses related to the repairs of the private sewer. Should repairs and/or replacement that are implemented according to plans approved by the City engineer bring an existing private sewer line to City standards, provisions for the City taking over the line shall be as provided for in IMC 15.76.117 including City acceptance.

14.06.130 Side sewer permitting process.

A. Side sewer permits will be issued by the city engineer.

B. The applicant for a side sewer permit must supply the city engineer with the following information, on a form provided by the city:

1. Owner's name;

2. Address of property to be served;

3. Owner's mailing address;

4. Name and address to which bills must be sent;

5. Registered side sewer contractor's or qualified city employee's name and proof of qualification;

6. Legal description of the property to be served;

7. All outside dimensions of building to be served;

8. Location of buildings on property to be served;

9. Purpose of building; and

10. Alignment of the proposed side sewer.

C. All required fees must be paid before any side sewer permit is issued. Such fees may include, but are not limited to: permit fees, stub fees, general facilities connection charges, in-lieu-of-assessment charges, reconnection charges, and/or any other charges (outstanding or otherwise) associated with the permit or the property.

D. The permit card must be posted on the job before starting the work and must be readily accessible to the city engineer.

E. The installer of the side sewer must meet with the inspector on the job whenever so directed.

F. No side sewer may be backfilled before approval of the city engineer. (Ord. 832 § 1 (part), 2014; Ord. 627 (part), 1999. Formerly 15.76.130)

Section 3. Severability. If any section, subsection, paragraph, sentence, clause or phrase of this ordinance is declared unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining parts of this ordinance.

Section 4. Referendum and Effective Date. This Ordinance, being an exercise of a power specifically delegated to the city legislative body, is not subject to referendum, and shall take effect and is in full force five (5) days after its passage, approval and publication of an approved summary of the title as provided by law.

PASSED BY THE CITY COUNCIL OF THE CITY OF ILWACO, AND SIGNED IN AUTHENTIFICATION OF ITS PASSAGE THIS _____ DAY OF _____, 2015.

_____
Mike Cassinelli, Mayor

ATTEST:

_____
Holly Beller, Deputy City Clerk

VOTE	Jensen	Karnofski	Marshall	Chambreau	Forner	Cassinelli
Ayes						
Nays						
Abstentions						
Absent						

PUBLISHED: Month date, Year

EFFECTIVE: Month date, Year

CITY OF ILWACO
RESOLUTION NO. 2015-XXX

A RESOLUTION OF THE CITY OF ILWACO, WASHINGTON, REQUIRING IDENTIFICATION AND PUBLICATION OF PRIVATE SEWER MAINS.

WHEREAS, it is the desire of the City Council to further the establishment of documentation of City-identified private sewer mains,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF ILWACO, WASHINGTON, DOES RESOLVE AS FOLLOWS:

The City shall publish by March 31, 2015, a map of private sewer mains, a list of those sewer mains using a naming convention deemed suitable for identification and clarity in written correspondence and a list of tax parcels connected to each of those private sewer mains.

The City shall maintain this list with current information thereafter.

PASSED BY THE CITY COUNCIL OF THE CITY OF ILWACO, AND SIGNED IN AUTHENTIFICATION OF ITS PASSAGE THIS ____ DAY OF _____, 2015.

_____
Mike Cassinelli, Mayor

ATTEST:

_____
Holly Beller, Deputy City Clerk

VOTE	Jensen	Karnofski	Marshall	Chambreau	Forner	Cassinelli
Ayes						
Nays						
Abstentions						
Absent						

EFFECTIVE:

CHAPTER 2

DEFINITIONS

201.0 General.

For the purpose of this code, the following terms have the meanings indicated in this chapter.

No attempt is made to define ordinary words, which are used in accordance with their established dictionary meanings, except where a word has been used loosely and it is necessary to define its meaning as used in this code to avoid misunderstanding.

The definitions of terms are arranged alphabetically according to the first word of the term.

202.0 Definition of Terms.

203.0 – A –

ABS – Acrylonitrile-butadiene-styrene.

Accessible – When applied to a fixture, connection, appliance, or equipment, "accessible" means having access thereto, but which first may require the removal of an access panel, door, or similar obstruction. "Readily accessible" means direct access without the necessity of removing any panel, door, or similar obstruction.

Airbreak – A physical separation which may be a low inlet into the indirect waste receptor from the fixture, appliance, or device indirectly connected.

Airgap, Drainage – The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe, plumbing fixture, appliance, or appurtenance conveying waste to the flood-level rim of the receptor.

Airgap, Water Distribution – The unobstructed vertical distance through the free atmosphere between the lowest opening from any pipe or faucet conveying potable water to the flood-level rim of any tank, vat, or fixture.

Anchors – See Supports.

Approved – Acceptable to the Authority Having Jurisdiction.

Approved Testing Agency – An organization primarily established for purposes of testing to approved standards and approved by the Authority Having Jurisdiction.

Area Drain – A receptor designed to collect surface or storm water from an open area.

Aspirator – A fitting or device supplied with water or other fluid under positive pressure that passes through an integral orifice or constriction, causing a vacuum.

Authority Having Jurisdiction – The organization, office, or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, installations, or procedures. The Authority Having Jurisdiction shall be a federal, state, local, or other regional department or an individual such as a plumbing official, mechanical official, labor department official, health department official, building official, or others having statutory authority. In the absence of a statutory authority, the Authority Having Jurisdiction may be some other responsible party. This definition shall include the Authority Having Jurisdiction's duly authorized representative.

204.0 – B –

Backflow – The flow of water or other liquids, mixtures, or substances into the distributing pipes of a potable supply of water from any sources other than its intended source. See Back-Siphonage, Back-Pressure Backflow.

Backflow Connection – Any arrangement whereby backflow can occur.

Back-Pressure Backflow – Backflow due to an increased pressure above the supply pressure, which may be due to pumps, boilers, gravity, or other sources of pressure.

Backflow Preventer – A device or means to prevent backflow into the potable water system.

Back-Siphonage – The flowing back of used, contaminated, or polluted water from a plumbing fixture or vessel into a water supply pipe due to a pressure less than atmospheric in such pipe. See Backflow.

Backwater Valve – A device installed in a drainage system to prevent reverse flow.

Bathroom Group – A group of fixtures consisting of a water closet, one or two lavatories, and either a bathtub, a combination bath/shower, or a shower and may include a urinal or bidet and an emergency floor drain.

Bathroom, Half – A room equipped with only a water closet and lavatory.

Battery of Fixtures – Any group of two (2) or more similar, adjacent fixtures that discharge into a common horizontal waste or soil branch.

Boiler Blowoff – An outlet on a boiler to permit emptying or discharge of sediment.

Branch – Any part of the piping system other than a main, riser, or stack.

Branch, Fixture – See Fixture Branch.

Branch, Horizontal – See Horizontal Branch.

Branch Vent – A vent connecting one (1) or more individual vents with a vent stack or stack vent.

Building – A structure built, erected, and framed of component structural parts designed for the housing, shelter, enclosure, or support of persons, animals, or property of any kind.

Building Drain – That part of the lowest piping of a drainage system that receives the discharge from soil, waste, and other drainage pipes inside the walls of the building and conveys it to the building sewer beginning two (2) feet (610 mm) outside the building wall.

Building Drain (Sanitary) – A building drain that conveys sewage only.

Building Drain (Storm) – A building drain that conveys storm water or other drainage, but no sewage.

Building Sewer – That part of the horizontal piping of a drainage system that extends from the end of the building drain and that receives the discharge of the building drain and conveys it to a public sewer, private sewer, private sewage disposal system, or other point of disposal.

Building Sewer (Combined) – A building sewer that conveys both sewage and storm water or other drainage.

Building Sewer (Sanitary) – A building sewer that conveys sewage only.

Building Sewer (Storm) – A building sewer that conveys storm water or other drainage, but no sewage.

Building Subdrain – That portion of a drainage system that does not drain by gravity into the building sewer.

Building Supply – The pipe carrying potable water from the water meter or other source of water supply to a building or other point of use or distribution on the lot. Building supply shall also mean water service.

205.0 – C –

Certified Backflow Assembly Tester – A person who has shown competence to test and maintain backflow assemblies to the satisfaction of the Authority Having Jurisdiction.

Cesspool – A lined excavation in the ground that receives the discharge of a drainage system or part thereof, so designed as to retain the organic matter and solids discharging therein, but permitting the liquids to seep through the bottom and sides.

Chemical Waste – See Special Wastes.

Clarifier – See Interceptor.

Clear Water Waste – Cooling water and condensate drainage from refrigeration and air-conditioning equipment; cooled condensate from steam heating systems; and cooled boiler blowdown water.

Clinic Sink – A sink designed primarily to receive wastes from bedpans and having a flush rim, an integral trap with a visible trap seal, and the same flushing and cleansing characteristics as a water closet.

Code – A standard that is an extensive compilation of provisions covering broad subject matter or that is suitable for adoption into law independently of other codes and standards.

Combination Thermostatic/Pressure Balancing Valve – A mixing valve that senses outlet temperature and incoming hot and cold water pressure and compensates for fluctuations in incoming hot and cold water temperatures and/or pressures to stabilize outlet temperatures.

Combination Waste and Vent System – A specially designed system of waste piping embodying the horizontal wet venting of one or more sinks or floor drains by means of a common waste and vent pipe, adequately sized to provide free movement of air above the flow line of the drain.

Combined Building Sewer – See Building Sewer (Combined).

Common – That part of a plumbing system that is so designed and installed as to serve more than one (1) appliance, fixture, building, or system.

Conductor – A pipe inside the building that conveys storm water from the roof to a storm drain, combined building sewer, or other approved point of disposal.

Confined Space – A room or space having a volume less than fifty (50) cubic feet per 1,000 Btu/h (1.4 m^3/293 W) of the aggregate input rating of all fuel-burning appliances installed in that space.

Contamination – An impairment of the quality of the potable water that creates an actual hazard to the public health through poisoning or through the spread of disease by sewage, industrial fluids, or waste. Also defined as High Hazard.

Continuous Vent – A vertical vent that is a continuation of the drain to which it connects.

Continuous Waste – A drain connecting the compartments of a set of fixtures to a trap or connecting other permitted fixtures to a common trap.

CPVC – Chlorinated Poly (Vinyl Chloride).

Critical Level – The critical level (C-L or C/L) marking on a backflow prevention device or vacuum breaker is a point conforming to approved standards and established by the testing laboratory (usually

stamped on the device by the manufacturer) that determines the minimum elevation above the flood-level rim of the fixture or receptor served at which the device may be installed. When a backflow prevention device does not bear a critical level marking, the bottom of the vacuum breaker, combination valve, or the bottom of any such approved device shall constitute the critical level.

Cross-Connection – Any connection or arrangement, physical or otherwise, between a potable water supply system and any plumbing fixture or any tank, receptor, equipment, or device, through which it may be possible for nonpotable, used, unclean, polluted, and contaminated water, or other substances to enter into any part of such potable water system under any condition.

206.0 – D –

Department Having Jurisdiction – The Authority Having Jurisdiction, including any other law enforcement agency affected by any provision of this code, whether such agency is specifically named or not.

Design Flood Elevation – The elevation of the "design flood," including wave height, relative to the datum specified on the community's legally designated flood hazard map.

Developed Length – The length along the center line of a pipe and fittings.

Diameter – Unless specifically stated, "diameter" is the nominal diameter as designated commercially.

Domestic Sewage – The liquid and water-borne wastes derived from the ordinary living processes, free from industrial wastes, and of such character as to permit satisfactory disposal, without special treatment, into the public sewer or by means of a private sewage disposal system.

Downspout – The rain leader from the roof to the building storm drain, combined building sewer, or other means of disposal located outside of the building. See Conductor and Leader.

Drain – Any pipe that carries waste or waterborne wastes in a building drainage system.

Drainage System – Includes all the piping within public or private premises that conveys sewage or other liquid wastes to a legal point of disposal, but does not include the mains of a public sewer system or a public sewage treatment or disposal plant.

Durham System – A soil or waste system in which all piping is threaded pipe, tubing, or other such rigid construction, using recessed drainage fittings to correspond to the types of piping.

207.0 – E –

Effective Opening – The minimum cross-sectional area at the point of water supply discharge measured or expressed in terms of (1) diameter of a circle or (2) if the opening is not circular, the diameter of a circle of equivalent cross-sectional area. (This is applicable also to airgap.)

Essentially Nontoxic Transfer Fluid - Essentially nontoxic at practically nontoxic, Toxicity Rating Class 1 (reference "Clinical Toxicology of Commercial Products" by Gosselin, Smith, Hodge, & Braddock).

Excess Flow Valve (EFV) – A valve designed to activate when the fuel gas passing through it exceeds a prescribed flow rate.

Existing Work – A plumbing system or any part thereof that has been installed prior to the effective date of this code.

208.0 – F –

Fixture Branch – A water supply pipe between the fixture supply pipe and the water distributing pipe.

Fixture Drain – The drain from the trap of a fixture to the junction of that drain with any other drain pipe.

Fixture Supply – A water supply pipe connecting the fixture with the fixture branch.

Fixture Unit – A quantity in terms of which the load-producing effects on the plumbing system of different kinds of plumbing fixtures are expressed on some arbitrarily chosen scale.

Flammable Vapor or Fumes – The concentration of flammable constituents in air that exceeds 25 percent of its lower flammability limit (LFL).

Flood Hazard Area – The greater of the following two areas:

(1) The area within a floodplain subject to a one (1) percent or greater chance of flooding in any given year.

(2) The area designated as a flood hazard area on a community's flood hazard map, or otherwise legally designated.

Flood Hazard Area Subject to High Velocity Wave Action – Area within the flood hazard area that is subject to high velocity wave action, and shown on a Flood Insurance Rate Map or other flood hazard map as Zone V, VO, VE or V1-30.

Flood Level – See Flooded.

Flood-Level Rim – The top edge of a receptor from which water overflows.

Flooded – A fixture is flooded when the liquid therein rises to the flood-level rim.

Flush Tank – A tank located above or integral with water closets, urinals, or similar fixtures for the purpose of flushing the usable portion of the fixture.

Flush Valve – A valve located at the bottom of a tank for the purpose of flushing water closets and similar fixtures.

Flushometer Tank – A tank integrated within an air accumulator vessel that is designed to discharge a predetermined quantity of water to fixtures for flushing purposes.

Flushometer Valve – A valve that discharges a predetermined quantity of water to fixtures for flushing purposes and is actuated by direct water pressure.

FOG Disposal System – A grease interceptor that reduces nonpetroleum fats, oils, and grease (FOG) in effluent by separation, mass and volume reduction.

209.0 – G –

Gang or Group Shower – Two (2) or more showers in a common area.

Grade – The slope or fall of a line of pipe in reference to a horizontal plane. In drainage, it is usually expressed as the fall in a fraction of an inch (mm) or percentage slope per foot (meter) length of pipe.

Gravity Grease Interceptor – A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oils, and greases (FOG) from a wastewater discharge and is identified by volume, thirty (30) minute retention time, baffle(s), not less than two (2) compartments, a total volume of not less than three-hundred (300) gallons, and gravity separation. [These interceptors comply with the requirements of Chapter 10 or are designed by a registered professional engineer.] Gravity grease interceptors are generally installed outside.

Grease Interceptor – A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and greases (FOG) from a wastewater discharge.

Grease Removal Device (GRD) – Any hydromechanical grease interceptor that automatically, mechanically removes non-petroleum fats, oils and grease (FOG) from the interceptor, the control of which are either automatic or manually initiated.

210.0 – H –

Hangers – See Supports.

High Hazard – See Contamination.

Horizontal Branch – A drain pipe extending laterally from a soil or waste stack or building drain with or without vertical sections or branches, which receives the discharge from one (1) or more fixture drains and conducts it to the soil or waste stack or to the building drain.

Horizontal Pipe – Any pipe or fitting that is installed in a horizontal position or which makes an angle of less than forty-five (45) degrees with the horizontal.

Hot Water – Water at a temperature exceeding or equal to 120°F (49°C).

House Drain – See Building Drain.

House Sewer – See Building Sewer.

Hydromechanical Grease Interceptor – A plumbing appurtenance or appliance that is installed in a sanitary drainage system to intercept nonpetroleum fats, oil, and grease (FOG) from a wastewater discharge and is identified by flow rate, and separation and retention efficiency. The design incorporates air entrainment, hydromechanical separation, interior baffling, and/or barriers in combination or separately, and one of the following:

A – External flow control, with air intake (vent): directly connected

B – External flow control, without air intake (vent): directly connected

C – Without external flow control, directly connected

D – Without external flow control, indirectly connected

[These interceptors comply with the requirements of Table 10-2.] Hydromechanical grease interceptors are generally installed inside.

211.0 – I –

Indirect Waste Pipe – A pipe that does not connect directly with the drainage system but conveys liquid wastes by discharging into a plumbing fixture, interceptor, or receptacle that is directly connected to the drainage system.

Individual Vent – A pipe installed to vent a fixture trap and that connects with the vent system above the fixture served or terminates in the open air.

Industrial Waste – Any and all liquid or waterborne waste from industrial or commercial processes, except domestic sewage.

Insanitary – A condition that is contrary to sanitary principles or is injurious to health.

Conditions to which "insanitary" shall apply include the following:

(1) Any trap that does not maintain a proper trap seal.

(2) Any opening in a drainage system, except where lawful, that is not provided with an approved liquid-sealed trap.

T: TIA

(3) Any defective fixture, trap, pipe, or fitting.

(4) Any trap, except where in this code exempted, directly connected to a drainage system, the seal of which is not protected against siphonage and back-pressure by a vent pipe.

(5) Any connection, cross-connection, construction, or condition, temporary or permanent, that would permit or make possible by any means whatsoever for any unapproved foreign matter to enter a water distribution system used for domestic purposes.

(6) The foregoing enumeration of conditions to which the term "insanitary" shall apply, shall not preclude the application of that term to conditions that are, in fact, insanitary.

Interceptor (Clarifier) – A device designed and installed so as to separate and retain deleterious, hazardous, or undesirable matter from normal wastes and permit normal sewage or liquid wastes to discharge into the disposal terminal by gravity.

Invert – The lowest portion of the inside of a horizontal pipe.

212.0 – J –

Joint, Brazed – Any joint obtained by joining of metal parts with alloys that melt at temperatures exceeding 840°F (449°C), but less than the melting temperature of the parts to be joined.

Joint, Soldered – A joint obtained by the joining of metal parts with metallic mixtures or alloys that melt at a temperature up to and including 840°F (449°C).

213.0 – K –

No definitions

214.0 – L –

Labeled – Equipment or materials bearing a label of a listing agency (accredited conformity assessment body). See Listed (third-party certified).

Lavatories in Sets – Two (2) or three (3) lavatories that are served by one (1) trap.

Leader – An exterior vertical drainage pipe for conveying storm water from roof or gutter drains. See Downspout.

Liquid Waste – The discharge from any fixture, appliance, or appurtenance in connection with a plumbing system that does not receive fecal matter.

Listed (Third-party certified) – Equipment or materials included in a list published by a listing agency (accredited conformity assessment body) that maintains periodic inspection on current production of listed equipment or materials and whose listing states either that the equipment or material complies with approved standards or has been tested and found suitable for use in a specified manner.

Listing Agency – An agency accredited by an independent and authoritative conformity assessment body to operate a material and product listing and labeling (certification) system and that is accepted by the Authority Having Jurisdiction, which is in the business of listing or labeling. The system includes initial and ongoing product testing, a periodic inspection on current production of listed (certified) products, and makes available a published report of such listing in which specific information is included that the material or product conforms to applicable standards and found safe for use in a specific manner.

Lot – A single or individual parcel or area of land legally recorded or validated by other means acceptable to the Authority Having Jurisdiction on which is situated a building or which is the site of any work regulated by this code, together with the yards, courts, and unoccupied spaces legally required for the building or works, and that is owned by or is in the lawful possession of the owner of the building or works.

Low Hazard – See Pollution.

215.0 – M –

Macerating Toilet System – A system comprised of a sump with macerating pump and with connections for a water closet and other plumbing fixtures, which is designed to accept, grind, and pump wastes to an approved point of discharge.

Main – The principal artery of any system of continuous piping to which branches may be connected.

Main Sewer – See Public Sewer.

Main Vent – The principal artery of the venting system to which vent branches may be connected.

May – A permissive term.

Mobile Home Park Sewer – That part of the horizontal piping of a drainage system that begins two (2) feet (610 mm) downstream from the last mobile home site and conveys it to a public sewer, private sewer, private sewage disposal system, or other point of disposal.

216.0 – N –

Nuisance – Includes, but is not limited to:

(1) Any public nuisance known at common law or in equity jurisprudence.

(2) Whenever any work regulated by this code is dangerous to human life or is detrimental to health and property.

(3) Inadequate or unsafe water supply or sewage disposal system.

217.0 – O –

Offset – A combination of elbows or bends in a line of piping that brings one (1) section of the pipe out of line but into a line parallel with the other section.

Oil Interceptor – See Interceptor.

218.0 – P –

PB – Polybutylene.

PE – Polyethylene.

PE-AL-PE – Polyethylene-aluminum-polyethylene.

PEX – Cross-linked polyethylene.

PEX-AL-PEX – Cross-linked polyethylene–aluminum-cross-linked polyethylene.

Person – A natural person, his heirs, executor, administrators, or assigns and shall also include a firm, corporation, municipal or quasi-municipal corporation, or governmental agency. Singular includes plural, male includes female.

Pipe – A cylindrical conduit or conductor conforming to the particular dimensions commonly known as "pipe size."

Plumbing – The business, trade, or work having to do with the installation, removal, alteration, or repair of plumbing systems or parts thereof.

Plumbing Appliance – Any one (1) of a special class of devices or equipment that is intended to perform a special plumbing function. Its operation and/or control may be dependent upon one (1) or more energized components, such as motors, controls, heating elements, or pressure- or temperature-sensing elements. Such device or equipment may operate automatically through one (1) or more of the following actions: a time cycle, a temperature range, a pressure range, a measured volume or weight; or the device or equipment may be manually adjusted or controlled by the user or operator.

Plumbing Appurtenance – A manufactured device, a prefabricated assembly, or an on-the-job assembly of component parts that is an adjunct to the basic piping system and plumbing fixtures. An appurtenance demands no additional water supply, nor does it add any discharge load to a fixture or the drainage system. It performs some useful function in the operation, maintenance, servicing, economy, or safety of the plumbing system.

Plumbing Fixture – An approved-type installed receptacle, device, or appliance that is supplied with water or that receives liquid or liquid-borne wastes and discharges such wastes into the drainage system to which it may be directly or indirectly connected. Industrial or commercial tanks, vats, and similar processing equipment are not plumbing fixtures, but may be connected to or discharged into approved traps or plumbing fixtures when and as otherwise provided for elsewhere in this code.

Plumbing Official – See Authority Having Jurisdiction.

Plumbing System – Includes all potable water, building supply, and distribution pipes; all plumbing fixtures and traps; all drainage and vent pipes; and all building drains and building sewers, including their respective joints and connections, devices, receptors, and appurtenances within the property lines of the premises and shall include potable water piping, potable water treating or using equipment, medical gas and medical vacuum systems, liquid and fuel gas piping, and water heaters and vents for same.

Pollution – An impairment of the quality of the potable water to a degree that does not create a hazard to the public health but which does adversely and unreasonably affect the aesthetic qualities of such potable water for domestic use. Also defined as Low Hazard.

Potable Water – Water that is satisfactory for drinking, culinary, and domestic purposes and that meets the requirements of the Health Authority Having Jurisdiction.

PP – Polypropylene.

Pressure – The normal force exerted by a homogeneous liquid or gas, per unit of area, on the wall of the container.

Static Pressure – The pressure existing without any flow.

Residual Pressure – The pressure available at the fixture or water outlet after allowance is made for pressure drop due to friction loss, head, meter, and other losses in the system during maximum demand periods.

Pressure-Balancing Valve – A mixing valve that senses incoming hot and cold water pressures and compensates for fluctuations in either to stabilize outlet temperature.

Private or Private Use – Applies to plumbing fixtures in residences and apartments, to private bathrooms in hotels and hospitals, and to restrooms in commercial establishments where the fixtures are intended for the use of a family or an individual.

Private Sewage Disposal System – A septic tank with the effluent discharging into a subsurface disposal field, into one (1) or more seepage pits, or into a combination of subsurface disposal field and seepage pit or of such other facilities as may be permitted under the procedures set forth elsewhere in this code.

Private Sewer – A building sewer that receives the discharge from more than one (1) building drain and conveys it to a public sewer, private sewage disposal system, or other point of disposal.

Public or Public Use – Applies to plumbing fixtures that are not defined as private or private use.

Public Sewer – A common sewer directly controlled by public authority.

PVC – Poly(vinyl chloride).

PVDF – Polyvinylidene Fluoride.

219.0 – Q –

No definitions

220.0 – R –

Receptor – An approved plumbing fixture or device of such material, shape, and capacity as to adequately receive the discharge from indirect waste pipes, so constructed and located as to be readily cleaned.

Regulating Equipment – Includes all valves and controls used in a plumbing system that are required to be accessible or readily accessible.

Relief Vent – A vent, the primary function of which is to provide circulation of air between drainage and vent systems or to act as an auxiliary vent on a specially designed system.

Remote Outlet – When used for sizing water piping, it is the furthest outlet dimension, measuring from the meter, either the developed length of the cold-water piping or through the water heater to the furthest outlet on the hot-water piping.

Rim – See Flood-Level Rim.

Riser – A water supply pipe that extends vertically one (1) full story or more to convey water to branches or fixtures.

Roof Drain – A drain installed to receive water collecting on the surface of a roof and to discharge it into a leader, downspout, or conductor.

Roughing-In – The installation of all parts of the plumbing system that can be completed prior to the installation of fixtures. This includes drainage, water supply, gas piping, vent piping, and the necessary fixture supports.

221.0 – S –

Sand Interceptor – See Interceptor.

SDR – An abbreviation for "standard dimensional ratio," which is the specific ratio of the average specified outside diameter to the minimum wall thickness for outside controlled diameter plastic pipe.

Seepage Pit – A lined excavation in the ground which receives the discharge of a septic tank so designed as to permit the effluent from the septic tank to seep through its bottom and sides.

Septic Tank – A water-tight receptacle that receives the discharge of a drainage system or part thereof, designed and constructed so as to retain solids, digest organic matter through a period of detention, and allow the liquids to discharge into the soil outside of the tank through a system of open joint piping or a seepage pit meeting the requirements of this code.

Sewage – Any liquid waste containing animal or vegetable matter in suspension or solution and that may include liquids containing chemicals in solution.

Sewage Ejector – A device for lifting sewage by entraining it on a high-velocity jet stream, air, or water.

Sewage Pump – A permanently installed mechanical device, other than an ejector, for removing sewage or liquid waste from a sump.

Shall – Indicates a mandatory requirement.

Shielded Coupling – An approved elastomeric sealing gasket with an approved outer shield and a tightening mechanism.

Shock Arrester – See Water Hammer Arrester.

Should – Indicates a recommendation or that which is advised but not required.

Single-Family Dwelling – A building designed to be used as a home by the owner of such building, which shall be the only dwelling located on a parcel of ground with the usual accessory buildings.

Size and Type of Tubing – See Diameter.

Slip Joint – An adjustable tubing connection, consisting of a compression nut, a friction ring, and a compression washer, designed to fit a threaded adapter fitting or a standard taper pipe thread.

Slope – See Grade.

Soil Pipe – Any pipe that conveys the discharge of water closets, urinals, clinic sinks, or fixtures having similar functions of collection and removal of domestic sewage, with or without the discharge from other fixtures, to the building drain or building sewer.

Special Wastes – Wastes that require some special method of handling, such as the use of indirect waste

piping and receptors, corrosion-resistant piping, sand, oil or grease interceptors, condensers, or other pretreatment facilities.

Stack – The vertical main of a system of soil, waste, or vent piping extending through one (1) or more stories.

Stack Vent – The extension of a soil or waste stack above the highest horizontal drain connected to the stack.

Standard – A document, the main text of which contains only mandatory provisions using the word "shall" to indicate requirements and which is in a form generally suitable for mandatory reference by another standard or code or for adoption into law. Nonmandatory provisions shall be located in an appendix, footnote, or fine print note and are not to be considered a part of the requirements of a standard.

Storm Drain – See Building Drain (Storm).

Storm Sewer – A sewer used for conveying rainwater, surface water, condensate, cooling water, or similar liquid wastes.

Subsoil Drain – A drain that collects subsurface or seepage water and conveys it to a place of disposal.

Sump – An approved tank or pit that receives sewage or liquid waste and which is located below the normal grade of the gravity system and which must be emptied by mechanical means.

Supports – Supports, hangers, and anchors are devices for properly supporting and securing pipe, fixtures, and equipment.

222.0 – T –

Tailpiece – The pipe or tubing that connects the outlet of a plumbing fixture to a trap.

Thermostatic (Temperature Control) Valve – A mixing valve that senses outlet temperature and compensates for fluctuations in incoming hot or cold water temperatures.

Trap – A fitting or device so designed and constructed as to provide, when properly vented, a liquid seal that will prevent the back passage of air without materially affecting the flow of sewage or wastewater through it.

Trap Arm – That portion of a fixture drain between a trap and the vent.

Trap Primer – A device and system of piping that maintains a water seal in a remote trap.

Trap Seal – The vertical distance between the crown weir and the top dip of the trap.

Crown Weir (Trap Weir) –The lowest point in the cross-section of the horizontal waterway at the exit of the trap.

Top Dip (of trap) – The highest point in the internal cross-section of the trap at the lowest part of the bend (inverted siphon). By contrast, the bottom dip is the lowest point in the internal cross-section.

223.0 – U –

Unconfined Space – A room or space having a volume equal to not less than fifty (50) cubic feet per 1,000 Btu/h (1.4 m^3/293 W) of the aggregate input rating of all fuel-burning appliances installed in that space. Rooms communicating directly with the space in which the appliances are installed, through openings not furnished with doors, are considered a part of the unconfined space.

Unsanitary – See Insanitary.

224.0 – V –

Vacuum – Any pressure less than that exerted by the atmosphere.

Vacuum Breaker – See Backflow Preventer.

Vacuum Relief Valve – A device that prevents excessive vacuum in a pressure vessel.

Vent – Any pipe provided to ventilate a plumbing system, to prevent trap siphonage and back-pressure, or to equalize the air pressure within the drainage system.

Vent Pipe – See Vent.

Vent Stack – The vertical vent pipe installed primarily for the purpose of providing circulation of air to and from any part of the drainage system.

Vent System – A pipe or pipes installed to provide a flow of air to or from a drainage system or to provide a circulation of air within such system to protect trap seals from siphonage and back-pressure.

Vented Flow Control Device – A device installed upstream from the hydromechanical grease interceptor having an orifice that controls the rate of flow through the interceptor, and an air intake (vent) downstream from the orifice, which allows air to be drawn into the flow stream.

Vertical Pipe – Any pipe or fitting that is installed in a vertical position or that makes an angle of not more than 45 degrees with the vertical.

225.0 – W –

Wall-Hung Water Closet – A water closet installed in such a way that no part of the water closet touches the floor.

Waste – See Liquid Waste and Industrial Waste.

Waste Pipe – A pipe that conveys only liquid waste, free of fecal matter.

Water-Conditioning or Treating Device – A device that conditions or treats a water supply so as to change its chemical content or remove suspended solids by filtration.

Water-Distributing Pipe – In a building or premises, a pipe that conveys potable water from the building supply pipe to the plumbing fixtures and other water outlets.

Water Hammer Arrester – A device designed to provide protection against hydraulic shock in the building water supply system.

Water Main (Street Main) – A water supply pipe for public or community use.

Water Supply System – The building supply pipe, the water-distributing pipes, and the necessary connecting pipes, fittings, control valves, backflow prevention devices, and all appurtenances carrying or supplying potable water in or adjacent to the building or premises.

Welded Joint or Seam – Any joint or seam obtained by the joining of metal parts in the plastic molten state.

Welder, Pipe – A person who specializes in the welding of pipes and holds a valid certificate of competency from a recognized testing laboratory, based on the requirements of the ASME Boiler and Pressure Vessels code, Section IX.

Wet Vent – A vent that also serves as a drain.

Whirlpool Bathtub – A bathtub fixture equipped and fitted with a circulating piping system designed to accept, circulate, and discharge bathtub water upon each use.

226.0 – X –

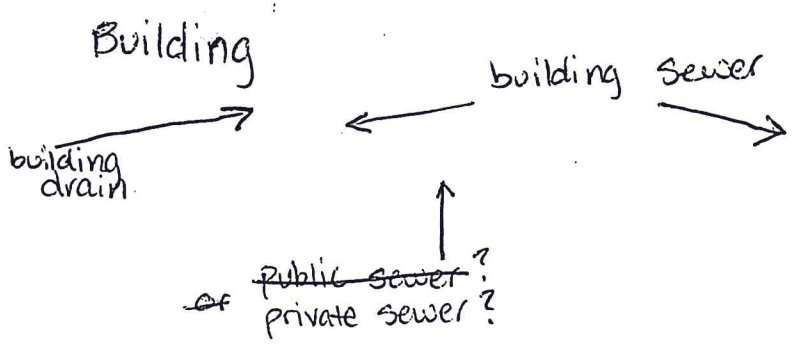
No definitions.

227.0 – Y –

Yoke Vent – A pipe connecting upward from a soil or waste stack to a vent stack for the purpose of preventing pressure changes in the stacks.

228.0 – Z –

No definitions.



MAIN PUBLIC SEWER

~~If more than one building sewer connected~~