



**RIDGEFIELD CITY COUNCIL
MEETING AGENDA**

**Thursday, May 25, 2017
Ridgefield Community Center
210 N. Main, Ridgefield, WA 98642**

I. GENERAL SESSION CALL TO ORDER - 6:30 PM

- 1. Flag Salute**
- 2. Roll Call**
- 3. Late changes to the agenda**

II. PUBLIC COMMENT

Anyone requesting to speak to the Council regarding items not on the agenda may come forward at this time. Please state your name and address. Comments are limited to three minutes. Written comments may be submitted to the City Clerk prior to the meeting.

III. CONSENT AGENDA

- 1. Approval of Claims And/Or Payroll**
- 2. Approval of Minutes from May 4 and May 11, 2017 Meeting**

IV. BUSINESS

- 1. Resolution No. 527 - Declaring Certain Property as Surplus and Authorizing Its Disposition- Kirk Johnson, Finance Director**
- 2. Motion - Approval of Donation Acceptance - Dog Statue - Bryan Kast, Public Works Director**
- 3. Resolution No. 528 – Approval of Engineering Standards-Bryan Kast, Public Works Director**
- 4. Motion - Approval of Donation Acceptance - All Terrain Vehicles - Kirk Johnson, Finance Director**

V. PUBLIC HEARING/BUSINESS

- 1. Public Hearing and First Reading of Ordinance No. 1233 – Quail Hill Development Agreement-Jeff Niten, Community Development Director**

VI. PUBLIC COMMENT

Anyone requesting to speak to the Council regarding items not on the agenda may come forward at this time. Please state your name and address. Comments are limited to three minutes. Written comments may be submitted to the City Clerk prior to the meeting.

VII. COUNCIL/PRESIDING OFFICER/STAFF REPORTS

- 1. Council**
- 2. Mayor**
Mayor's Re-Appointment of Civil Service Commission Member

Mayor's Appointment of Civil Service Commission Member

Proclamation: Ridgefield Trails Day

3. City Manager

VIII. FROM THE COUNCIL

IX. ADJOURN

**CITY OF RIDGEFIELD
REQUEST FOR COUNCIL ACTION**

MEETING DATE: May 25, 2017
ITEM: CONSENT AGENDA
AGENDA ITEM TITLE: Approval of Claims And/Or Payroll

GOVERNING LEGISLATION:

Revised Code of Washington Title 35A

PREVIOUS COUNCIL ACTION TAKEN:

City Council approves claims and/or payroll of the City on a regular basis

BACKGROUND:

Vendor claims

BUDGET/FINANCIAL IMPACTS:

See vendor detail attached

RECOMMENDED ACTION OR MOTION:

Staff recommends Council approve the claims and/or payroll by making the following motion:

“I move to approve the consent agenda as presented”

STAFF CONTACT: Kirk Johnson, Finance Director
ATTACHMENTS: May 25 2017 Claims Report (PDF)

City of Ridgefield
Claims Payment Report
For Approval on: May 25, 2017

Sum of Amount					
Vendor Name	Vendor Number	Invoice Number	Resp. Department	Description	Total
ADAM CAROLUS	2494	201705-01	Genl Govt/Facilities Public Safety	Defense Tactics Training - Use/Sales Tax 8.4% Defense Tactics Training	(30.24) 390.24
ADAM CAROLUS Total					360.00
ARAMARK UNIFORM SERVICES	32	862902235	Genl Govt/Facilities Public Works	Uniform Services Uniform Services	2.06 53.28
		862881222	Genl Govt/Facilities Public Works	Uniform Services Uniform Services	2.08 53.55
		862891694	Genl Govt/Facilities Public Works	Uniform Services Uniform Services	2.02 52.14
		862881221	Genl Govt/Facilities Public Safety Public Works	Floor Mats - City Hall Floor Mats - PD Floor Mats - PW	7.11 4.52 3.88
			Community Development	Floor Mats - CDDI	3.88
		862891693	Genl Govt/Facilities Public Safety Public Works Community Development	Floor Mats - City Hall Floor Mats - PD Floor Mats - PW Floor Mats - CDDI	7.11 4.52 3.88 3.88
		862902234	Genl Govt/Facilities Public Safety Public Works Community Development	Floor Mats - City Hall Floor Mats - PD Floor Mats - PW Floor Mats - CDDI	7.11 4.52 3.88 3.88
ARAMARK UNIFORM SERVICES Total					223.30
B AND L PAPER COMPANY	2165	24115	Public Safety	PD Kitchen Towels and Facial Tissue	67.97
B AND L PAPER COMPANY Total					67.97
BERGERABAM	1708	318539	Public Works	Smyth Road Trail Project - Services through April 2017	6,661.50
BERGERABAM Total					6,661.50
BLAIRCO INC	1493	17-86216	Genl Govt/Facilities	HVAC Maint - City Hall	237.40
		17-86217	Community Development	HVAC Maintenance - CDD Building	248.24
BLAIRCO INC Total					485.64
BOB'S PAINTLAND	59	73650	Public Safety	PD Paint	37.89
		73709	Public Safety	PD Paint	75.77
BOB'S PAINTLAND Total					113.66
BSK ASSOCIATES	2119	V701339	Public Works	Lab Analysis - Alkalinity Lab Analysis - Coliform	280.00 286.00
BSK ASSOCIATES Total					566.00
CASCADE WEST DEVELOPMENT	UB*00002	201705-02	Genl Govt/Facilities	Refund Check	63.76
CASCADE WEST DEVELOPMENT Total					63.76
CFM STRATEGIC COMMUNICATIONS INC.	2551	23933	Genl Govt/Facilities	Lobbyist	4,530.00
CFM STRATEGIC COMMUNICATIONS INC. Total					4,530.00
CIGI GILCREASE	2830	201705-01	Genl Govt/Facilities	Deposit Refund	400.00
CIGI GILCREASE Total					400.00
CITY OF BATTLE GROUND	92	901	Judicial	Court Cost - April 2017	9,210.66
CITY OF BATTLE GROUND Total					9,210.66

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CITY OF RIDGEFIELD	95	PLZ-17-0041	Public Works	RORC Site Plan Review	4,600.00
CITY OF RIDGEFIELD Total					4,600.00
CITY OF RIDGEFIELD-W/S	96	201705-05	Public Works	Abrams Soccer Field	143.07
		201705-03	Public Works	Blue Heron Community Garden - Water	51.48
		201705-02	Genl Govt/Facilities	111 S Main - Storm	49.38
		201705-10	Public Works	109 W Division WWTP - Water	262.60
		201705-11	Public Works	109 W Division WWTP - Storm	691.32
		201705-01	Genl Govt/Facilities	111 S Main - Water	127.39
		201705-07	Public Works	Abrams Park Restrooms - Storm	16.46
		201705-06	Public Works	Abrams Park Restrooms - Water	124.25
		201705-04	Public Works	Cemetery Water Spigots - Water	22.72
		201705-08	Public Works	Abrams Park Kitchen - Storm	345.66
		201705-09	Public Works	Abrams Park Chloine Injector - Storm	16.46
		201705-37	Public Works	Water Tower (Cemetery)	49.38
		201705-23	Public Works	618 Lark Dr Lark Park - Water	44.71
		201705-18	Public Works	301 N 3rd Ave CDD - Water	29.07
			Community Development	301 N 3rd Ave CDD - Water	29.07
		201705-35	Public Works	1-5/SR501 NE Interchange Irrigation	82.79
		201705-26	Public Works	Cedar Ridge Park - Storm	16.46
		201705-24	Public Works	618 Lark Dr Lark Park - Storm	16.46
		201705-31	Public Works	Green Gables Tract-Q Irrigation M	97.93
		201705-33	Public Works	Green Gables Tract-D Irrigation MET	45.91
		201705-15	Genl Govt/Facilities	230 Pioneer Street City Hall - Storm	115.22
		201705-39	Public Works	Junction Well & Reservoir - Storm	115.22
		201705-19	Public Works	301 N 3rd Ave CDD - Storm	16.46
			Community Development	301 N 3rd Ave CDD - Storm	16.46
		201705-14	Genl Govt/Facilities	230 Pioneer Street City Hall - Water	97.85
		201705-32	Public Works	Green Gables Tract-C Irrigation M	41.40
		201705-28	Public Works	1308 N Heron Dr Hayden Park - Storm	16.46
		201705-38	Public Works	Park & Ride Lot - Storm	181.06
		201705-17	Public Works	119 N 3rd Ave Community Park - Storm	32.92
		201705-40	Community Development	213 N Main (2 units) - Water	95.15
		201705-21	Public Works	2311 N 5th Way Crows Nest Park - Water	44.71
		201705-27	Public Works	1308 N Heron Dr Hayden Park - Water	44.71
		201705-12	Public Safety	116 N Main Ave PD - Water	54.17
		201705-16	Public Works	119 N 3rd Ave Community Park - Water	45.47
		201705-22	Public Works	2311 N 5th Way Crows Nest Park - Storm	32.92
		201705-29	Public Works	Columbia Hills Irrigation Tract B Wind River	41.40
		201705-36	Public Works	1-5/SR501 NE Interchange Irrigation	82.79
		201705-13	Public Safety	116 N Main Ave PD - Storm	65.84
		201705-30	Public Works	Columbia Hills Irrigation Tract D Cispus Way	82.79
		201705-34	Public Works	Green Gables Tract-D Irrigation M	69.32
		201705-41	Community Development	213 N Main (2 units) - Storm	24.69
		201705-20	Public Works	315 N 3rd Avenue Davis Park - Water	144.16
		201705-25	Public Works	Cedar Ridge Park - Water	89.41
CITY OF RIDGEFIELD-W/S Total					3,813.15
CLARK COUNTY	102	130007866	Public Works	Biosolids Disposal - March 2017	6,290.80

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CLARK COUNTY	102	130007866	Public Works	Lab Analysis - March 2017	2,963.05
		730012921	Community Development	Fire Inspection	200.00
		160003474	Community Development	Agency Plan Review	100.00
		210001656	Genl Govt/Facilities	1st Qtr. 2017 Excess Liquor Profit & Excise Tax	444.68
		230002034	Public Safety	2nd Qtr 2017 Netmotion Support	404.16
CLARK COUNTY Total					10,402.69
CLARK COUNTY TREASURERS OFFICE	554	201704-01	Genl Govt/Facilities	April 2017 School Impact Fees	143,616.26
CLARK COUNTY TREASURERS OFFICE Total					143,616.26
CLARK PUBLIC UTILITIES	110	201705-05	Public Works	2300 N 3rd Way Bellwood Trail Lights	30.18
		201705-03	Public Works	Pioneer St. & Gee Creek Loop - Electricity	27.16
		201705-02	Public Works	512 N Allen Dr - Electricity	26.83
		201705-10	Public Works	S Cispus Way - Electricity	46.91
		201705-01	Public Works	3701 N 3rd Cir - Electricity	26.90
		201705-07	Public Works	1504 NW Intertie 3 - Water	64.15
		201705-06	Public Works	800 NE 264 St Intertie 1 - Water	643.10
		201705-04	Public Works	Overlook Park - Electricity	60.87
		201705-08	Public Works	911 N 65th Ave Intertie 2 - Water	95.60
201705-09	Community Development	211 N Main Ave - CDD Annex	83.13		
CLARK PUBLIC UTILITIES Total					1,104.83
CLARK REGIONAL WASTEWATER DISTRICT	741	201705-05	Public Works	Abrams Park Restrooms - Sewer	75.98
		201705-03	Genl Govt/Facilities	230 Pioneer St City Hall - Sewer	135.41
		201705-02	Public Safety	116 N Main Ave PD - Sewer	47.79
		201705-01	Public Works	109 W Division WWTP - Sewer	247.53
		201705-07	Public Works	Abrams Park Former Mgr House - Sewer	47.79
		201705-06	Public Works	Abrams Park Kitchen - Sewer	44.11
		201705-04	Public Works	301 N 3rd Ave CDD - Sewer	26.76
			Community Development	301 N 3rd Ave CDD - Sewer	21.03
		201705-08	Public Works	255 S 56th Pl Well & Reservoir - Sewer	61.27
201705-09	Community Development	211 Main Ave - Sewer	122.54		
CLARK REGIONAL WASTEWATER DISTRICT Total					830.21
COAST TO COAST CARPORTS INC	2831	201705-01	Genl Govt/Facilities	Overpayment on Business License #00012	50.00
COAST TO COAST CARPORTS INC Total					50.00
COLUMBIA RESOURCE COMPANY	114	15603	Public Works	Yard Debris Removal	250.23
COLUMBIA RESOURCE COMPANY Total					250.23
COMCAST	2271	201705-05	Genl Govt/Facilities	City Hall Communications	66.98
				City Hall Internet	184.90
		201705-03	Genl Govt/Facilities	Community Center WiFi	216.14
			Community Development	Community Center WiFi	54.03
		201705-02	Public Works	PW/WWTP Communicaitons	296.41
		201705-01	Genl Govt/Facilities	PW/CDD Fax Line	1.89
			Public Works	PW/CDD Fax Line	30.54
			Community Development	PW/CDD Fax Line	34.55
		201705-04	Public Safety	PD Communications	289.71
COMCAST Total					1,175.15
COMCAST BUSINESS	1666	53202587	Genl Govt/Facilities	City Hall Communications	362.57
COMCAST BUSINESS Total					362.57
COMDATA NETWORK INC.	1101	20273009	Public Safety	Fuel PD - XN795	817.78

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COMDATA NETWORK INC.	1101	20273008	Genl Govt/Facilities	Fuel PW - XN173	31.66
			Public Works	Fuel PW - XN173	573.04
			Community Development	Fuel CDD - XN173	187.97
				Fuel PW - XN173	12.34
COMDATA NETWORK INC. Total					1,622.79
DAILY JOURNAL OF COMMERCE	133	743261241	Public Works	Advertisement - S 45th Ave & Royle Rd Improvements Project	588.90
DAILY JOURNAL OF COMMERCE Total					588.90
DENEANE BOYLE	UB*00007	201705-07	Genl Govt/Facilities	Refund Check	38.28
DENEANE BOYLE Total					38.28
DEPARTMENT OF LICENSING	154	RG0000182 -2017	Genl Govt/Facilities	CPL Fees - Smith	18.00
		RG0000184-2017	Genl Govt/Facilities	CPL Fees - Kaylor	18.00
		RG0000178-2017	Genl Govt/Facilities	CPL Fees - Fling	18.00
		RG0000180-2017	Genl Govt/Facilities	CPL Fees - Vlas	18.00
		RG0000183-2017	Genl Govt/Facilities	CPL Fees - Smith	18.00
DEPARTMENT OF LICENSING Total					90.00
DICK'S TIRE FACTORY	158	D60213	Public Safety	PD Vehicle Maintenance	104.07
DICK'S TIRE FACTORY Total					104.07
DISCOVERY FINANCIAL SERVICES	2011	201705-01	Genl Govt/Facilities	Quann - 9-80531	85.30
DISCOVERY FINANCIAL SERVICES Total					85.30
DKS ASSOCIATES	1565	63501	Community Development	On-Call Services - Feb-March 2017	3,150.00
DKS ASSOCIATES Total					3,150.00
DONALD WEBBERLY	2256	201705-01	Genl Govt/Facilities	Meals Per-Diem - Webberly - Safety Training	74.00
DONALD WEBBERLY Total					74.00
DUSTEN WEICHMAN	1660	MEALPERDIAM0512	Community Development	Meals Per-Diem - Weichman - WSDOT Training	144.00
DUSTEN WEICHMAN Total					144.00
E2 LAND USE PLANNING SERVICES LLC	485	201705-01	Community Development	Planning Consultant Services - April 2017	8,187.00
				Planning Consultant Services Gee Creek Plateau - April 2017	2,338.68
E2 LAND USE PLANNING SERVICES LLC Total					10,525.68
ELCOR INC	2081	9665	Public Works	Monitor for Tad	152.18
				Monitor for Scott	289.15
			Information Technology	Monitor for Tad	152.18
				Monitor for Scott	15.22
				Monitor for Jessica	304.37
				Monitor Cord for Tracy	35.78
		MSP-9659	Information Technology	Information Technology Services- April 2017	6,777.68
ELCOR INC Total					7,726.56
FASTENAL COMPANY	1491	WAWOA60317	Public Works	Water Operational Supplies - Gloves	69.38
FASTENAL COMPANY Total					69.38
FERGUSON ENTERPRISES INC # 8423	181	577859	Public Works	Water Meters	4,786.94
FERGUSON ENTERPRISES INC # 8423 Total					4,786.94
GRAINGER	206	9431284158	Public Works	WWTP Grit Pump Operational Supplies	211.23
		9431566158	Public Works	S 56th Water Treatment Plant Operational Supplies	13.12
		9432781616	Public Works	Filter Plant Operational Supplies	8.95
GRAINGER Total					233.30
H.D. FOWLER COMPANY	2036	I4494038	Public Works	Skate Park Drinking Fountain Supplies	219.02
		I4489889	Public Works	Hidden Village Storm Facility Supplies	211.01
H.D. FOWLER COMPANY Total					430.03

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HARRY'S LAWN AND POWER EQUIPMENT	214	117113	Public Works	Equipment Maintenance - Storm/Parks	122.33
		119542	Public Works	Equipment Maintenance - Storm/Parks	315.06
		119541	Public Works	Storm Equipment	86.03
HARRY'S LAWN AND POWER EQUIPMENT Total					523.42
HERB N' ROOTS CATERING CO.	2528	201705-01	Genl Govt/Facilities	Farm to Table 2017 Catering - 50% Deposit	4,011.00
HERB N' ROOTS CATERING CO. Total					4,011.00
HERB'N TABLE CATERING	2713	17051005	Genl Govt/Facilities	Farm to Table Catering 2017 - 50% Deposit	525.00
HERB'N TABLE CATERING Total					525.00
HOME DEPOT CREDIT CARD SERVICES	1805	4083546	Public Works	Parks small tools	31.40
		5092665	Public Works	Streets Operational Supplies	37.34
HOME DEPOT CREDIT CARD SERVICES Total					68.74
HONEY BUCKETS	223	550309687	Public Works	Davis Park Port-a-Potty	298.00
HONEY BUCKETS Total					298.00
HUMANE SOCIETY FOR SW WASHINGTON	526	4197	Public Safety	Animal Custody Fee - F91941	150.00
HUMANE SOCIETY FOR SW WASHINGTON Total					150.00
INTERMEDIA.NET INC	2187	1704001852-TAX	Information Technology	Voice Service Charges	16.18
		1705002894	Information Technology	Voice Service Charges	79.75
INTERMEDIA.NET INC Total					95.93
INTERSTATE BATTERIES	1458	82788	Genl Govt/Facilities	Core Return - Vehicle Maint - Thamert	(1.63)
			Public Works	Core Return - Vehicle Maint - Thamert	(30.89)
		82737	Genl Govt/Facilities	Vehicle Maint - Thamert	14.54
			Public Works	Vehicle Maint - Thamert	276.25
INTERSTATE BATTERIES Total					258.27
J.L. STOREDAHL AND SONS	558	210560	Public Works	3/4" Crushed Rock - 50% each Parks & Streets	184.81
J.L. STOREDAHL AND SONS Total					184.81
JEFF NITEN	2249	201705-01	Community Development	Transportation Reimbursement - Niten	89.74
JEFF NITEN Total					89.74
JESSICA KIPP	2099	201705-01	Genl Govt/Facilities	Meals Per-Diem - Kipp - Safety Training	74.00
JESSICA KIPP Total					74.00
JOE TURNER P.C.	1437	637	Community Development	Public Hearings	4,365.50
JOE TURNER P.C. Total					4,365.50
KIRK JOHNSON	1716	201705-01	Finance	Meals Per Diem - Johnson - GFOA Conference	178.00
KIRK JOHNSON Total					178.00
LARCH CORRECTIONS CENTER	2088	LCC1704-48	Public Works	Streets Clean-up	114.48
				Storm Clean-up	257.22
				Parks Clean-up	320.07
LARCH CORRECTIONS CENTER Total					691.77
LEE KNOTTNERUS	1765	201705-01	Administration	Mileage - Knottnerus - Main St. Conference	259.96
LEE KNOTTNERUS Total					259.96
LINDSAY REGAN	2238	201705-01	Community Development	Meals Per Diem - Regan - AWC Conf.	37.00
LINDSAY REGAN Total					37.00
M JULIETA RUBIO ROMERO	2164	201705-01	Finance	Meals Per Diem - Rubio Romero GFOA Conference	178.00
M JULIETA RUBIO ROMERO Total					178.00
MACKAY AND SPOSITO INC.	899	31667	Public Works	Gee Creek Trail - Work through 4/22/17	20.00
MACKAY AND SPOSITO INC. Total					20.00
MARK SEELY	UB*00009	201705-09	Genl Govt/Facilities	Refund Check	6.24
MARK SEELY Total					6.24

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MCFARLANE'S BARK INC.	1412	77726	Public Works	Parks - Bark Dust	242.82		
		79137	Public Works	Parks - Bark Dust	189.70		
		77918	Public Works	Parks - Bark Dust	242.82		
		77772	Public Works	Parks - Bark Dust	242.82		
MCFARLANE'S BARK INC. Total					918.16		
MEGAN ETTER	2833	201705-01	Genl Govt/Facilities	Park Refundable Deposit 5/6/17 (less 1/2 hour charge)	42.50		
MEGAN ETTER Total					42.50		
NAM TRAM	2829	201705-01	Genl Govt/Facilities	Cigi Gilcrease - Tenant Relocation Expense	2,845.00		
NAM TRAM Total					2,845.00		
NAPA AUTO PARTS	498	977866	Genl Govt/Facilities	Vehicle Maint - F350 Flatbed	1.96		
			Public Works	Parks Supplies	6.77		
				Vehicle Maint - F350 Flatbed	31.63		
				Stormwater Supplies	6.77		
		977616	Community Development	Vehicle Maint - F350 Flatbed	1.09		
			Genl Govt/Facilities	Vehicle Maint - Bolling	0.71		
				PW Shop Supplies - FTE	2.43		
			Public Works	Vehicle Maint - Bolling	34.78		
		978768		PW Shop Supplies - FTE	39.27		
			Community Development	PW Shop Supplies - FTE	1.35		
			Genl Govt/Facilities	PW FTE Vehicle Maintenance-1990 Chevy C1500	0.87		
			Public Works	PW FTE Vehicle Maintenance-1990 Chevy C1500	14.11		
			Community Development	PW FTE Vehicle Maintenance-1990 Chevy C1500	0.49		
NAPA AUTO PARTS Total					142.23		
NORTHWEST STAFFING	522	4075263	Genl Govt/Facilities	Temp Services Week Ending 5/7/17 - Puryear	271.44		
			Public Works	Temp Services Week Ending 5/7/17 - Puryear	271.44		
NORTHWEST STAFFING Total					542.88		
NW OCCUPATIONAL MEDICAL CENTER	794	201705-01	Genl Govt/Facilities	DOT Exam - Brunson	3.50		
			Public Works	DOT Exam - Brunson	66.50		
NW OCCUPATIONAL MEDICAL CENTER Total					70.00		
OFFICEMAX INCORPORATED	1599	381900	Genl Govt/Facilities	General Events Supplies	5.80		
				PW FTE Operational Supplies	2.47		
				PW FTE Office Supplies	3.77		
				General Office Supplies	603.99		
					General Operational Supplies	47.65	
					Public Works	PW FTE Operational Supplies	44.64
					PW FTE Office Supplies	68.18	
					Community Development	PW FTE Operational Supplies	0.95
					CDD Operational Supplies	10.23	
					PW FTE Office Supplies	1.46	
					CDD Office Supplies	16.40	
					Finance	Finance Office Supplies	21.22
				381954	Genl Govt/Facilities	General Events Supplies	19.48
					Public Safety	PD Operational Supplies	15.61
						PD Office Supplies	637.82
				389290	Genl Govt/Facilities	General Events - Returned Supplies	(5.80)
			OFFICEMAX INCORPORATED Total				
ON-HOLD CONCEPTS INC	2217	429157	Information Technology	On-Hold Music Service	24.95		

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ON-HOLD CONCEPTS INC Total					24.95
PATRICK HILDRETH BRAND AND DESIGN	2372	729	Genl Govt/Facilities	Newsletter Design	475.00
			Public Works	Utility Billing Web Portal	50.00
			Information Technology	Website Help	100.00
PATRICK HILDRETH BRAND AND DESIGN Total					625.00
PAUL AGEE	UB*00004	201705-04	Genl Govt/Facilities	Refund Check	0.08
PAUL AGEE Total					0.08
POSTMASTER	348	201705-01	Genl Govt/Facilities	Postage Replenishment - 2017 Spring Clean Up Mailers	720.45
POSTMASTER Total					720.45
QUALITY CONTROL SERVICES	358	48378	Genl Govt/Facilities	WWTP Calibration - WA State Use/Sales Tax	(10.86)
			Public Works	WWTP Calibration	140.11
QUALITY CONTROL SERVICES Total					129.25
RANDY RYERSON	UB*00001	201705-01	Genl Govt/Facilities	Refund Check	3.20
RANDY RYERSON Total					3.20
REFLECTOR	369	I1274871	Community Development	Request for Proposal - Ad# 97509	225.21
		I1274873	Genl Govt/Facilities	Ordinance No. 1231 - Ad# 97543	45.47
		I1277423	Community Development	SEPA DNS - Kennedy PUD - Ad# 97636	113.48
		I1274874	Community Development	Ordinance No. 1232 - Ad# 97544	72.46
		I1274872	Community Development	Notice of Hearing - The Village- Ad# 97529	118.96
		I1277424	Community Development	Public Hearing Notice - Quail Homes - Ad# 97638	73.64
REFLECTOR Total					649.22
RICOH USA INC.	1662	98727478	Public Safety	PD Copier Lease	110.79
RICOH USA INC. Total					110.79
RIDGEFIELD SCHOOL DISTRICT	378	100160070	Public Works	Property Lease for City Water Tower	1,800.00
RIDGEFIELD SCHOOL DISTRICT Total					1,800.00
ROY RHINE	1686	201705-01	Genl Govt/Facilities	Meals Per-Diem - Rhine - Safety Training	74.00
ROY RHINE Total					74.00
RPM NORTHWEST	2832	3417	Genl Govt/Facilities	PW FTE Vehicle Maint - F350	3.43
			Public Works	PW FTE Vehicle Maint - F350	55.36
			Community Development	PW FTE Vehicle Maint - F350	1.91
RPM NORTHWEST Total					60.70
SANDRA DAY	1838	201705-01	Council	Mileage Reimbursement - Sandra Day	366.10
SANDRA DAY Total					366.10
SETH & ZELMA SIMPSON	UB*00003	201705-03	Genl Govt/Facilities	Refund Check	117.08
	UB*00008	201705-08	Genl Govt/Facilities	Refund Check	42.08
SETH & ZELMA SIMPSON Total					159.16
SHRED-IT US JV LLC	2274	8122274009	Public Works	Secure Shredding - CDD/PW	15.60
			Community Development	Secure Shredding - CDD/PW	15.60
		8122274008	Genl Govt/Facilities	Secure Shredding - City Hall	31.20
		8122274010	Genl Govt/Facilities	Secure Shredding - PD	33.28
SHRED-IT US JV LLC Total					95.68
SMARSH	2550	INV00227048	Information Technology	Social Media & Email Archiving	209.00
SMARSH Total					209.00
STATE AUDITOR'S OFFICE	524	L119991	Finance	2016 Federal & Financial Audit	18,273.98
STATE AUDITOR'S OFFICE Total					18,273.98
STATE OF WASHINGTON DEPARTMENT OF REVENUE	156	20529002	Genl Govt/Facilities	March 2017 Excise and B&O Tax	133.54
			Public Works	March 2017 Excise and B&O Tax	11,003.76

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STATE OF WASHINGTON DEPARTMENT OF REVENUE	156	74877	Genl Govt/Facilities	1st Qtr 2017 Leasehold Tax	1,393.14
STATE OF WASHINGTON DEPARTMENT OF REVENUE Total					12,530.44
STERICYCLE	2504	3003835277	Public Safety	Hazardous Waste Disposal	10.36
STERICYCLE Total					10.36
STEVE SMITH	UB*00006	201705-06	Genl Govt/Facilities	Refund Check	9.59
STEVE SMITH Total					9.59
Tanninen Patty & Brian	UB*00005	201705-05	Genl Govt/Facilities	Refund Check	61.54
Tanninen Patty & Brian Total					61.54
TAPANI INC	420	15271	Public Works	Division Street Storm Drain Project	19,305.50
				Division Street Storm Drain Project - 5% Retainage	(965.28)
TAPANI INC Total					18,340.22
THE GOODYEAR TIRE AND RUBBER COMPANY	1857	44425987	Public Safety	PD Vehicle Maint - Tires forTurkov's Vehicle	597.03
THE GOODYEAR TIRE AND RUBBER COMPANY Total					597.03
THE MASTERS TOUCH LLC	1786	51508	Public Works	Utility Statements - March/April 2017	2,400.51
		P51508	Public Works	Utility Statements - March/April 2017 - Postage	1,034.11
THE MASTERS TOUCH LLC Total					3,434.62
THE PARR COMPANY	964	26360835	Public Works	Parks Signs	170.11
		26361174	Public Works	Parks Signs	69.55
		26362067	Public Works	Parks Signs	14.18
		26360981	Public Works	Parks Signs	6.70
		26361232	Public Works	Parks Supplies	24.30
THE PARR COMPANY Total					284.84
TRABUCCO CONSULTING LLC	2236	6833	Genl Govt/Facilities	June 2017 First Saturday Postcards	335.50
				June 2017 First Saturday Postcards - WA State Use/Sales Tax 8.4%	(26.00)
TRABUCCO CONSULTING LLC Total					309.50
TRACY BLEHM	809	201705-01	Genl Govt/Facilities	Mileage Reimb - Blehm - AWC Safety Training	209.93
				Meals Per-Diem - Blehm - Safety Training	74.00
TRACY BLEHM Total					283.93
US BANK	2237	201705-01	Finance	Custody Charges	32.00
US BANK Total					32.00
VERIZON WIRELESS	452	9784771558	Genl Govt/Facilities	PW Cell Phones & 2 iPads	25.64
				PW Director iPad	4.49
				Julie iPad	29.95
			Public Safety	PD Chief iPad	29.98
				PD Cell Phones	793.31
			Public Works	PW Cell Phones & 2 iPads	616.25
				PW Director iPad	23.96
			Community Development	PW Cell Phones & 2 iPads	116.75
				PW Director iPad	1.49
				CDD Director iPad	29.97
				CDD Cell Phones	174.93
			Administration	Deputy City Manager iPad	29.97
			Executive	City Manager iPad	29.98
			Council	Council iPads	280.07
			Finance	Finance Director iPad	29.98
VERIZON WIRELESS Total					2,216.72
WAPITI NW LLC	2545	6579	Public Safety	Install Flashlight Wiring Connection in Console	229.99

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WAPITI NW LLC	2545	6569	Public Safety	Install GPS Antenna	287.49	
		6578	Public Safety	Install New Docking Station and GPS Antenna	402.49	
WAPITI NW LLC Total					919.97	
WASHINGTON STATE PATROL	463	117007562	Genl Govt/Facilities	CPL Background Checks	120.00	
WASHINGTON STATE PATROL Total					120.00	
WELLS FARGO	1681	201705-2960	Genl Govt/Facilities	April 2017 Stmt-Johnson Coffee for CDD/PW	0.85	
				April 2017 Stmt-Johnson Door Hangers-WA State Use/Sales Tax	(6.28)	
				April 2017 Stmt-Johnson Coffee City Hall	84.99	
				Public Works	April 2017 Stmt-Johnson Coffee for CDD/PW	13.68
		April 2017 Stmt-Johnson Door Hangers	81.04			
		Community Development	April 2017 Stmt-Johnson Coffee for CDD/PW		15.46	
			Council		April 2017 Stmt-Johnson AWC Conference Registration for Council	2,400.00
			Human Resources	April 2017 Stmt-Johnson Flowers for Admin Assistant Day	135.50	
			201705-1117	Public Works	April 2017 Stmt-Blehm Blake Lodging-Cross Connection Water Use	107.36
		April 2017 Stmt-Blehm Strickler Lodging-Cross Connection Water			107.36	
		Community Development			April 2017 Stmt-Blehm Regan Lodging-WSAPT Spring Conference	202.74
		Human Resources			April 2017 Stmt-Blehm All Hands Meeting	48.65
		201705-2495	Genl Govt/Facilities	April 2017 Stmt-Niten Drafting Table & Tall Office Chair - 50%	11.18	
				Public Works	April 2017 Stmt-Niten Drafting Table & Tall Office Chair - 50%	115.76
					April 2017 Stmt-Niten Drafting Table & Tall Office Chair - 50%	64.66
					Community Development	April 2017 Stmt-Niten Drafting Table & Tall Office Chair - 50%
		201705-4056	Genl Govt/Facilities	April 2017 Stmt-Basarab Recorder for meetings	65.03	
				April 2017 Stmt-Basarab Spring Clean Up	44.00	
				Public Works	April 2017 Stmt-Basarab Water cups for Council/Planning/Parks	3.89
				Community Development	April 2017 Stmt-Basarab Water cups for Council/Planning/Parks	3.89
		Council	April 2017 Stmt-Basarab Water cups for Council/Planning/Parks		3.89	
		Human Resources	April 2017 Stmt-Basarab Take Your Child to Work Lunch		45.53	
		201705-1889	Genl Govt/Facilities	April 2017 Stmt-Basarab Take Your Child to Work Event	6.51	
				April 2017 Stmt-Basarab Take Your Child to Work Event Prep/Food	68.16	
				Public Works	April 2017 Stmt-Stuart Ridgefield Cleanup Day volunteer lunch	133.65
				Executive	April 2017 Stmt-Stuart RORC Meeting	53.45
		201705-8453	Genl Govt/Facilities	April 2017 Stmt-Stuart Meeting with CREDC and Industrial Busines	92.50	
				April 2017 Stmt-Stuart Management Team meeting	131.62	
				April 2017 Stmt-Stuart Meeting with CREDC	29.43	
				April 2017 Stmt-Stuart Regional City Manager's Conference Lodgin	126.13	
		201705-8453	Public Works	April 2017 Stmt-Stuart Main Street Meeting with Jeff Niten	22.97	
				April 2017 Stmt-Stuart Monthly subscription	16.25	
				April 2017 Stmt-Stuart Meeting with Identity Clark County	2.25	
				April 2017 Stmt-Stuart Meeting with Fort Vancouver Regional	5.15	
		201705-8453	Public Works	April 2017 Stmt-Stuart Meeting with Identity Clark County	24.70	
				April 2017 Stmt-Stuart Meeting with City Council Members	64.21	
				April 2017 Stmt-Stuart Meeting with residential developer	14.33	
				April 2017 Stmt-Stuart Meeting with Councilor Wertz	28.23	
		201705-8453	Public Works	April 2017 Stmt-Kast Engineering Standards Meeting	0.92	
				April 2017 Stmt-Kast PW Shop - Storage Box	21.68	
				April 2017 Stmt-Kast Plaque for Bear in the park	92.14	
				April 2017 Stmt-Kast Engineering Standards Meeting	6.89	

City of Ridgefield
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WELLS FARGO	1681	201705-8453	Public Works	April 2017 Stmt-Kast PW Shop - Storage Box	65.04	
			Community Development	April 2017 Stmt-Kast Engineering Standards Meeting	1.38	
		201705-5494	Genl Govt/Facilities	April 2017 Stmt-Kipp Spring Clean-Up Volunteers	258.08	
				April 2017 Stmt-Kipp First Saturday - May	24.93	
				April 2017 Stmt-Kipp 1st Saturday Supplies	16.25	
				April 2017 Stmt-Kipp Farm to Table Supplies	141.02	
				April 2017 Stmt-Kipp Tuesdays in the Park Supplies- WA State Use	(6.31)	
				April 2017 Stmt-Kipp Tuesdays in the Park Supplies	79.68	
				April 2017 Stmt-Kipp Beer garden banners	164.05	
				April 2017 Stmt-Kipp Big Paddle Supplies	20.60	
				April 2017 Stmt-Kipp Background checks - Peddlers license	132.00	
				April 2017 Stmt-Kipp Gift for land purchase - Gouger	109.89	
				April 2017 Stmt-Kipp Event supplies	485.86	
				April 2017 Stmt-Kipp Gift for land purchase - Gouger-WA State Sales Tax	(8.52)	
				April 2017 Stmt-Kipp Mic Covers & Countdown Clock for City Council	(7.47)	
				April 2017 Stmt-Kipp Big Paddle Supplies - WA State Use/Sales Tax	(1.60)	
				April 2017 Stmt-Kipp Mic Covers & Countdown Clock for City Council	96.45	
			201705-7296	Council Genl Govt/Facilities Public Safety	April 2017 Stmt-Rhine (2) Spot Light Switches - Patrol Cars - WA Sales Tax	(1.95)
					April 2017 Stmt-Rhine (2) Spot Light Switches - Patrol Cars	25.21
					April 2017 Stmt-Rhine Management Book-The Speed of Trust	6.49
					April 2017 Stmt-Rhine (8) Carbon Monoxide Detectors-Patrol Vehicle	64.71
			201705-9760	Genl Govt/Facilities Public Safety	April 2017 Stmt-Hoots Patches and pins for George-WA State sales tax	(1.81)
					April 2017 Stmt-Hoots Patches and pins for George	23.38
					April 2017 Stmt-Hoots Back ground search	25.00
			201705-8764	Genl Govt/Facilities Human Resources	April 2017 Stmt-Knottnerus Marketing for First Saturday	7.58
					April 2017 Stmt-Knottnerus Admin. Professionals Day	135.50
					April 2017 Stmt-Knottnerus Training: Webinar for Lee Knottnerus	89.00
					April 2017 Stmt-Knottnerus RevitalizeWa Conference Lodging	228.12
					April 2017 Stmt-Knottnerus RevitalizeWa Conference Lodging	218.20
			201705-8989	Public Safety	April 2017 Stmt-Brooks Uniforms - Training Shirts	796.12
			201705-1133	Public Works	April 2017 Stmt-Brunson Water Service Relocation	78.03
WELLS FARGO Total					7,959.30	
WILCO FARM STORE	655	688968	Genl Govt/Facilities	Tape Measure for Tad'sTruck	2.44	
			Public Works	Tape Measure for Tad'sTruck	13.81	
				Backpack Sprayer for Storm Water	65.03	
WILCO FARM STORE Total					81.28	
Grand Total					307,119.73	

**CITY OF RIDGEFIELD
REQUEST FOR COUNCIL ACTION**

MEETING DATE: May 25, 2017
ITEM: CONSENT AGENDA
AGENDA ITEM TITLE: Approval of Minutes from May 4 and May 11, 2017 Meeting

AGENDA ITEM TITLE:

Approval of minutes from the following meeting(s) of the council:

GOVERNING LEGISLATION:

Not applicable

PREVIOUS COUNCIL ACTION TAKEN:

Not applicable

SUMMARY/BACKGROUND:

Staff has prepared the minutes for Council consideration of adoption for the Council meeting(s)

BUDGET/FINANCIAL IMPACTS:

Not applicable

RECOMMENDED ACTION OR MOTION:

Staff recommends Council approve the minutes by making the following motion:

1. "I move to approve the consent agenda"

STAFF CONTACT: Julie Basarab, City Clerk

ATTACHMENTS: 05-04 & 5-11, 2017 Meeting Minutes (PDF)



CITY OF RIDGEFIELD, WASHINGTON

City Council MEETING MINUTES

May 4, 2017

Special Meeting - 5:00 PM

EXECUTIVE SESSION CALL TO ORDER - 5:00PM

City Manager Performance Evaluation pursuant to RCW – 42.30.110(1)(g); To evaluate the qualifications of an applicant for public employment or to review the performance of a public employee. However, subject to RCW 42.30.140(4), discussion by a governing body of salaries, wages, and other conditions of employment to be generally applied within the agency shall occur in a meeting open to the public, and when a governing body elects to take final action hiring, setting the salary of an individual

Executive Session convened at 5:06PM.

Attendees: City Consultant Paul Lewis, Mayor Onslow, Council member Taylor, Wells, Wertz, Main and Day.

No action taken.

Adjourn at 6:34PM.

Julie Basarab, City Clerk

Ron Onslow, Mayor

Attachment: 05-04 & 5-11, 2017 Meeting Minutes (1309 : Approval of Minutes)



CITY OF RIDGEFIELD, WASHINGTON
City Council MEETING MINUTES
May 11, 2017

Regular Meeting - 6:30 PM

STUDY SESSION - 5:30 P.M.

Executive Session - City Manager Performance Evaluation pursuant to RCW – 42.30.110(1)(g)

Mayor Onslow announced that Council to enter an executive session at 5:31PM to discuss City Manager Performance Evaluation for approximately an hour. Action to be taken at the regular session of the City Council meeting.

Attendees: City Council and Paul Lewis, City Consultant.

At 5:50PM City Manager Steve Stuart entered an executive session.

Executive Session adjourned at 6:22PM.

GENERAL SESSION CALL TO ORDER - 6:30 PM

Flag Salute - [6:30 PM](#)

ROLL CALL

Attendee Name	Title	Status	Arrived
Ron Onslow	Mayor	Present	
David Taylor	Councilor	Present	
Lee Wells	Councilor	Present	
Don Stose	Councilor	Absent	
Darren Wertz	Councilor	Present	
John Main	Councilor	Present	
Sandra Day	Councilor	Present	

MOTION: Council member David Taylor moved to excuse Council member Don Stose from the meeting.

SECOND: Council member Lee Wells.

Vote - Yes: Council member Wertz, Main, Wells Taylor, Day, and Mayor Onslow.

Vote - No: None.

Motion Passed.

LATE CHANGES TO THE AGENDA

Remove: Mayor's Appointment of Civil Service Commission Member.

Attachment: 05-04 & 5-11, 2017 Meeting Minutes (1309 : Approval of Minutes)

Move: Business Item VI.2. Approval of Trail Naming to V.1.

PUBLIC COMMENT - [6:32 PM](#)

Rian Davis - Resident/Mosquito Control District Board Member
Provided an update on the mosquito control board meeting.

Barbara Wright - Resident
Kudos for finally installing flashing lights on Hillhurst.
Concerns regarding housing developments on Hillhurst, request adequate setbacks and single story housing facing Hillhurst.

Goy Garrison - Resident
Toured few individuals around town - last name Haskell. Father and grandfather were a long residents of Ridgefield.
Haskell trail which is located next to Reiman Road - would like to see if the trail could be named and signage installed.

Nathan McCann - School District Superintendent
Thanked everyone for participating in the groundbreaking ceremony.

CONSENT AGENDA - MOVED TO APPROVE AS PRESENTED. - [6:45 PM](#)

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Sandra Day, Councilor
SECONDER:	David Taylor, Councilor
AYES:	Onslow, Taylor, Wells, Wertz, Main, Day
ABSENT:	Stose

1. **Approval of Claims And/Or Payroll - [6:45 PM](#)**
2. **Approval of Minutes from April 27, 2017 Meeting - [6:45 PM](#)**

BUSINESS - [6:47 PM](#)

1. Motion-Approval of Trail Naming - [6:45 PM](#)

The Ridgefield Municipal code includes procedures for the naming of park facilities. In February of 2015 Allene Wodaeye suggested naming a park after John Hudson Sr, who was the principal of Union Ridge in the early 1970s and who help establish the Cispus Learning center, which is still in operation to this day. In February of this year Ms. Wodaeye approached the City and suggested naming the trail that will run from Main Avenue to the Ridgefield National Wildlife Refuge after Mr. Hudson. This project, which is currently known as the Main Avenue Access Improvements, is a partnership with The Refuge and Clark County and is funded by the Federal Lands Access Program, or FLAP. At an open house for the trail project in March Ms. Wodaeye proposed the name to the project partners, and received support for her proposal. The family of Mr. Hudson has also expressed support for naming a park or trail in his memory. The proposed name was brought to the Parks Board at their April 12th meeting, and the Board unanimously voted to forward a recommendation to name this trail after John Hudson Sr.

Allene Wodeage thanked Council for this consideration and provided more background information about John Hudson Sr.

MOTION: MOVED TO APPROVE CHANGING THE NAME OF THE MAIN AVENUE ACCESS IMPROVEMENT TRAIL TO JOHN HUDSON SR. TRAIL AS PRESENTED.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	John Main, Councilor
SECONDER:	Sandra Day, Councilor
AYES:	Onslow, Taylor, Wells, Wertz, Main, Day
ABSENT:	Stose

PRESENTATION

1. Salary Commission Update - [6:53 PM](#)

Salary Commission Chair David Kelly presented an update to City Council.

2. 1st Quarter 2017 Financial Report - [6:55 PM](#)

Finance Director Kirk Johnson presented first quarter financial update to City Council.

BUSINESS

1. Resolution No. 526 – Approval of Designation of Official Newspaper-Kirk Johnson, Finance Director

A request for bids was published in the Reflector and the Columbian with a deadline for submission no later than 2:00 PM on May 10, 2017. The bid is for publications during the period of June 1, 2017 through May 31, 2018. The low bid received was submitted by the Reflector, who was the only newspaper to submit specifications for legal printing and advertising. Therefore, the lowest responsible bidder is the Reflector newspaper at \$10.75 per inch for the first insertion and \$8.75 for each subsequent insertion.

MOTION: MOVED TO APPROVE RESOLUTION NO. 526 AWARDED THE REFLECTOR AS THE OFFICIAL NEWSPAPER FOR THE CITY OF RIDGEFIELD FOR THE PERIOD JUNE 1, 2017 THROUGH MAY 31, 2018 AS PRESENTED.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	Sandra Day, Councilor
SECONDER:	David Taylor, Councilor
AYES:	Onslow, Taylor, Wells, Wertz, Main, Day
ABSENT:	Stose

2. Motion - Approval of City Manager's Compensation Adjustment - [7:13 PM](#)

The City Council conducted thorough evaluation of the City Manager's performance again this year involving detailed ratings across five categories and 15 sub-categories; The evaluation summary was over 20 pages.

The categories assessed by the City Council, City Manager and City management personnel included Leadership, Partnerships, Organizational Management, Community Development and Communication. We also gathered feedback from community stakeholders on the same categories-excluding Organizational Management.

Based on the overall results of the assessment the City Council rated the City Manager's performance this past year a 9.6 on a 10 point scale or "Excellent".

We also rated his completion of 14 strategic initiatives as 4.6 on a scale of 1 to 5.

Accomplishments that support the Council's assessment include:

- Significant progress identifying a site for the new FVRL library in Ridgefield
- Establishing a partnership with the Ridgefield School District and working with others to further the Ridgefield Outdoor Recreation Complex project
- Updating existing development agreements on approved developments and entering into new development agreements to help achieve the City's objectives for quality development and infrastructure (parks, trails, streets, etc.)

- Effective planning and coordinating with Council on our relationship with state and federal legislators and in furthering legislation important to Ridgefield
- Directing the implementing several e-government initiatives
- Supporting a strong team atmosphere and LEAN culture within the City organization that performs well on a daily basis
- Working with community partners to help the city plan for and manage growth

We believe Steve has met or exceeded our high expectations and that he is a critical part of the community's leadership and its ability to reach its potential going forward.

We continue to have high expectations for Steve and look forward to working with him and the City's Management Team as we move forward.

MOTION: MOVED TO SET THE CITY MANAGER'S BASE ANNUAL SALARY AT \$147,600 EFFECTIVE APRIL 14, 2017 AND TO AUTHORIZE AN ADDITIONAL \$7,000 IN ONE TIME PAY PER THE TERM OF THE CITY MANAGER'S 2016-2017 PERFORMANCE COMPENSATION AGREEMENT.

RESULT:	ADOPTED [UNANIMOUS]
MOVER:	John Main, Councilor
SECONDER:	David Taylor, Councilor
AYES:	Onslow, Taylor, Wells, Wertz, Main, Day
ABSENT:	Stose

PUBLIC COMMENT - [7:28 PM](#)

None received.

COUNCIL/PRESIDING OFFICER/STAFF REPORTS - [7:28 PM](#)

Council - [7:30 PM](#)

Council member Day - Attended Recovery Village 1st year anniversary celebration. Also attended 15 meeting including school board meeting and City of La Center council meeting.

Council member Taylor - Attended career day at the high school, groundbreaking ceremony for the school district, parks foundation luncheon, pipeline safety committee, and bear statue dedication during first Saturday event.

Council member Wertz - Attended Ridgefield junction neighborhood association meeting, briefing with City Manager, parks foundation luncheon, groundbreaking ceremony for the school district.

Council member Main - Attended interview panel for C-TRAN Executive Director/CEO Recruitment.

Council member Wells - Attended 8 meetings, including parks foundation luncheon.

Mayor - [7:38 PM](#)

Attended Recovery Village 1st year anniversary celebration, groundbreaking for the school district, RTC meeting, bear statue dedication during first Saturday event, Ridgefield junction neighborhood association meeting, parks foundation luncheon.

Proclamation - Elder Abuse Awareness Month - [7:39 PM](#)

Mayor Onslow read proclamation into the record.

City Manager - [7:46 PM](#)

City Manager Steve Stuart - Parr Lumber annual luncheon is tomorrow from 11-1pm, industrial/education infrastructure and connections meeting is next week.

Finance Director Kirk Johnson - Financial audit is almost complete. Date for exit interview has yet to be scheduled.

Public Works Director Bryan Kast- Kudos to Public Works crew that prepared the bear statue and surrounding area for the dedication ceremony.

Deputy City Manager Lee Knottnerus - Video clip from Parks Foundation luncheon will be uploaded on the City's website tomorrow, Big Paddle event is June 3rd.

FROM THE COUNCIL - [7:52 PM](#)

Council member David Taylor - will not be in attendance at the next City Council meeting.

ADJOURN - [7:52 PM](#)

Julie Basarab, City Clerk

Ron Onslow, Mayor

CITY OF RIDGEFIELD REQUEST FOR COUNCIL ACTION

MEETING DATE: May 25, 2017

ITEM: BUSINESS

AGENDA ITEM TITLE: A Resolution of the City of Ridgefield, Washington Declaring Certain Property as Surplus and Authorizing Its Disposition

GOVERNING LEGISLATION:

Revised Code of Washington Chapter 39.33 – Intergovernmental Disposition of Property

PREVIOUS COUNCIL ACTION TAKEN:

Council has previously adopted resolutions providing for the surplus of certain property and executing its sale or disposal

SUMMARY/BACKGROUND:

The City acquires various equipment and property as needed for staff to perform work responsibilities. As the equipment and property is used throughout its life to conduct City business, it ages, and eventually becomes obsolete and/or in disrepair.

The City is requesting to declare certain property surplus and dispose of it in an orderly fashion.

A public hearing is not required due to this property not having a value that exceeds \$50,000.

Public Safety would like to surplus a 2007 Ford Crown Victoria that has limited auction value, estimated at \$1,500. They have negotiated a donation to the Criminal Justice Training Commission for use at the academy. In return the City would receive a \$1,500 credit towards fees associated with attending the academy, for the recently hired officer, who will attend the academy in July 2017.

BUDGET/FINANCIAL IMPACTS:

There is no significant budget or financial impact.

RECOMMENDED ACTION OR MOTION:

Staff recommends that Council adopt resolution No. 527 as presented by making the following motion:

“I move to adopt Resolution No. 527 as presented.”

STAFF CONTACT: Kirk Johnson, Finance Director
Surplus Items Exhibit A 5.19.17 (DOCX)

ATTACHMENTS:

Resolution No.527**A RESOLUTION OF THE CITY OF RIDGEFIELD, WASHINGTON DECLARING CERTAIN PROPERTY
AS SURPLUS AND AUTHORIZING ITS DISPOSITION**

WHEREAS, the City of Ridgefield has acquired certain personal property and equipment and

WHEREAS, the property and equipment cannot be reassigned within the City and the surplus of this property and equipment will meet the needs of the City of Ridgefield,

NOW THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL FOR THE CITY OF RIDGEFIELD, WASHINGTON as follows:

Section 1. Based upon the findings and recommendations of the City, the attached Exhibit A represents the list of property requesting to be declared surplus and no longer meets the needs of the City, and further, these items cannot be reassigned as an asset to other departments of the City.

Section 2. This property is deemed to no longer create a benefit for the residents of the City of Ridgefield.

Section 3. The Council authorizes the City Manager to sell, auction or scrap the items identified on the attached list for the best available price; or to properly dispose of the property to the best benefit of the City of Ridgefield.

ADOPTED AT A REGULAR SESSION OF THE CITY COUNCIL OF THE CITY OF RIDGEFIELD, WASHINGTON THIS 25th DAY OF MAY, 2017.

City of Ridgefield

Ron Onslow, Mayor

Attest:

Julie Basarab,
City Clerk

Exhibit "A"

Department	Description	License#/Serial #	Estimated Value
Public Safety	2007 Ford Crown Victoria	48612D	\$1,500

CITY OF RIDGEFIELD REQUEST FOR COUNCIL ACTION

MEETING DATE: May 25, 2017

ITEM:

AGENDA ITEM TITLE: Motion - Approval of Donation Acceptance - Dog Statue

GOVERNING LEGISLATION:

None

PREVIOUS COUNCIL ACTION TAKEN:

Adoption of Resolution 523, Streetscape Donation Policy on February 23, 2016

SUMMARY/BACKGROUND:

The City's Streetscape Donation Policy guides the process for reviewing and accepting donations that will be placed in the Public Right-of-way. The policy requires that the Public Works Director review the proposed donation, and present an evaluation of the donation to the City Council for consideration and acceptance.

The City has been approached by former Mayor Tevis Laspa who wishes to donate a bronze Golden Retriever sculpted by artist Georgia Gerber. The proposed location for the statue is on the sidewalk in front of City Hall next to the bubbler drinking fountain. The Public Works Director has reviewed the proposed donation and finds that the statue is suitable for the proposed location, and that safety and accessibility will not be compromised. The statue will be securely fastened to the concrete to prevent theft or tipping of the statue. If approved the Public Works Director will work with Mr. Laspa to coordinate the delivery and installation of the statue.

BUDGET/FINANCIAL IMPACTS:

None. All costs of the statue and installation will be provided by Mr. Laspa.

RECOMMENDED ACTION OR MOTION:

Staff recommends that the Council review and accept the proposed donation. A suggested

motion would be:

“I move to accept the donation of the Golden Retriever Statue”

STAFF CONTACT: Bryan Kast, Public Works Director

ATTACHMENTS: dog (PDF)



Attachment: dog (1305 : StreetscapeDontation- Golden Retriever Statue)

CITY OF RIDGEFIELD REQUEST FOR COUNCIL ACTION

MEETING DATE: May 25, 2017

ITEM: BUSINESS

AGENDA ITEM TITLE: Revision of Engineering Standards for Public Works Construction

GOVERNING LEGISLATION:

None

PREVIOUS COUNCIL ACTION TAKEN:

Adoption of Resolution 489: Amendment to Ridgefield Engineering Standards for Public Works Construction

SUMMARY/BACKGROUND:

The City's Engineering Standards for Public Works Construction are currently divided into three volumes. Volume 1: Design and Planning, Volume 2: Construction Specifications and Details, and Volume 3: Erosion Control. The Engineering Standards may be revised in two ways. Minor revisions and edits may be completed by an Administrative Change at a staff level by the City Engineer, and more comprehensive updates require adoption by the City Council. The City's Engineering Standards last received a comprehensive update in 2008, and has received minor updates since then to change requirements for street signs, trees, and LED lighting.

The proposed revisions included in the 2017 Engineering Standards have been in the works since late 2013. In addition to incorporating the minor changes that have been adopted through Administrative Changes, the major changes to the standards include eliminating the sanitary sewer requirements, and replacing them with references to Clark Regional Wastewater District, updating of stormwater and erosion control design reference to the 2005 Stormwater Management Manual for Western Washington, updating the major arterial cross section, updating street geometric design to be consistent with national guidance, incorporating erosion control requirements into Volumes 1 and 2 rather than a standalone volume and the inclusion of new standards for parks, trails, and gated communities. Staff have also revised the plan submittal process based on LEAN methodology to save resources and staff time for both the City and Engineers submitting plans.

The proposed Standards are included with changes tracked. On Standard Details the changes are indicated with a revision cloud.

BUDGET/FINANCIAL IMPACTS:

None

RECOMMENDED ACTION OR MOTION:

Staff recommends that Council review and adopt the changes to the Engineering Standards; a recommended motion would be:

“I move to adopt Resolution 528 as presented.”

STAFF CONTACT: Bryan Kast, Public Works Director

Resolution 528 Engineering Standards (DOCX)

ATTACHMENTS: Volume_1 (PDF)

Volume_2 (PDF)

Standard_Details (PDF)

Resolution No.528

REVISION OF ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION

RESOLUTION NO. 528**A RESOLUTION OF THE CITY OF RIDGEFIELD, WASHINGTON REVISING THE RIDGEFIELD ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION**

WHEREAS, the current City of Ridgefield Engineering Standards for Public Works Construction were adopted by the City of Ridgefield under Resolution No. 181 on July 14, 1994 and subsequently amended by adoption of Resolution No. 192 on July 27, 1995, Resolution No. 288 on March 4, 2005, Resolution No. 354 on May 8, 2008, and Resolution 489 on July 9, 2015; and

WHEREAS, the Ridgefield Engineering Standards for Public Works Construction are comprised of Volume 1 – Design and Planning, Volume 2 – Construction Specifications and Details, and Volume 3 – Erosion Control Plans Technical Guidance Handbook; and,

WHEREAS, industry standards for public works design and construction have evolved since the last revision to the Ridgefield Engineering Standards for Public Works Construction; and,

WHEREAS, the City desires to complete a comprehensive update to the standards including standards sanitary sewer, stormwater facility design, street design, street lighting, trail design; and

WHEREAS, the City has sought, received and incorporated comments from the engineering and development community on the revised Ridgefield Engineering Standards for Public Works Construction; and,

WHEREAS, it is the desire of the City to adopt a uniform set of standards for development without the necessity of redrafting or amending a title of the City ordinance; and

WHEREAS, the City Council for the City of Ridgefield finds that it is in the public interest and will benefit the public safety, health and welfare to have updated engineering standards;

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF RIDGEFIELD, WASHINGTON HEREBY RESOLVES AS FOLLOWS:

1. The Ridgefield Engineering Standards for Public Works Construction are hereby amended and updated and shall be deemed the City's technical standards for all facets of public works within the existing and future municipal limits of the City of Ridgefield, Washington. The updated sections of "Ridgefield Engineering Standards for Public Works Construction Volume 1 – Design and Planning" and "Ridgefield Engineering Standards for Public Works Construction Volume 2 – Construction Specifications and Details" dated May 2017 are attached as Exhibit "A."

2. This Resolution shall supersede all previous resolutions pertaining to the Ridgefield Engineering Standards for Public Works Construction.

Adopted at a regular session of the City Council of the City of Ridgefield, Washington this 25TH day of May, 2017.

By:

Ron Onslow, Mayor

ATTEST/AUTHENTICATED:

Julie Basarab,
Deputy City Clerk

Attachment: Resolution 528 Engineering Standards (1321 : Revision of Engineering Standards)

EXHIBIT “A”**RIDGEFIELD ENGINEERING STANDARDS FOR PUBLIC WORKS
CONSTRUCTION VOLUME 1 – DESIGN AND PLANNING, AND VOLUME 2-
CONSTRUCTION SPECIFICATIONS AND DETAILS REVISED**

ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION



VOLUME 1

DESIGN AND PLANNING

May 2017

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CHAPTER 1

GENERAL PLANNING, DESIGN, AND APPROVAL REQUIREMENTS

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Volume 1 - Design and Planning

CHAPTER 1 - GENERAL PLANNING, DESIGN, AND APPROVAL REQUIREMENTS

1.00 Requirements For Public Improvements

A. General

The purpose of these standards is to define requirements for the design and construction of public improvements to serve new and future developments. These include street, bikeway, drainage, and water ~~and sanitary sewer~~ improvements as required by the development review process, City Ordinance, and other City policies adopted by the City Council or the Mayor. Requirements for neighborhood parks, including furnishings, play structures, bicycle racks and other park infrastructure shall be in accordance with the most recent edition of the City's Parks and Recreation Comprehensive Plan. Where not governed by building or other codes, standards for site grading, erosion control, parking lot and driveway construction, and other infrastructure on private property shall also be governed by these standards for the purposes of design and inspection. No such work shall commence prior to City approval of the construction plans.— Designs submitted shall be stamped by a registered Professional Engineer licensed to practice in the State of Washington.

All public improvements and private streets, parking lots, sidewalks, and driveways shall be designed and constructed according to the most recent edition of the ADA Standards for Accessible Design in such a manner as to be readily accessible to and usable by individuals with disabilities as per the requirements of the Americans with Disabilities Act of 1990. This includes providing curb ramps at intersections with pedestrian crosswalks to allow a smooth transition between street and sidewalk elevations.

B. Organization of Standards

These Standards are separated into ~~three~~ two separate volumes; 1) Volume 1 - Design and Planning, and 2) Volume 2 - Construction Specifications and Details, ~~and 3) Volume 3—Erosion Control Requirements.~~

C. Shortened Designation

These City of Ridgefield Engineering Standards for Public Works shall be cited routinely in the text as the "Standards".

D. Applicability

These Standards shall govern all new construction and upgrading of facilities both in the right-of-way and on-site for: transportation-related facilities; storm drainage facilities and stream channel improvements; ~~sewer and~~ water improvements; and park, recreation, and open-space facilities used by the public.

E. Requirements for Public Welfare

It is the purpose of these standards to provide for and promote the health, safety, and welfare of the general public, and not create or otherwise establish or designate any particular class or group of persons who will or should be especially protected or benefited by the terms of these standards.

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The Standards established by this Chapter are intended to represent the minimum design standards. Compliance with these Standards does not relieve the designer of the responsibility to apply sound professional judgment to protect the health, safety, and welfare of the general public. Additionally, since these are minimum standards, special site conditions and environmental constraints may require a greater level of protection than would normally be required under these Standards. The designer must apply these Standards bearing in mind these constraints.

F. Two-year Surety Bond Requirement

The developer is required to provide a maintenance bond for 20% of the full cost of construction for all public improvements for a period of two (2) years after acceptance of the project, which will not be released without written approval by the City. The developer is to provide from his contractor an itemized contractor's cost worksheet on the contractor's letter head and with contractor's signature. The contractor shall place the following note on the worksheet; "To the best of my knowledge the itemized quantities and cost included herein are an accurate account of the full cost of construction to be provided as required to meet the City's Maintenance Bond requirement".

~~G. Cost Estimate Requirements—Surety Bonds~~

~~The developer is to provide from his contractor an itemized contractor's cost worksheet on the contractor's letter head and with contractor's signature. The contractor shall place the following note on the worksheet; "To the best of my knowledge the itemized quantities and cost included herein are an accurate account of the full cost of construction of the improvements as required by the City Engineer to be covered by the surety bond as required by the City of Ridgefield Municipal Code". This requirement applies to all bonds and/or letters of credit.~~

H.G. Requirement for Street Utility Extension to Limits of Property

Public streets, bikeways/multi-purpose trails, water mains, ~~sanitary sewer mains~~, and storm sewer mains shall be extended through and to the extremes of the property being developed for extension to future development as determined by the City. The developer shall not be reimbursed for utility extensions to the limits of the property being served. If a utility line must be oversized to serve the ultimate tributary area beyond the proposed development, the developer may request compensation for oversizing as authorized by Ridgefield Municipal Code. Such requests shall be in writing and shall be made to the City Engineer.

1.01 Precedence of Documents

If there is a conflict between approval documents, the document highest in precedence shall control. The precedence shall be:

- First: Permits from other agencies or jurisdictions, as may be required by law.
- Second: Facilities Review, Site Development Permit, and Planning Commission Conditions of Approval.
- Third: City of Ridgefield Engineering Standards for Public Works Construction.

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- Fourth: City of Ridgefield Ordinances (Ridgefield Municipal Code).
Fifth: Plans and details prepared by the design engineer and approved by the City.
Sixth: American Public Works Association / Washington State Department of Transportation Standard Specifications, latest edition.
Seventh: Reference specifications.

Supplemental written agreements and approved revisions to plans and specifications by the appropriate jurisdictions will take precedence over documents listed above. Detailed plans shall have precedence over general plans. In any event, the determination of the City Engineer shall be final.

1.02 Abbreviations and Definitions

AASHTO	American Association of State Highway and Transportation Officials
AC	Asphaltic Concrete
ACI	American Concrete Institute
ADA	Americans with Disabilities Act of 1990
ADT	Average Daily Traffic
ANSI	American National Standards Institute
APWA	American Public Works Association
ASTM	American Society for Testing and Materials
AWWA	American Water Works Association
Bicycle Facilities	A general term denoting improvements and provisions which accommodate or encourage bicycling, including parking facilities, maps, signs, pathways, bike lanes, widened sidewalks, bikeways and shared roadways designated for bicycle use.
Bicycle Lane (Bike Lane)	A portion of a roadway which has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicyclists
Bicycle Path (Off-Street Pathway)	A paved pathway physically separated from motorized vehicular traffic by an open space or barrier within an independent right-of-way
Bicycle Route (Bike Route)	A segment of a system of bikeways designated by the jurisdiction having authority with appropriate directional and informational markers, with or without a specific bicycle route number or as designated on a bicycle map, brochure or guidebook
Bikeway	Any road, path or way which in some manner is specifically designated as being open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are to be shared with other transportation modes
CBE	Crushed base equivalent (CBE) is the number that directly relates the traffic coefficient to the required number of inches of rock for street structural sections
CBR	California Bearing Ratio
City	City of Ridgefield with the Public Works Director as the lead contact person
City Engineer	City of Ridgefield's consulting or staff city engineer having authority

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	specified in State law or City ordinances, or their designated representative
Contractor	The agent of the developer completing the construction activities associated with a given project
Contractor's Equipment	The phrase "Contractor's Equipment" shall include all items of materials or equipment remaining in the contractor's ownership and removed from the site upon completion of the project
Developer	The owner and/or his agent or contractor's responsible for a given project
<u>DAHP</u>	<u>The Department of Archaeology and Historic Preservation</u>
Engineer	The City Engineer
Engineering Standards	The latest edition of the "City of Ridgefield Engineering Standards for Public Works Construction".
EPA	U.S. Environmental Protection Agency
Equipment	The machinery, accessories, appurtenances and manufactured articles to be furnished and/or installed under the Project
FEMA	Federal Emergency Management Agency
GPS	Global Positioning System
IE	Invert Elevation
Intersection	Refers to the area jointed by two (2) or more roads intersecting. For approaches of a continuous street at an acute curve or some other angle point with different street names
Item	A convenient subdivision of work under these specifications, as herein separately described
Material(s)	These words shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise) and any other classes of material to be furnished in connection with the project
MUTCD	Manual on Uniform Traffic Control Devices
Or Equal	Any manufactured article, material, method, or work which, in the opinion of the Engineer, is equally desirable or suitable for the purposes intended in these specifications and contract, as compared with similar articles specifically mentioned herein
OSHA	Occupational Safety and Health Administration
Parking Lot	Paved surfaces on private property intended for the movement and storage of vehicles
Plans	The plans shall mean all official drawings or reproductions of drawings made or to be made pertaining to the work provided for in the contract, or to any structure connected therewith
Project	The structure or improvement to be constructed in whole or in part through the performance of the contract
PRV	Pressure Reducing Valve
Sidewalk	The portion of a street designed for preferential or exclusive use by pedestrians
Specifications	The specifications shall mean the prescribed directions, requirements,

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	explanations, terms and provisions pertaining to the various features of the work to be done, or manner and method of performance, and the manner and method of measurements and payments. They also include directions, requirements, and explanations as set forth on the plans
Standards	City of Ridgefield Engineering Standards for Public Works Construction, Volume 1, 2 , and 32 , latest edition
Standard Details	The latest edition of the City of Ridgefield's standard details for public works construction. Reduced copies are included in Appendix A of Volume 2 of these standards
Standard Specifications	The latest edition of the "Standard Specifications for Road, Bridge, and Municipal Construction" as published by the Washington State Department of Transportation and the American Public Works Association
Street	A public way which affords the principal means of access to abutting property
Traffic Coefficient	A number used in determining the structural section of a street
Trail	In the context of the Standards - "Trail" is synonymous with Multi-use Path (off-street pathway)
UL	Underwriter's Laboratory
WSDOT	The Washington State Department of Transportation
Wetlands	Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Identification and delineation of jurisdictional wetlands and wetland boundaries shall be done by a qualified biologist using applicable State and Federal guidelines.
Words and Phrases	Whenever the words, "as directed", "as required", "as permitted", or words of like effect are used, it shall be understood that the direction, requirement or permission of the Owner and Engineer is intended. The words, "sufficient", "necessary", "proper", and the like shall mean sufficient, necessary or proper in the judgment of the Owner and Engineer. The words, "approved", "acceptable", "satisfactory", or words of like import shall mean approved by or acceptable to the Owner and Engineer
Work	The work necessary to manufacture and deliver machinery, equipment and material and/or the furnishings of all labor, tools, material, equipment, construction equipment, working drawings, where required, and other, necessities for the construction or erection of the structures shown and called for in the plans, specifications and contract, and the act of constructing or erecting said structures complete.

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1.03 Permits

Permits, approvals, or agreements are required by the City, and sometimes other jurisdictions, prior to initiating any construction or demolition work elements described within these Standards.

The majority of work covered under these Standards will require multiple permit authority review and approvals. Several types of permits and approvals require prior approval from the authority before a building or other substantial permit can be issued. Any questions regarding information about permits, approvals, and agreements should be directed to the City Clerk.

The following general categories describe the major permits, approvals, and agreements, along with issuing permit/code authority identified in parentheses:

A. Environmental Review

For most projects, including clearing and grading activity, an Environmental Checklist must be completed by the applicant and submitted along with plans, specifications, and other information when approval or permits are being requested for a project. The Community Development Director conducts the Environmental Review and makes a SEPA Threshold Determination for the City.

B. Building Permits

A Building Permit is required for all construction work including alteration, repairs and demolition. This includes retaining walls over 4 feet in height or with a surcharge loading.

C. Approvals and Other Permits

There are several other permits or approvals which may be required and referred to in these Standards: Developer Extension Agreements; plat and short plat approvals; and Certificate of Occupancy.

In addition, there are several other City approvals (land use) which may have been obtained prior to the above listed permits and which may affect the Standards as contained in this document.

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1.04 General Requirements for Utility Extensions (~~Sanitary Sewer~~, Storm Sewer, Water)

- A. When extension of the existing utility system for service is required, the developer shall submit site and improvement plans, utility design plans and design review and administration fees. The utility design plans shall be prepared and submitted as described in these Standards. ~~Upon completion and approval by the City, plans and a pre-construction letter of requirements will be sent to the applicant. Requirements to be completed prior to construction will be noted in the pre-construction letter.~~

~~Upon completion of the pre-construction requirements and 48 hours notice, a pre-construction meeting shall be held with the Public Works Department at which time construction inspection will be scheduled. No public improvement construction shall commence prior to pre-construction meeting. After completion of construction and submittal of required documents and fees, final acceptance will be given by the City at which time service will be available by permit.~~

- B. Easements for utility system shall be prepared by a surveyor or engineer licensed to practice in the State of Washington. The easement shall be reviewed and approved by the City prior to acceptance. All public utility easements shall be a minimum of 15-foot wide unless otherwise noted in these standards or required by the City Engineer. Width and location of private utility easements shall be determined by the City Engineer or the Building Official as appropriate.
- C. Upon final completion and final inspection approval, Public Works will issue a "Statement of Completion" to the developer indicating acceptance by the City for maintenance and operation of the developer extension.
- D. The developer shall have a surveyor licensed in the State of Washington provide final as-built elevations of manhole inverts and tops, gravity pipe grades, and utility locations. All elevations shall be from Clark County datum.

1.05 Submittal Requirements

- A. General
1. Submittal requirements consist of design plans, grading plans (where required), erosion control plans (where required), drainage calculations, and other information as required. Letters of transmittal shall accompany all submittals. Resubmittals must include the previous set of "redlines" and a letter detailing responses to comments.
 2. The Standard Specifications including their most recent revisions are hereby adopted and incorporated as part of this document by reference except as modified herein.

1.06 General Requirements for Engineering Plans

- A. Design Plan Format
1. The plans shall be submitted on 22-inch x 34-inch or 24-inch x 36-inch sheets.

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2. Title sheet to include project name, vicinity map, name and mailing address of developer/owner and engineering firm, general notes, notice to excavators, index, and blocks space for city, sewer district and fire/rescue approval stamps ~~(5 x 5-inch)~~ or signatures in the lower right quadrant. Vicinity maps shall show the location of the project in respect to the nearest major street intersection.
 3. A north arrow shall be shown on each plan view sheet of the plans and adjacent to any other drawing which is not oriented the same as other drawings on the sheet.
 4. Copies of Each Applicable City Standard Detail - Reference each City Standard Drawing by number on the Plan Sheets.
 5. The scale shall be 1-inch = 2 feet, 3 feet, 4 feet, 5 feet, or 10 feet vertically and shall be 1-inch = 10 feet, 20 feet, 30 feet, 40 feet, or 50 feet horizontally for all drawings except structural details. Scale shall be shown with north arrow and within a title block.
 6. Letter size shall not be smaller than 0.10 of an inch high.
 7. The location and elevation of a National Geodetic Survey, United States Geological Survey, Clark County, or City of Ridgefield bench mark shall be referenced on the plans. The datum shall be Clark County Datum NGVD 1929(47). No other datum shall be used without permission of the City Engineer. Temporary control bench marks and elevations shall also be shown on the plans.
 8. A title block shall appear on each sheet of the plan set and shall be placed in the lower right-hand corner of the sheet, across the bottom edge of the sheet, or across the right-hand edge of the sheet. The title block shall include the names of the project, the engineering firm, the owner, the sheet title, and the sheet number.
 9. The seal of the registered Washington Professional Engineer responsible for preparation of the plans shall appear on each sheet.
 10. The description and date of all revisions to the plans shall be shown on each sheet affected, and shall be approved and dated by the registered Professional Engineer of record as evidenced by an original signature or initial. The location of all revisions on each plan sheet shall be clearly identified through the use of "clouds", triangles or some other visible feature.
 11. Through use of standard drafting symbols, indicate the location and direction of view for all sections.
 12. The following statement shall appear on the cover sheet of all plans at a location immediately above or below the developer engineer's professional stamp - **"I hereby certify that these plans, and related design, were prepared in strict conformance with the City of Ridgefield Engineering Standards for Public Works Construction, as modified by Approved Modification, Variance, or Condition of Approval".**
- B. Site Development Plans shall be organized as follows:
1. Title sheet.

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2. Approved preliminary plat (if it is a subdivision).
3. Existing Conditions Plan - ~~American Land Title Association (ALTA)~~ A topographic survey be performed on and within one hundred (100) feet of the site and is to include, but not limited to the following; topography at 2 foot contour interval; watercourses (intermittent creek, streams, Rivers, etc.) and areas prone to flooding; FEMA designated floodplains and floodway; designated Shoreline areas; water bodies and known wetlands, wetland delineated boundaries and buffers; unstable slopes and landslide hazard areas; significant habitat areas and buffers; significant historic sites; Show layout and dimensions of all existing (parent) parcels; location of adjacent property lines; location of any existing building(s) on the site and use; location and width of existing easements for access, drainage, utilities, etc; name, location, width of existing right-of-way, centerline and right-of-way radius of existing roadways that abut the site; name location, width and surface material (e.g. gravel, asphalt or concrete) of roadway and easement (private and public); location and width of existing driveways and those driveways across the street; location and width of existing pedestrian and bicycle facilities on and within 100 feet of the site; location and direction to nearest fire hydrant; location of existing sewage disposal systems and wells on site and within 100 feet of the site (as available from the city or health district) This sheet shall also note the source of information, date of field work, datum and benchmark, and location of original document.
4. Grading and erosion control plan with maximum contour intervals of 2 feet. The extent and limits of sensitive lands and buffers, as defined by the City Municipal Code shall be delineated on this sheet. ~~This sheet shall also note the source of information, date of field work, and location of original document.~~
5. Street and storm sewer, showing existing and finished contours at 2-foot intervals. Storm sewer information may be included on water and sewer sheets where practical. In all cases, all proposed utilities shall be shown on each utility sheet, although notes and call-outs may be segregated per individual sheet.
6. Street and storm sewer profiles showing vertical curve information and stormwater invert and rim elevations.
- ~~7.~~ Stormwater detention facility plan, sections, ~~and details~~ and calculations showing cell and pond volumes. —A table of the primary parameters used in modeling shall be included in the report. This table shall include for and pre and post development, at a minimum, time of concentration, impervious area percentages, average curve numbers, basin areas, and flows.
- ~~8.7.~~ Sanitary sewer and water plan sheets, including service, valve, and fire hydrant locations. Sanitary sewer and water plan sheets may be separate if needed for clarity or where required by the City Engineer.
- ~~9.8.~~ Water and sewer profiles showing locations of water air releases and invert and rim elevations of sanitary sewer pipes. Sanitary sewer and water profile sheets may be separate if needed for clarity or where required by the City Engineer.

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~~10.9.~~ Landscape plan including plants, trees, sidewalks, bikeways, retaining walls, irrigation, and lighting. Street light location, spacing, and type should be called out. Electrical service design may be provided as a separate submittal.

~~11.10.~~ Signage and striping plan showing locations and types of street signage and striping. This plan may be included on other sheets provided that it is legible.

1.07 Requirements for Public Street Improvement Plans

A. Plan Views shall show the following:

1. Right-of-Way, property, tract, and easement lines (existing and proposed).
2. Subdivision name, lot numbers, street names, and other identifying labels. Subdivision and street names are subject to review and approval of the City Community Development Director.
3. Location and stationing of existing and proposed street center lines and curb faces.
4. Horizontal alignment and curve data of street center lines and curb returns.
5. Existing underground utilities and trees over 6-inches in diameter within and extending 50 feet beyond the construction limits.
6. Location of existing buildings, wells, septic tanks, drain fields, fuel tanks, and any other buried structures. An American Land Title Association (ALTA) survey shall be required for at least 100 feet surrounding any of the above items to remain.
7. Match lines with sheet number references.
8. Street stationing to be noted at a minimum of 100-foot intervals.
9. Top of curb elevations along curb returns at quarter-delta's, and at 100-foot stations.
10. Location of the low points of street grades and curb returns.
11. Sidewalk locations. This shall include ramps, transitions in location or width, and relationship with driveways.
12. Crown lines along portions of streets transitional from one typical section to another.
13. Center line stationing of all intersecting streets.
14. Location and description of existing survey monuments, including but not limited to: section corners, quarter corners, donation land claim corners, and City bench marks.
15. Location of proposed street intersection monument boxes.
16. FEMA designated 100-year flood plains and flood ways, or areas of flooding during a 100-year storm event.
17. Wetland areas and storm water quality undisturbed corridors (buffer strips).

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18. Legend.

19. Any additional information that the City deems necessary.

B. Profile Views shall show the following:

1. Stationing, elevations, vertical curve data (including curve k factors), and slopes for center of streets or top of curbs. For off-set or superelevation cross-sections, both curbs shall be profiled. Where curbs are not to be constructed, center line of street and ditch inverts shall be shown.
2. Original ground along the center line and if necessary at the edges of the right-of-way if grade differences are significant.
3. Center line, top of curb or edge of pavement, and gutter flow lines of existing streets for a distance of at least three hundred (300) feet each way at intersections with proposed streets. For stub streets that may be extended in the future, the vertical alignment shall be designed for at least 300 feet beyond the scope of the proposed construction. At the discretion of the City Engineer, additional design information concerning the vertical and horizontal alignment of future street extensions may be required.
4. Vertical alignment of streets, including existing center line monumentation.
5. The top of curb for all cul-de-sacs, eyebrows and curb returns.
6. Existing drainage facilities, including off-site facilities, upstream and downstream that affect the design (i.e., downstream restrictions that back water onto project site). In addition, base flood elevations shall be shown on the profile.
7. Profiles for ditch and creek flowlines shall extend a minimum of two hundred (200) feet beyond the project, both upstream and downstream. Typical cross sections at fifty (50) foot intervals shall also be submitted.
8. Designate structures using alpha or numeric labels on profiles to correspond to plan view notation.
9. All existing and proposed sanitary, water, storm lines and other utilities crossing the profile.

1.08 Site Grading Plan

The City of Ridgefield requires a site grading plan as part of the Application for any development that involves the excavation or fill of greater than fifty (50) cubic yards of material. Grading contours (existing & proposed) shall be at no more than 2 foot intervals, and shall extend off-site a minimum of 50 feet. This sheet shall also note source of information, date of field work, and location of original document, the calculated cut and fill quantities, location of stripping stockpile location of critical areas and buffers, and any additional information that the city deems necessary.

A geotechnical evaluation report must be performed and referenced on the plan for site specific geotechnical recommendations. A copy of the report must accompany the plan

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for review and approval by the City Engineer. A modification to this requirement must be submitted to the City Engineer for approval.

All soil disturbing construction activity must adhere to the requirements of the City of Ridgefield Engineering Standards ~~for Public Works Construction, Volume 3, approved~~ Erosion Control Plans, ~~and Technical~~ applicable state requirements ~~Guidance Handbook~~. A detailed erosion control plan shall be shown in conjunction with the site grading plan.

1.09 Erosion Control Plans

~~a. A. Requirements for erosion control shall be listed in Volume 3 of the City's Engineering Standards.~~

Erosion control plan drawings shall, at a minimum, include the following:

1. locations, types and applicable dimensions of erosion control measures
2. applicable details of erosion control measures showing full dimensions and construction information
3. existing and proposed ground contours
4. locations and sizes of existing and proposed drainage pipes and channels (labeled as such and with arrows indicating flow direction)
5. construction site entrances/exits
6. applicable erosion control notes and standard details
7. If the site erosion control plan includes sediment traps or ponds, the applicant shall also submit calculations used for determining trap or pond sizing.

~~B. Erosion control measures shall be designed in accordance with the Western Washington Manual.~~

~~C. Approval of a construction erosion control plan by the City does not relieve the applicant's responsibility to ensure that erosion control measures are constructed and maintained to contain sediment on the construction site.~~

1.10 Requirements for Utility Plans (~~Water, Sanitary Sewer, Drainage~~ Storm Drainage)

A. General Requirements

1. In plan view, location, stationing, materials, size, of all proposed utility lines (water, storm, sanitary). Location of all fire hydrants. Stationing shall be located in relationship to the street stationing at all manholes or other key locations.
2. Show all proposed manholes, inlets, and catch basins with all invert and top elevations.
3. For drainage plans, show existing drainage facilities, including off-site facilities, upstream and downstream that affect the design (i.e., downstream restrictions that back water onto project site). In addition, base flood elevations shall be shown on the profile.

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4. Designate structures using alpha or numeric labels on profiles to correspond to plan view notation. For water plans, each fitting/valve shall have attachment type listed (e.g. FL, MJ, FL x MJ, etc.).
 5. For water plans, provisions for cross-connection control must be clearly shown on the plans, including any retro-fitting of existing water service connections and existing auxiliary water supplies, conversions to City of Ridgefield water service that are required as a condition of development approval, upgrading of existing service connections by replacement of same, and any other cross connection control required by state and local rules and codes.
 6. All lengths and dimensions shall be horizontal distances, no slope distances on plans.
 7. Indicate type of pavement restoration required (if working in existing streets).
 8. Dimension existing and new utility locations from right-of-way line and/or property line. For water plans, drawings shall reference distance to nearest existing valve/hydrant from new point of connection to existing water main.
 9. Check that base map conforms to all requirements listed herein.
 10. On plans show existing manholes or give reference distances to existing manholes near project including manhole number and invert/rim elevations
 11. General construction notes must be included on first plan sheet. Remove notes that don't apply and add additional notes to the list if necessary.
 12. List vertical datum on plan and show bench mark to be used for vertical control during construction.
 13. The developer/contractor is responsible for sending a letter and preliminary plan to existing utility companies to inform them of new construction and requesting as-built information for incorporation into plans. At a minimum the following utilities shall be contacted:
 - [Clark Regional Wastewater District](#)
 - Cable television
 - Natural gas
 - Power
 - Telephone
 14. Draft plans shall be sent to the above listed utilities to allow coordination of projects.
- B. Plan View
1. List pipe length, size and material along side of pipe, e.g. 150 l.f. - 8" PVC.
 2. Pipe length is to be based on horizontal distance between center of manholes.
 3. Indicate direction of flow with arrows on end of pipe entering manhole.
- C. Profile View

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1. List pipe length, size, material and slope to 4 decimal places (ft per ft), e.g. 150 l.f. - 8" PVC s=0.0125.
2. Slope based on invert elevation out of upstream manhole, invert elevation into downstream manhole, and horizontal distance between center of manholes.
3. Provide profiles for existing and proposed storm sewer and sanitary sewers. Profiles shall also be provided for new sewer force mains and new water mains.
4. Show all existing and proposed sanitary, water, storm lines and other utilities crossing the profile.
5. For drainage plans, profiles for ditch and creek flowlines shall extend a minimum of two hundred (200) feet beyond the project, both upstream and downstream. Typical cross sections at fifty (50) foot intervals shall also be submitted.

1.11 Requirements for Supplemental Submittal Information

- A. ~~Drainage Calculations~~ Technical Information Report (TIR). Drainage calculations shall be presented in a clear, concise and complete manner and shall generally follow the format presented in - identified in the 1992 Stormwater Management Manual for the Puget Sound Basin Section 3 of these standards. These calculations shall address all runoff into the drainage system; areas contributing flow to each inlet must be computed separately and each inlet with contributing area shall be designated and shown on an accompanying contour map work sheet. Initial time of concentration calculation with assumptions listed and charts or nomographs used shall be included with drainage calculations.

A table of the primary parameters used in modeling shall be included in the report. This table shall include, for and pre- and post- development, at a minimum, time of concentration, impervious area percentages, average curve numbers, basin areas, and flows.

- B. Other information to be shown on the construction drawings or the other submittals include:
1. The design assumptions for each street (ex: traffic coefficient, R-value).
 2. The design elements such as:
 - Street classification;
 - Design speed;
 - Superelevation;
 - Average Daily Traffic (ADT) or Design Hourly Volume (DHV).
 3. Structural construction plans and the necessary calculations shall be submitted for proposed structures (ex: walls, box culverts, bridges).
 4. Any additional information that the City Engineer deems necessary to review the plans and assure compliance with design standards.

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- C. Detail sheets. Detail sheets shall be provided showing all standard details.
- D. Standard Notes. Standard notes shall be included on the first sheet in the plan set. The following shall be the minimum required notes to be included:
1. *Construction shall conform to the requirements of the City of Ridgefield Engineering Standards, Volume 2 - Construction Specifications and Details*, the latest edition of the APWA/WSDOT Standard Specification for Road, Bridge, and Municipal Construction, and the Land Use Conditions of Approval. It shall be the sole responsibility of the applicant and the professional civil engineer of record to correct any error, omission, or variation from the above requirements found in these plans.
 2. Approval of plans for an individual grading permit by the City does not constitute an approval of any other construction (e.g. domestic water conveyance, ~~sewer conveyance~~ storm drainage, gas, electrical, etc.).
 3. Before any construction or development activity, a preconstruction meeting must be held between the City, Clark Regional Wastewater District, the applicant, the applicants consulting engineer and construction representatives.
 4. A copy of these approved plans must be on the job site whenever construction is in progress.
 5. In accordance with Ridgefield Municipal Code Section 9.14.010, hours of permitted construction are limited to 7 a.m. to 10 p.m. Monday through Friday and 9 a.m. to 6 p.m. Saturday, Sunday and City observed holidays. Each violation shall be a civil noise infraction and shall result in a \$500 civil fine.
 6. It shall be the Applicant's/Contractor's responsibility to obtain all construction easements and/or right of entries prior to construction work.
 7. Vertical Datum shall be Clark County Datum NGVD 1929(47) unless otherwise approved by the City Engineer.
 8. All utility trenches shall be backfilled and compacted to 90 percent maximum density as determined by AASHTO T-180.
 9. All roadway subgrade within the roadway prism shall be backfilled and compacted to 90 percent maximum density as determined by AASHTO T-180, and the aggregate base rock compacted to 95 percent maximum density as determined by AASHTO T-180. The asphalt compaction shall be at least 91 percent based on a Rice theoretical maximum density, as determined in conformance with AASHTO T 209, as modified by WSDOT.
 10. The base course and wearing course of asphalt concrete (AC) for streets shall be WSDOT Standard Hot Mix Asphalt Class ½-inch, PG 64-22.
 11. Open cutting of existing roadways is not allowed unless specifically approved by the City and noted on these approved plans. Any open cut shall be restored in accordance with the standard trench restoration details and notes.

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12. The Contractor shall be responsible for providing adequate safeguards, safety devices, protective equipment, flaggers, and any other needed actions to protect the life, health and safety of the public, and to protect property in connection with the performance of work covered by the contractor. Any work within the traveled right-of-way that may interrupt traffic flow shall require at least one flagger for each lane of traffic affected. Section 1-07.23 "Traffic Control" of the WSDOT Standard Specifications shall apply in its entirety.
13. Upon discovery of potential or known archaeological resources at the subject site prior to or during on-site construction, the developer, contractor, and/or any other parties involved in construction shall immediately cease all on-site construction in accordance with RCW 27.53.060.

1.12 Review Procedure

~~Three~~ ~~One~~ (1) sets, or as directed by the City Engineer, and electronic copies of complete draft plans shall be submitted to the City for review. Plans shall be complete and shall be stamped and signed by the developer's engineer. ~~Three~~ ~~(3)~~ Electronic copies of supporting information and documentation, such as drainage and water system calculations, shall also be submitted.

Upon completion of the detailed review by the City, the City will return ~~one (1) set of draft plans with "Red Line" comments~~ a letter detailing the City's comments and required revisions. After the developer's engineer has completed all revisions, ~~three one (31)~~ hard copy and an electronic copy of all revised plans and supporting information, as well as ~~and the original "Red Line" plans~~ comment response letter shall be returned to the City on each iteration of plan review.

Following approval of draft plans and calculations by the City Engineer, and following the signing of approval of ~~the the photographically reproduced 4 mil mylar~~ cover sheet by Clark Regional Wastewater District and the Clark County Fire District, the developer's engineer shall submit the cover ~~will submit two (2) original final plan sets. The cover sheet only of one (1) of the plan sets shall be photographically reproduced 4 mil mylar for for of the approved plans for~~ the City Engineer's approval signature. Following obtaining ~~the all~~ approval signatures, the developer's engineer will ~~shall provide the City with two hard copies and an electronic copy of the approved and signed plan set, and a hard copy and electronic copies of all final supporting information and reports~~ the City will notify the developer's engineer that the original mylar plan have been signed and are ready for release.

Plan review priority will be given to plans submitted for final review. This plan review and approval is valid for two (2) years from the date of plan review fee payment. Extensions to the permit may be made by the City Engineer in extenuating circumstances, upon written request by the Developer.

Plan approval means that the plans have been reviewed for reasonableness and compliance with minimum City specifications and standards. This approval does not supersede those standards and specifications, unless specifically varied by the City. Plan

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approval does not relieve the developer's engineer from responsibility for errors, omissions or deficiencies in the plans.

1.13 As-Built Drawings

Following completion of construction, the developer's engineer shall submit one two (1) complete set ~~bond (paper) as-builts to the City for review. After City review and approval of the as-built drawings the developer's engineer shall submit one (1) complete set of~~ mylar as-built drawings, ~~and one (1) complete set of bond (paper) as-built drawings, and one CD containing electronic as-built drawings in both PDF, and AutoCAD DWG file formats.~~

~~As-built drawings shall contain any and all revisions to the previously approved construction plans, and shall be accompanied by a completion certification letter from the developer's engineer. As-built information shall be obtained and provided to the developer's engineer by a surveyor licensed in the State of Washington. The as-built drawings shall include all the approved plan information plus the revised data as obtained by the as-built survey and shall include the landscaping & irrigation and lighting & electrical plan sets. The design information shall be lined out where revised by the addition of the as built data. All as built information shall be made electronically; no hand written information will be accepted. Additional as built information may be required by the City Engineer.~~

Each sheet of the as-constructed drawings, including the cover sheet, shall be stamped "As-Built" or "Record Drawing", and signed and dated by the developer's engineer. This signature constitutes a certification that the public improvements, grading, and other elements of the engineered drawings have been completed in accordance with the City approved plans and to the standards of the City.

As-builts shall be black India ink on originals or reverse reading, fixed-line, photographically reproduced 4-mil mylar, 22-inch x 34-inch or 24-inch x 36-inch in size and to engineering scale. ~~All sheets of the construction plan shall be as-builted. Sepia mylars or vellums will not be accepted. The City also shall receive all sheets in electronic form as a "PDF" file and AutoCAD DWG file on CD-rom.~~ Electronic copies (PDF) of the as-built drawings shall be exact duplicates of the Mylar copy.

Submission of as-built drawings shall be made prior to final inspection of a completed project.

1.14 Professional Qualifications

Professionals in the technical fields of Civil Engineering, Electrical Engineering, Geotechnical Engineering, Landscape Architecture, Soils Engineering, Structural Engineering, and Surveying who prepare or are responsible for the preparation of drawings, plans, specifications, technical reports, etc. for the process of obtaining required permits/approvals shall be currently licensed or registered in the State of

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Washington and qualified by both experience and educational background in the specific technical areas as warranted by the specific needs of the proposed development project.

1.15 Changes to Standards

From time to time changes may be needed to add, delete, or modify the provisions of these standards. The City Engineer may propose changes to these Standards and upon approval of the Public Works Director, they shall become effective and shall be incorporated into the existing provisions. Comprehensive revisions to the Standards shall be proposed by the City Engineer and Public Works Director and adopted by the City Council.

1.16 Design Modifications Process

A. Submittal

Requests to modify City Standards shall be submitted in writing by the developer's engineer, to the City Engineer. This written request shall state the desired modification(s), the reason(s) for the request(s) and a comparison between the specification(s), standard(s), and the modification(s).

Any request for modification or variance of City Standards should be documented with reference to nationally accepted specifications/standards.

B. Review

The request to modify shall be reviewed by the City Engineer, who shall consult the appropriate review authorities and make one of the following decisions:

1. Approve as is,
2. approve with changes,
3. or deny with an explanation.

The modification, if approved, is for project specific use. Approval of a request shall not constitute a precedent.

C. Appeal

The applicant may appeal the City Engineer's decision to the ~~City Council~~ Hearing Examiner.

D. Criteria for Modification of Standards

The City Engineer may grant a modification to the adopted specifications or standards when any one of the following conditions are met:

1. The specification or standard does not apply in the particular application.
2. Topography, right-of-way, or other geographic conditions impose an economic hardship on the applicant and an equivalent alternative which can accomplish the same design is available that does not compromise public safety or accessibility for the disabled.
3. A change to a specification or standard is required to address a specific design or construction problem which if not enacted will result in an undue hardship.

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1.17 Errors and Omissions

At the discretion of the City, any significant errors or omissions in the approved plans or information used as a basis for such approvals may constitute grounds for withdrawal of any approvals and/or stoppage of any or all of the permitted work. It shall be the responsibility of the developer to show cause why such work should continue, and make such changes in plans that may be required by the City before the plans are reapproved.

1.18 Railroad Crossings

A. General

~~100~~

Crossings of railroad rights-of-way shall be done in a manner which conforms with the requirements of the railroad having jurisdiction. If any bonds and/or certificates of insurance protection are required, they shall be furnished by the Contractor or Owner to the railroad company with the City as an additionally-named insured.

B. Permits or Easements

Crossing agreements, permits, and/or easements for such crossings will be obtained by the applicant and all the terms of such permits or easements shall be met by the Owner and Contractor.

1.19 Penalties

Failure to comply with these standards will be cause for withholding or withdrawing approval of plans or plats, forfeiture of bond, withholding Temporary and/or Final Certificate of Occupancy, and/or other penalties as provided by law.

Attachment: Volume_1 (1321 : Revision of Engineering Standards)

CHAPTER 2

STREETS

CHAPTER 2 - STREETS

2.00 Functional Classification

The functional classification of existing and proposed roads is established by the City on an individual basis using the existing land use and existing operational characteristics. Ridgefield classifies roads and streets as follows:

- A. Major Arterials. These facilities are the supporting elements of both the principal routes and collector systems. Major arterials, in combination with principal routes, are intended to provide a high level of mobility for travel within the region. All trips from one sub-area through an adjacent sub-area traveling to other points in the region should occur on a major arterial or principal route.
- B. Minor Arterials. The minor arterial system complements and supports the principal and major systems, but is primarily oriented toward travel within and between adjacent sub-areas. An adequate minor arterial system is needed to ensure that these movements do not occur on principal routes or major arterials. These facilities provide connections to major activity centers and provide access from the principal and major arterial systems into each sub-area.
- C. Collectors. The collector system is deployed nearly entirely within sub-regions to provide mobility between communities and neighborhoods or from neighborhoods to the minor and major arterial systems. An adequate collector system is needed to ensure these movements do not occur on principal routes or major arterials. Emphasis is on collection and distribution of trips within an arterial grid and direct access from parcels is limited to the extent possible... Subcategories of collectors include standard collectors, scenic collectors, and industrial/commercial collectors.
- D. Local Streets. The local street system is used throughout developed areas to provide for local circulation and direct land access. It provides mobility within neighborhoods and other homogenous land uses, and comprises the largest percentage of total street mileage. In general, local traffic should not occur on major arterials and principal routes. Subcategories of local streets include ~~local~~-residential access, residential local, and industrial local.
 1. Local Residential access streets shall be required where the local street system connects to higher classification streets such as collectors or arterials, on local streets that will serve more than 650 lots, and on local streets that will serve more than one current or future development unless otherwise approved by the City Engineer.

2.01 General Requirement for Layout

The City's Comprehensive Plan states that future street construction will encourage connectivity. Additionally, the City has adopted a Complete Streets Policy to encourage connectivity and accessibility for pedestrians and bicyclists. Street sizing for arterials and collectors assumes that the transportation system will encourage non-motorized transportation. To meet the planning objectives, the City has established a standard of at

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least eight (8) through streets per mile to allow neighborhood trips on a smaller scale. The City's objective is to impose a maximum spacing for new streets of five hundred (500) feet (a 500-foot maximum grid) within all new developments and to the limits of the entire parcel of property being developed. Layout of new development will provide the capability of extending future streets through adjacent parcels by having streets proposed for that development extended to the limits of the property and located so as to provide a spacing of 500 feet. Where this requirement is not feasible due to topography, a ~~108-foot wide paved bikeway\multipurpose-trail~~ consistant with the type 3 standard can be substituted for the street if approved by the City Engineer. ~~The bikeway\multipurpose trail, located in a dedicated 30-foot easement for pedestrians and bicyclists, shall be extended to the limits of the property.~~ Said ~~bikeway\multipurpose~~ trail shall follow the general grid pattern of the street layout (500 foot grid) and shall extend from the ends of dead-end streets where said dead-end streets are not capable of being extended to the limits of the property due to topographic constraints, or shall be established mid block to provide pedestrian connectivity between parallel streets. To meet the through street planning objectives, streets or bikeway\multipurpose trails shall be designed and constructed to extend to the limits of the property with the all costs borne by the developer of the property without reimbursement by the City.

2.02 Access

Access to public streets shall conform to the requirements listed herein. The City Engineer and the Public Work Director shall have the authority to limit access and designate access locations on public streets under the jurisdiction of the City. Access to streets and highways under Clark County or State of Washington jurisdiction must be formally approved by those entities at the applicant's initiative and expense.

2.03 Street Cross Sections

- A. ~~Table 2.03A is a summary of street cross section standards~~ Street Cross sections are defined by the functional classification of the road. Required street cross sections can be found in the Transportation Details. It should be noted that public utility easements beyond the right-of-way are typically required.

All new roadways shall be provided with a centerline crown with an allowable cross slope between 2% and 4%.

- B. Alleys. Alleys may be used to provide alternative access to lots. Table 2.03B provides alley requirements. Alleys may not be used to provide primary access to lots.

Alleys must be provided with a gutter or other means for collecting storm water runoff, and must meet the requirement of Section 503 of the International Fire Code (IFC)

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Table 2.03A – Street Cross Sections

Parameter	Roadway Classification								
	Major Arterial	Minor Arterial	Downtown Minor Arterial	Standard Collector	Industrial/ Commercial Collector	Scenic Collector	Industrial Local	Residential Access	Residential Local A
Right-of-Way	100	80	60	70	70	60	60	60	48
Total Pavement	74 <u>52</u>	46	40	46	46	24	42	36	28
Number of Drive Lanes	4 <u>2</u>	2	2	2	2	2	2	2	2
Width of Drive Lanes	12 <u>14</u>	12	12	10	12	12	14	10	10
Number of Turn Lanes/Median	1	1	0	0	1	0	1	0	0
Width of Turn Lanes/Median	14 <u>12</u>	12	0	0	12	0	14	0	0
Number of Parking Lanes	0 <u>1</u>	0	2	2	0	0	0	2	1
Width of Parking Lane	0 <u>8</u>	0	8	8	0	0	0	8	8
Number of Bike Lanes ¹	2 <u>1</u>	2	0	2	2	0	0	0	0
Width of Bike Lane	6	5	0	5	5	0	0	0	0
Number of Sidewalks ^{1,2}	2 <u>1</u>	2	2	2	2	1	2	2	2
Width of Sidewalks	6	6	10	6	6	6	6	5	5
Number of Planter Strips ³	1 <u>2</u>	2	0	2	0	0	0	2	2
Width of Planter Strip (incl. curb)	7	11	0	6	0	0	0	7	5
Design Volume	24000	24000	12000	10000	10000	5000	2000	2000	500
Design Speed	45	45	25	35	35	35	25	25	25

Attachment: Volume_1 (1321 : Revision of Engineering Standards)

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Notes:

~~1. Sidewalk for Scenic Collector may be a detached path.~~

~~2. Residential Local B allows parking in one of the travel lanes.~~

~~3. S.R. 501 (Pioneer Street) is a State Highway and has separate standards. Major Arterial data in Table 2.03A does not apply. See cross sections T XX and T XX for street cross sections for Pioneer Street and Hillhurst from S. Sevier Road to NW 229th Street.
See Transportation Details for more information regarding street cross sections.~~

1. Major arterials include one bike lane, one sidewalk, and one 10-foot multimodal path. See Standard Detail T-2.1.
2. Sidewalks on arterials are widened to 10 feet when adjacent to commercial zoned areas.
3. Major arterials include one planter strip and one 35-foot landscape area with a 10-foot multimodal path. See Standard Detail T-2.1

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Table 2.03B-03A – Alley Requirements

	Short Alley ¹	Long Alley ¹
Function and Limitations	Alleys provide direct access to adjoining lots. They reduce the number of required curb cuts along public streets and improve the appearance and human scale of streetscapes (i.e., by reducing the amount of parking and parking garages oriented to the street). Short alleys are appropriate in low-density residential zones with minimal traffic generation and relatively short blocks (i.e. 200-400 feet). Short alleys may function as through-travel lanes terminating at public streets or parking courts (e.g. hammer-head terminus) only. When used as parking courts, alleys may not exceed 150 feet in length. Alleys may not be used in a “grid” type pattern.	Long alleys are appropriate for low-density residential development on longer blocks (i.e. 400-500 feet), and medium and high-density residential development when parking bays are provided. They may also provide access to commercial development. Long alleys may function as through-travel lanes terminating at public streets or parking courts (e.g. hammer-head terminus) only. When used as parking courts for more than four vehicles, alleys may not exceed 150 feet in length (i.e. from street access to parking bay). Alleys may not be used in a “grid” type pattern.
Access	Full access to adjoining lots provided that all lots having alley access front on a public or private street and provided that alleys are a permanent secondary not primary means of access to the lot, unless otherwise authorized by the Planning Director, Public Works Director, or hearings examiner.	Full access to adjoining lots provided that all lots having alley access front on a public or private street and provided that alleys are a permanent secondary not primary means of access to the lot, unless otherwise authorized by the Planning Director, Public Works Director, or hearings examiner.
Average Daily Trips	Under 150+/-	Under 500+/-
A. Right-of-Way or Easement	12 feet minimum 15 feet maximum	20 feet minimum and maximum except as wider sections may be approved as necessary for parking courts.
B. Pavement Width	10 feet (1-foot clear zone on both sides)	18 feet (1-foot clear zone on both sides)
D. Building Setbacks and Clear Vision Zones	Please refer to zoning chapters.	Please refer to zoning chapters.
E. Lighting	Low-profile, security lighting shall be required with new development.	Low-profile, security lighting shall be required with new development.
1. The city engineer shall determine which alley standard is used. 2. Additional right-of-way or easement area may be required when parking bays are incorporated into the streetscape, or when slopes/physical conditions require additional right-of-way. Right-of-way requirements shall be determined through the subdivision and site design review permit process. 3. Alleys will be considered public streets to be owned and maintained by the City unless otherwise stated in the Conditions of Approval in the final land use approval or on the Final Plat. Must meet IFC Section 503 if determined by the Fire District to be a Fire Accessible Roads.		

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2.04 Number of Lanes

The number of lanes for each class of road shall be as directed by the City Engineer. Additional lanes may be required at intersections in excess of the road sections shown in ~~Table 2.03A~~the Transportation Details.

Right-of-way may be needed in addition to that shown in ~~Table 2.03A~~the Transportation Details to accommodate the increased number of lanes at intersections.

2.05 Design Speed

~~The minimum design speed for each road classification shall be as shown in Table 2.03A~~follows: or as otherwise determined by the City Engineer.

- Arterial: 45 MPH
- Downtown Arterial: 25 MPH
- Collector: 35 MPH
- Residential and Local: 25 MPH

The design speed for arterials may be reduced due to unique topographic or traffic conditions if approved by the City Engineer. The design speed may also be temporarily reduced in construction zones, as determined by the City Engineer.

2.06 Dedications

A. Right-of-Way shall be deeded for streets and other improvements as required ~~per Table 2.03A~~ to accommodate motorized and non-motorized transportation, landscaping, utility and buffer requirements. Some reduction in the minimum right-of-way requirement may be granted by the City Engineer where it can be demonstrated that sufficient area has been provided for all functions within the right-of-way and/or alternate locations. Conveyance shall be fee simple using a statutory warranty deed.

B. Easements for all public systems shall be provided as required. Specific requirements for ~~sewer~~, water, and storm drainage easements are detailed in the relevant chapters. Particular design features of a road may necessitate slope, wall or drainage easements. Such easements may be required by the City Engineer in conjunction with dedication or acquisition of right-of-way and other standard easements (temporary construction, right of entry, sidewalk, pedestrian, street lighting, and traffic control devices, etc.).

~~C. Special Access Easements or Tracts.~~

~~Where it is necessary to facilitate pedestrian circulation between neighborhoods, schools, shopping or other activity centers, public access easements or tracts shall be dedicated.~~

~~Improvements to the easement shall include a sidewalk or trail consistent with other non-motorized facilities in the area. Fences shall be constructed along access easements in residential areas where buildings will be located nearer than fifty (50)~~

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~~feet to the edge of the easement. Diverters or bollards shall be installed at the direction of the City Engineer.~~

D.C. All subdivisions and short subdivisions (short plats) will be required to deed additional right-of-way, as a condition of approval of the subdivision, where the existing right-of-way for a public street is not adequate to incorporate necessary frontage improvements for public safety and provide compatibility with area's circulation system and to meet the City's most recent Comprehensive Plan and Transportation Capital Facilities Plan.

All short subdivisions (short plats) will be required to deed additional right-of-way, as a condition of approval of the short plat, under one or more of the following conditions:

1. The short plat abuts an existing substandard public street and the additional right-of-way is necessary to incorporate future frontage improvements necessary for public safety, or
2. Additional right-of-way is needed to provide right-of-way for the extension of existing public street improvements necessary for public safety, or
3. Additional right-of-way is needed to provide future street improvements necessary for public safety for planned new public streets.

E.D. It is within the authority of the City Engineer to refuse to approve or sign any land partition, partition plat, or subdivision plat that the owner or developer has not obtained the necessary right-of-way and easements for the public infrastructure to serve the proposed and affected existing lots. Such approval may be withheld until it can be verified that the location and width of proposed rights of way and easements are adequate for the required infrastructure.

F.E. Easements are subject to the approval of the City Attorney prior to recording. Variation from the City standard form of conveyance shall be allowed only when extraordinary circumstances warrant, as determined by the City Engineer and City Attorney.

G. ~~Bikeway\Multipurpose Trail. Where bikeway\multipurpose trails are constructed, a 30-foot dedicated right-of-way shall be granted to the City.~~

H.F. Easement Widths

1. ~~Pedestrian pathway access easements or tracts shall be a minimum of ten (10) feet wide. If the easement is over one hundred and fifty (150) feet in length but less than three hundred (300) feet, the width shall be fifteen (15) feet; if over three hundred (300) feet in length, the width shall be twenty (20) feet. Structure setbacks shall be a minimum of fifteen (15) feet from the edge of the easement or tract.~~ Trail easements or tracts shall be dedicated to the City. Type 1 trails require a 30-foot wide easement, type 2 trails require a 25-foot easement and type 3 trails require a 20-foot easement.
2. In residential subdivisions or residential short subdivisions, panhandle access (flag) driveway easement may be allowed for access to a maximum of two (2)

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lots and must have a minimum easement width of twenty (20) feet and shall not exceed one hundred (100) feet in length unless approved by the City Engineer. A greater width may be required to accommodate grading, utility requirements, or the Fire District.

3. In commercial subdivisions or commercial short subdivisions, a private roadway easement or panhandle (flag) access easement may be allowed for access to a maximum of two (2) lots and must have a minimum easement width of thirty (30) feet. A greater width may be required to accommodate grading, utility requirements, or the Fire District.
- I. All recording costs for easements created by private development shall be borne by the developer unless specifically agreed to by the City.

2.07 Private Streets

- A. Criteria for Authorization. It is the City of Ridgefield's policy to discourage private streets and to only permit them under unusual circumstances as applied with small infill developments of a maximum of eight (8) lots. Private roads serving more than eight (8) lots qualify as private communities and must meet the requirements of Section 2.08 Private Communities~~2.08 Private Communities2.08 Private Communities~~.- Where private streets are permitted, they will only be permitted ~~When allowed, private streets will only be permitted~~ under the following conditions:
 1. Covenants have been approved, recorded, and verified with the City which provide for maintenance of the private streets and associated parking areas by owners in the development, and
 2. Provision is made for the streets to be open at all times for emergency and public service vehicles, and
 3. The private streets will not obstruct public street circulation, and
 4. A private street shall ultimately serve a maximum of eight (8) residential lots. Any access serving three or more dwelling units shall be either a public or private street.
 5. The private street has been approved by the Fire District
 6. At least one of the following conditions exist:
 - a) The roadways serving commercial or industrial facilities where no circulation continuity is necessary.
 - b) The City Engineer determines that no other access is available and the private road is adequate.
- B. Notice. A statement is required on the face of any plat or short plat containing a private road that reads: "The City of Ridgefield has no responsibility to improve or maintain the private roads and it shall be the sole responsibility of the property owners to improve or maintain the private roads providing access to the property contained within and described in this plat". The developer or benefiting property

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owners shall submit a private road maintenance agreement for review by the City Engineer. The private road maintenance agreement shall be recorded with the plat.

C. Easements.

1. The minimum easement for private roads serving 1-4 lots and less than 200 feet in length shall be twenty (20) feet.

2. The minimum easement for private roads serving 5-8 lots, or greater than 200 feet in length shall be thirty (30) feet.

~~C. — The minimum easement or tract width for a private road shall be thirty (30) feet.~~

D. Design Requirements. Private streets shall conform to public street construction standards with the exceptions noted herein.

1. Private streets shall be improved with a minimum road section of 3-inches of asphalt concrete over 8 inches of crushed rock. The minimum paved width shall be twenty (20) feet (curb face to curb face). ~~At the discretion of the City engineer, Private roads serving more than 4 lots must the private roadway improvement is to~~ include curb and gutter, and sidewalk on one side of the roadway (see ~~F-E~~ below).

2. ~~The~~ maximum grade for private roadways shall be eighteen percent (18%). Roadways that must be used to provide access to fire vehicles, as determined by the Fire District, shall be a maximum of twelve percent (~~12~~15%).

3. Drainage improvement requirements shall be as specified in Chapter 3 of these Standards.

4. Utility requirements shall be per this chapter, and Chapters 4 ~~& 5~~ of these Standards.

5. Street illumination is required at the intersection of a private street and a public street. No street lighting is required on private streets.

~~E. Acceptance as Public Streets. Acceptance of private streets as public streets will be considered if the street meets all applicable public street standards contained herein.~~

E. The City encourages the use of “Sustainable Street” concepts and also Low Impact Development (LID) concepts and techniques in proposed private street designs.

2.08 Private Communities

A. Criteria for Authorization. Private communities are allowed only as part of a Planned Unit Development. Where allowed, private communities must meet the following conditions:

1. Covenants have been approved, recorded, and verified with the City which provide for maintenance of the private streets and associated parking areas by owners in the development, and

2. Private communities may be gated, but the following conditions must be met:

a. Provision must be made for the streets to be open at all times to emergency and public service vehicles.

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- b. Stacking area. Each access point shall show an area of sufficient length and width to safely stack traffic coming onto the property from the adjacent roadway. The length of the stacking area shall be based on the adjacent roadway type, design configuration, and number of lots accessed through gates, but in no case shall be no less than 40-feet. A parking area shall be provided to the right of the entry lane to accommodate visitors not able to open the gate.
- c. Entrance/Exit Design. Adequate vision clearance shall be provided so that motorists leaving a gated community have a clear view of the sidewalk on either side of the exit, and so that approaching pedestrians have a clear view of any approaching vehicle. Gated community entrances and exits shall be designed to achieve travel speeds not to exceed 5 miles per hour, and shall require a vehicle stop directly prior to crossing the street sidewalk. Entrance and exit areas shall be designed so that vehicles approaching or leaving the gated community can queue to enter/exit the traffic stream without blocking the sidewalk.
- d. Turnaround feature. Each gate access point shall have an area that allows traffic to safely maneuver a turnaround when the gate is in closed position.
- e. Gate Width. Fire and emergency access vehicles require passing room within the entrance to the development. Twenty feet of unobstructed driving surface is required on the interior side of the access point and gate.
- f. No encroachment into publicly owned right-of-way. The gates, operating equipment and fencing shall be located wholly within the private portion of the property. The property line shall be clearly indicated on the site plan. Swing gates are not allowed to encroach into the public right-of-way. The drives, streets and lanes inside a gated community are to remain private.
- g. Pedestrian Access. Separate pedestrian access from driving lanes. Each access point shall have a pedestrian access and walkway that is separate from the driving lanes and links directly to the public sidewalk. Pedestrian walkways shall meet all standards for accessibility required by the Americans with Disability Act, and shall not be gated.
- h. Lighting. Lighting fixtures consistent with Section 2.27 shall be provided for vehicle and pedestrian safety. Lights in private communities shall be metered and electricity costs will be the responsibility of the residents.
- i. Sight Distance. Each access point shall demonstrate adequate sight distance as required by Section 2.16
- j. Gate Material. The moving portion of the gate shall be constructed of material that is no more than 20 percent opaque. Typically, wrought iron or other decorative material is used.
- ~~Gate opening width. Each gate must open to a minimum width of 15 feet or as required by the Fire Marshal~~

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k. Automatic gates shall have battery back up power. In the event of a power failure, the gates shall open and remain open until power is restored.

3. The private streets within the private community will not obstruct public street circulation., and

4. The private streets and gate configuration shall be approved by the Fire District

B. Notice. A statement is required on the face of any plat or short plat containing a private road that reads: "The City of Ridgefield has no responsibility to improve or maintain the private roads and it shall be the sole responsibility of the property owners to improve or maintain the private roads providing access to the property contained within and described in this plat". The developer or benefiting property owners shall submit a private road maintenance agreement for review by the City Engineer. The private road maintenance agreement shall be recorded with the plat.

C. Easements. The minimum easement or tract width for a private road within a private community shall be forty-eight (48) feet.

D. Design Requirements. -Private Streets within private communities shall conform to standards established for Local Residential streets.

2.0809 Horizontal Alignment

Street alignments shall meet the following requirements:

- Center line alignment of improvements should be parallel to the center line of the right-of-way.
- Center line of a proposed street extension shall be aligned with the existing street center line.
- Horizontal curves in alignments shall meet the minimum radius requirements as shown in Table 2.08A-09A or the low speed curve table at the end of this section for residential local streets.
- Except on residential local streets, reversing horizontal curves shall be separated by no less than 50 feet of tangent. On arterials, the separation shall be no less than 100 feet.

Table 2.08A-09A - Design Speed / Center Line Radius – Minimums

Arterials Streets and Commercial/Industrial Collectors		
Design Speed (mph)	Minimum Centerline Radius (ft)	
	Crown	(e) 6%
30	430'	273'
35	610'	380'
40	860'	509'
45	1,080'	656'

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Collectors and Residential Streets

Design Speed (mph)	Minimum Centerline Radius (ft)			
	Crown	(e) 2%	(e) 4%	(e) 6%
25	180'	155'	145'	135'
30	300'	250'	230'	215'
35	460'	375'	345'	320'

NOTES:

1. For Table 2.08A-09A - off right-of-way runoff shall be controlled to prevent concentrated cross flow in super-elevated sections.
2. Super elevations may only be used with the written approval of the City Engineer. Where super elevation is used, street curves should be designed per AASHTO guidelines except that the maximum super elevation rate of 0.04 shall be used. If terrain dictates sharp curvature, a maximum super elevation of 0.06 is justified if the curve is long enough to provide an adequate super elevation transition.
3. On local streets, requests for design speeds less than 25 miles per hour shall be based on topography, right of way, or geographic conditions which impose an economic hardship on the applicant. Requests must show that a reduction in center line radius will not compromise safety. There will be posting requirements associated with designs below 25 miles per hour.
4. Off-set crown cross-sections are not acceptable as super elevation sections.
5. Super elevation transitions shall be designed to not allow concentrations of storm water to flow over the travel lanes.

Low speed curves may be used on residential local streets. Minimum centerline and curb radius for low speed curves shall be as follows:

	<u>Up to 75°</u>	<u>75° & Over</u>
A. Minimum Centerline Radius (2-lane)	100'	55'
B. Minimum Curb Radius	80'	35'

2.0910 Vertical Alignment

Street alignments shall meet the following requirements:

- Minimum tangent street gradients shall be one-half (0.5) percent along the crown and curb.
- Maximum street gradients shall be fifteen (15) percent for residential streets, and ten (10) percent for all other streets. Grades in excess of fifteen (15) percent must be approved in writing by the City Engineer on an individual basis.
- Local streets intersecting with a residential collector or greater functional classification street or streets intended to be posted with a stop sign shall provide a landing averaging five (5) percent or less. Landings are that portion of the street within twenty (20) feet of the projected curb line of the intersecting street at full improvement.

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- Grade changes of more than one (1) percent shall be accomplished with vertical curves.
- At street intersections, the crown of the major (higher classification) street shall continue through the intersection. The roadway section of the minor street will flatten to match the longitudinal grade of the major street at the projected curb line.
- Street grades, intersections, and super elevation transitions shall be designed to not allow concentrations of storm water to flow across the travel lanes.
- Off-set crowns shall be allowed only with the specific prior approval of the City Engineer.
- Slope easements shall be dedicated or obtained for the purposes of grading outside of the right-of-way.
- Streets intersected by streets not constructed to full urban standards shall be designed to match both present and future (as far as practicable) vertical alignments of the intersecting street. The requirements of this manual shall be met for both present and future conditions.

When new streets are built adjacent to or crossing drainage ways, the following standards shall govern the vertical alignment:

Functional Classification	Vertical Standard
Arterial Streets	Travel lanes at or above the 50 year flood elevation but not lower than 6 inches below the 100 year flood elevation
All other streets	Travel lanes at or above the 25 year flood elevation but not lower than 6 inches below the 50 year flood elevation

If alternate access is available for properties served by a particular local street, a design could be considered for approval by the City Engineer that would set the travel lanes at or above the 10 year flood elevation but not lower than 6 inches below the 25 year flood event.

Crest and sag vertical curves shall conform to the values found in Tables ~~2.09A-10A~~ and ~~2.09B10B~~. At controlled intersections, the K-value for crest vertical curves may be reduced, if approved by the City Engineer.

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Table 2.09A10A
Design Controls for Crest Vertical Curves
Based on Stopping Sight Distance

Design Speed	Minimum k
25	20 <u>12</u>
30	30 <u>19</u>
35	40 <u>29</u>
40	60 <u>44</u>
45	80 <u>61</u>
50	110 <u>84</u>
55	150 <u>114</u>

Table 2.09B10B
Design Controls for Sag Vertical Curves
Based on Stopping Sight Distance

Design Speed	Minimum k
25	30 <u>26</u>
30	40 <u>37</u>
35	50 <u>49</u>
40	60 <u>64</u>
45	70 <u>79</u>
50	90 <u>96</u>
55	100 <u>115</u>

AASHTO provides the designer of sag vertical curves the option of using shorter curves with the installation of street lighting. These "comfort" designs can also be slightly modified by providing a one (1) percent grade break at each end of the curve. Table 2.09C-10C compares sag curve lengths using these criteria.

Table 2.09C-10C – Design Controls for Lighted Sag Vertical Curves
25 Miles per Hour

Algebraic Difference in Grades	Standard (k)	Comfort (k)	Comfort with Grade Breaks (k)
5.00%	30 <u>26</u>	13.4	8
7.50%	30 <u>26</u>	13.4	9.9
12.50%	30 <u>26</u>	13.4	11.3
17.50%	30 <u>26</u>	13.4	11.9

At the intersection of a local street with another local street or a minor collector street, a minimum design speed of 15 MPH is allowed on the intersecting street. Minimum k factors for lighted sag curves are shown in Table 2.09D10D.

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Volume 1 - Design and Planning**Table 2.09D-10D – Design Controls for Lighted Sag Vertical Curves
15 Miles per Hour**

Algebraic Difference in Grades	Comfort (k)	Comfort with Grade Breaks (k)
5.00%	4.8	3
7.50%	4.8	3.6
12.50%	4.8	4.1
17.50%	4.9	4.3

2.1011 Transitions

- A. Street width transitions from a narrower width to a wider width shall be designed with a 3 to 1 taper. Delineators, as approved by the City Engineer, shall be installed to define the configuration.
- B. For street width transitions from a wider width to a narrower width, the length of transition taper shall be determined as follows:
- $$L = S \times W \text{ (for } S = 45 \text{ MPH or more)}$$
- $$L = \frac{W \times S}{60}^2 \text{ (for } S = \text{less than } 45)$$
- Where L = minimum length of taper (feet)
S = Design speed (MPH)
W = EP to EP offset width
- C. Delineators, as approved by the City Engineer, may be installed to define the configuration. Maximum spacing of delineators shall be the numerical value of the design speed, in feet (i.e. 35- foot spacing for 35 MPH).
- D. In situations where a tapered transition cannot be provided, a barricade shall be installed at the end of the wider section of the street and a taper shall be appointed and delineated as approved by the City Engineer. The barricade shall conform to the Standard Drawing. If the wider section does not provide an additional travel lane, only a barricade is required without the transition.

2.1112 Street Frontage Improvements

- A. All residential subdivisions, commercial developments and short plats shall install street frontage improvements at the time of construction as detailed in their subdivision or short plat approval, as detailed in their approved building plans, or as directed by the City Engineer. Such improvements as determined by the City Engineer shall commence from the centerline of the right-of-way and is to include: sawcut and replacement of existing pavement and road section to the centerline of the traveled way or the centerline of right-of-way; curb and gutter; sidewalk; street storm drainage; street lighting system; traffic signal modification, relocation or

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installation; utility relocation; landscaping and irrigation and street widening all per these Standards. Plans shall be prepared and signed by a licensed civil engineer registered in the State of Washington. Any modification to the requirement for a half-street improvements must be approved by the City Engineer before preliminary land use approval with the approved modification to be set forth in a "Condition of Approval" for the specific project. If the existing pavement in the remaining half street opposite the project frontage is found to be in substandard condition as determined by a geotechnical engineer for the traffic generated by the project, and/or if any additional longitudinal utilities are to be installed with the frontage improvements within the existing paved width opposite the project frontage, an additional overlay may also be required over the that half of the street for the extent of the frontage improvements as determined by the City Engineer.

- B. Plan Preparation shall be as specified in Chapter 1 of these Standards.
- C. Street Frontage design shall incorporate all applicable sections of these Standards and other standard reference materials. The designer shall utilize good engineering practice in any situation not specified in these Standards.

2.1213 Street Ends

A. All street lengths shall be measured from the face of curb of the intersecting street.

A.B. Turnarounds shall be provided at all public street ends and ends of private streets longer than one hundred fifty (150) feet.

~~B. Cul-de-sacs shall be provided for all streets longer than 150 feet. Hammerheads may be used in lieu of a cul-de-sac as approved by the Fire District and City Engineer provided that the street serves eight (8) or less lots and the street is less than one hundred and fifty (150) feet in length.~~

C. Temporary Dead Ends. Where a street is temporarily dead ended, turn around provisions must be provided where the road serves more than four lots. The turn around may be a hammerhead as approved by the Fire District and the City Engineer if the dead end is less than one hundred and fifty (~~150~~200) feet in length. If over five hundred (500) feet long, a cul-de-sac ~~with a minimum paved radius of forty five (45) feet~~ is required ~~for residential streets with mountable curbs, and forty eight (48) feet for industrial streets~~. All temporary turnarounds shall be asphalt; gravel surfaces will not be acceptable.

In the event a temporary turnaround is installed on a street that will be extended in the future, the party responsible for extending the road shall also be responsible for removing the temporary turnaround and installing all necessary curbing, sidewalk, landscaping, etc. within the removal area to meet current City standards.

D. Design Requirements. The following specifies the minimum requirements for cul-de-sacs, eyebrows, and turnaround areas. Other turnaround geometrics may be used when conditions warrant and City Engineer approves the design and application of its use.

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1. Cul-de-sacs shall have a minimum outside curb radius of forty-five (45) feet for residential streets and forty-eight (48) feet for industrial streets.
2. Cul-de-sacs, eyebrows, and turnaround areas shall be allowed only on local and commercial/industrial streets.
3. Cul-de-sacs shall be not be more than five-hundred (500) feet in length unless serving a topographically isolated area (such as a narrow ridge) as determined by the Community Development Director and City Engineer. The length of a cul-de-sac shall be measured along the center line of the roadway from the near side right-of-way of the nearest through traffic intersecting street to the farthest point of the cul-de-sac right-of-way.
4. The minimum curb radius for transitions into cul-de-sac bulbs shall be twenty-five (25) feet.
5. The right-of-way radius for the cul-de-sac shall be sufficient to maintain the same right-of-way to curb spacing as in the adjacent portion of the road (i.e. a local residential street requires forty five (45) foot curb radius with a fifty five(55) foot right-of-way radius)
6. ~~It is the City of Ridgefield's policy to discourage the use of hammerheads~~ Hammerheads and to are only permitted them under unusual circumstances as applied with small infill developments of a maximum of eight (8) lots. Hammerheads may be used in lieu of a cul-de-sac provided that the street serves Eight (8) or less lots and the street is less than two hundred (200) feet in length. Hammerhead geometry shall be approved by the Fire District and the City Engineer.
7. An eyebrow corner may be used on a local street where expected ADT will not exceed 500 vehicles per day or as otherwise approved by the City Engineer. Minimum curb radius on the outside of an eyebrow corner is 36 feet; minimum right-of-way radius is 45 feet. Eyebrow geometry shall be evaluated on the basis of turning requirements for Fire Department vehicles.
8. The turnaround shall be posted and painted "Fire Lane - No Parking".

2.1314 Medians

- A. A median shall be in addition to, not part of, the specified roadway width unless shown on the standard street cross-sections. Medians shall be designed so as not to limit turning radius or sight distance at intersections. Landscaping and irrigation shall be installed when directed by the City Engineer.
- B. Where raised medians are allowed, the following criteria must be met:
 1. Edges shall be vertical curb in urban areas, and either vertical curb or thickened edge in suburban areas.
 2. Landscaping and irrigation are required. Plans shall be prepared by a qualified Landscape Architect.

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2.3. Pedestrian refuges shall be provided where crosswalks intersect medians.

4. Raised medians shall be designed so as not to limit turning radius or sight distance at intersections.

- The raised median shall be set back at least 1 foot from the median lane on both sides, unless otherwise approved by the City Engineer
- Street lighting shall be sufficient to provide illumination of the raised median.
- Objects, such as trees, shrubs, signs, and light poles shall not physically or visually interfere with vehicle or pedestrian traffic in the travel way.
- The style and design of the raised median shall be site specific. The raised median shall be safe for the design speed, and shall be subject to City approval.

2.145 Intersections and Curb Returns

- A. Traffic control will be as specified in the MUTCD Manual of Uniform Traffic Control Devices (M.U.T.C.D.) or as modified by the City Engineer as a result of appropriate traffic engineering studies.
- B. Traffic signal modification, relocation or installation is required when roadway or driveway geometrics interfere with existing signal facilities, or would result in an unsignalized approach or intersection that meets signal warrants.
- C. Angle between intersections. The interior angle at intersecting streets shall be kept as near to 90 degrees as possible and in no case shall it be less than 75 degrees. A tangent section shall be carried a minimum of 25 feet each side of intersecting right-of-way lines.
- D. Maximum street spacing - 500 feet.
- E. Minimum centerline offset of adjacent streets.
 1. Residential - 160 feet
 2. Residential or arterials intersecting arterials - 300 feet
- F. Sloping approaches. On sloping approaches, including commercial driveways, garage entrances, and private street openings, landings are not to exceed two (2) feet difference in elevation for a distance of thirty (30) feet approaching an arterial or twenty (20) feet approaching a local collector or industrial or commercial street, measured from the back of sidewalk or the back of curb if no sidewalk exists.
- G. Curb returns. Curb radii at intersections shall be in accordance with Table 2.14A 15A for the various functional classifications. The right-of-way radii at intersections shall be sufficient to include the entire sidewalk and ramp within the public right-of-way and shall have a minimum radii of 20-feet.

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**Table 2.14A-15A - Turning Radii (Feet)
Edge of Pavement/Curb -Minimums**

Street Classification	Major/Minor Arterial Street	Residential Collector Street	Commercial Industrial Street	Residential Access/Local Street
Major/Minor Arterial Street	55	30	40	25
Residential Collector Street	30	25	30	20
Commercial Industrial Street	40	30	40	25
Local Street	25	25	20	20

* If bike lane or on-street parking exists, above radii may be reduced by five (5) feet.

* The radii of the major street will be used for all intersection curb returns.

2.1516 Sight Obstruction Requirements

- Sight distance should be maintained at all driveways, building or commercial garage entrances where structures, wing walls, etc. are located adjacent to or in close proximity to a pedestrian walkway.
- Sight lines to traffic control devices (signs, signals, etc.) should not be obscured by landscaping, street furniture, marquees, awnings or other obstructions. Refer to the Manual of Uniform Traffic Control Devices (M.U.T.C.D.)MUTCD for required sightlines.
- Sight Distance. It is the policy of the City to have the developer's engineer evaluate safe intersection sight distance using the principles and methods recommended by AASHTO. Table 2.15A-16A presents minimum intersection and commercial driveway sight distances.

Table 2.15A-16A - Corner Sight Distance

Design Speed (MPH)	Minimum Corner Sight Distance (Feet)
20	210 225
30	310 335
40	415 445
50	515 555
60	650 665

The sight distances in table 2.156A assume a stopped passenger car turning left onto a two lane road with no median and grades of 3-percent or less. For other conditions the time gap must be adjusted and the sight distance recalculated. Intersection sight distance should always be measured from a driver's eye 3.5 feet high and 15 feet from the near edge of the nearest lane to an object height of 3.5 feet. Stopping sight distances must also be checked on the actual vertical and horizontal values of the proposed improvement. There shall be nothing to block observation of objects

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between the driver's eye height of 3.5 feet and an object height of 2.0 feet above grade in both directions. The only exceptions should be for luminaire or utility poles, conforming traffic control devices, and fire hydrants. Cumulative effects must be considered, and all efforts taken to minimize sight obstructions.

Modifications or exceptions to these standards shall be approved by the City Engineer.

2.1617 Curb and Gutter - Types and Application

- A. Vertical curb and gutter shall be utilized on all streets (residential, commercial or arterial) and on all islands and medians except when emergency vehicle access across the median is required.

Rolled Curb may be used at the end of cul-de-sacs where approved by the City Engineer.

- B. The following specifies the requirements for curbs and cross-slope grading for streets:
1. All streets shall include curbs on both sides, except in the situations of interim width improvements. Interim designs, where approved in writing by the City Engineer, shall have shoulders and ditches.
 2. Interim width streets shall have 2-foot side shoulders adjacent to the street at a 2 percent cross-slope and roadside ditches each side of the shoulders with a maximum side-slope of 2 horizontal to 1 vertical. The 2-foot shoulder area may consist of a section of pavement and/or a section of crushed rock. The pavement section shall be a minimum of 2 feet wide and a maximum of 6 feet wide.
- C. Grading outside the improved areas shall be as follows, unless approved in writing by the City Engineer:
1. Arterials shall have a maximum 2 percent upward grading to the right-of-way line, and no steeper than 3 to 1 up, or 3 to 1 down, outside the right-of-way.
 2. Local Street and Commercial/Industrial functional classifications shall have a maximum 2 percent upward grading to the right-of-way line, ~~a 5 to 1 upward or downward grading within the public utility easement,~~ and no steeper than 3 to 1 up, or 3 to 1 down outside the public ~~utility easement~~ right-of-way.
 3. Retaining walls shall be used if slopes are greater than the 3 to 1 requirement in the paragraphs above or where slope stability is a problem.
 4. If slopes are to be maintained (mowed) by the City, a maximum of 4 to 1 slope will be required.

2.1718 Survey Monuments

As a minimum standard for monumenting city right of ways, survey monuments shall be located at each street intersection, intersection points of the extension of the project perimeter boundary lines and the centerline of frontage streets; right of way PC, PT,

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bends and intersections with all property lines including the perimeter boundary lines of all subdivisions and short plats. Additional monumentation may be required by the City Engineer.

2.1819 Concrete Sidewalks

- A. ~~Where Required.~~ Concrete sidewalks shall be provided ~~as follows~~ on both sides of the street.:
 1. ~~Both sides of all arterial streets.~~
 2. ~~Both sides of all other streets (through street or dead-end).~~
- B. Exceptions. Sidewalks may be omitted under the following conditions if approved by ~~the Community Development Director and~~ the City Engineer:
 1. Where subdivision design provides an acceptable surfaced and maintained internal walkway system as approved by the City Engineer, a sidewalk may not be required adjacent to the street.
 2. ~~At the discretion of the City Engineer,~~ private roads ~~may~~ serving more than four (4) lots require sidewalks on at least one side of the private road, as needed for connection to a pedestrian path or multiuse trail.
 3. Alleys do not require sidewalks.
 4. Where roadways abut sensitive lands, the sidewalk may be omitted from one side of the street, provided that an ~~acceptable~~ alternative pedestrian route acceptable to the City Engineer is provided.
- C. Width
 1. ~~Residential Streets: five (5) feet~~ Required sidewalk widths for each street classification can be found in the Transportation Details.-
 2. ~~Local Commercial/Industrial Streets: six (6) feet.~~
 3. ~~Arterial Streets: six (6) feet (Except downtown arterial which requires ten (10) feet sidewalks with tree wells.~~
 4. ~~Designated Bikeways: Ten (10) feet when there is insufficient roadway width for bicycle lanes. Bicycle lanes shall be five (5) feet in width.~~
 5. 2. Width of sidewalk does not include curb.
 6. 3. Meandering sidewalks shall maintain the full design width around obstructions that cannot be relocated. Additional Right-of-Way (or easement) may be required to either relocate the obstruction or meander the sidewalk.
 7. 4. Sidewalk widening behind a mailbox or other obstruction shall be no less than five (5) feet long with a ten to one (10:1) taper to the standard sidewalk section.
- D. Material. All sidewalks shall be four (4) inch thick Class B concrete over 2 inches of crushed rock. At driveways the concrete shall be six (6) inches thick. A pervious paving material may be substituted if approved by the City Engineer.

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- E. Landscape/Separation. Where planter strips are required, the back of sidewalk should be placed at the right-of-way line, unless approved by the City Engineer. Meandering sidewalks may be allowed where they provide an attractive planned alternative to straight sidewalks. A minimum three (3) foot separation between the back of the curb and sidewalk is required for landscaping and appurtenance locating purposes unless no practicable alternative exists and when approved in writing by the Engineer. Sidewalks shall meander no more than six (6) feet from the curb at all pedestrian crossings and at driveways.
- F. ~~Handicap-Curb~~ Ramps. In accordance with State law, ~~wheelchair-curb~~ ramps meeting current Americans with Disabilities Act (ADA) requirements shall be provided at all pedestrian crossings with curb sections.
- G.F. ~~Curb Ramps~~. The edge of the sidewalk shall merge into curb ramps. One ramp is used on each curb return on residential streets and unsignalized intersections. At signalized intersections, a curb ramp shall be aligned with each crosswalk.
- H.G. All ~~handicap-and~~ curb ramps ~~at curb returns with an average slope with tangents~~ greater than 5% shall be specifically designed by the developer's engineer. Design shall include an individual detail with elevations shown at all angle points and grade breaks within the ramp so as to indicate to the contractor how the ramp is to be installed to ADA requirements.

2.1920 Asphalt Sidewalks

- A. Asphalt sidewalks may be allowed in lieu of concrete sidewalks where the sidewalk as determined by the City Engineer is deemed to be of a temporary nature (such as during construction activities) or due to future construction considerations.

2.2021 Trails

A. Multi-Use Trails

1. ~~Multi-use trails shall be a minimum of eight (8) feet wide. Trail widths shall be as follows:~~
 - a. ~~Type 1 trail 10-12 feet~~
 - b. ~~Type 2 trail 8-10 feet~~
 - a.c. ~~Type 3 trail 6-8 feet~~
2. Materials shall be per the requirements of Section ~~2.33 Surfacing Requirements~~ ~~2.33 Surfacing Requirements~~ ~~2.323 Surfacing Requirements~~ ~~2.32~~.
3. Multi-use trails shall be a minimum of four (4) feet from the edge of the vehicular travel way unless no practicable alternative exists and when approved by the Engineer.
4. ~~Maximum grade is fifteen percent (15%). Minimum curve radius is ten (10) feet.~~

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~~5.4. Access-Type II barricade shall be installed at the end of trail sections as directed by the City Engineer.~~
~~5.5. Easement termination (Type II) shall be installed as directed by the City Engineer.~~

~~6.5. Multi-use Trails~~ may be used as a substitute for concrete sidewalks or bike lanes in planned unit developments where the City Engineer deems that non-motorized transportation goals of the City are being met.

B. Off-Road Trails

1. All City Trail Systems are to meet the multi-use standards above as reasonably possible. For Trail Systems that can not meet the multi-use standards above, as determined by the City Engineer, the minimum standards for the design and construction shall generally follow as a practical guide for trail work the 2007 Edition of the "Trail Construction and Maintenance Notebook" and the 2007 Edition of the "Wetland Trail Design and Construction", Forest Service Publication List Document Numbers 0723-2806-MTDC and 0123-2833-MTDC respectively. These practical guides can be located on the Federal Highway Administration (FHWA) web site at http://www.fhwa.dot.gov/environment/recreational_trails/publications/fs_publications/index.cfm~~http://www.fhwa.dot.gov/environment/fspubs/~~.

~~2.21~~ **22 Bikeways/Bike lanes**

- A. Bikeway construction is required in conjunction with commercial development, plat or short plat approval, when the need for such a bikeway is established by the Community Development Director.
- B. Separated bikeways (bicycles only) shall be a minimum of five (5) feet wide for one way and ten (10) feet wide for two (2) way flow. Separated bikeways combined with pedestrian facilities shall be a minimum of ten (10) feet wide.
- C. Where joint vehicular and bicycle facilities (Bike lanes) are constructed, the curb lane shall be fourteen (14) feet wide and use eighteen (18) inch wide Type A curb and gutter.
- D. Surfacing requirements for separated bikeways shall be as specified in Section ~~2.32~~ **33**.
- E. Maximum grade for separated bikeways shall be ten percent (10%). Minimum curve radius is one hundred (100) feet. Curves should be minimized.
- F. Bump outs. A "bump out" at street intersections per Standard Drawings shall be installed on all routes with bike lanes using the following criteria:
 1. Two-lane roadway - not applicable.
 2. Three-lane roadway - "bump out" at all signalized intersections only.
 3. Four- to five-lane roadway - "bump out" at all signalized intersections and at major side street intersections where the right turn volume onto the minor street exceeds 600 ADT.

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2.2223 Driveways

A. General Requirements.

1. Standard residential or commercial driveways shall be required for all developments.
2. In new residential subdivisions or residential short subdivisions, panhandle and flag lot driveways shall be less than one hundred and fifty (150) feet and have a minimum paved access driveway of twelve (12) feet in width and shall provide access to no more than two (2) lots. The private or public road standards shall be used for access to more than two (2) lots.
3. Only one driveway access per residential lot shall be allowed unless approved by the City Engineer.
4. A private intersection opening shall be used in lieu of a conventional driveway in commercial areas where the following criteria or as determined by the City Engineer are met:
 - Projected driveway usage is greater than two-thousand (2,000) vehicles per day.
 - In any case where traffic signalization is approved and provided.
 - A minimum one hundred (100) foot storage area is provided between the street and any turning or parking maneuvers within the development.
 - The opening is at least one hundred and fifty (150) feet from any other intersection opening.
 - The opening is at least one hundred and fifty (150) feet away from any other driveway on the property frontage under control of the applicant.

B. Conditions of Approval.

1. Driveways directly giving access onto arterials may be denied if alternate access is available. Driveways giving access onto other roadways may be denied, if in the opinion of the City Engineer, they create a potentially unsafe or hazardous condition.
2. All abandoned driveway areas on the street frontage to be improved shall be removed and new curb, gutter, and sidewalk shall be installed.
3. No commercial driveway shall be approved where backing onto the sidewalk or street will occur.
4. Left turns from and to a driveway may be restricted as a development condition or in the future if such maneuvers are found by the City Engineer to be unduly hazardous.
5. Driveways shall be aligned wherever possible with existing driveways on the opposite side of the street.

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6. If driveways cannot be aligned directly across from a driveway on the opposite side of the street, they shall be offset a minimum of one hundred (100) feet from driveways on the opposite side of the street whenever possible.
7. All driveways shall be angled ninety-degrees (90°) to the street, unless designated as right turn only with the approval of the City Engineer.
8. Driveways approved by the City Engineer providing for access onto collectors shall be a minimum of 100 feet from any intersection, and a minimum of 150 feet for access onto arterials. All distances shall be measured from the centerline of the street or driveway.

C. Design Criteria.

1. Width.

The maximum ~~two (2)-way~~ driveway width shall be twenty (20) feet for residential uses and thirty (30) feet for commercial uses. A wider commercial driveway width may be approved by the Engineer where a substantial percentage of oversized vehicle traffic exists and where it can be justified via modeling or some other approved means. In this case the driveway should be sized to accommodate the largest vehicles, but shall be no wider than fifty (50) feet. Where intersection openings are approved, the width shall be as determined by the City Engineer.

~~Maximum one way driveway width shall be ten (10) feet for residential and twenty two (22) feet for commercial driveways. Parking lot circulation needs shall be met on site. The public right of way shall not be utilized as part of a one way parking lot flow.~~

Driveways on local access streets serving detached single-family homes may be up to thirty (30) feet in width, subject to approval by the City Engineer. There shall be adequate top of curb space provided between detached single-family driveway aprons at the property line for location of water meters, landscaping and street lighting.

2. Elevation. For new development, driveways on local access streets serving single family homes adjacent to detached sidewalk (i.e. standard detail sheets T-2.8 ~~to and~~ T-2.109) shall match the same elevation as the front of the walk adjacent to the driveway approach. Any variation to this requirement is to follow city standards as approved by the City Engineer.
3. Clearance from structures. No object (including fire hydrants, light or power poles, street trees) shall be placed or allowed to remain within fifteen (15) feet of the driveway edge.

Where the building facade or other design element is less than ten (10) feet behind the sidewalk front setback both pedestrian and vehicular sight distance shall be maintained. Vehicular sight distance shall be per Section 2.15.
4. Sight Distance. Pedestrian sight distance shall be as follows: The driver of an exiting vehicle shall be able to view a one (1) foot high object fifteen (15) feet

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away from either edge of the driveway throat when the driver's eye is fourteen (14) feet behind the back of the sidewalk.

5. Maximum driveway grade shall be fifteen percent (15%).
6. On sloping approaches, a landing as described in Section 2.09, shall be provided.
7. Approach grades and configuration shall accommodate future street widening to prevent major driveway reconstruction.

2.2324 Bridges

- A. Design Principles. All bridges, whether on public or private roadways, shall meet the minimum requirements set forth in the latest addition of "Standard Specifications for Highway Bridges", adopted by AASHTO. All new bridges shall be designed to carry an AASHTO HS-20-44 live load or greater.
- B. Geometrics. In the general case, the bridge shall comprise the full width and configuration of the road being served (traveled way plus curb, sidewalk, walkway, bike lane, and/or shoulder on one or both sides). Requirements of utilities shall be considered. Traffic and pedestrian railings or combination traffic-pedestrian railings shall meet AASHTO specifications. Overhead vertical clearances on the traveled street or under overpasses shall be sixteen and one-half (16.5) feet minimum.

2.2425 Landscaping in the Right-Of-Way, Easements and Access Tracts

- A. Plantings established in the right-of-way shall be maintained by the abutting property owner on local and access streets. Plantings established in the right-of-way along collector and arterial streets shall be maintained by the Home Owner's Association / Business Association.
- B. Any existing planting areas within the right-of-way that are disturbed by construction activity shall be restored to their original condition.
- C. Any plantings or other improvements placed within the right-of-way (by abutting property owners) are subject to removal when the right-of-way is needed for public use. The property owner is responsible for removing any landscaping or other improvements upon official notice. The property owners shall be responsible for survival of the relocated plantings.
- D. Measures shall be taken by the developer to provide groundcover in areas within the right-of-way which have been stripped of natural vegetation or have a potential for erosion. Native plants shall be used whenever possible.
- E. Plantings within the right-of-way shall comply with the following provisions:
 1. All landscaping shall comply with the sight distance provisions of these standards.
 2. Where existing landscaping maintained by the City exists every effort shall be taken to protect and preserve the existing vegetation during construction. Plants

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shall be relocated or removed only upon approval of the Public Works Department. Damaged landscape areas shall be restored prior to issuing a final occupancy permit.

3. In areas where an existing landscaping concept or pattern has been established or approved, all new landscaping shall conform to the intent of the concept. Plantings shall be of a similar variety, size, and spacing to those already established and/or approved for the area.
4. All trees planted in areas with adjacent pedestrian usage shall maintain a seven (7) foot clearance to the lowest branches.
5. Approval from the Public Works Department must be received before trees are planted in or adjacent to sidewalk sections.
6. Landscaping in public right of way with low maintenance, drought tolerant ground cover is encouraged. Native plant lists and list of nuisance and prohibited plants are included in RMC Section 18.830.

F. Street trees shall be selected from the City's approved tree list.

2.2526 Mailboxes

- A. Mailboxes should be clustered together when practical and when reasonably convenient to the houses served.
- B. When mailboxes are located in the sidewalk, individually or in clusters, sidewalk shall be widened to provide the full design width around the mail boxes.
- C. In the case of new road construction, or reconstruction requiring mailboxes to be moved back or rearranged, the designer and builder shall coordinate with the local postmaster of the U.S. Postal Service. Mailbox locations approved by the Post Office shall be shown on approved road construction plans.

2.2627 Street Illumination

- A. Plats and Short Plats.

Street lighting is required for all public streets and private communitites. The street lighting design shall be reviewed and approved by the City Engineer prior to final plat approval. The cost of all street lighting shall be paid for by the developer.

The City will accept maintenance and power cost responsibility for the public street light system ~~only, when the public improvements have been fully accepted by the City.~~ Until the public improvements have been fully accepted by the City, the developer is responsible for the maintenance and energy charges for the street lighting system.

Street lighting is not required on private streets within a plat. However, a street lighting system is encouraged. The City does not install or maintain private street

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lighting systems. On private streets, all street light maintenance and power cost shall be paid by the developer, homeowner, or homeowners association.

- B. Existing Residential Areas. If a resident or group of residents desires the installation of a new street light they must apply to the Public Works Director.
- C. Commercial. Street lighting is required on all public street frontages. The developer is responsible for design, installation or relocation of new or existing lighting. Commercial development shall replace existing lighting systems on power poles with a new lighting system serviced by underground power.
- D. General Considerations.

All public street light designs shall be prepared by a licensed engineer experienced in lighting design. The design plans and calculations should indicate luminaire type, luminaire spacing, illumination levels, uniformity ratio, line losses and the electrical and physical layout of the system, including its connection to the existing system and foundation design.

Street lights shall direct light downward. Lights shall be provided with a cap or shield to prevent stray light from going upward.

All public street light systems shall be accessible for public maintenance by a wheeled vehicle weighing twenty-thousand pounds (20,000 lbs.).

All street light installations including wiring, conduit, and power connections shall be located underground. Exception: existing residential areas with existing above ground utilities may have street lighting installed on the existing power poles as approved by the Public Works Director as noted above.

~~As built drawings on 22 inch x 34 inch or 24 inch x 36 inch mylar are required for all new or relocated underground street lighting systems prior to receiving a final occupancy permit.~~

All street lights shall be on one hundred twenty (120v) volt single phase systems. The exact location of the power source should be indicated together with the remaining capacity of that circuit. System continuity and extension should be considered.

Contractor cabinets equipped with electrical meters, time clocks, circuit breakers and other required components are required on commercial installations of five (5) or more street lights.

Particular attention shall be given to locating luminaires near intersections, at all street ends and at pedestrian and/or equestrian crossings.

- E. Illumination. ~~Street lighting system designs are to be prepared by a licensed engineer experienced with lighting design. Calculations should include luminaire spacing, illumination level, uniformity ratio, line losses, power source and other necessary details for the electrical and physical installation of the street lighting system.~~ The lighting engineer shall use the standard specifications of the Washington State Department of Transportation for SR-501 (Pioneer), and for all other City streets

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shall use the ~~City of Vancouver city street lighting requirement~~following requirements:

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Illumination Levels

Street Classification	Horizontal Foot Candles	Uniformity Ratio (average to minimum)
Principal Arterials	1.2 FC	3:1
Minor and Collector Arterials	0.8 FC	3:1
Local Commercial/Industrial	0.8 FC	3:1
Local Residential Collectors Access	0.4 FC	3:1
Local Residential Streets	0.3 FC	4:1

F. For new subdivisions and short plats all street lights shall be decorative acorn single fixture on a cast aluminum decorative pole. The pole shall be a single piece cast aluminum pole, 14' tall and 4" diameter with a fluted shaft and 17" decorative base with anchor bolts. Pole and fixture housing finish shall be polyester powder coat for corrosion resistance. Pole shall be Holophane part number WDA 14 F4C 17 P07 ABG BK or approved equal. The luminaire shall be LED in 3000K with minimum output of 5450 lumens (T-2.18A) or minimum 5000 lumens (T-2.18B) with maximum wattage of 60W. L70 shall exceed 100,000 hours. Lumen depreciation shall be a maximum of .75 per TM21 calculations for 100,000 hours at 25C ambient. Driver shall be 120-277V and have life expectancy of 100,000 hours when installed in luminaire in 25C ambient environment. Optic shall have an internal reflector to redirect light downward and have a type 3 prismatic refractor. Optic shall have decorative gold vertical slot band with 4 black medallions. Driver, photocell receptacle and surge protector (Class C 10kV/5kA) shall be mounted on removable tray with access through hinged door for easy maintenance. Fixture shall be DLC listed.

Luminaire shall be Holophane part number AWDE 60 3K AS M B 3 M R G G RFD 184501 / GVD 60 3K AS M B 3 R R G RFD 184502 or approved equal.

⋮

G. Street lights for city collectors and arterials shall be cobra head lights with poles per city standard plan T-2.11 and T-2.12. The luminaire shall be LED in 4000K with a minimum output of 9450 lumens and a maximum wattage of 100W. Lumen depreciation shall be a maximum of .96 per TM21 calculations for 100,000 hours at 25C ambient. Driver shall have life rating of 100,000 hours when installed in fixture at 25C ambient. Fixture shall be 3G vibration rated and black polyester powder coat paint

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finish for corrosion resistance. Fixture to use Long life LED photocell. Fixture shall have BUG B2U0G2 cutoff and be DLC listed. Luminaire shall be American Electric ATB2 40BLEDE70 MVOLT R3 or approved equal.

H. City pathway lights shall be decorative post top fixture on a cast aluminum decorative pole. The pole shall be a single piece cast aluminum pole 14' tall and 4" diameter with a fluted shaft and 17" decorative base with anchor bolts. Pole and fixture housing finish shall be polyester powder coat for corrosion resistance. Pole shall be Holophane part number WDA 14 F4C 17 P07 ABG BK or approved equal.

The luminaire shall be LED in 3000K with minimum output of 1367 lumens with maximum wattage of 25W. L70 shall exceed 100,000 hours. Driver shall be 120-277V and have life expectancy of 50,000 hours when installed in luminaire in 25C ambient environment. Optic shall be acrylic with a type 2 refractor. Luminaire shall be Holophane part number 247L 10LEDE70 MVOLT 3K R2 AY PCLL or approved equal.

~~F. For new subdivisions and short plats all new street lights shall be Decorative Street Lights with single luminaire with fiberglass pole (i.e. Acorn or Shepard's Hook). The luminaire shall be a 100 watt sodium vapor, decorative post top (single) street light, type 5, with internal house side shield on a 14.5' direct burial decorative fiberglass pole, at a maximum 150-foot spacing. Street light location to be 2-feet behind curb or as shown in lighting plan.~~

~~G. Street lights for City Collectors and arterials shall be per City standard plan T 2.11 and T 2.12. The luminaire is to be a GE M 400A POWR/DOOR® WITH CUT OFF OPTICS, 200-watt/120-volt, HPS, flat internal reflector lens, black powder coat finish, mounted at 34-feet with an 8-foot arm.~~

~~H. City pathway lights are to be approved by the City Public Works Director and shall be 50 watt sodium vapor pathway area pole light on 16-foot direct burial, round tapered, black, fiberglass pole.~~

2.2728 Traffic Control and Signing

- A. Traffic Control Devices. The City Engineer shall review and approve all traffic control devices.
- B. Signing. In new plats the developer shall install all traffic control signs which shall include but not be limited to street name, parking, stop, dead end, and pedestrian

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signing. The developer will be responsible for supplying and installing the required signs.

- C. Pavement Marking. In new plats or commercial developments pavement markings, including buttons, paint, thermoplastics and delineators will be required for roadway safety. Such markings shall be provided and installed by the developer. All markings shall be approved by the City Engineer prior to installation.
- D. Temporary Traffic Control. It is the responsibility of the developer to provide adequate temporary traffic control to ensure traffic safety during construction activities.
- E. Traffic Signal Modification. Traffic signal modification designs shall be prepared by a licensed engineer experienced in traffic signal design.
- F. Design Requirements
 - 1. Traffic Control Devices. All traffic control devices shall conform to the Manual on Uniform Traffic Control Devices (M.U.T.C.D.) as adopted by the Washington State Department of Transportation (WSDOT).
 - 2. Signing. Sign sizes shall conform M.U.T.C.D standards. See WSDOT Standard Drawings shall be used for typical installations and details. Sign posts shall be constructed of 2"x 2" perforated square aluminum post set in a sleeve per the WSDOT Standard Plans.
 - i. Street name signs shall be green with a white border. Lettering shall follow MUTCD guidance. On residential street name signs the initial upper case letters shall be 6" tall with subsequent lower case letters 4.5" tall. Street signs should be flat aluminum and double sided.
 - ~~2.3.~~ Pavement Marking. All markings shall conform to the current ~~Manual on Uniform Traffic Control Devices~~ (M.U.T.C.D.) as adopted by ~~the Washington State Department of Transportation~~ (WSDOT).
 - ~~3.4.~~ Temporary Traffic Control. All traffic control devices shall conform to the ~~current Manual on Uniform Traffic Control Devices~~ (M.U.T.C.D.) as adopted by ~~the Washington State Department of Transportation~~ (WSDOT) or as modified by the City Engineer.
 - ~~4.5.~~ Speed Humps. Speed humps ~~are~~ shall be approximately three (3) inches in height with a length of at least twelve (12) feet at base.
 - ~~5.6.~~ Traffic Signal Modification. The developer's engineer shall use the standard specifications developed by the City Engineer in conjunction with the current edition of ~~the Washington State Department of Transportation's~~ (WSDOT) 's Standard Plans and Specifications for Road, Bridge, and Municipal Construction. ~~Traffic Signal plans shall be submitted on 22" x 34" mylar.~~

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2.2829 Clear Zone and Appurtenances

An appurtenance shall be considered to be any fixed object located adjacent to the roadway and deemed to be a possible safety hazard.

- A. All non-breakaway appurtenances shall be located a minimum of three (3) feet behind the face of the curb to the face of the object. Where no curb exists the distance from the edge of the travel way to the face of the object shall be at least six (6) feet.
- B. All breakaway objects shall be located a minimum of two (2) feet behind the face of curb to the face of the object. All objects having properties up to that of a 4" x 4" wooden post shall be considered breakaway.
- C. Appurtenances shall be located outside of the sidewalk area except when the sidewalk is widened around the appurtenance to the satisfaction of the City Engineer.

2.2930 Franchise Utilities

- A. Non-City owned franchise utilities are required to relocate existing facilities at their own expense when a conflict results between their facilities and public street improvements. For development related work, the proposed improvements must be required by the non-City owned utility in order for the relocation work to be the financial responsibility of the utility, otherwise all costs shall be the responsibility of the developer.
- B. All non-City owned utility distribution or collection systems, franchise or otherwise, including power, telephone, and television cable in new plats or short plats shall be underground.
- C. As a minimum on all new single family plats and short plats, a minimum five (5) foot wide common or individual non-exclusive utility easement shall be provided connecting any lots without public street frontage to a public street. Easements for existing or future utility lines which do not lie along rear or side lot lines shall be of a width specified by the serving utility.

2.3031 Safety Railing

- A. Where a sidewalk or other non-motorized transportation facility is to be constructed above a slope or adjacent to a ~~rockwall or retaining~~ wall where the lowest finished elevation of the slope, ~~rockwall or retaining~~ wall is to be thirty (30) inches or more below the finished elevation of the sidewalk or other facility, a safety railing shall be required when:
 1. The plane of a wall face is less than four (4) feet in horizontal distance from the near side face of the sidewalk or other facility.
 2. The plane of the wall face is greater than four (4) feet horizontal distance to the near side face of the sidewalk or other facility but the slope down to the wall top exceeds three to one (3H:1V).

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3. The slopes adjacent to the sidewalk or other facility average greater than two to one (2H:1V).
- B. Safety railings or other approved devices (such as walls, high curbs, landscape features or guard rails) shall be required where grading operations will produce a parking area, service yard or other vehicle area which has a drop-off grade separation in relation to adjoining properties or streets.
- C. Safety railings shall be constructed of 2-inch galvanized steel pipe or aluminum with vertical supports ten (10) feet on center and 3 horizontal railings fourteen (14) inches on center, the lowest railing center being fourteen (14) inches above finished grade. All joints shall be welded, cold galvanized if welded after galvanizing, and the entire safety railing painted or vinyl coated to assure corrosion protection and a pleasing appearance at the City's option. Railings shall be erected and adjusted, if necessary, after initially set to assure a continuous line and grade. Warning signs stating "Danger, Please Keep Off" shall be attached to the railing spaced every 50 feet or as directed by the City Engineer.

2.3132 Guard Rails

For purposes of warrants, design, and location, all guard rails along roadways shall conform to the criteria of the "Washington State Department of Transportation Design Manual" as may be amended or revised. The decision of whether to install a guardrail or not shall be based on information found in AASHTO publication, Guide for Selecting, Locating, and Designing Traffic Barriers.

2.3233 Surfacing Requirements

All materials and workmanship shall be in accordance with the Standard Specifications, these Standards, and as approved by the Engineer.

- A. Minimum Structural Section. The following are the *minimum* requirements for surfacing for specific facilities as described elsewhere in these Standards.

Facility		Surfacing Requirements
1.	Roadways	
	Arterials – Industrial/Commercial	5" Hot Mix Asphalt Class 1/2-inch, PG 70-22 over 14" crushed base rock
	Residential Collector	4" Hot Mix Asphalt Class 1/2-inch, PG 64-22 over 12" crushed base rock
	Access & Local Residential Streets	3" Hot Mix Asphalt Class 1/2-inch, PG 64-22 over 10" crushed base rock
2.	Concrete Sidewalks	4" Portland Cement Concrete over 2" of crushed base rock
3.	Multi-Use Trail	<u>2-1/2" Hot Mix Asphalt Class 1/2-inch, PG 64-22 over 4" Crushed Rock Base, unless approved as an un-paved trail (type 3 trails only). Unpaved trails shall be 3" of 3/8 minus crushed rock over 3" of Crushed Rock Base</u> 2-1/2" Hot Mix Asphalt

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		Class ½-inch, PG 58-22 over 4" Crushed Rock Base, unless otherwise approved
4.	Bikeway	2-1/2" Hot Mix Asphalt Class A over 4" Crushed Rock Base

All minimum surfacing requirements assume an acceptable, well drained, stable, compacted subgrade. Additional requirements may be imposed at the discretion of the City Engineer if suitable subgrade conditions are not met. A pervious material, ~~such as Grass Crete or Ritter Ring,~~ may be used ~~in parking lots upon some situations~~ with for trails and sidewalks with approval of the City Engineer.

- B. Alternative Sections. Streets may be constructed of any of the following:
1. Asphaltic concrete with crushed rock base or treated base.
 2. Full depth asphaltic concrete.
 3. Portland cement concrete with cushion course of crushed rock or on a base of crushed rock or treated base.

For pavement sections, other than those in Section 2.3233.A, alternative sections may be approved by the City Engineer following submission of calculations by a registered engineer and per the design requirements described herein. Soil testing to obtain the strength of the soil is required for all roads and streets in order to analyze and design the structural section. Soil tests are needed on undisturbed samples of the subgrade materials that are expected to be within three (3) feet of the planned subgrade elevation. Samples are needed for each five hundred (500) feet of roadway and for each visually observed soil type. Soil tests are required from a minimum of three (3) locations.

The selected design structural strength of the soil shall be consistent with the subgrade compaction requirements. The strength and compaction moisture content, at optimum to slightly over optimum, shall be specified. The soils report shall address subgrade drainage and ground water considerations for year round conditions.

Recommendations for both summer and winter construction shall be included. The required density of treated and untreated subgrade materials shall not be less than 95 percent maximum density as determined by AASHTO T-99.

C. Aggregate Base

All aggregate shall meet WSDOT specifications for base rock.

During compaction, materials shall be maintained within 2 percent of the optimum moisture content. The contractor shall begin compaction of each layer immediately after the material is spread, and continue until a density of not less than 95 percent of the maximum density has been achieved. Maximum density will be determined by AASHTO T-180, or WSDOT Test Method 705.

D. Asphalt Pavement Design

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The base course and wearing course of asphalt concrete (AC) for streets shall be WSDOT "Superpave" Hot Mix Asphalt Class 1/2-inch, PG 64-22.

The compaction shall be at least 91 percent based on a Rice theoretical maximum density, as determined in conformance with AASHTO T 209, as modified by WSDOT. In addition, for each mix used, a 50 blow Marshall (AASHTO T 245) shall be performed and all related test data shall be provided to the City Engineer. The minimum stability shall be 1,800 pounds, the flow shall be between 8.0 and 16.0 hundredths of an inch, and the voids shall be between 3.0 and 5.0 percent. The Marshall requirement may be waived by the City Engineer on a case-by-case evaluation.

Asphalt pavement shall be designed by the Asphalt Institute Method, or an approved equivalent method provided it is a nationally recognized procedure.

Design of asphalt concrete pavement structures by the Asphalt Institute Method shall conform to the guidelines of The Asphalt Institute Publication, Thickness Design - Asphalt Pavements for Highways and Streets Manual Series No. I.

1. AASHTO T-193 (CBR Method), or
 2. AASHTO T-190 (R-Value Method), or
 3. If the CBR value of the subgrade exceeds twenty (20) or the R value of the subgrade exceeds sixty (60), then CBR and R-value methods shall not be used.
- E. Portland Cement Concrete Pavement. The design of Portland cement concrete streets shall be governed by the guidelines and requirements of the Portland Cement Association (PCA) design procedures found in the following publications:
1. Concrete Streets: Typical Pavement Sections and Jointing Details
 2. Thickness Design for Concrete Highway and Street Pavements
 3. Joint Design for Concrete Highway and Street Pavements

The subgrade shall be tested to determine the Modulus of Subgrade Reaction, k, in order to design the street structure. A correlation of CBR to k may be made using Figure 2, provided in Thickness Designs for Concrete Highway and Street Pavements. In addition, the City requires that the following be incorporated into the design and construction specifications:

1. Use a minimum twenty (20) year design period.
2. Minimum thickness of Portland cement concrete shall be five (5) inches.
3. The minimum concrete specifications shall be 5,000 psi (compressive) and 650 psi (flexural) in 28 days. The minimum cement content will be 660 pounds per yard, with a maximum water / cement ratio of 0.48. Slump shall range from 3-inch to 4-1/2-inch. Entrained air shall be from 4.0 to 6.0 percent.
4. A design joint plan shall be prepared and incorporated into the street construction plans. Longitudinal and transverse joint locations shall be clearly delineated. Transverse joints shall be skewed forward two (2) feet per lane with

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right and left curb street stationing noted for each end. Joint spacing (in feet) should not exceed 1.5 to 1.75 times the slab thickness (in inches). For example, an 8-inch thick slab would have a maximum joint spacing of 12 to 14 feet. The maximum length to width ratio shall be 1.25 : 1.0 for any panel unless there are other constraints that the City Engineer will examine on a case by case basis.

2.3334 Utilities

~~A. Depth. Underground utilities shall be buried a minimum depth of thirty (36) inches as measured from finished grade to top of utility. See Chapters 3, 4 and 5 for additional requirements.~~

~~B.A.~~ B.A. Curb Markings. When new curbing is being placed, a stamp shall be placed to mark where each water and sanitary sewer service crosses the curb line. The method of marking the curb shall be approved by the City Engineer and noted on the approved construction plans. If an imprinting stamp is used, the impression left for a water service shall be the letter "W"; for a sanitary sewer service, it shall be the letter "S". These impressions shall be two (2) inches high, placed on the face of the curb.

~~C.B.~~ C.B. Trench Restoration. Trench restoration shall be either by a patch or overlay method as determined by the Public Works Director or the City Engineer. Unless otherwise approved, trenches cut in the travel lane parallel to the roadway will require a grind and overlay of the entire travel lane from the centerline to the edge of pavement. When a patch method is used, the trench limits shall be saw cut prior to the final patch.

All trench and pavement cuts shall be made by saw cuts. The saw cuts shall be a minimum of one (1) foot outside the trench width. If the permit requires an overlay, the contractor may use a zipper or other approved method for the cutting of the existing pavement.

~~D.C.~~ D.C. Utility Locations. Utilities shall be located horizontally within the right-of-way in accordance with City Standards.

2.345 Traffic Calming

Traffic calming measures shall be used by the developer on all Collector and Residential Access streets to reduce traffic speeds unless otherwise approved by the City Engineer. Traffic calming measures may also be required by the City Engineer and/or Community Development Director to mitigate traffic impacts or as required by Ridgefield Municipal Code. Acceptable traffic calming measures are provided in Appendix A.

CHAPTER 3

STORM DRAINAGE

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CHAPTER 3 - STORM DRAINAGE

3.00 General Approval Requirements

- A. See Chapter 1 for general construction requirements, including the requirements for extension of all drainage conveyance pipes to limits of property, surety bond, utility review, and other general requirements.
- B. These requirements shall apply to all storm drainage facilities in existing and proposed public right-of-way, public drainage easements, and tracts of common ownership in the City. Storm drainage systems include, but are not limited to: inlets, pipes, ditches, creeks, rivers, wetlands, and stormwater quality and quantity facilities. Storm facilities located on, and serving private property are required to follow the requirements of this section for the design and sizing of water quality treatment and detention facilities.

3.01 Planning Criteria

- A. The City of Ridgefield has established the requirements for the design of facilities intended to protect the public health, safety, and welfare from damage due to flooding. Beyond that level of protection, additional measures are specified in this chapter which are intended to minimize any potential flooding damage and allow for efficient operation, repair, and maintenance of the storm drainage system.
- B. In residential and commercial development, storm sewer main extensions are required to assure orderly and adequate extension of the storm sewer system. These extensions are to be in accordance with requirements of development and service availability as established by the City and the Washington State Department of Ecology.
- C. For development proposals that may contribute to areas of known flooding as determined by the City Engineer, the initial land use application submittal for development proposals, ~~as determined by the City Engineer,~~ may be required to include an off-site analysis report beyond what may be required by the referenced Washington State Department of Ecology Manuals. The off-site analysis is to contain an assessment of potential off-site drainage impacts associated with the development proposal; and propose appropriate mitigations to those impacts.
- D. Design and construction of drainage facilities, including but not limited to: open channels, conveyance pipe, and inlets shall be in compliance with the latest addition of the City's Ordinances, these Standards, the Standard Details and the 1992-2005 edition of "Stormwater Management Manual for ~~the Puget Sound Basin~~Western Washington" (hereinafter referred to as the ~~Puget Sound-Western Washington~~ Manual) prepared by the Washington State Department of Ecology, as amended herein.
- E. Storm drainage pipes shall be extended through and to the extremes of the property being developed along the natural drainageways, to provide connection points for future development of unserved property as determined by the City Engineer. No private storm sewer shall be located within any lot other than the lot which is the site

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- of the building or structure served by such sewer. The exception to this may be common areas in planned unit developments, and/or City right-of-ways, or as otherwise approved by the City Engineer.
- F. Provisions must be made for gravity drainage of roofs and foundation drains for all new buildings and structures. Roof and foundation drains shall be piped directly to on-site stormwater systems, through private easements if necessary, or pipe through the curb and discharged to the gutter unless otherwise approved by the City Engineer.
 - G. Provisions must be made for stormwater from private property to remain on private property or be collected and directed to a public or private stormwater system or natural drainageway. Runoff from that portion of driveways behind the back of sidewalk (outside the right-of-way) may be permitted to drain directly to the street, provided that treatment and detention facilities are sized to handle this flow.
 - H. Stormwater systems on private property shall be designed ~~ed~~ and constructed to the most recent ~~addition~~ edition of the Uniform Plumbing Code.
 - I. Private stormwater systems that connect to a public conveyance system routed to a local public stormwater facility may be required to be designed and constructed to public standards as required by the City Engineer.
 - J. Check that base map conforms to all requirements listed in the water and sewer utilities standard plan format per Chapter 1.

3.02 Exemptions

A. The following types of projects are exempt from this section:

1. Forest practices regulated under Title 222 Washington Administrative Code, except for Class IV General forest practices that are conversions from timber land to other uses.
2. Commercial agriculture practices involving working the land for production.
3. Road maintenance practices as follows: pothole and square cut patching, overlaying existing asphalt or concrete pavement with asphalt or concrete without expanding the area of coverage, shoulder grading, reshaping/regrading drainage systems, crack sealing, resurfacing with in-kind material without expanding the road prism, and vegetation maintenance.

3.0203 General Design Requirements

- A. The City of Ridgefield has adopted the ~~1992-2005 Puget Sound~~ Western Washington Manual as amended herein.
- B. The City encourages the use of “Sustainable Street” concepts and also Low Impact Development (LID) concepts and techniques. Low-Impact Development (LID) techniques shall generally be designed in conformance with the 2005 Low Impact Development Technical Guidance Manual for Puget Sound, published by the Puget

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Sound Action Team/WSU Pierce County Extension.

3.0304 Water Quantity and Quality Standards

A. The minimum standards for the design and construction of stormwater quantity facilities in the City of Ridgefield shall be the same as the 1992 Puget Sound Manual as amended by Clark County Code Section 40.380, as included in Appendix A Western Washington Manual

A.B. The provisions of this section apply to all development or redevelopment that:

1. Results in five thousand (5,000) square feet or more of new effective impervious surface within an urban area or has more than 7,000 square feet of land disturbing activities, or converts $\frac{3}{4}$ acres or more from native vegetation to lawn or landscaped areas, or converts 2.5 acres or more native vegetation to pasture;
2. Results in the addition or replacement of more than one thousand (1,000) square feet of effective impervious surface for any of the development activities, or redevelopment activities listed in Clark County Code Sections 40.380.040(B)(7)(a) and (B)(7)(b), building areas excluded requiring oil/water separators per section 3.11;
3. Redevelopment that results in ten thousand (10,000) square feet or more of replaced effective impervious surface is subject to the provisions of Clark County Code Section 40.380.040(B)(3) this section for the portion of the site that is redeveloped.

C. Projects shall utilize the Santa Barbara Unit Hydrograph (SBUH) method for hydrologic and hydraulic analysis and facility sizing. A Soil Conservation Society (SCS) Type 1A rainfall distribution resolved to a maximum of 10-minute time intervals shall be used.

1. Isopluvial maps used for analysis shall be “Isopluvial Maps for Design Storms in Clark County,” as published in National Oceanic and Atmospheric Administration (NOAA) Atlas 2, “Precipitation - Frequency Atlas for the Western United States,” Volume IX, Washington. Isopluvial maps are available from the City of Ridgefield Engineering Department.
2. Curve numbers used for analysis shall be as specified in “USDA SCS TR-55”, June 1986 published by the SCS.
3. All facilities shall provide emergency overflow routes for storm events that exceed the design capacity of the facility.

Definitions; “effective impervious surface” shall be defined as those impervious surfaces that are connected via sheet flow or discrete conveyance to a drainage

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system. Impervious surfaces on residential development sites are considered ineffective if the runoff is dispersed through at least one hundred feet of native vegetation. For small residential infill development sites of 8 lots or less, and at the discretion of the City Engineer, the existing impervious areas may be deducted from the total proposed (developed) effective impervious area for the threshold calculation of the “new effective impervious area”.

- D. If a site is proposed to be constructed in phases, the first phase shall have a stormwater facility designed to accommodate the ultimate development of the site. The stormwater facility may be constructed in phases provided a plan for phasing is submitted and approved by the City Engineer.
- E. Infiltration is the preferred BMP if site conditions are appropriate and groundwater quality will not be impaired. All applicable discharges to groundwater shall comply with the requirements of the Washington State Department of Ecology Underground Injection Control Program.
 - a. Infiltration systems shall be designed and sized in accordance with Chapter 3.3 of Volume III of the Western Washington Manual or A Review of Infiltration Standards and Practices in Clark County, July 31, 2009 as prepared by the Southwest Washington Branch of the American Society of Civil Engineers.
 - b. Infiltration facilities shall be designed to infiltrate the 100-year design storm. Facilities that infiltrate less than the 100-year design storm shall meet the quantity standards of this section.
- F. Soil groups used for analysis shall be as defined in the most current version of “Hydrologic Soil Groups for Soils in Clark County,” published by the SCS. Alternatively, hydrological soil groups from the United States Department of Agriculture (USDA) “Web Soil Survey” can be used, or soil groups can be developed by a Registered Soil Scientist.

3.0405 Design of Conveyance Facilities

- ~~A.~~ ~~Design of conveyance systems shall be in accordance with Chapter III-2 of the Puget Sound Manual.~~
- A. Storm drain conveyance systems shall be sized to convey the 25-year storm event, and to pass the 100-year storm event through the site with zero property damage ~~at the 100-year storm event~~. Where a natural drainageway is designated to remain in open-space as shown on the City's Comprehensive Plan, and that drainageway is not part of the regional conveyance facility, stormwater shall be conveyed through that drainageway by closed conduit sized for the 10-year storm event.
- B. Closed conveyance system elements shall be designed to operate in an open flow, not pressure flow regime, for the design storm.

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C. Runoff from the 100-year storm may leave pipes and channels but shall not rise to elevations more than 2 feet below that of the lowest finished floor of buildings.

D. For roadway flooding conditions during the 100-year storm, one travel lane in either direction shall remain open to emergency vehicles at all times. A travel lane will be considered to be open to emergency vehicles if the maximum depth of flow in the travel lane does not exceed 0.5 feet.

E. For parking lot flooding conditions during the 100-year storm, the maximum depth of ponding shall not exceed 1-foot. Storage volumes resulting from ponding in street and parking lot areas may be used to meet the storage requirements of section 3.09 for the maximum design storm.

B-F. Pipelines shall be designed as required below:

1. The minimum pipe size for stormwater main lines shall be 12-inches. The minimum size for pipes connecting inlets to mainline shall be 8-inches.

2. The minimum slope for stormwater mainlines shall be ~~0.5%~~ as follows:

<u>Inside Pipe Diameter (inches)</u>	<u>Minimum Pipe Slope</u>		<u>Design Capacity (CFS)</u>	<u>As-built Velocity (fps)</u>
	<u>Design</u>	<u>As-built</u>		
<u>12</u>	<u>0.00250</u>	<u>0.00200</u>	<u>1.786</u>	<u>2.034</u>
<u>15</u>	<u>0.00200</u>	<u>0.00150</u>	<u>2.897</u>	<u>2.044</u>
<u>18</u>	<u>0.00170</u>	<u>0.00120</u>	<u>4.343</u>	<u>2.065</u>
<u>24</u>	<u>0.00110</u>	<u>0.00080</u>	<u>7.523</u>	<u>2.042</u>
<u>30</u>	<u>0.00088</u>	<u>0.00058</u>	<u>12.200</u>	<u>2.018</u>
<u>36</u>	<u>0.00065</u>	<u>0.00045</u>	<u>17.051</u>	<u>2.007</u>

Note: Mains installed at a flatter slope than the as-built slope shall be re-laid by the contractor at their expense.

G. -Minimum slope for pipes connecting mainlines to inlets shall be ~~1%~~ 0.05.

2.3. Manholes shall be used to connect inlet lines to mainlines and at all locations where there is a change in direction and/or slope.

3.4. All inside drops and pollution control structures must be 60 inch or larger diameter structures and must be constructed with pipes; no partitions will be allowed.

4.5. All storm sewer pipe installed in the City shall be one of the following materials meeting the requirements of the Standard Specifications:

- Smooth Walled Corrugated Polyethylene (ADS N-12 or equal)
- PVC Sewer Pipe (ASTM D-3034)
- ~~Gasketed concrete pipe~~

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- Class 52 ductile iron
 - PVC Pressure Pipe (AWWA C-900)
- 6. All trench backfill material shall be imported crushed surfacing base course per the Standard Specifications Section 9-03.9(3).
- 7. Pipe anchor blocks shall be shown at 20 feet on center where pipe slope exceeds 20%.
- 8. Horizontal Locations
 - a. Locate storm sewer mains in public right-of-way, within the paved road width, per City Standards.
 - b. Outside of right-of-way, locate utilities in easements through paved areas wherever practical. Particular attention should be given to avoiding landscaped areas where trees may be planted.
- 9. Cap end of existing storm sewer lines to be abandoned as follows:
 - a. Asbestos cement lines: use end cap coupling equal to ROMAC EC501.
 - b. Cast or ductile iron lines: use M.J. cap or plug
 - c. Clay or concrete lines: fill end of line with cement concrete minimum of 12 inches from end of line.
 - d. Plastic lines: use cap or plug fitting compatible with plastic pipe to be abandoned.
- 10. Depth of Bury (Cover) and Special Protection
 - a. Storm sewer pipe shall be installed with a minimum depth of bury from finished grade of 3 feet unless otherwise approved by the City Engineer. In no case will the depth of bury from finished grade be less than 2 feet or greater than 20 feet. Pipe material shall be based on depth of bury from finished grade as outlined below:
 - i. 2 feet to 3.0 feet: Ductile iron pipe or AWWA C900.
 - ii. 3.0 feet to 20 feet: Any pipe listed in ~~3.05B~~05F.5 above.
 - b. Storm sewer pipe shall be encased in steel casing when crossing under rockeries or retaining walls. The casing shall extend beyond footings or rockery face a minimum of 5 feet or the height of the wall or rockery, whichever is greater.
 - c. Changes in pipe material may only occur at structures.
 - d. Buried metal pipe shall be encased in 8-mil polyethylene per AWWA C-105, where required by the City Engineer.
- G. ~~D~~ Manholes
 - 1. Maximum length of main line between manholes shall be 400 feet.

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2. Where inlets connect to manhole, invert-crown of inlet shall be equal to or above main sewer-line crown, but not to exceed 18 inches above the invert of the main sewer.
3. Manhole Sizing
 - a. ~~48-inch diameter manhole~~
 - ~~Up to 4 connecting pipes, 8-inch to 12-inch in diameter.~~
 - b. ~~5460-inch diameter manhole~~
 - ~~2 connecting pipes, 15-inch to 21-inch in diameter~~
 - ~~3 connecting pipes, 12-inch to 15-inch in diameter~~
 - ~~4 connecting pipes, 12-inch to 15-inch in diameter~~
 - c. ~~72-inch diameter manhole~~
 - ~~2 connecting pipes, 21-inch to 24-inch in diameter~~
 - ~~3 connecting pipes, 15-inch in diameter~~
 - ~~4 connecting pipes, 15-inch in diameter~~ Manholes shall be sized such that the structural legs between core holes in the wall of the manhole is no less than 68 inches.
 - d. The minimum angle between the incoming and the outgoing pipe shall be 90°, unless otherwise approved by the City Engineer. Pipe shall be radial with the center of manhole.
 - e. The above configurations shall provide adequate shelves and room for maintenance and performing T.V. inspections.
 - f. ~~For other pipe configurations, the size of the manhole will be determined on a case by case basis.~~
4. ~~Minimum manhole depths (invert to top of rim) shall be as follows:~~

Manhole Size	Pipe Size	Min Manhole Depth	Comments
48"	6"	3.0'	Special manhole per Std. Detail
	8"	3.2'	
	10"-12"	3.5'	
5460"	8"	3.7'	Special manhole per Std. Detail
	10"-12"	4.0'	
	15"-18"	4.5'	
72"	15"	8.0'	Flat top manhole, 2 Access lids (one over each major pipe entrance/exit)
	18"-24"	8.5'	
	27"	9.0'	

~~Notes: 72-inch manholes over 11.5 feet in depth shall include 48-inch reducing section per the standard detail.~~

5. Access shall be provided to every manhole and shall be appropriately sized for maintenance vehicles as determined by the City Engineer. In necessary locations as

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determined by the city engineer, vehicle access may be provided to every other manhole.

H. A backwater analysis shall be performed under any of the following conditions:

- a. Pipes with slopes less than 0.5 percent;
- b. Pipes with subcritical flow velocities over 6.5 feet per second;
- c. Stormwater main lines forming an angle of 45 degrees or more at junctions;
- d. Pipes with inverts less than three feet deep.
- e. When backwater analysis is required the hydraulic grade line shall be calculated for both the 25 and 100-year storm events. For the 25-year event there shall be a minimum of one foot of freeboard between the water surface and the top of any manhole or catch basin. For the 100-year event the stormwater flows must meet the requirements of section 3.04(A)(2)-(4).

~~H. Backwater analysis shall be performed as described in Section 6.6 of the WSDOT Hydraulics Manual, 2007, as prepared by the Washington State Department of Transportation.~~

I. WSDOT.

~~I.J. D.~~ Building setback requirements:

1. 5 feet minimum from covered parking.
2. 10 feet minimum from buildings and retaining walls, or equal to depth of pipe, whichever is greater.
3. 20 feet minimum easement shall be provided between buildings.
4. When passing between any two buildings (residential or commercial, etc.) which are 25 feet apart or less: the sewer line shall be oversized two (2) nominal pipe sizes above the capacity requirements between nearest manholes beyond limits of buildings.

3.0506 Clearances / Other Utilities

- A. Water services and inlet lines shall have at least 5 feet horizontal separation.
- B. Check for crossing or parallel utilities. Maintain minimum vertical and horizontal clearances. Avoid crossing at highly acute angles (smallest angle measure between utilities should be between 45 and 90 degrees).
- C. Horizontal clearances between the storm sewer and all other utilities shall be a minimum, of 5 feet.
- D. Vertical clearances between the storm sewer and all other utilities shall be a minimum of 1 foot.

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- E. The developer/contractor shall send a letter and preliminary plan to existing utilities to inform them of new construction and shall request as-built information for incorporation into plans. At a minimum the following utilities shall be contacted:
 1. Cable television
 2. Natural gas
 3. Power
 4. Telephone

3.06-07 Connections to Existing Systems

- A. New storm sewer mains shall connect to existing storm sewer mains at existing manholes, or with new manhole on existing sewer per standard detail.
- B. Where new main is larger in diameter than existing downstream main, check that capacity of existing main is not exceeded by flow from new main.
- C. When connecting to existing manhole, check that requirements of Section 3.05D ~~3.05C-06C~~ above are satisfied.
- D. If connecting to existing manhole which has access less than 24 inches in diameter and/or concentric cone (manholes over 5 feet deep), manhole shall be upgraded to include new 24-inch frame and cover and/or eccentric cone.
- E. Connections to end of existing pipe:
 1. If end of pipe is known to have a bell and the new pipe is same material as existing, plans can specify connection by inserting spigot of new pipe into the existing bell end.
 2. If existing line is plain end, or must be cut, plans shall specify use of a coupling to connect new and existing lines.
- F. Approved couplings for use on storm sewer mains include:
 1. Ductile iron mechanical couplings (equal to ROMAC) on ductile iron, concrete, or pipes with differing materials or diameters.
 2. On PVC or PE mains, PVC or PE couplings with compatible dimension ratio and gaskets to connect new and existing pipes shall be used.

3.0708 Design of Stormwater Inlets

Stormwater inlets shall be designed and installed so that stormwater does not accumulate on or flow across roadways. The following general guidelines shall be used in designing stormwater inlets:

1. Inlet spacing shall be based upon the amount of water that each inlet can capture. Inlet calculations shall be included in the Stormwater Technical Information Report.
2. In lieu of providing inlet calculations, the following maximum inlet spacing may be used:

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Roadway Slope (%)	Maximum Spacing (lf)
0.5 to 1	200
1 to 6	350
6 to 8	250
8 to 12	150
12 to 15	100

3. For most cases, inlets should be Type 1 catch basins with herring bone grates. For slopes greater than 4%, vaned grates should be used. At the bottom of sag vertical curbs, combination curb inlets should be used.
4. Curb inlets may be used in certain situations with approval of the City Engineer.
5. Inlets should not be located directly in front of ADA ramps. Inlets should be located so as to reduce the amount of water passing in front of ADA ramps.
6. Catch basins shall be WSDOT Type 1 or Type 2, as necessary. Type 1 catch basins shall have a minimum catch of 18-inches below the invert. Type 2 catch basins shall have a minimum catch of 24-inches below the invert.

3.0809 Design of Stormwater Detention Facilities.

Stormwater detention facilities shall be designed to provide adequate access for maintenance. The following general guidelines shall be used in designing stormwater detention facilities:

- A. Facilities shall be designed in accordance with the 1992 Puget Sound Western Washington Manual.
- B. Stormwater facilities with open water surfaces to be dedicated to the City of Ridgefield shall be fenced and provided with locked gate, unless approved by the City Engineer shall be fenced as required by the Western Washington manual. Natural looking non-fenced facilities are strongly encouraged wherever possible.
- ~~C. Facilities shall be provided with a paved access road with a maximum slope of 15%, unless approved by the City Engineer. Gravel access roads are allowed in private facilities that are to be privately owned and maintained. Gravel access roads shall not exceed 12%.~~
- C. A turnaround shall be provided for all access roads unless approved by the City Engineer.
- D. When sizing facilities and calculating the rate and volume of runoff leaving a project site, the following criteria shall be met:
 1. The peak release rate for the two-year design storm after development shall not exceed one-half the pre-developed two-year design storm peak runoff rate.
 2. The peak release rate for the 10- and 100-year design storms after development shall not exceed the respective pre-developed design storm peak runoff rates.

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3. After meeting the requirements of subsections (BE)(1) and (BE)(2) of this section, the pond volume shall be increased by either the following multiplication factor F: $F = (\text{composite curve number} / 46) - 0.6$ or by using figure 3.1. This correction factor is to be applied to the volume of the pond without changing its depth or the design of its outlet structure, which shall result in an increase in surface area.

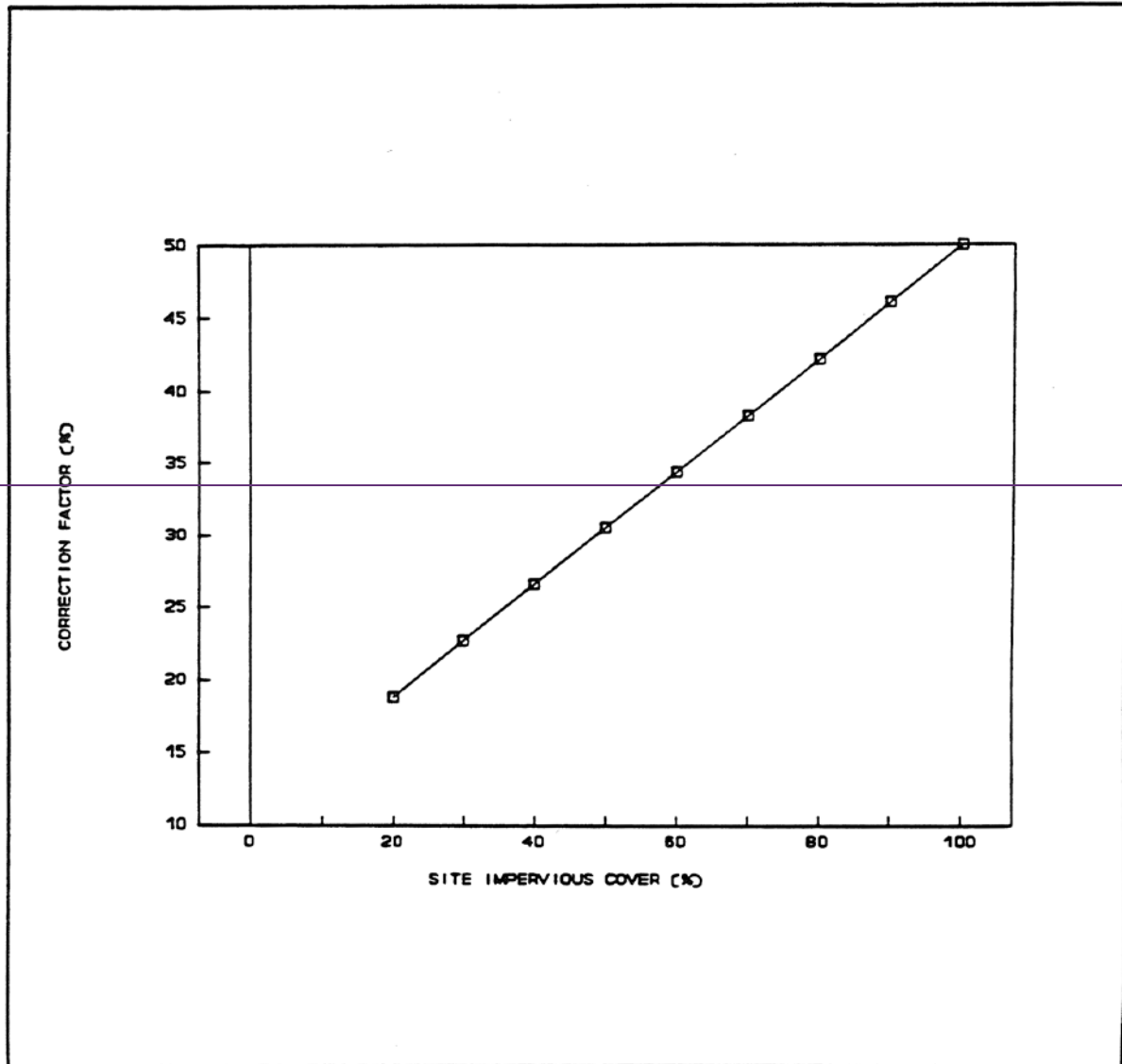
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Figure 3.1

luminaire spacing, illumination level, uniformity ratio, line losses, power source and other necessary details for the electrical and physical installation of the street lighting system

**Volume Correction Factor to be Applied to
Streambank Erosion Control BMPs
Based on Site Impervious Cover**



3.10 3.09 Design of Stormwater Quality Treatment Facilities

- A. Stormwater treatment facilities shall be designed in accordance with the Western Washington Manual. Facilities shall be designed to provide adequate access for maintenance.

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B. Treatment facilities shall be sized to capture, hold and treat the water quality design storm as follows:

1. Water Quality Design Storm Volume: The volume of runoff predicted from a 24-hour storm with a six-month return frequency (a.k.a., six-month, 24-hour storm. This storm may be assumed to be 2/3 of the 2-year, 24-hour storm).
2. Water Quality Design Storm Flow Rate: The flow rate predicted from a 24-hour storm with a six-month return frequency (a.k.a., six-month, 24-hour storm).
 - a) Downstream of detention facilities the water quality design flow rate must be the full two-year release rate from the detention facility. Alternative methods may be used if they identify volumes and flow rates that are at least equivalent.

C. Water quality treatment of runoff from sidewalks, separated bike paths, roofs, fenced fire lanes, and infrequently used maintenance access roads is not required if the stormwater drains away from pollution generating surfaces. Runoff from these surfaces that mix with runoff from pollution generating surfaces will require treatment.

D. For vegetated wet facilities including, but not limited to, wet biofiltration swales, stormwater treatment wetlands, wet ponds and wetpools, plantings are required to be plugs, rootstock or nursery stock. Seeding of wet facilities is not allowed unless it can be demonstrated to the satisfaction of the Director that facility vegetation will be fully established before the facility receives stormwater.

~~3.111~~ Oil/Water Separators

A. The following development activities require American Petroleum Institute (API) or Coalescing Plate Separator (CPS)-type oil/water separators:

1. Industrial machinery and equipment, trucks and trailer, aircraft, parts and aerospace, railroad equipment
2. Log storage and sorting yards
3. Airfields and aircraft maintenance
4. Fleet vehicle yards
5. Railroads
6. Fueling stations
7. Retail/wholesale vehicle and equipment dealers
8. Vehicle maintenance and repair

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9. Construction businesses including paving, heavy equipment storage and maintenance, storage of petroleum products (this does not include construction sites)

10. Other activities that exhibit a significant risk of high oil loading in runoff.

B. The following development activities shall require spill Spill control Control (SC) type oil/water separators

1. Restaurants

2. Multi-family residential projects creating parking spaces for twenty-five25 or more vehicles

3. Other activities where the risk of oil spills or illegal dumping of oil or grease is significant as determined by the City Engineer C. For development activities cited in subsections A and B of this section, oil/water separators shall not be required on portions of a site where the risk of oil or grease spills or dumping is minimal.

C. Oil/water separators shall be designed in accordance with Chapter III11, Section III-7 of Volume V of the ~~Puget Sound~~Western Washington Manual.

3.12 Maintenance and Ownership.

- A. ~~1. City~~ Ownership of Stormwater Facilities – Private ownership of stormwater facilities is required where the facility will treat runoff from private property, as well as where private runoff and runoff from public right-of way will be combined prior to treatment. When Required. City ownership of stormwater facilities is required for all ~~such~~ facilities that will treat only runoff from the right-of-way. Such facilities are to be located within a public right-of-way ~~or for which arrangements for private long-term maintenance which are acceptable to the City Engineer have not been made.~~
- B. ~~2.~~ Acceptance of Ownership by the City.
1. ~~a.~~ Provisional Acceptance. Stormwater facilities, which are to be owned by the City, will be provisionally accepted for ownership upon the approval of the record drawings and approval of an inspection of the facilities by the City. Provisional acceptance of the facilities shall not relieve the applicant from any obligation to undertake any remedial measures to correct deficiencies in the design, construction, maintenance or operation of the facilities.
 2. ~~b.~~ Final Acceptance of Ownership by the City. No sooner than twenty four (24) months following the provisional acceptance of the facilities, the applicant shall notify the City Engineer that the facilities are eligible for final acceptance of ownership by the City. Prior to their final acceptance for ownership, the facilities shall be inspected to determine that they are in satisfactory condition. The City Engineer may require the applicant to conduct tests of the facilities to reasonably demonstrate that they are operating as designed and to

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the City standards for quality and quantity control as a condition of final acceptance. Upon approval of the facilities by the City Engineer and all necessary ownerships and easements entitling the City to properly access and maintain the facilities have been conveyed to the City and recorded with the County Auditor, they will be finally accepted for ownership by the City.

C. ~~3.~~ Maintenance of Stormwater Facilities.

1. ~~a.~~ City-Owned Facilities.

- a. ~~1.~~ Initial Maintenance and Repair. For a period of at least two (2) years following the provisional acceptance of stormwater facilities or thereafter until the facilities are finally accepted by the City, the developer constructing the facilities shall maintain, repair, redesign, reconstruct the facilities to ensure that they operate as designed and to the City standards for quality and quantity control. This obligation shall extend to remedying any damage caused to the facilities by builders or other third parties during the initial maintenance period. The required maintenance shall be performed according to the Stormwater Facilities Maintenance Manual as adopted by Clark County. ~~(refer to Clark County Code Chapter 13.26A).~~
- b. ~~2.~~ During the initial maintenance period, remedial work to correct deficiencies shall be the responsibility of the developer and shall be completed prior to final acceptance. Required remedial work to correct maintenance and construction deficiencies shall be completed by the applicant prior to final acceptance.
- c. ~~3.~~ Long-Term Maintenance. Following their final acceptance for City ownership, the City shall maintain stormwater facilities.

2. ~~b.~~ Privately Owned Facilities.

1. Responsibility for Maintenance. For stormwater facilities for which the City will not provide long-term maintenance, the developer shall make arrangements with the existing or future (as appropriate) occupants or owners of the subject property for assumption of maintenance to the City's Stormwater Facilities Maintenance Manual as adopted by Clark County Chapter 13.26A. The City Engineer prior to City approval of the final stormwater plan shall approve such arrangements. Final plats shall specify the party(ies) responsible for long-term maintenance of stormwater facilities within the Plat notes for the subdivision or short plat.

The City may inspect privately maintained facilities for compliance with the City's requirements. If the parties responsible for long-term maintenance fail to maintain their facilities to acceptable standards, the City shall issue a written notice specifying required actions to be taken in order to bring the facilities into compliance. If these actions are not performed in a timely manner, the City shall take enforcement action and recover from parties responsible for the maintenance.

2. Easements Required. Easements or a covenant acceptable to the City Engineer shall be provided to the City for purposes of inspection of privately maintained facilities. The minimum dimensions of easements for stormwater facilities are as follows:

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- (i) Pond design and easements shall allow access to all areas within the pond and drainage structures by standard maintenance equipment vehicles;
- (ii) Widths of easements for conveyance facilities shall be ~~as detailed in the City standards~~ a minimum of 15 foot in width, unless otherwise approved or required by the City Engineer.

3.123 Location of Stormwater Facilities

A. Runoff treatment and runoff control facilities shall be located prior to the point of discharge into a stream, lake, or fish-bearing water or prior to discharge to groundwater.

B. Unless otherwise approved by the City Engineer, infiltration systems shall be located as follows:

1. 50 feet from the top of any slope greater than 15 percent;

2. 100 feet from municipal water supply wells; and

3. 100 feet from existing or proposed septic drain fields.

4. Located and designed to prevent influencing existing or proposed building foundations. Infiltration systems used for stormwater disposal shall be located at least one hundred feet from domestic water supply wells.

C. Swales and other stormwater treatment facilities using biofiltration shall be located outside easements and corridors used by phone, electric, water, natural gas, and other utilities unless the utilities are installed prior to construction of the biofiltration system.

D. Stormwater facilities, other than closed conveyance systems, shall be located at least one hundred feet from existing and proposed on-site sewage system drainfields.

CHAPTER 44

~~WASTEWATER COLLECTION~~WATER

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CHAPTER ~~5-4~~ - WATER

54.00 General Approval Requirements

- A. In the City's water service area, watermain extensions are required to assure orderly and adequate extension of the water utility system. These extensions are to be in accordance with requirements of development and service availability as established by the City and the Washington State Department of Health.
- B. Water mains shall be extended to the limits of the property being served for service to adjacent parcels where directed by the City Engineer.
- C. For multifamily residential developments, mobile home parks, RV parks, commercial facilities, and industrial facilities, public water mains shall be extended through easement to individual structures. For purpose of reducing potential water quality problems, such extensions of public water shall be made to the limits of the roadway, parking access serving said buildings. Water mains shall be routed across pavement whenever possible. Each building shall be served by a separate water meter from the public water main.

54.01 Planning Criteria

- A. Ensure adjacent properties can be provided water service (extend to extreme of property with adequate capacity and pressure).
- B. Demand projections:
 1. Unit demand, Average daily demand (ADD):
 - a. Single family residential - 160 gallons per capita per day (GPCD), or 400 gallons per day per Equivalent Residential Unit
 - b. Multi-family residential - 80 GPCD
 - c. Nonresidential – Use WSDOH Water System Design Manual Table 5-2
 2. Peaking factors:
 - a. Maximum day demand (MDD) = $ADD \times 2.4$
 - b. Peak Hour Demand = Use WSDOH Water System Design Manual Equation 5-3.
- C. System parameters:
 1. Water velocity in mains - velocities shall not exceed 10 feet per second during highest demand and fire flow.
 2. Distribution system pressures (measured at building elevation):

Desirable- Minimum 50 psi
Maximum 80 psi

Allowable-Minimum 40 psi
Maximum 100 psi

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- * Pressure reducing valves are required on all services when water pressure exceeds 80 psi. Pressure reducing valves shall be installed on main lines rather than individual services unless otherwise directed by the City Engineer.
- 3. Reservoir replenishment - facilities (e.g., transmission mains, pump stations) shall be sized to enable storage facilities to be refilled within 3 days after an emergency or major fire.
- D. Fire flow requirements shall be as determined by the Clark County Fire Marshal.
 - 1. Determination of available fire flow shall be computed using a computer simulated model acceptable to the City with a base demand equal to the maximum daily demand.
 - 2. Minimum system pressure during fire flow analysis shall be 20 psi at all hydrants and throughout the water system.

54.02 General Design Standards

- A. Check that base map conforms to all requirements listed in the water and sewer utilities standard plan format per Chapter 1.
- B. Thrust Restraint
 - 1. All thrust restraint for waterlines shall be accomplished through the use of restrained joints.
 - a. Restrained joints for pipe shall be appropriately designed for the required test pressure. The following is an approved list of restrained joint systems:
 - i. LOC TYTE and MJ-TJ pipe with Megalugs, Pacific States Cast Iron Pipe Company
 - ii. Fast Grip and Lok Ring, American Cast Iron Pipe Company
 - iii. TR Flex and Field Lok, United States Pipe and Foundry Company
 - iv. Snap Lock, Griffin Pipe Products Company
 - v. Megalug, EBAA Iron, Inc.
 - vi. Super Lock, Clow
 - vii. Restrained Joint, McWane
 - 2. Collar thrust blocks or other special blocking designs may be used if necessary. Show all blocking on plans and profiles.
 - 3. A restraint table shall be provided in the plan set for the pipe size and fittings used.
- C. Check with City Engineer to determine how surrounding development will affect design:
 - 1. Serve to extreme of property if adjacent property has potential for future development.

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2. All systems shall be looped systems where possible..
3. Where dead end lines cannot practically be avoided as determined by the City Engineer, a permanent blow off capable of providing a 2.5 fps flushing velocity shall be provided along with provisions as needed for disposal of flushing water.
- D. To assure compatibility with existing system, check with City Engineer to determine hydraulic gradients.
- E. Cap end of existing water lines to be abandoned as follows:
 1. Asbestos cement lines: use end cap coupling and thrust blocking.
 2. Cast or ductile iron lines: Use M.J. cap or plug and thrust blocking.
- F. Minimum watermain size
 1. 8-inch minimum diameter when serving fire hydrants.
 2. 6-inch minimum diameter may be used in localized conditions where fire hydrants are served by looped lines, subject to City Engineer approval.
- G. One ~~water below grade~~ sampling station shall be provided for every one-hundred (100) lots developed. All subdivisions with more than fifty (50) lots shall install a sampling station. The sampling station shall be installed ~~in a meter box from a dedicated water service. Sampling station shall be a USA Blue Book Model 1500, or equal per the City of Ridgefield Standard Details.~~
- H. No lengths of ductile iron pipe less than 3 feet in length will be allowed to be installed with the exception of valve and tee/cross connections.
- I. Local high points and local low points shall be avoided whenever possible. Blow-off assemblies and air release valves shall be installed where necessary at low and high points in watermain to allow for removal of sediments and release of air.
- J. Toning wire shall be included on all pipe installations. Toning wire connectors shall be Pro-Trace TW Connector, part number 96PTTWCBLUE.

54.03 Valving

- A. 500 feet maximum distance between valves on distribution mains. Long transmission mains with limited services may provide isolation valves at 1,000 foot spacing with the approval of the City Engineer.
- B. Provide valve at both ends of an easement.
- C. Valves shall be placed at all legs of watermain intersections, unless otherwise indicated by the City.
- D. Additional valving may be required for area isolation.
- E. Valves 12 inches and smaller shall be gate valves.
- F. Valves 14 inches and greater shall be butterfly valves.

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- G. An in-line valve with appropriate restraint shall be placed at all temporary dead-ends that are likely to be extended in the future to facilitate future connection.

54.04 Fire Hydrants

- A. The number and locations of fire hydrants, fire flow requirements and fire sprinkler components will be determined by the City, Clark County Fire Marshal, or Clark County Fire District 12. Following are general requirements for fire hydrant locations: ~~(These criteria are subject to change. For the most current information, contact the Fire Marshal's office.)~~
1. **Commercial Buildings:** Fire hydrants shall be located so that no part of a commercial building is more than 250 feet from a fire hydrant measured along a route accessible to fire department vehicles. When a fire department connection (FDC) is installed in conjunction with an automatic sprinkler system, it is required to have a fire hydrant located within 40 feet of the FDC. The FDC shall be located remote from the building and outside of the building collapse zone. This area should be clearly marked "Fire Zone No Parking". No building access road can be blocked by fire hose while making the fire department connection.
 2. **Non-Commercial Buildings** Unless otherwise approved by the Fire Marshal, a fire hydrant shall be placed at each street intersection, or at spacing not exceeding 600 feet. Intermediate hydrants are required when the distances to any part of noncommercial buildings exceeds 500 feet measured along a route accessible to fire department vehicles.
- B. Fire hydrants shall not be connected to mains less than 8 inches, or 6 inches in diameter where the length of the 6-inch main is less than 50 feet.
- C. Fireline/hydrant run over 50 feet in length must be 8 inches in diameter (terminate with tee, plug and hydrant assembly).
- D. Hydrant shall be located minimum 50 feet from any building, unless approved by the Fire Marshall.
- E. As per the IFC, fire hydrants shall be located to allow a 36-inch clear space surrounding the hydrant. For example, street lights, sign posts, protective posts, or retaining walls shall be no closer than 36 inches from the nearest portion of a hydrant. There shall also be no obstructions directly in line with any of the ports of the hydrant.
- F. Piping between fire sprinkler vaults and protected building shall not be shown on water design.
- G. Guard posts are to be used only in parking lots when no curbs are present or in exposed areas in parking lots.

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54.05 Pipe Class / Protection / Cover

- A. All waterlines shall be ductile iron pipe Class 52 unless otherwise noted herein. When crossing under rockeries and retaining walls, pipe shall be installed in a steel casing that extends beyond the footings or rockery face a minimum of 5 feet and extends beyond the back of rockery or wall equal to the height of the wall or rockery or a minimum of 5 feet.
- B. Watermain depth of cover shall be 3 feet minimum and 6 feet maximum from final grade.
- C. Building setback requirements:
 - 5 feet minimum from covered parking to watermain.
 - 10 feet minimum from building (and retaining walls) to watermain.
 - 20 feet minimum easement shall be provided between buildings.

When passing between single family residential buildings which are 25 feet apart or less, Class 53 ductile iron pipe shall be used to a point 5 feet beyond the limits of building.

When passing between commercial or multifamily buildings which are 25 feet apart or less, the waterline shall be encased in steel pipe. The casing shall be wrapped with polyethylene as per City standards. The line shall be encased to a point 5 feet beyond the limits of the building.

- D. All ductile iron pipe and adjacent fittings shall be encased in 8-mil polyethylene per AWWA C-105 when crossing gas lines or paralleling within 5 feet where directed by the City Engineer.

54.06 Clearances / Other Utilities

- A. Clearances between water and sanitary sewer mains shall be as follows:

Horizontal and Vertical Separation (Parallel)

A minimum horizontal separation of 10 feet between water lines and any existing or proposed sewer mains, and a minimum vertical separation of 18 inches between the bottom of the water line and the crown of the sanitary sewer mains shall be maintained. The distance shall be measured edge to edge (i.e., from the outer diameter of the pipes.) as shown in Figure C1-2 in the Criteria for Sewage Works Design (rev. 10/2006).

Vertical Separation (Perpendicular)

Water lines crossing Sewer lines at angles including perpendicular shall be laid above the sewer lines to provide a separation of at least 18 inches between the invert of the water line and the crown of the sewer. In the event 18-inches of vertical separation

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cannot be achieved or the sewer line is required to be installed above the water line, the following is required.

Gravity Sewers Passing Under Water Lines

- Sewer pipe shall be encased in controlled density fill (CDF) with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of 18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially available pipe skids and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.
- One full length of sewer pipe shall be centered at the point of crossing so that the joints will be equidistant and as far as possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.

Gravity Sewers Passing Over Water Lines

Water lines shall be protected by providing:

- A vertical separation of at least 18 inches between the invert of the sewer and the crown of the water line.
- Adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking of the water lines.
- The length of sewer pipe shall be centered at the point of crossing so that the joints will be equidistant and as far a possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.
- A water line encased in controlled density fill (CDF) with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of 18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially available pipe skids and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.

Pressure Sewers under Water Lines

- Pressure sewers shall be constructed only under water lines with pressure rated pipe encased in controlled density fill (CDF) with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of 18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially

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available pipe skids and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.

B. See Section 4.07.E for separations between water and sanitary sewer lines.

Check for crossing or parallel utilities. Maintain minimum vertical and horizontal clearances. Avoid crossing at highly acute angles (smallest angle measure between utilities should be between 45 and 90 degrees).

C. At points where thrust blocking is required, minimum clearance between the concrete blocking and other buried utilities or structures shall be 5 feet.

D. Horizontal clearances from watermain:

Cable TV	5 feet
Gas	5 feet
Power	5 feet
Storm	5 feet
Telephone	5 feet

E. Vertical clearances from watermain:

Cable TV	1 foot
Gas	1 foot
Power	1 foot
Storm	1 foot
Telephone	1 foot

F. The developer/contractor is responsible for sending a letter and preliminary plan to existing utilities to inform them of new construction and requesting as-built information for incorporation into plans. At a minimum the following utilities shall be contacted:

Cable television
Natural gas
Power
Telephone

54.07 Slopes

A. Vertical bends shall be used when joint deflection would exceed 3 degrees.

B. All pipe joints shall be restrained where slopes are 20% or greater. Anchor blocks shall be used in conjunction with joint restraint where slopes are 25% or greater.

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54.08 Connections to Existing System

- A. When tapping water mains, use stainless steel full booted tees conforming to 18-8 Type 304 stainless steel with a CF 8 cast stainless steel flanged end with ANSI 150 lb drilling. Bolts and hardware shall be Type 304 stainless steel. B. Connections to existing mains 8-inch diameter and larger shall be via a wet tap unless otherwise approved by the City.
- C. Connections to existing mains smaller than 8-inches in diameter shall be by cutting in a tee, unless otherwise approved by the City Engineer.
- D. Size on size tapping tees are not allowed unless otherwise approved by the City Engineer.

54.09 Easements

- A. Show all utility easements and identify width. If easement is defined as a constant width on each side of watermain, then show a segment of the easement and label as typical (typ).
- B. All easements shall be a minimum of 15 foot in width, unless otherwise approved or required by the City Engineer.

54.10 Services

- A. Locate water services and indicate size. Sizes shall be determined by the developer and approved by the City Engineer.
- B. For offices, multi-family developments and plats with planter areas, provide irrigation services.
- C. Irrigation shall be by separate water main connection and service unless approved by the Public Works Director. Deduct meters may be allowed for commercial/industrial development.
- D. Static service pressures at ground floor elevation shall be determined at all lots/buildings to ensure compliance with system pressure standards.
- E. Plan shall identify lots/buildings where builder/owner should install individual pressure reducing valves. Individual service PRVs are required on customer side of service lines (after water meter box) when service pressures exceed 80 psi.
- F. Meter boxes shall be located within the right-of-way inside the corresponding property lines for the lot being served unless otherwise noted.

~~F.~~

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54.11 Backflow Prevention

A. Private fire protection systems shall comply with minimum backflow requirements as outlined in the following charts on the following page or as determined by the Clark County Fire Marshall's Office or Clark County Fire District 12. .

B. Irrigation and special domestic services, because of the varying degrees of hazard shall comply with minimum backflow requirements as outlined below. Some of the concerns with these systems are:

1. The growth of offensive micro-organisms which can create taste and odor problems.
2. The leaching of heavy metals such as zinc, cadmium, iron, or lead into the water.
3. The addition of corrosion inhibitors or antifreeze compounds to protect the piping system.
4. A loss of pressure on the public water supply main or an increase in pressure on the user's system which would reverse the water flow into the public supply.

C. Installation shall comply with the City of Ridgefield requirements and regulations as approved by the State of Washington, Department of Health.

D. All private fire systems such as double check valve assemblies from the mainline control gate valve shall be owned and maintained by the property owner.

E. All backflow preventers shall be installed in vaults outside of building as close as possible to supplying main.

F. Fire systems in existing buildings being revised or upgraded shall comply with current regulations.

- G. Special "health hazard" facilities (facilities named in cross-connection control W.A.C. 248-54-285) such as hospitals, morgues, wastewater plants, metal plating facilities, laboratories, and food beverage plants, usually contain water connections that could backflow hazardous materials into the potable water supply. Therefore, these types of facilities are required to have backflow prevention devices as noted on the chart on the following page.

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Private Firelines and Fire Sprinkler System Chart

	Double Check Valve Assembly	Double Check Valve Assembly with Detector	Reduced Pressure Backflow Assembly	Reduced Pressure Backflow Assembly with Detector
1. Fire system - (without chemical addition) 3-inch & larger		X		
2. Fire system - (without chemical addition) 3/4-inch to 2-1/2-inch	X			
3. Private fire system with hydrants		X		
4. Fire system - (with chemical addition) 3-inch & larger				X
5. Fire system - (with chemical addition) 3/4-inch to 2 1/2-inch				X

Notes:

1. All backflow prevention assemblies require test and inspection at the time of installation and annual test thereafter.
2. Backflow assemblies shall be installed per the standards details.

Irrigation and Domestic Service Backflow Protection Chart

	Double Check Valve Assembly	Reduced Pressure Backflow Assembly	Double Check Valve Assembly and by-Pass
1. Irrigation system - (without chemical injection)	X		
2. Irrigation systems - (with chemical injection)		X	
3. Tall buildings - over 30 feet above ground level <u>or</u> with in-line booster pump interrupted service permissible	X		
4. Tall building - over 30 feet above ground level <u>or</u> with in-line booster pump uninterrupted service required			X
5. Facilities with health hazards, i.e., hospitals, laboratories, sewage lift stations, car washes etc.**		X	

Notes:

1. All backflow prevention assemblies require test and inspection at the time of installation and annual test thereafter.
2. Backflow assemblies shall be installed per the standards details.

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3. If service is uninterruptable, then bypass with RPBD is required.

4.12 Reclaimed Water Systems

- A. Applicability. It is the City's policy to require that all reclaimed water systems meet applicable state standards for the distribution and use of reclaimed water. Where reclaimed water is available for use, the City may require that this water source be given preference as a substitute for non-potable water or irrigation use. Where reclaimed water systems are authorized or required by the City, they shall be designed per Washington State Department of Ecology standards.

OTHER:

~~Irrigation meters for each park and HOA planter strips WITH ASBUILTS.~~

~~Block spacing for ind/com~~

~~Complete Streets~~

~~Standard models for:~~

~~Benches~~

~~Picnic tables~~

~~Bike rack (no wave racks!)~~

~~Trash Cans~~

ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION



VOLUME 2

CONSTRUCTION SPECIFICATIONS AND DETAILS

~~December 2013~~ May 2017

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CHAPTER 1
GENERAL CONSTRUCTION REQUIREMENTS

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CHAPTER 1 - GENERAL CONSTRUCTION REQUIREMENTS

1.00 General Requirements

A. General

The purpose of these standards is to define the requirements for the construction of public improvements to serve new and future developments. No such work shall commence prior to City approval of the full set of construction plans. Mass grading activities may be allowed prior to approval of the construction drawings at the discretion of the City Engineer provided the grading and erosion control plans are approved and all applicable permits are obtained. Designs submitted shall be stamped by a registered Professional Engineer licensed to practice in the State of Washington.

B. Standards

All work and materials shall be in accordance with the latest edition of the City of Ridgefield Engineering Standards For Public Works which shall be cited routinely in the text as the "Standards". The Standards are in ~~three~~ two volumes, the second of which comprises this document. Volume 1 addresses engineering and planning issues. ~~Volume 3 addresses erosion control.~~ This volume (Volume 2) includes standard details and standard drawings which shall be considered part of the engineering plans approved by the City.

C. Standard Specifications

All work and materials shall be in accordance with this document, the latest edition of the APWA/WSDOT Standard Specifications for Road, Bridge, and Municipal Construction, hereafter referred to as Standard Specifications, and other standards as noted herein. Where conflicts exist the more stringent specification shall apply.

D. Applicability

These Standards shall govern all new construction and upgrading of facilities both in the right-of-way and on-site for: transportation-related facilities; storm drainage facilities and stream channel improvements; ~~sewer and~~ water improvements; and park, recreation, open-space facilities used by the public, and land alteration activities that require City Engineering or grading approval. ~~constructed within public right-of-way~~

~~Land alteration activities are those activities which are commonly referred to as clearing (the act of vegetation removal from the land surface by mechanical or chemical means — often referred to as land clearing), grubbing (the act of root vegetation removal from beneath the surface of the earth — usually in association with clearing), excavation (the mechanical removal of earth material), filling (deposition of earth material placed by artificial means), grading (excavation or filling or combination thereof), compaction (densification of earth material by artificial means),~~

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~~stockpiling (temporary deposition of earth material placed by artificial means), and stabilizing (counteracting the actions of gravity, wind or water).~~

Contractor's Requirements for Possession of Standards

~~At all times during construction of public improvements, the Contractor shall be required to have in his/her possession, at the job site, a copy of Volume 2 and 3 of the City's Engineering Standards, and also a copy of the Standard Specifications.~~

E. Completion of Public Infrastructure for Developments

All public infrastructure, including water systems, sanitary sewer systems, storm sewer systems, and transportation systems must be fully installed and accepted by the Public Works Director and/or City Engineer and other permitting agencies such as Clark Regional Wastewater District prior to issuance of any building permits.

~~GF.~~ Permitting

Permits, approvals, or agreements are required by the City, and sometimes other jurisdictions, prior to initiating any construction or demolition work elements described within these Standards. Contractor shall have copies of approved permits onsite during all construction activity.

The majority of work covered under these Standards will require multiple permit authority review and approvals. Several types of permits and approvals require prior approval from the authority before a building or other substantial permit can be issued. Any questions regarding information about permits, approvals, and agreements should be directed to the City- ClerkPermit Technician.

A Building Permit is required for all construction work including alteration, repairs and demolition. This includes retaining walls over 4 feet in height or with a surcharge loading. ~~Demolition Permits for structures greater than four thousand square feet (4,000 sq. ft.) require the submittal of an Environmental Checklist.~~

1.01 Abbreviations and Definitions

Abbreviations and definitions shall be as listed in Chapter 1 of Volume 1 of the Standards.

1.02 Preconstruction Conference

Upon completion of the design and approval by the City Engineer, a pre-construction meeting will be held with the City at which time construction inspection will be scheduled. No public works construction work shall commence prior to the pre-construction meeting. After completion of construction and submittal of required documents and fees, final acceptance will be given by the City.

1.03 Seasonal Limits

Land alteration operations shall be limited by the seasonal limitations specified.

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- A. When public works construction or land alteration activities are interrupted by heavy rain, operations shall not be resumed until the City determines that erosion control facilities are adequate.
- ~~B.~~ Special erosion control requirements are required from ~~November~~ October 1 – April 30. Denuded soils must be covered within ~~24~~ 48 hours of exposure. ~~See Volume 3 of these Standards for other requirements.~~
- ~~C.~~ B. C. Public works construction or land alteration activities near sensitive areas, including slopes over 15%, wetlands and corresponding wetland buffers, flood plains, or habitat and riparian corridors shall not occur between ~~November~~ October 1st and April 30th unless otherwise approved by the City Engineer. Permits from other agencies in addition to the City may be required by law for such work. It is the responsibility of the ~~project sponsor/developer~~ to obtain such permits prior to beginning work and to see that all applicable regulations are complied with at all times during the course of the work.
- D. Work shall be stopped and the site shall be secured from erosion at any time when weather conditions change or the threat of heavy rain makes erosion problems likely.

1.04 100-Year Flood Plain

There is a prohibition on encroachments, including fills, new construction, substantial improvements, and other development within the regulatory floodway unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analysis performed in accordance with standard engineering practice that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge (i.e. 100-year).-

1.05 Environmental Protection During Construction

A. General Policy and Requirements

1. It is the policy of the City of Ridgefield to require temporary and permanent measures for all construction projects to lessen the adverse effects of construction on the environment.

The Contractor shall properly install, operate, and maintain both temporary and permanent works as provided in this section or in an approved plan, to protect the environment during the term of the project.

The City may, in addition, require that a construction project be scheduled so as to minimize erosion or other environmental harm.

Nothing in this section shall relieve any person from the obligation to comply with the regulations or permits of any federal, state, or other local authority.

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2. For all projects, the prohibitions and regulations of this section shall apply. The City may temporarily suspend the work or require additional protection measures if it appears, based upon observed conditions of the project, that the approved plan is insufficient to prevent environmental harm, and that such suspension or additional measures will prevent or minimize such harm.

B. Air Pollution Control

1. Dust. Dust shall be minimized to the extent practicable, utilizing all measures necessary, including, but not limited to:
 - a. Sprinkling haul and access roads and other exposed dust producing areas with water. Obtaining water from a hydrant will require specific authorization from the City or applicable water jurisdiction.
 - b. Applying Washington State Department of Ecology (DOE) approved dust palliatives on access and haul roads.
 - c. Establishing temporary vegetative cover.
 - d. Placing wood chips or other effective mulches on vehicle and pedestrian use areas.
 - e. Maintaining the proper moisture condition on all fill surfaces.
 - f. Pre-wetting cut and borrow area surfaces.
 - g. Use of covered haul equipment.
2. Fumes, Smoke, and Odors
 - a. Tires, oils, paints, asphalts, coated metals, or other such materials will not be permitted in combustible waste piles, and will not be burned at the construction site.
 - b. Open burning shall not be permitted unless approved by the Southwest Clean Air Agency and the County Fire Marshal's Office.

C. Stormwater Discharge and Erosion Control

All construction work shall be completed in accordance with ~~Volume 3 of these Standards—The City of Ridgefield Erosion Control Plans Technical Guidance Handbook~~ the Department of Ecology Construction General Permit. All construction standards must meet or exceed these requirements for the installation and maintenance of erosion control devices.

Demonstration that SEPA requirements have been met and evidence that a National Pollutant Discharge Elimination (NPDES) Permit has been obtained (if required) must be provided prior to commencing any construction activities.

1.06 Clearing and Grading on Environmentally Sensitive Lands

Clearing and grading shall be prohibited in sensitive areas including steep slopes, wetlands and wetland buffers, or flood plains except as allowed by the City's Critical Areas Ordinance.

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1.07 Preservation of Existing Vegetation

- A. As far as is practicable, natural vegetation shall be protected and left in place. Work areas shall be carefully located and marked to reduce potential damage. Trees shall not be used as anchors for stabilizing working equipment.
- B. All excavations and fills shall be kept outside the critical root zone of trees and shrubs to remain. The critical root zone shall be defined as ~~1/2~~ the drip line of the tree or shrub. Minor grading (less than six-inches) may occur within the drip line. [Heavy equipment and material stockpiles shall be kept outside of the critical root zone.](#)
- C. During clearing operations, trees shall not be permitted to fall outside the work area. In areas designated for selective cutting or clearing, care in falling and removing trees and brush shall be taken to avoid injuring trees and shrubs to be left in place.

1.08 Vegetation Restoration

- A. Vegetation shall be restored on those areas of the site disturbed by the land alteration activity which are not covered by permanent impervious surface improvements (e.g., buildings, parking lots, etc.) at the earliest possible time consistent with appropriate planting times. The soil shall be stabilized prior to vegetation restoration since vegetation alone cannot provide an effective erosion control cover and prevent soil slippage on a soil that is not stable due to its texture, structure, water movement or excessive slope.
- B. In no case will the period between the land alteration operation and final and complete restorative, or permanent erosion control, vegetation planting for a given project or project phase be longer than one year. Said planting shall restore the vegetation on site to a condition equal to or better than the pre-cleared condition to the maximum extent possible. Temporary erosion and sedimentation control measures shall be maintained in full operating condition for all areas to be restored until said restoration is complete and the site fully stabilized.
- C. All hydroseeding or other seeding activities used for erosion control purposes must be completed no later than October- 1st-, unless otherwise approved by the City. After October 15th, sod, jute matting or other measures must be used in addition to seeding for erosion control purposes.

1.09 Maintaining Surface Water Quality

- A. Construction between stream banks shall be kept to a minimum.
- B. Pollutants such as fuels, lubricants, bitumens, raw sewage, and other harmful materials shall not be discharged into or near rivers, streams, or impoundments.

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Sterilizing water from water line construction activities shall not be directly discharged into the public storm drainage system without dechlorination.

- C. ~~The use of No~~ water from a stream or impoundment shall ~~not result in altering the temperature of the water body enough to affect aquatic life.~~ be used during construction activities.

1.10 Fish and Wildlife Habitat Preservation

- A. Construction shall be done in a manner to minimize adverse effects on wildlife and fishery resources.
- B. The requirements of local, state, and federal agencies charged with wildlife and fish protection shall be adhered to by the entire construction work force.

1.11 Stream and Creek Crossings

- A. The Contractor shall comply with all provisions of the permits required by the Washington State Department of Fish and Wildlife and the U.S. Army Corps of Engineers.
- B. Before any work may be performed in any stream, the method of operation and the schedule of such work shall be approved in writing by the City Engineer. Work within major streams shall be scheduled to take place as specified in the applicable permits for such work, and once started, shall be completed without interruption of the work. Mechanized equipment shall enter streams only when necessary and only within the immediate work area.

1.12 Work Hour Limitations

- A. Allowable work hours for construction are 7:00 a.m. to 10:00 p.m. Monday through Friday and 9:00 a.m. to 6:00 p.m. on weekends and City observed Holidays. Work occurring outside of these hours without prior approval by the Public Works Director or City Engineer is subject to fines and ultimately a Stop Work Order.

A.B. Work occurring outside of normal business hours requires prior written approval from the City inspector. Normal business hours are Monday through Friday, 7:30 a.m. to 5:00 p.m., excluding City observed holidays.

1.13 Control of Noise Levels

Construction noise shall be minimized by the use of proper engine mufflers, protective sound reducing enclosures, and other sound barriers. Construction activities producing excessive noise that cannot be reduced by mechanical means shall be restricted to locations where their sound impact is reduced to a minimum at the edge of the work area.

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1.14 Historical and Archaeological Areas

When burial sites, buried camp areas, village sites, and other distinctive archaeological or historical items are uncovered, or other items suspected of being of historical or archaeological significance are encountered, the Contractor shall report the matter to the ~~City and the state liaison officer.~~ City and DAHP Construction operations shall be stopped until the appropriate authorities can examine the area and give clearance to proceed with the work.

Under the Natural Historical Preservation Act, state liaison officers shall be notified when historical or archaeological items are unearthed.

The Washington Criminal Code prohibits disinterment of a corpse without permission of the appropriate authorities.

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1.15 Use of Pesticides

- A. The use of pesticides including insecticides, herbicides, defoliants, soil sterilants, and so forth, must strictly adhere to federal, state, county, and local restrictions. Time, area, method, and rate of application must be approved by all relevant authorities and their requirements followed.
- B. All materials delivered to the job site shall be covered and protected from the weather. None of the materials shall be exposed during storage. Waste material, rinsing fluids, and other such material shall be disposed of in such a manner that pollution of groundwater, surface water, or the air does not occur. In no case shall toxic materials be dumped into drainage ways.
- C. All personnel shall stay out of sprayed areas for the prescribed time. All such areas should be fenced, appropriately signed, or otherwise protected to restrict entry.

1.16 Inspection

- A. General Requirements
 - 1. Work performed within the public right-of-way, or as described in these standards, whether by or for a private developer, by City forces, or by a City contractor, shall be done to the satisfaction of the City and in accordance with the Standard Specifications, any approved plans and these Standards. ~~Unless otherwise approved, a~~ Any revision to construction plans must be approved by the City before being implemented.
 - 2. The City shall have authority to enforce the Standards as well as other referenced or pertinent specifications. The City will appoint project engineers, assistants and inspectors, as necessary, to inspect the work and exercise such authority as the City Engineer may delegate.
 - 3. It is the responsibility of the developer, contractor or their agents to have an approved set of plans, permits, Standard Specifications, and Volume 2 ~~and 3~~ of the City's Standards on the job site wherever work is being accomplished.
 - 4. It is the responsibility of the developer, contractor, or their agents to notify the City in advance of the commencement of any authorized work. A preconstruction conference and/or field review shall be required before the commencement of any work.
 - 5. Failure to comply with the provisions of these standards may result in stop work orders, removal of work accomplished, or other penalties as established by ordinance.

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6. Inspection performed by the City does not relieve the contractor from constructing improvements as required by the City Standards and the approved plans and revisions.

B. Substitution of Materials

It is not the intent of these Standards to exclude other equipment or materials of equal value, quality, or merit. Whenever a product is designated, or manufacturer's name, brand, or item designation is given or described, it shall be understood that the words "or approved equal" follows such name, designation, or description, whether in fact they do so or not. Determination of quality in reference to the project design requirement will be made by the City Engineer. A contractor shall not use an "equal" product without prior written approval of the City Engineer.

C. City Inspector's Activities

Inspecting services provided by the City shall include:

1. Monitoring both work progress and performance testing results.
2. The performance of administrative and coordination activities as required to support the processing and completion of the project.
3. The issuance of a stop work order by notice to the contractor to stop the work. The City's ~~Project~~-Inspector, at the discretion of the City Engineer, may post a stop work order.
4. Maintaining a completion file containing the following:
 - a. The original of the project completion certification;
 - ~~b. A complete copy of the log book initialed by the engineer's inspector;~~
 - ~~eb.~~ The results of material tests, compaction tests, and soil analysis ~~as detailed in the log book.~~
5. Inform the City Engineer of all proposed plan changes, material changes, stop work orders, or errors or omissions in the approved plans or specifications as soon as practical. Any revision to approved plans must be under the direction of the City Engineer. It shall be at the discretion of the City's ~~Project~~-Inspector as to whether the revision is significant enough to warrant review by the City Engineer. If a revision is necessary the developer's engineer shall submit ~~3 one-~~ (31) printed copies-copy and one electronic copy of the proposed revision for approval.
6. No work affected by any revision shall be done until written approval by the City Engineer is provided. Work completed without approval by the City Engineer is subject to removal and reinstallation per the approved plans, at the developer's cost, whether it is believed to be installed correctly or not, for verification and inspection purposes.

1.17 Contractor's Responsibility for Scheduling

A. Sequence of Operations

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The Contractor shall plan construction work and execute operations with a minimum of interference with the operation of the existing public facilities. It may be necessary to do certain parts of the construction work outside normal working hours in order to avoid undesirable conditions, and it shall be the obligation of the Contractor to do this work at such times. This scheduling, however, is subject to the City's approval and does not relieve the Contractor from making work available for inspection.

The Contractor shall notify the City at least 48 hours (two full working days) prior to any City Inspection. Connections between existing work and new work shall not be made until necessary inspection and tests have been completed on the new work and it is found to conform in all respects to the requirements of the plans and specifications.

B. Step Inspections

The following items of work shall be inspected by City forces.

1. For street or sidewalk work, subgrade shall be inspected by the City (and tested by the Contractor) prior to placement of crushed surfacing.
2. Crushed surfacing shall be inspected by the City (and tested by the Contractor) prior to placement of paving, curb, or sidewalks.
3. Pavement, curbs, and sidewalk. Notify the City prior to the placement of any paving, curbs, or sidewalk.
4. Compaction of bedding and backfill of utility trenches.
5. Compaction of bedding within public right-of-way and slope easement.

~~Other items of inspection notification are included under the various items of work outlined in these Standards.~~

C. Progress of Construction

Construction shall proceed in a systematic manner that will result in a minimum of inconvenience to the public.

In the case of a pipe-laying job for sanitary sewer, storm drainage, and water improvements the trenching equipment at no time shall be greater than 100 feet ahead of the pipe-laying crew, unless given permission by the City Engineer. The trench shall be backfilled so that no section of the trench or pipe is left open longer than 24 hours.

Trenches located in an existing arterial or collector must be backfilled and patched the same day unless otherwise approved by the City Engineer or ~~Development~~ Inspector. Trenches located in other public streets shall be completely backfilled and/or plated before the contractor leaves the site each day.

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1.18 Contractor's Requirement for Compaction Testing

A. General

Compaction testing shall be performed by a certified independent testing laboratory hired by the developer or developer's contractor with the results being supplied to the City Engineer. The developer or contractor shall pay the cost of all testing as outlined herein.

Compaction test locations shall be selected randomly by City representatives. Minimum testing requirements outlined herein are for tests that meet the requirements of the City's standards or construction specifications. For each test result less than minimum requirements, additional testing will be completed by the Contractor at no cost to the City.

The testing is not intended to relieve the contractor from any liability. It is intended to provide the inspector with general information regarding quality control.

The City Engineer, or his designated representative, may require additional testing not outlined herein. The Contractor, or Developer, shall pay the cost of all additional tests.

See Sections 2 through 45 of Volume 2 for specific requirements.

B. Asphalt Testing

1. Compaction shall be at least 91 percent based on a Rice theoretical maximum density, as determined in conformance with AASHTO T 209, as modified by WSDOT. Number of tests required for each lift:
 - a. For public streets, provide one test per every 5,000 square feet of surface area.
 - b. For surface restoration of utility trenches, provide one test per every 200 feet of trench as measured along the trench centerline.

C. Subgrade and Crushed Surfacing Testing

1. Compaction testing as specified in the Standard Specifications. Number of tests required:
 - a. For streets and sidewalks, provide one test of the subgrade and one test of the crushed surfacing for every 5,000 square feet of surface area of pavement, curb, and sidewalk.

D. Bedding and Backfill for Utility Trenches

1. Compaction testing as specified in the Standard Specifications. Number of tests required for all utility trenches (water, sanitary sewer, storm sewer):
 - a. Provide one test at bottom of trench excavation prior to placement of pipe or bedding for each pipe run or every 500 feet of trench whichever is less.
 - b. Provide one test at top of bedding for each pipe run or every 500 feet of trench, whichever is less.

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- c. Provide one test for each lift of backfill for each pipe run or every 500 feet of trench, whichever is less.

E. Embankment

1. Compaction testing as specified in the Standard Specifications. Number of tests required for all embankment:
 - a. For embankment under pavement, curb, or sidewalk, provide one test for every 20 cubic yards of fill material placed, or for every 5,000 square feet of pavement or sidewalk, whichever is less.
 - b. For embankment outside the limits of pavement, curb, or sidewalk, provide one test for every 40 cubic yards of fill material placed.

1.19 Safety Requirements

The contractor is responsible for observing the safety of the work and of all persons and property coming into contact with the work. The contractor shall conduct work in such a manner as to comply with all the requirements prescribed by OSHA. Traffic control in work zones shall conform to the MUTCD. ~~At the City's discretion~~ Unless otherwise approved by the City Engineer, a traffic control plan shall be submitted and approved prior to construction.

The City ~~Project~~ Inspector's role is not one of supervision or safety management, but is one of observation only. Nothing contained in this section or elsewhere in this book shall be interpreted to obligate the City to act in any situation, nor shift the owner's responsibility for safety compliance to the City. No responsibility for the safety of the work or for construction means, methods, techniques, sequences, or procedures shall attach to the City by virtue of its action or inaction under this section.

1.20 Preservation, Restoration, and Cleanup

A. Site Restoration and Cleanup

The Contractor shall keep the premises clean and orderly at all times during the work and leave the project free of rubbish or excess materials of any kind upon completion of the work. During construction, the Contractor shall stockpile excavated materials so as to do the least damage to adjacent lawns, grassed areas, gardens, shrubbery, trees, or fences, regardless of the ownership of these areas. All excavated materials shall be removed from these areas, and these surfaces shall be left in a condition equivalent to their original condition and free from all rocks, gravel, boulders, or other foreign material. Stockpiling of construction materials shall not be allowed on existing sidewalks or the driving surface of existing streets.

All existing storm systems shall be cleaned and flushed, and original drainage restored. Sediment, rock, and other debris shall be collected and disposed of in a proper manner. In no case shall debris be flushed down a storm or sanitary sewer for disposal. All damaged irrigation and house drainage pipe, drain tiles, sewer lateral, and culverts shall be repaired expeditiously, to original condition or better.

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All areas disturbed by the Contractor's operations inside dedicated rights-of-way or easements shall be restored to original condition. Areas outside of the easements or rights-of-way which are disturbed by the Contractor's operations shall be graded and reseeded in a method acceptable to the property owner. The Contractor shall obtain a written release from such property owners for any claims of injury or property damage prior to final acceptance of the work by the City.

B. Street Cleanup

The Contractor shall clean all spilled dirt, gravel, or other foreign material caused by the construction operations from all streets and roads at the conclusion of each day's operation. Cleaning shall be by street sweeping ~~grader and front-end loader~~, supplemented by power brushing, and hand labor, unless otherwise approved by the City. No washing of roads is permitted. The contractor shall follow the City's erosion control procedures.

As soon as practical after completion of all paving and gravel shoulder resurfacing, the Contractor shall remove all dirt, mud, rock, gravel, and other foreign material from the paved surface and storm drainage system.

C. Protection of Property

The Contractor shall exercise all due care in protecting property along the route of the improvement. This protection shall include, but not be limited to, trees, yards, fences, drainage lines, mail boxes, driveways, shrubs, and lawns. If any of the above has been disturbed, they shall be restored to ~~as near~~ their original condition ~~as possible~~ or better.

1.21 Railroad Crossings

A. General

Crossings of railroad rights-of-way shall be done in a manner which conforms ~~with~~ to the requirements of the railroad having jurisdiction. If any bonds and/or certificates of insurance protection are required, they shall be furnished by the Contractor or Owner to the railroad company with the City as an additionally-named insured.

B. Permits or Easements

Crossing agreements, permits, and/or easements for such crossings will be obtained by the applicant and all the terms of such permits or easements shall be met by the Owner and Contractor.

1.22 Surveying

All surveying activities, including construction surveying and collection of as-built information must be completed under the supervision of a Professional Land Surveyor registered in the State of Washington.

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1.23 Penalties

Failure to comply with these standards will be cause for stop work orders, withholding or withdrawing approval of plans or plats, revocation of permits, forfeiture of bond, withholding Temporary and/or Final Certificate of Occupancy, and/or other penalties as provided by law.

~~1.24 — Changes During Construction~~

~~Any changes from the approved engineered plans during construction necessitated from conflicts, requested by the Contractor, or otherwise must be reviewed and approved by the City Engineer prior to completing the work. Work completed without first being reviewed and approved by the City Engineer may be subject to removal and reinstallation for City inspection at the expense of the Contractor whether it was installed appropriately or not.~~

CHAPTER 2

STREETS CONSTRUCTION

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CHAPTER 2 - STREETS CONSTRUCTION

2.00 General Requirements

~~A. Preconstruction Conference Requirement~~

~~See Section 1 of this Volume of the City Standards for requirements.~~

AB. Construction Standards

All street, roadway, or sidewalk construction within public right-of-way shall conform to the most recent design standards of the City and other requirements of the City. All work and materials shall be in accordance with this document and the Standard Specifications (WSDOT Standard Specifications for Road, Bridge, and Municipal Construction). Where conflicts exist the more stringent specification shall apply, as determined by the City Engineer.

CB. Plans and Specifications

The installation of street and sidewalks shall be in accordance with construction plans and specifications prepared by the developer's engineer and reviewed and approved by the City.

2.01 Surfacing Requirements

A. General Requirements

Subgrade, aggregate base, and pavement shall be constructed in accordance with the Standard Specifications.

B. Aggregate Base

All aggregate shall meet WSDOT specifications for base rock.

During compaction, materials shall be maintained within 2 percent of the optimum moisture content. The contractor shall begin compaction of each layer immediately after the material is spread, and continue until a density of not less than 95 percent of the maximum density has been achieved. Maximum density will be determined by AASHTO T-180, or WSDOT Test Method 705.

C. Asphalt Pavement

The base and wearing course of asphalt concrete (AC) streets shall be WSDOT hot mix asphalt class 1/2", PG 64-22.

Compaction shall be at least 91 percent based on a Rice theoretical maximum density, as determined in conformance with AASHTO T 209, as modified by WSDOT. In addition, for each mix used, a 50 blow Marshall (AASHTO T 245) shall be performed and all related test data shall be provided to the City Engineer. The minimum stability shall be 1800 pounds, the flow shall be between 8.0 and 16.0 hundredths of an inch, and the voids shall be between 3.0 and 5.0 percent. The Marshall requirement may be waived by the City Engineer on a case-by-case evaluation.

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2.02 Curb & Gutter

All curb and gutter shall be constructed with Class 3000 concrete, and shall be constructed over a prepared foundation of compacted aggregate.

When new curbing is being placed, a stamp shall be placed to mark where each water and sanitary sewer service crosses the curb line. The method of marking the curb shall be approved by the City Engineer and noted on the approved construction plans. If an imprinting stamp is used, the impression left for a water service shall be the letter "W"; for a sanitary service, it shall be the letter "S". These impressions shall be 2 inches high, placed on the face of the curb.

2.03 Concrete Sidewalks

All sidewalks shall be four (4) inch thick Class 3000 concrete, and shall be constructed over a prepared foundation of compacted aggregate with a stiff broom finish. At driveways the concrete shall be six (6) inches thick.

~~2.04 Driveways~~

~~A. Clearance from structures. No object (including fire hydrants, light or power poles, street trees) shall be placed or allowed to remain within fifteen (15) feet of the driveway edge, except in cul-de-sacs or other high density area where this is not practical as determined by the City Development Inspector and City Engineer.~~

~~Where the building facade or other design element is less than ten (10) feet behind the sidewalk front setback both pedestrian and vehicular sight distance shall be maintained.~~

~~B. Construction shall be per Standard Drawings.~~

2.0504 Mailboxes

It shall be the responsibility of the developer to ascertain mailbox design requirements as required by the Postmaster. Mailboxes, in the general case, shall be set:

- A. Bottom or base of box forty-four (44) inches above road surface or as directed by the Postmaster.
- B. Placement in relation to curb or sidewalk:
 1. Local Streets. Front of mailbox one (1) foot back of vertical curb face or outside edge of shoulder; six (6) inches behind back edge of rolled curbs.
 2. Arterial Streets. Front of mailbox one (1) foot behind the back of sidewalk.
- C. On posts strong enough to give firm support but not to exceed 4" x 4" wood or one and one-half (1-1/2) inch diameter pipe, or material with comparable breakaway characteristics.

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- D. Sidewalk widening behind the mailbox shall be no less than five (5) feet long with a ten to one (10:1) taper to the standard sidewalk section.

2.0605 Survey Monuments

Monument case and cover ~~—seeshall~~ be per WSDOT Standard Drawings or as approved by city engineer.

2.0706 Street Signage and Striping

- A. Signing. See WSDOT Standard Drawings for typical installations and details.
- B. Pavement Marking. All materials shall conform to the "State of Washington Standard Specifications for Road, Bridge, and Municipal Construction," latest edition. Pavement markings for channelization shall be reflectorized hot or cold applied plastic. Extruded or sprayed markings shall be dressed with glass beads for initial reflectance. All materials shall have beads throughout the material to maintain reflectance while the material wears. All pavement markings shall be laid out with spray paint and approved by the City before they are installed. Approval may require a three working day advance notice to have field layout approved by the City.
- C. Traffic Signal Modification. The developer's engineer shall use the standard specifications developed by the City Engineer in conjunction with the current edition of the Washington State Department of Transportation's (WSDOT) "Standard Plans and Specifications for Road, Bridge, and Municipal Construction".

2.0807 Safety Railings

Safety railings shall be constructed of 2-inch galvanized steel pipe or aluminum with vertical supports ten (10) feet on center and 3 horizontal railings fourteen (14) inches on center, the lowest railing center being fourteen (14) inches above finished grade. All joints shall be welded, cold galvanized if welded after galvanizing, and the entire safety railing vinyl coated to assure corrosion protection and a pleasing appearance. Railings shall be erected and adjusted, if necessary, after initially set to assure a continuous line and grade. Warning signs stating "Danger, Please Keep Off" shall be attached to the railing spaced every 50 feet or as directed by the City Engineer.

2.0908 Fences

Chain link fencing shall conform to Section 9-16 of the Standard Specifications as modified herein. Fence material shall be black vinyl coated and provided with black plastic slats per the Standard Specifications. The fence shall be heavy steel guard fence with a top and bottom tension wire. Rails, posts, and accessories shall be galvanized and powder coated. At the discretion of the City Engineer, fence color, slats or other aesthetic features may be modified or removed for fencing of open spaces and stormwater facilities.

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2.1009 Utilities

A. Depth

Underground utilities shall be buried a minimum depth of thirty-six (36) inches as measured from finished grade to top of utility. See Chapters 3, and 4, ~~and 5~~ for additional requirements.

B. Trench Restorations – General

General trench restoration requirements are identified below. There may be additional requirements for specific utilities as noted in subsequent chapters, or per City Ordinance.

Trench restoration shall be either by a patch or overlay method as determined by the Public Works Director or the City Engineer. Unless otherwise approved, trenches cut in the travel lane parallel to the roadway will require a grind and overlay of the entire travel lane from the centerline to the edge of pavement. When a patch method is used, the trench limits shall be sawcut prior to the final patch.

All trench and pavement cuts shall be made by sawcuts. The sawcuts shall be a minimum of one (1) foot outside the trench width. If the permit requires an overlay, the contractor may use a zipper or other approved method for the cutting of the existing pavement.

All trenching shall be backfilled with CDF or Crushed Surfacing Top Course materials conforming to Section 4-04 of the WSDOT Standard Specifications. The trench shall be compacted to a minimum of ninety percent (90%) maximum density (AASHTO T-180), as described in Section 2-03 of the WSDOT Standard Specifications.

Backfill compaction shall be performed in 8 to 12-inch lifts. The compaction tests shall be performed in two (2) foot increments maximum. The test results shall be given to the City Engineer for review and approval prior to paving. Number of tests required shall be as specified in Chapter 1 or as directed by the City. Temporary restoration of trenches for overnight use shall be accomplished by using MC mix (cold mix) or ATB. ATB used for temporary restoration may be dumped directly into the trench, bladed out and rolled. After rolling, the trench must be filled flush with asphalt to provide a smooth riding surface. Steel plates may be allowed at the discretion of the Public Works Director and the City Engineer for low traffic volumes and low speed areas.

Tack shall be applied to the existing pavement and edge of sawcuts and shall be emulsified asphalt grade CSS-1 as specified in Section 9-02.1(6) of the Standard Specifications. Tack coat shall be applied as specified in Section 5-04 of the WSDOT Standard Specifications.

Hot mix asphalt class ½", PG 64-22. 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

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joints between successive layers of asphalt concrete shall be displaced laterally a minimum of twelve (12) inches or unless otherwise approved by the City Engineer. Fine and coarse aggregate shall be in accordance with Section 9-03.8 of the WSDOT Standard Specifications. Hot mix asphalt over two (2) inches thick shall be placed in equal lifts not to exceed two (2) inches each.

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 Engineer shall be accomplished by raking out the oversized aggregates from the mix as appropriate.

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.

Asphalt patch depths will vary based upon the streets being trenched and whether the trenching is parallel or perpendicular to the streets. The actual depths of asphalt shall be shown on the Right-of-Way Encroachment Permit and the work shall be performed as required by the attached details or as specified by the City Engineer.

Compaction of all lifts of asphalt shall be an average of ninety-one percent (91%) based on a Rice theoretical maximum density, as determined in conformance with AASHTO T 209, as modified by WSDOT. Number of tests required shall be as specified in Chapter 1.

All joints shall be sand sealed using paving asphalt AR4000W.

When trenching within the roadway shoulder(s), the shoulder shall be restored to its original or better condition.

The final patch shall be completed as soon as possible and shall be completed within thirty (30) days after first opening the trench. This time frame may be adjusted if delays are due to inclement paving weather, or other adverse conditions that may exist. However, delaying of final patch or overlay work is allowable only subject to the City Engineer's approval. The City Engineer may deem it necessary to complete the work within the thirty (30) days time frame and not allow any time extension. If this occurs, the Contractor shall perform the necessary work as directed by the City Engineer.

2.410 Progress of Construction

Construction shall proceed in a systematic manner that will result in a minimum of inconvenience to the public.

Inspection

A. ~~Step Inspections~~

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~~The following items of work shall be inspected by City forces.~~

- ~~1. For street or sidewalk work, subgrade shall be inspected by the City (and tested by the Contractor) prior to placement of crushed surfacing.~~
- ~~2. Crushed surfacing shall be inspected by the City (and tested by the Contractor) prior to placement of paving, curb, or sidewalks.~~
- ~~3. Pavement, curb, and sidewalk. Notify the City prior to the placement of any paving, curbs, or sidewalk.~~
- ~~4. Compaction of bedding and backfill of utility trenches.~~
- ~~5. Compaction of bedding within public right-of-way and slope easement.~~

~~Other items of inspection notification are included under the various items of work outlined in these Standards.~~

~~B. Progress of Construction~~

~~Construction shall proceed in a systematic manner that will result in a minimum of inconvenience to the public.~~

2.1211 Contractor's Requirement for Testing

Testing shall be performed per the requirements of the Standard Specifications and Chapter 1 of Volume 2 of these Standards.

CHAPTER 3

STORM DRAINAGE

CHAPTER 3 - STORM DRAINAGE

3.00 General Requirements

- A. Provisions must be made for gravity drainage of roofs and foundation drains for all new buildings and structures. Roof and foundation drains shall be piped directly to on-site stormwater systems or piped through the curb to the gutter.
- B. Provisions must be made for stormwater from private property to remain on private property wherever feasible. Runoff from driveways shall be directed to adjacent lawn whenever practical and not be permitted to drain directly to the street unless topography presents undue constraints.
- C. These requirements shall apply to all storm drainage facilities in existing and proposed public right-of-way, public drainage easements, and tracts of common ownership in the City. Storm drainage systems include, but are not limited to: inlets, pipes, ditches, creeks, rivers, wetlands, and storm water quality and quantity facilities.

3.01 Connection to Existing Systems

- A. Connection of new pipe lines to existing manholes shall be core drilled for connection. Connection shall be made with a water-tight gasketed connection, Kor-N-Seal, or equal.
- B. Connection of a pipe line to a system where a manhole is not available shall be accomplished by pouring a concrete base and setting manhole sections. The existing pipe shall not be cut into until approval is received from the City.
- ~~D.C.~~ Connections to manholes using inside or outside drop structures shall be as approved by the City Engineer.
- D. Connection to an existing manhole requires the installation of one-fourth (1/4) inch mesh screen in the downstream line while making connection to eliminate debris from entering the existing system, unless otherwise approved by the City Inspector. After the connection has been completed the new incoming pipe shall be plugged until City approval of the upstream system. ~~Where a heavy flow exists in the connection manhole and when unable to use the one-fourth inch (1/4) mesh screen, due care should be used to keep debris out of the downstream line.~~

3.02 Roadway and Railway Crossing

- A. The owner shall use the method which has been designed on the plans and is acceptable to the City Engineer and the governmental or private agency having control of the ~~road~~crossing. Permits are required and shall be obtained prior to the City granting construction approval.

3.03 Trench Excavation

- A. Trench excavation shall be completed in accordance with Section 7-08 of the WSDOT Standard Specifications.
- B. Trenching operations shall not proceed more than one hundred (100) feet in advance of pipe laying except with written approval of the City.

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- C. When trenching operations involve cutting through concrete pavement, the pavement shall be removed to width of eighteen (18) inches greater than the top width of the trench. The concrete shall be cut on a straight line and shall be beveled so that the cut will be approximately one (1) inch wider at the top than at the bottom.

3.04 Pipe Laying

- A. Pipe laying shall be in accordance with Section 7-08 of the WSDOT Standard Specifications.
- B. The first section of pipe not less than one hundred (100) feet in length installed by each crew shall be ~~tested~~ witnessed by the City inspector in order to qualify the crew and/or material. Successful installation of this section shall be a prerequisite to further pipe installation by said crew.
- C. Regardless of the pipe material or size or the amount of cover from finished grade, existing or newly installed pipe shall not be subject to construction traffic, including excavators, trucks, pavers, etc., until the backfill has reached a minimum of 2-feet above the top of the pipe. Backfill material may be compacted in piles over the top of the pipe, but must not be removed during paving or any other construction activities. The City Engineer may require television inspection, removal and reinstallation or other measures as deemed necessary at the Contractor's expense should pipes be subject to construction traffic prior to providing the minimum 2-feet of cover.
- D. Tracer wire shall be installed will all pipe sections unless exempted by the City Engineer or the Development Inspector. Splices in tracer wire shall be made with a manufactured connection to ensure conductivity through the splice. Tracer wire connectors shall be Pro-Trace part number 96PTTWCBLUE.

~~C.—~~

3.05 Pipe Bedding and Backfill

- A. Imported bedding will be required of all storm sewer pipe. Bedding shall be compacted to 90% of the maximum theoretical density as measured by the modified proctor method (AASHTO T-180) prior to placement of the next layer.
- B. Backfill material in roadway areas shall be imported granular material meeting the requirements of WSDOT Standard Specification for Crushed Surfacing Base Course (Section 9-03.9(3)). Backfill material shall be compacted to 95% of maximum dry density as measured by the modified proctor method (AASHTO T-180).

3.06 Pipe in Construction Areas

- A. Fills:

Where pipe is to be installed in fill areas, special treatment may be required at the discretion of the City. This treatment may consist of the following:

- Compacting the backfill in six (6) inch layers
- Careful choice of backfill materials
- Use of a mechanical joint

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- Use of ductile iron pipe or such other reasonable methods or combination as may be deemed necessary by the City.

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3.07—Pipe Materials

- ~~A. All storm sewer pipe installed in the City shall be one of the following materials meeting the requirements of the Standard Specifications:~~
- ~~○ Smooth Walled Corrugated Polyethylene (ADS N-12 or equal)~~
 - ~~○ PVC Sewer Pipe (ASTM D-3034)~~
 - ~~○ Gasketed concrete pipe~~
 - ~~○ Class 52 ductile iron~~
 - ~~○ PVC Pressure Pipe (AWWA C-900)~~

3.0807 Manholes, Inlets and Catch Basins

- A. Materials and construction shall be per Section 7-05 of the WSDOT Standard Specifications.
- B. All manholes, inlets and catch basins shall be constructed to finished grade. Any re-adjustment of finish grade by the developer or lot owner shall require that party to adjust the manhole and/or cleanout fixtures to the new finished grade.
- C. Provide locking manhole covers in areas outside of public right-of-way.
- D. All pipe connections to manholes shall be made with a gasketed boot connection, Kor-N-Seal boot or equal.
- E. All manhole covers shall be set flush with ground surface, except where otherwise designated by the City Engineer. Manholes in easements shall have locking lids.
- F. Concrete closure collars shall be provided around all manhole adjustment sections per standard detail S-3.0.
- G. Terminal manholes (at end of main) shall not be channeled. Slope manhole base to provide positive drainage toward pipe; use 3,000 psi cement concrete.
- H. Channels shall be centered in manhole.
- I. Ladder rungs shall be placed on side of manhole with largest shelf.
- J. Any manhole less than 5 feet deep (rim to invert) shall be provided without a cone section. All other manholes shall be provided with an eccentric cone.
- ~~K. Glass fiber supported plastic or PVC hard lined manhole channels will be allowed at the contractor's option.~~
- ~~L. Connections of storm sewer pipes to manholes shall be made with water tight rubber connections, Kor n-Seal boot or equal.~~
- ~~M.L. All manholes shall be provided with gasketed joints. The exterior surface of each joint and the frame shall be sealed with Infi-Shield "Seal Wrap" Exterior Seal System or equal.~~

3.0908 Testing Bedding and Backfill for Trenches

Compaction testing shall be in accordance with Section 1, Volume 2 of these Standards.

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~~A. Compaction testing shall be performed for all pipe trenches as specified in the WSDOT Standard Specifications and as identified below. The minimum number of tests required are as follows:~~

- ~~• Provide one test at bottom of trench excavation prior to placement of pipe or bedding for every 500 feet of trench.~~
- ~~• Provide one test at top of bedding for every 500 feet of trench.~~
- ~~• Provide one test for each lift of backfill for every 500 feet of trench.~~

~~B. Location of compaction tests will be determined by the City's Representative. The City Engineer or City Representative may require a higher frequency of testing than identified above based on site conditions.~~

3.1009 Cleaning and Flushing

A. Clean and flush all new storm sewers per Section 7-17 of the WSDOT Standard Specifications. Clean existing drainage structures as specified in Section 7-07 of the WSDOT Standard Specifications.

3.1110 Testing of Storm Sewers, Laterals, and Manholes

- A. Prior to any testing of storm sewers, the contractor shall flush, clean, and remove all debris from the system ~~per Section 7-17 of the Standard Specifications~~ 3.08 of this section.
- B. All mainline and lateral sewers shall be tested after backfilling by either the exfiltration test, or air test per Section 7-04.3(1) of the WSDOT Standard Specifications.
- C. Television inspection shall also be completed on all new public storm sewer pipe along with existing sections of pipe which are disturbed or affected by new construction. All mainline and laterals constructed of flexible pipe shall be deflection tested not less than 30 days after the trench backfill and compaction has been completed. Testing and corrective action as required shall be per Section 7-17.3(2) of the WSDOT Standard Specifications. The costs incurred in making the inspection shall be borne by the developer.
- D. Local variations in slope (i.e., "bellies") must be not more than ½" in 8-inch pipe, ¾" in 10-inch pipe, and 1" in pipes 12-inches or greater. Variations in excess of these tolerances must be repaired at the Contractor's expense to the satisfaction of the City.
- E. The developer shall bear all costs incurred in correcting any deficiencies found during television inspection including the cost of any additional television inspection that may be required by the City to verify the correction of said deficiency.
- F. Test films will become the property of the City.
- G. Repair by chemical grouting will not be allowed.

3.121 Culverts

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- A. All exposed culvert ends shall be beveled. Materials and construction shall conform to Section 7-02 of the WSDOT Standard Specifications.

3.1312 Embankment

- A. Embankment for stormwater retention or detention basins shall be placed ~~in maximum eight (8) inch lifts and each lift shall be compacted to 90% of maximum density (AASHTO T-180) at optimum moisture content~~ as required by the site-specific geotechnical report. Embankments shall be constructed per Section 2-03 of the Standard Specifications.

3.1413 Oil/Water Separator

- A. Oil/water separators shall be constructed as shown in the standard details and/or the approved plans. Excavation for precast vaults shall be sufficient to provide a minimum of 12 inches between the vault and the side of the excavation. Vaults shall be placed at proper depth to set vault cover flush with finish grade. If additional depth of cover is required over inlet or outlet piping, vault riser sections shall be installed to raise vault cover a maximum of 24 inches.
- B. The oil/water separator shall be placed on firm soil. If the foundation material is inadequate, the Contractor shall use foundation gravel or bedding concrete under the normal base to support the separator.
- C. Vault shall be placed and set plumb so as to provide vertical sides. The completed separator shall be rigid and watertight.
- D. Joints of precast concrete sections shall be thoroughly wetted and completely filled with mortar, plastered and trowled smooth with 3/4" of mortar in order to attain a watertight surface.
- E. All lift holes, if any, on precast items shall be completely filled with expanding mortar and smoothed both inside and out, to insure water-tightness. All steel loops, if any, on precast section must be removed, flush with the vault wall. The stubs shall be covered with mortar and smoothed. Rough, uneven surfaces will not be permitted.
- F. Precast vaults, shall be provided with 8-inch diameter knockouts at all pipe openings or have openings core-drilled prior to installation.
- G. All rigid pipe entering or leaving the structure shall be provided with flexible joints within twelve (12) inches of the manhole structure and shall be placed on firmly compacted bedding. Special care shall be taken to see that the openings through which pipes enter the structure are completely and firmly filled with mortar from the outside to ensure water-tightness. All P.V.C. pipe connections to vault shall be made with gasketed coupling as approved by the City.

CHAPTER 54

WATER CONSTRUCTION PROCEDURES

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CHAPTER ~~5-4~~ - WATER CONSTRUCTION PROCEDURES

54.00 General Requirements

~~A. Preconstruction Conference~~

~~No water main construction work shall commence prior to the pre-construction meeting or prior to approval of the engineering plans. After completion of construction and submittal of required documents and fees, final acceptance will be given by the City at which time service will be available by application following payment of fees for water meters.~~

~~BA.~~ Water Quality

The quality, taste and odor of water drawn from new construction water mains shall be the same as the water in the existing facility classed as acceptable for use by the City. Should the water not be acceptable for use because of taste, required steps as approved by the City shall be accomplished to attain water quality acceptable for use.

~~CB.~~ Operation of all waterlines valves and appurtenances shall be by City personnel only once new waterlines are connected to the City's existing system, regardless of whether or not the overall project has been accepted by the City.

54.01 Water Meters

A. ~~Commercial w~~Water meters ~~sized three-quarter (3/4) inch, one (1) inch, one and one-half (1-1/2) inch or two (2) inch~~ shall be furnished and set by the City. The owner is required to apply and pay all meter and installation fees prior to the acceptance of the project. The City will install meters and lock off meter setters and turn on as requested by the owner after acceptance by the City. Water meters will be set only after box and setter are installed per the standard details.

~~B. Meters three (3) inches and larger will be installed by the owner as part of the construction project and will be locked off by the City. The three (3) inch and larger meters will be turned on by the City by request from the owner after acceptance by the City.~~

~~C. In subdivisions and short plats, water meter applications will be processed for meter sets and water turned on after acceptance of the water mainline facility by the City and payment of all meter and installation fees by the applicant.~~

D. All irrigation ~~meters-systems~~ require the installation of certified backflow devices. Certification must be either City or State approved.

All irrigation ~~meters-systems~~ will be set and turned on after acceptance of the water system by the City. The City will not accept a water system until all the requirements of these standards have been completed and all the fees have been paid.

E. Adjustments, repairs or replacement of the service line, meter box or setter shall be the responsibility of the property owner.

~~F. Any deficient water service brought up to standards by the City as requested by a property owner by application shall be billed by the City on a time and material basis.~~

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- G. Water services are to be single runs from the main line to each meter. Splices or joints of any kind are not allowed on new services or service line repairs completed by the contractor. Multiple meters on a single service line will only be accepted when all meters serve a single property owner.
- H. Materials and construction shall be in accordance with Section 7-15 of the WSDOT Standard Specifications and the Standard Details.

54.02 Cross Connection Control

Backflow devices shall be installed in accordance with the requirements of the "Accepted Procedure and Practice in Cross Connection Control" manual, the Uniform Plumbing Code and ~~the Codes~~ Engineering Standards.

54.03 Connections to Existing Pipelines

- A. Connections may be made to existing pipes under pressure with a tapping machine by determining the size and type of pipe and installing tapping sleeve to fit complete with tapping gate valve. Where cut-ins requiring a shut-down of existing lines are permitted to be made, the work shall be conducted at such a time and in such a manner as to minimize the interruption of service. Cut-in time must be approved by the City. Necessary pipe, fittings and gate valves shall be assembled at the site ready for installation prior to the shutting-off of water in the existing main. Once the water has been shut off, the work shall be performed vigorously and shall not be halted until the line is restored to service. Operation of all water main line valves shall be by the City. The City shall witness all wet taps and cut-in connections and requires forty-eight (48) hours notice and approval by the City.
- B. The Contractor shall have the responsibility of giving at least a forty-eight (48) hour notice to the City and affected customers of intention to disrupt service.
- C. Shut-down of the system at the requested time is not guaranteed. If City personnel are not available at the requested time or if the Contractor does not have the necessary equipment and materials on site, the shut-down will be moved back to allow for re-notification.
- D. Pipes to be abandoned shall be capped with mechanical couplings. Abandoned pipes left in place that are larger than 8-inches in diameter must be completely filled with grout.
- E. When tapping water mains, use stainless steel conforming to 18-8 Type 304 stainless steel with a CF 8 cast stainless steel flanged end with ANSI 150 lb drilling. Bolts and hardware shall be Type 304 stainless steel.
- F. Connections to existing mains larger than 8-inch diameter shall be via a wet tap unless otherwise approved by the City.
- G. Connections to existing mains smaller than 8-inches in diameter shall be by cutting in

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a tee, unless otherwise approved by the City Engineer.

- H. Size on size tapping tees are not allowed unless otherwise approved by the City Engineer.

54.04 Roadway and Railway Crossing

The Contractor shall use the method which has been designed on the plans and is acceptable to the City and the government or private agency having control of the road. Permits are required and shall be obtained prior to construction approval.

54.05 Trench Excavation

- A. Clearing and grubbing, where required, shall be performed within the easement or public right-of-way and as permitted by the property owner and/or governing agencies. Debris resulting from the clearing and grubbing shall be disposed of by the developer.
- B. The work necessary to excavate, bed, and backfill water pipelines shall conform to the requirements of Section 7-9 of the WSDOT Standard Specifications and the Standard Drawings.
- C. Trenching and shoring operations shall not proceed more than one-hundred (100) feet in advance of pipe laying without written approval of the City.
- D. Where a utility crosses under an existing asbestos cement water main or where a trench alters the bedding of an existing asbestos cement water main, the existing A.C. pipe shall be cut three (3) feet minimum from each side of the trench wall and replaced with a corresponding size ductile iron pipe Class 52. The ductile iron pipe shall be connected to A.C. pipe with transition couplings.

54.06 Pipe in Filled Areas

Special treatment may be required at the discretion of the City for pipe installed in fill areas. This treatment may consist of compacting the backfill in six (6) inch layers, careful choice of backfill materials, use of Mechanical Joint Ductile Iron Pipe in short lengths, or such other reasonable method or combinations as may be necessary or as required by the City.

54.07 Pipe Installation For Water Mains

- A. General
Pipe shall be laid per Section 7-08 of the Standard Specifications as modified and/or amended herein.
- B. Line and Grade
Waterlines shall be installed to the line and grade shown on the plans. Construction staking providing both line and grade information shall be provided at locations of all fittings and valves and at intermediate locations spaced not more than 60 feet apart.

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Pipelines shall not deviate from the straight line at any joint in excess of 2 inches horizontally and 1 inch vertically. The Contractor shall pothole and locate existing utilities far enough in advance of pipe laying operations such that horizontal and vertical changes in pipeline and grade can be achieved with joint deflections.

C. Pipe and Fittings Materials

Use only Class 52 ductile iron pipe and fittings in accordance with Section 7-9 of the WSDOT Standard Specifications.

D. Bolts

Bolts for buried flanged fittings shall be stainless steel. Bolts for mechanical joints shall be NSS Corten steel ~~or on~~ Ductile iron fittings only.

E. Permissible Deflection of Joints

Wherever it is necessary to deflect pipe from a straight line either in a vertical or horizontal plane, or where long-radius curves are permitted, the amount of deflection allowed shall not exceed the values in the following table:

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Maximum Deflection Permitted*
18-Foot Length Pipe

Diameter (Inches)	Mechanical Joint Maximum Deflection**		Push-on Joint Maximum Deflection	
	Angle (Degrees-Minutes)	Deflection (Inches)	Angle (Degrees)	Deflection (Inches)
4	8-18	31	5	18
6	7-07	27	5	18
8	5-21	20	5	18
10	5-21	20	5	18
12	5-21	20	5	18

* The maximum deflection shall be whichever is less, the table or that recommended by the pipe manufacturer.

** Safe deflection for 150 pounds pressure. For higher pressure, reduce tabulated deflection proportionally 10 percent for each 150 pounds added pressure.

F. Downtime Protection

When stopping work for the day, the contractor shall plug pipe ends to prevent rodents, other small animals, or debris from entering the pipe. Use an inflatable ball as a plug in addition to a tight-woven canvas, securely tied around outside of pipe end.

G. Detectable Tracer Wire

Water main and services shall be installed with a 12 gauge insulated copper tracer wire. Wire shall be terminated at valve boxes and meter boxes. Splices in tracer wire shall be made with a manufactured connection to ensure conductivity through the splice. -Tracer wire connectors shall be Pro-Trace part number 96PTTWCBLUE.

H. Sanitary Sewer Crossings

Horizontal and Vertical Separation (Parallel)

A minimum horizontal separation of 10 feet between sanitary sewers and any existing potable water lines, and a minimum vertical separation of 18 inches between the bottom of the drinking water line and the crown of the sewer shall be maintained. The distance shall be measured edge to edge (i.e., from the outer diameter of the pipes.) as shown in Figure C1-2 in the Criteria for Sewage Works Design (rev. 10/2006).

Vertical Separation (Perpendicular)

Sewer lines crossing water lines at angles including perpendicular shall be laid below the water lines to provide a separation of at least 18 inches between the invert of the water line and the crown of the sewer.

In the event 18-inches of vertical separation cannot be achieved or the sewer line is required to be installed above the water line, the following is required.

Gravity Sewers Passing Under Water Lines

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- Sewer pipe shall be encased in ~~controlled density fill (CDF)~~ with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of 18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially available pipe skirts and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.
- One full length of sewer pipe shall be centered at the point of crossing so that the joints will be equidistant and as far as possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.

Gravity Sewers Passing Over Water Lines

Water lines shall be protected by providing:

- A vertical separation of at least 18 inches between the invert of the sewer and the crown of the water line.
- Adequate structural support for the sewers to prevent excessive deflection of joints and settling on and breaking of the water lines.
- The length of sewer pipe shall be centered at the point of crossing so that the joints will be equidistant and as far as possible from the water line. The sewer pipe shall be the longest standard length available from the manufacturer.
- A water line encased in ~~controlled density fill (CDF)~~ with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of 18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially available pipe skirts and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.

Pressure Sewers under Water Lines

- Pressure sewers shall be constructed only under water lines with pressure rated pipe encased in ~~controlled density fill (CDF)~~ with a minimum compressive strength of 300 psi or in a one quarter-inch thick continuous steel, ductile iron, or pressure rated PVC pipe with a dimension ratio (DR) of

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18 or less, with all voids pressure-grouted with sand-cement grout or bentonite. Commercially available pipe skids and end seals are acceptable. When using steel or ductile iron casing, design consideration for corrosion protection should be considered. Encasement shall extend a minimum of 10-feet on each side of the crossing.

I. Separation from Existing Water Systems

New waterline piping shall not be connected to existing systems until all pressure testing and disinfection has been completed. New pipes shall be installed such that there is a physical gap between the existing waterline and the new waterline. Visual inspection of the tie-in to the existing system under working pressure is required prior to backfilling.

54.08 Pipe Class / Protection / Cover

BA. Watermain depth of cover:

- 3 feet minimum from final grade
- 6 feet maximum from final grade
- Regardless of the pipe material or size or the amount of cover from finished grade, existing or newly installed pipe shall not be subject to construction traffic, including excavators, trucks, pavers, etc., until the backfill has reached a minimum of 2-feet above the top of the pipe. Backfill material may be compacted in piles over the top of the pipe, but must not be removed during paving or any other construction activities. The City Engineer may require television inspection, removal and reinstallation or other measures as deemed necessary at the Contractor's expense should pipes be subject to construction traffic prior to providing the minimum 2-feet of cover.

C. Building setback requirements:

- 5 feet minimum from covered parking to watermain.
- 10 feet minimum from building (and retaining walls) to watermain.
- 20 feet minimum easement shall be provided between buildings.

D. All ductile iron pipe and adjacent fittings shall be encased in 8-mil polyethylene per AWWA C-105 where directed by the City Engineer.

54.09 Bedding and Backfill

Use crushed surfacing top course for bedding and backfill of all water main pipe installed under pavement, curbs, sidewalks, or usable shoulder. Bed and backfill pipe and appurtenances in accordance with Section 7-9 of the WSDOT Standard Specifications. Bedding shall be compacted to 90% of the maximum theoretical density as measured by the standard proctor method (AASHTO T-180) prior to placement of the next layer. Backfill material shall be compacted to 95% of maximum dry density as measured by the

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standard proctor method (ASSHTO T-180). In non-roadway areas, native material may be used above the pipe zone (12-inches above pipe) as approved by the City Engineer.

54.10 Hydrostatic Tests

The contractor shall make pressure and leakage tests on all newly laid pipe. ~~in accordance with Section 7-09.3(23) of the WSDOT Standard Specifications as modified herein.~~ The test shall be conducted at a pressure not less than 225 psi for a duration shall be of 60 minutes ~~and the pressure shall not drop more than 5 psi at any time during the test with no loss in pressure. If the pressure drops more than 5 psi, the test shall be terminated and the 60-minute period started over.~~

Contractor shall be required to furnish all necessary equipment and material, make all taps in the pipe as required, provide all temporary thrust blocking as required, and conduct the tests. The City's ~~Development~~ Inspector shall witness the test; if the test does not pass inspection for any reason, additional trips required to witness the test shall be at the owner's expense.

A. Correction of Excessive Leakage

Should any test of pipe laid disclose leakage greater than that allowed, locate and repair the defective joints or pipe until the leakage of a subsequent test is within the specified allowance.

B. Testing Against Valves

Pressure testing against valves will not be allowed unless approved by the City Engineer.

C. Provide temporary 2-inch blow off assemblies for testing and disinfection of new water mains (where hydrants are not available). Place blow-off at high end of line, where possible.

54.11 Sterilization and Flushing of Water Mains

Pipeline intended to carry potable water shall be sterilized before ~~placing connection to the existing water system in service.~~ All waterlines must be subject to and pass a pressure test prior to starting sterilization procedures. Sterilizing procedures shall conform to AWWA C-601 as hereinafter modified or expanded, and Section 7-09.3(24) of the WSDOT Standard Specifications.

A. Method of Disinfection

All pipelines shall be sterilized using a continuous feed method. Placement of dry Calcium Hypochlorite or other chlorine bearing compounds in individual pipe lengths will not be allowed. The potable water pipeline shall be disinfected with a solution containing a minimum of 25 ppm chlorine to a maximum 50 ppm chlorine. The disinfecting solution must remain in the pipeline for a period of 24 hours or greater. After the 24 hours, all portions of the pipe must have a minimum of 10 ppm. If the chlorine residual is less than 24 hours, the line shall be flushed and the disinfection

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process repeated. ~~If 10 ppm in all portions of the piping~~ After disinfection, the pipe shall be flushed until the chlorine residual is the same as that of the source of the flushing water. After flushing, the water shall remain in the pipeline for a 24 hour period prior to taking the samples.

B. Disposal of Sterilizing Water

Dispose of sterilizing water in an approved manner. Do not allow sterilizing water to flow into a waterway without adequate ~~dilution or other satisfactory method of reducing chlorine to a safe~~ dechlorination level. Dechlorination procedures are to be submitted in writing and approved by the City Engineer prior to flushing system.

C. Collection of Samples

The Contractor shall hire an independent laboratory to collect and analyze water samples for the presence of bacteria. The City's Inspector shall determine the quantity and location of samples to be taken and witness the sampling completed by the laboratory. Results of all tests shall be given to the Inspector upon completion.

54.12 Valves for Water Mains

- A. Materials and construction shall be in accordance with Section 7-12 of the WSDOT Standard Specifications and the Standard Details.
- B. Valve marker posts shall be reinforced concrete posts, 4" x 4" on one end, 6" x 6" on the other end, forty-two (42) inches long. Valve marker post shall be painted white hi-gloss Rust-oleum with painted black dimension from marker to valve boxes.

54.13 Hydrants

- A. As per the ~~UFC~~ Uniform Fire Code, fire hydrants shall be located to allow a 36-inch clear space surrounding the hydrant. For example, street lights, sign posts, protective posts, or retaining walls shall be no closer than 36 inches from the nearest portion of a hydrant. There shall also be no obstructions directly in line with any of the ports of the hydrant.
- B. Fire hydrants shall have Storz fittings.
- C. Materials and construction shall be in accordance with Section 7-14 of the WSDOT Standard Specifications and the Standard Details.
- D. Approved hydrants include the following:
 - Waterous Pacer WB67
 - Clow Medalion

54.14 Cross Connection Control and Backflow Assemblies

A. Installation and Testing

Backflow prevention assemblies shall be installed at the water service connection on the customer side of the meter. Backflow assemblies 3" diameter and larger shall be installed ~~in a vault in accordance with these standards~~ above ground in a heated,

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~~protected location. Backflow prevention assemblies 1" and smaller shall be installed in a Carson Industries Box, series 1324 or an approved equal. 1 ½" and 2" assemblies shall be installed in a series 1730 box, or equal.~~

After installation, all backflow prevention assemblies which are installed, must be tested upon installation by a State of- Washington certified tester. The results of the testing shall be received by the City prior to issuance of "final occupancy".

~~B. Backflow Prevention Device Assembly Vaults~~

~~Backflow prevention device assembly vaults shall be constructed in accordance with the standard drawings and requirements of this section. Backflow vaults shall be on private property and located outside of public easements.~~

C. Fire Services and Domestic Services

1. No part of the backflow prevention assembly shall be submerged in water or installed in a location subject to flooding. In a vault or chamber, adequate drainage shall be provided; and test cocks shall be plugged. The plugs shall not be of dissimilar metals.
2. The backflow assembly shall be protected from freezing and other severe weather conditions.
3. All backflow assemblies shall have a minimum 12-inch clearance on the backside, 24-inch clearance on the test-cock side, and 12 inches below the assembly. Adequate clearance (6 inches minimum) must be maintained above gate-valve stem at full extension. Headroom of 6 foot, 0 inches is required in vaults without a full opening top. Access to the device and to any vault or chamber shall remain clear at all times.

D. Special for Fire Service Only

1. Fire Service backflow prevention assemblies shall be installed at the property line, or edge of the public water line easement. The fire service from the public main to the backflow assembly shall be privately owned and meet all City's Standard Drawings.
2. Only approved resilient seat indicating valves are allowed on fireline assemblies.
3. Only approved Double Detector Check Valve Assemblies are to be used for system containment on fire line services in the City. The meter on the bypass assembly shall read in cubic feet.
4. Fire Line Flow and Tamper Switches installed, as required by ~~UBC~~ Uniform Building Code sec. 3803, must be connected to a monitored Fire Detection System approved by the Fire Marshal. The tamper switches are required on the ~~OS and Y~~ outside stem and yoke gate valves in the vault, as well as any other indicating control valves on the fire protection system. Electrical inspection and permit is required.

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5. The remote reader (if allowed) shall be rigidly mounted on an exterior building wall (near the domestic meter), enclosed in a metal box with a slot opening which allows reading the remote without opening the box, and at an elevation of 5 feet above the ground level.

The remote reader shall have the same number configuration as the metering device itself, and read in cubic feet. All wires to the remote reader shall be enclosed in a heavy plastic or rigid metal conduit. All wiring shall be in conformance with appropriate sections of the National Electric Code.

5.15 Water System Vault Installations

To ensure proper operation and accessibility of all vaults, the following requirements shall apply unless otherwise approved by the City Engineer.

- A. All vaults shall be sealed with Crystal Seal or approved equal on the outside of the vault.
- B. Vault penetrations shall be preformed or core drilled to produce a smooth hole. Penetrations shall be sealed with a watertight Link Seal as manufactured by Thunderline or approved equal. Where approved by the City Engineer, non-shrink grout may be used to seal penetrations. Apply water proof coating over grout. Backfill around vault per the manufacturer's specifications.
- C. Access to all vaults shall be through a double door, H-20 rated hatch. The doors shall open to 90 degrees and automatically lock with a stainless steel hold-open arm with an integral stainless steel compression spring. The unit shall lock with a stainless steel slam lock with removable key and have a covered, recessed locking hasp. Hinges and all hardware shall be stainless steel. The hatch shall be Halliday Series H2W or equal.
- D. Provide an aluminum ladder if the vault or chamber depth is 3 foot 0 inches or greater. Ladders shall include an aluminum ladder extension, ~~Model 1672 as manufactured by Utility Vault Company, or approved equal.~~ At a minimum, ladders shall be braced at the top, bottom and one intermediate location. All non-aluminum accessories shall be stainless steel or hot-dipped galvanized.
- E. Adequate drainage for the vault or chamber shall be provided. Gravity drainage to piped storm systems is allowed provided a check valve is installed. If gravity drainage is not possible, vaults shall be equipped with a sump pump. Vault floors must be sloped towards vault drain or sump. Surface drainage shall be directed away from water system vaults and chambers. The drain from the access door shall be piped directly to the sump or the vault drain.
- F. Vault must be equipped with a moisture proof light fixture if adequate lighting is not available.
- G. Vault is to have no other use, except for use described by these standards.

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- H. Vault shall be installed on a subgrade consisting of $\frac{3}{4}$ "-0 gravel base compacted to 95 percent of maximum density (AASHTO T-99).
- I. Piping shall be installed with a clearance of 1 to 3 feet above the vault floor and a minimum clearance of 9 inches from the edge of flanges to any wall.
- J. All miscellaneous bolts and fasteners shall be stainless steel unless otherwise approved or noted herein.
- K. Assembly is to be adequately supported from the floor, and suitably restrained from movement. Supports shall consist of steel supports or approved equal; no wood supports shall be used.
- L. All electrical wiring shall be inspected by the Washington State Electrical Inspector (Permit is required).
- M. The assembly shall be readily accessible with adequate room for maintenance.

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54.16 Pressure Reducing Valve Vaults

PRV vaults are unique to each situation. Minimum requirements shall be as listed in Section 5.14 (Water System Vault Installations). The engineer shall detail the vault on the plans and submit for review. The City will review the vault for size and compliance with the general requirements listed under this section.

54.17 Appurtenances

A. Air and Vacuum Release Valves

1. Air and vacuum release valves shall be APCO - Valve and Primer Corporation, "Heavy-Duty", combination air release valve, or equal.
2. Installation shall be as shown on the Standard Details.
3. Piping and fittings shall be copper or brass. Location of the air release valves as shown on the plans is approximate. The installation shall be set at the high point of the line. Water line must be constructed so the air release valve may be installed in a convenient location.

STANDARD DETAIL LIST**General Details**

Dwg.	Title
G-1.0	Blank
G-1.1	Underground Utility Locations
G-1.2	Standard Pipe Bedding
G-1.3	Typical Trench Sections
G-1.4	Blank
G-4.1	Standard Sanitary Notes
G-4.2	Standard Force Main Construction Notes
G-5.1	General Water Notes

STANDARD DETAIL LIST

(Continued)

Sewer Details

Dwg.	Title
S-1.2	Blank
S-1.3	Typical House Side Sewer
S-1.4	Service Lateral Connections
S-1.5	Anchor Walls
S-1.6	Concrete Encased Sewer Pipe
S-2.1	Standard Precast Manhole
S-2.2	Standard Manhole Frames and Covers
S-2.3	Standard Manhole Steps
S-2.4	Standard Manhole Connection
S-2.5	Top Slab for Standard Precast Manhole
S-2.6	Outside Drop Connection
S-2.7	Inside Drop Connection
S-2.9	Standard Manhole Joint
S-3.0	Manhole—Concrete Closure Collar
S-3.1	Standard Sewer Cleanout
S-3.2	Pressure Main Connection
S-3.3	Residential Sewer Cleanouts in Driveways
S-3.6	Air Vacuum/Release Vault With Odor Control
S-3.7	Location Station Detail
S-3.8	Valve Stand Detail
S-3.9	Toning Wire and Locator Tape Detail
S-3.10	Typical Grinder Pump Pressure Sewer Site Plan
S-3.11	Typical House Grinder Pump Valve Box
S-3.12	Pressure House Grinder Pump Service Connection
S-3.13	Pressure House Grinder Pump Service Connection to Existing Gravity Lateral
S-4.1	Standard Sampling Manhole
S-4.2	Standard Grease Interceptor
S-4.3	Standard Oil/Water Separator

STANDARD DETAIL LIST

(Continued)

Water Details

Dwg.	Title
W-1.1	Blank
W-1.2	Standard Water Service – 1”
W-1.3	Standard Water Service – 1 ½” and 2”
W-1.4	Standard Water Service – 3” and Larger
W-1.5	Standard Thrust Block
W-1.6	Vertical Anchor Block
W-2.1	Standard Fire Hydrant Assembly
W-2.2	Standard Valve Box and Cover
W-2.3	Blank
W-2.4	Combination Air Release Valve
W-2.5	Standard Blow-off Assembly
W-2.6	Standard Temporary Blow-off Assembly
W-2.7	Standard Manual Air Release Valve
W-2.8	Pipe and Casing Detail
W-2.9	Fire Hydrant Guard Post
W-2.10	Water Sampling Station
W-3.1	Double Check Valve Assembly – 2” and Smaller
W-3.2	Blank
W-3.3	Double Check Valve Assembly – 2 ½” and Larger
W-3.4	Reduce Pressure Principle Backflow Assembly – 2 ½” and Larger
W-3.5	Reduce Pressure Principle Backflow Assembly – 2” and Smaller
W-3.6	Fire Protection Service, Backflow Prevention & Irrigation Deduct Meter Locations

STANDARD DETAIL LIST

(Continued)

Transportation Details

Dwg.	Title
T-1.1	Blank
T-2.1	Major Arterial Section
T-2.2	Minor Arterial Section
T-2.3	Downtown Minor Arterial Section
T-2.4	Industrial / Commercial Collection Section
T-2.5	Standard Collector Section
T-2.6	Scenic Collector Section
T-2.7	Industrial Local Section
T-2.8	Residential Access Section
T-2.9	Residential Local A Section
T-2.10	Residential Local B Section
T-2.11	Typical Arterial/Collector Light Standard
T-2.12	Typical Arterial/Collector Light Foundation Standard
T-2.13	Concrete Driveway Approach Standard
T-2.14	Concrete Driveway Approach Type 3
T-2.15	Major Commercial Concrete Approach Standard
T-2.16	Pioneer Street (SR 501) From 45 th Ave. to 56 th Pl. Conceptual Cross Section
T-2.17	Pioneer Street (SR 501) From 32 nd Ave. to 45 th Ave. Conceptual Cross Section

ADA Details

Details for ADA curb ramps and driveway ramps shall be in accordance with the latest revision of the Washington State Department of Transportation Standard Plans.

Stormwater Details

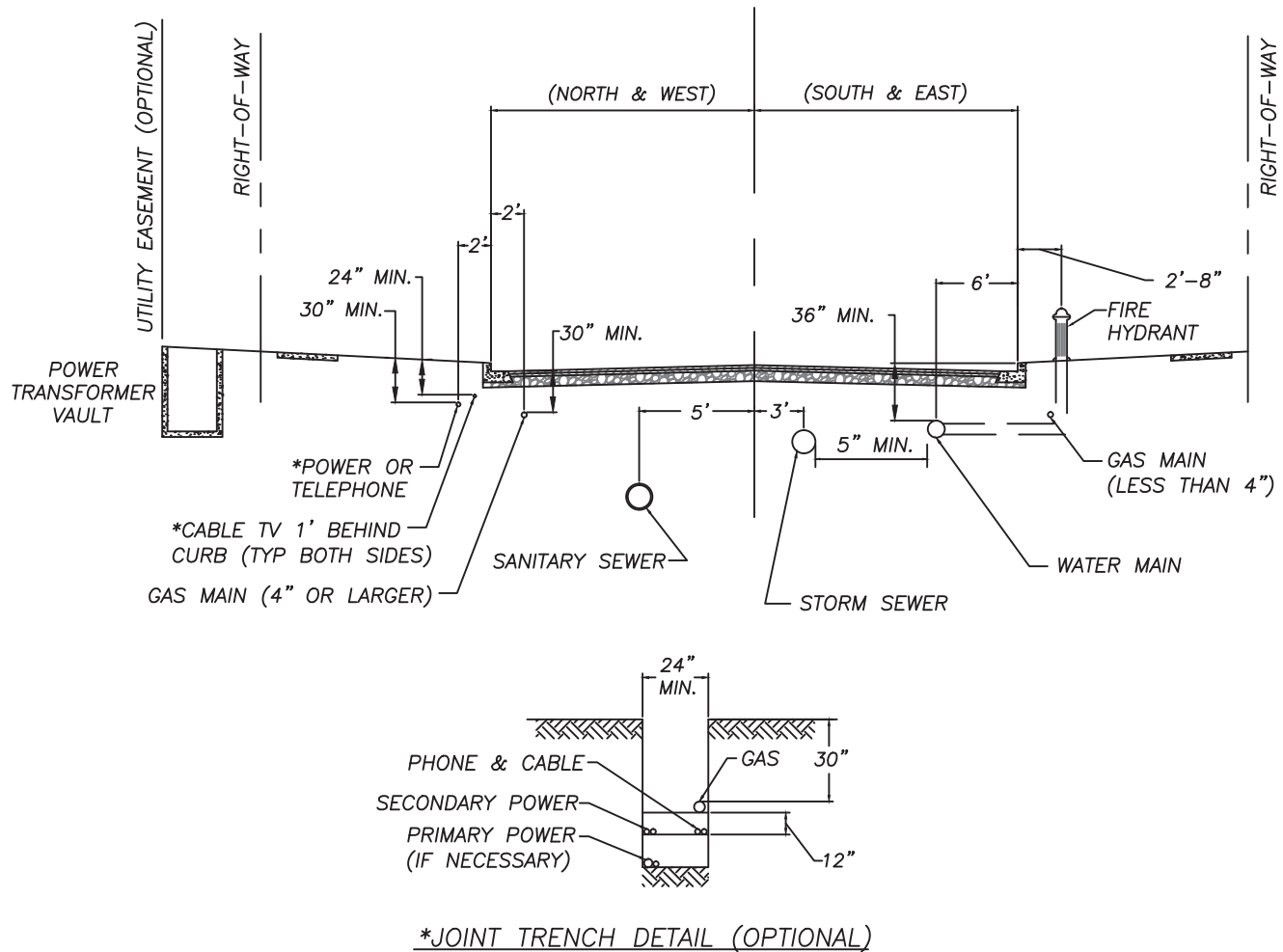
Details for stormwater facilities including pipes, inlets, and catch basins shall be in accordance with the latest revision of the Washington State Department of Transportation Standard Plans.

APPENDIX A

~~CLARK COUNTY CODE SECTION 40.380~~
~~STORMWATER AND EROSION CONTROL~~

~~APPENDIX B~~

STORMWATER FACILITY MAINTENANCE MANUAL



NOTES:

1. LOCATIONS SHOWN ARE TYPICAL. ON STREETS WITH CENTER TURN LANES OR MEDIANS, THE LOCATION OF THE SEWER OR STORM LINES MAY BE ADJUSTED TO KEEP MANHOLES OUT OF MEDIANS AND MANHOLES CONES ARE TO BE ROTATED TO KEEP MANHOLE COVER LOCATED OUTSIDE OF WHEEL PATH.
 2. ANY VARIATION FROM THIS DESIGN MUST BE APPROVED BY THE CITY ENGINEER.
 3. FRANCHISE UTILITIES – IF SIX FOOT UTILITY EASEMENT IS PRESENT ALONG PROPERTY FRONTAGE, PLACEMENT SHALL BE AT BACK OF SIDEWALK WITHIN UTILITY EASEMENT. ALTERNATE LOCATIONS CONSIDERED ONLY TO SALVAGE CORE ROADWAY, OR TO AVOID SUBSTANTIAL CONFLICT WITH EXISTING UTILITIES. GAS VALVES ARE TO BE LOCATED 2' MIN. FROM FACE OF CURB.
- MINIMUM COVER:
- GAS – 30"
 - CABLE TV – 24" IN STREET
18" IN SIDEWALK-EXISTING SUBDIVISION
 - ALL OTHERS – 36"

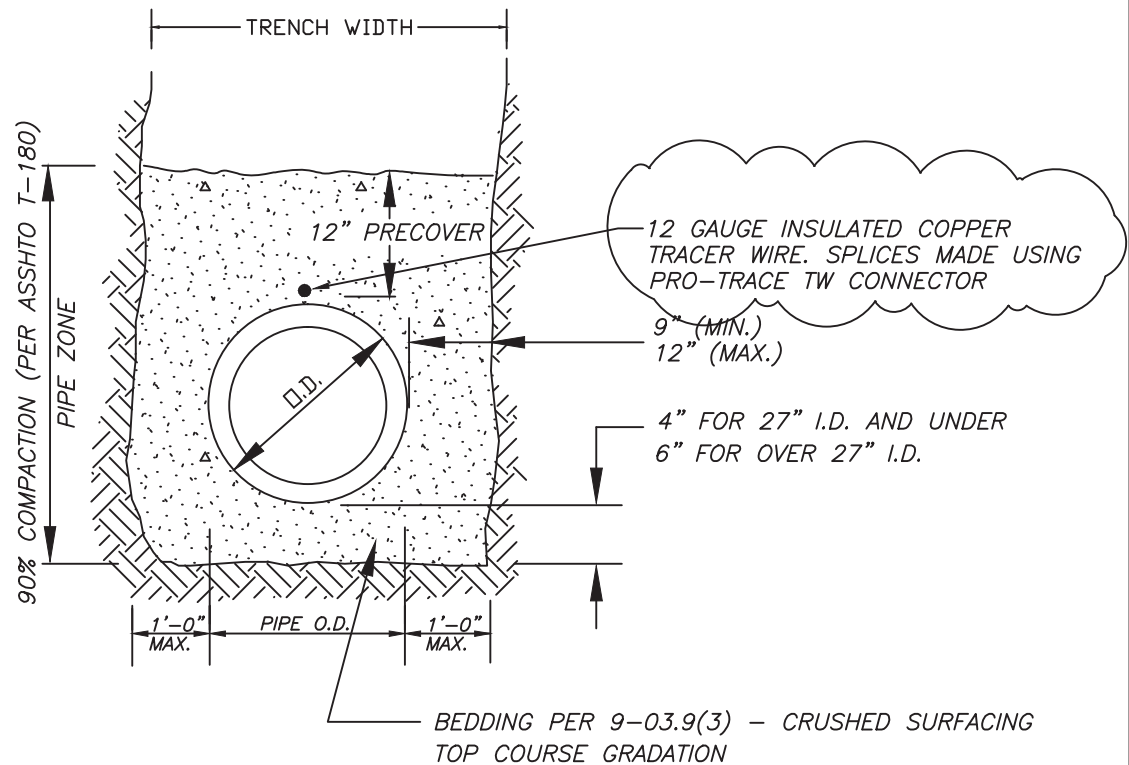
REV. 2/26/08 SCH

UNDERGROUND UTILITY LOCATIONS

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G – 1.1



NOTES:

1. WHERE DIRECTED BY THE ENGINEER, GRANULAR TRENCH FOUNDATION STABILIZATION SHALL BE PLACED PRIOR TO PLACEMENT OF THE BEDDING. SIZE AND DEPTH ARE DEPENDENT ON SOIL CONDITIONS.
2. BEDDING AND BACKFILL MATERIALS IN THE PIPE ZONE SHALL BE COMPACTED AS SPECIFIED PRIOR TO BACK-FILLING THE REMAINDER OF THE TRENCH.
3. FOR ROCK AND OTHER INCOMPRESSIBLE MATERIALS, THE TRENCH SHALL BE OVEREXCAVATED A MINIMUM OF 6" AND REFILLED WITH GRANULAR MATERIALS AS DIRECTED BY THE ENGINEER.
4. BACKFILL AND COMPACTION ABOVE THE PIPE ZONE SHALL BE AS SHOWN IN STANDARD PLAN NO. G-1.3.
5. CITY WATER LINE SHALL HAVE 36" MINIMUM COVER FROM TOP OF PIPE TO FINISHED GRADE.

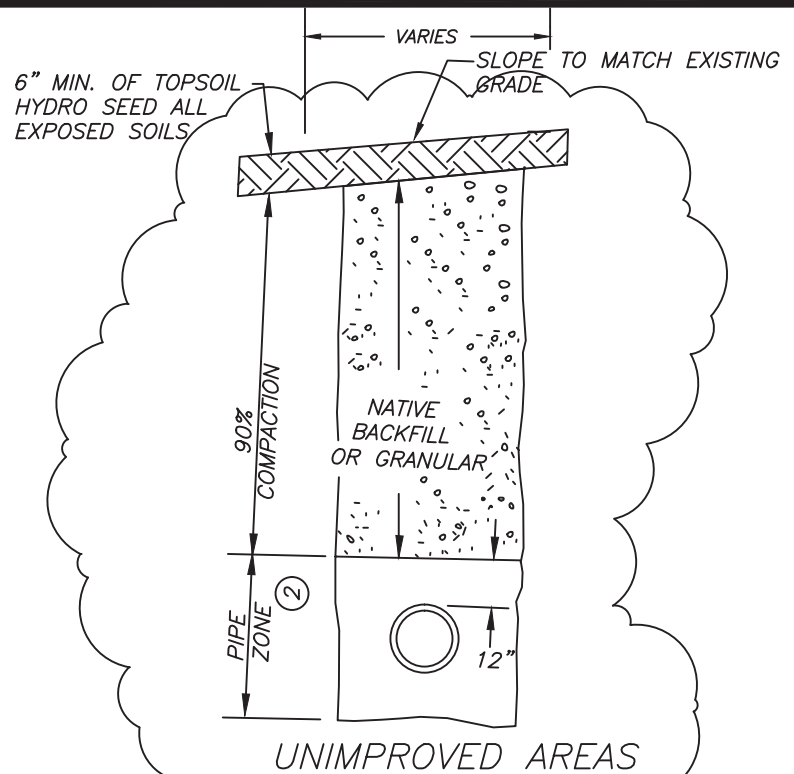
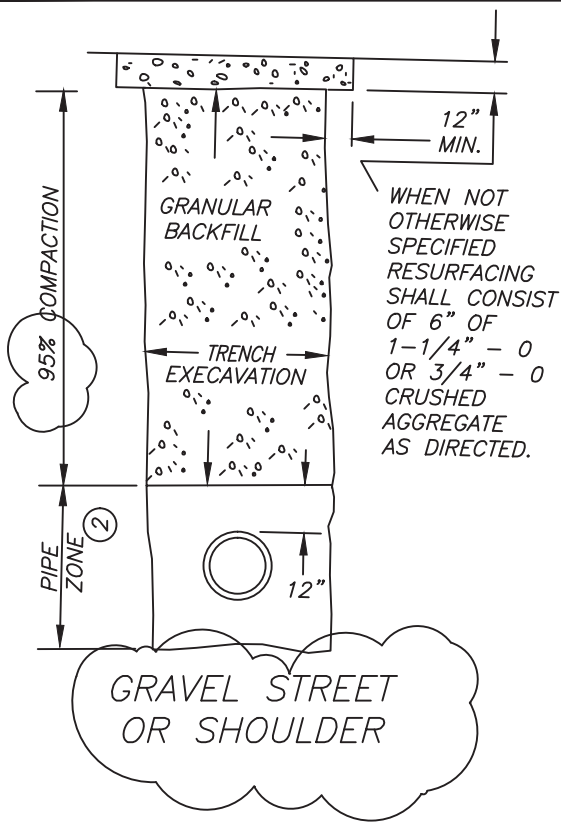
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STANDARD PIPE BEDDING

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DETAILS

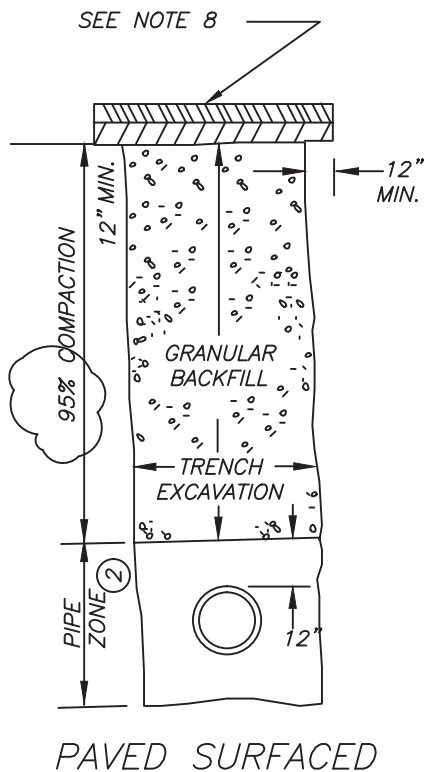
CITY OF RIDGEFIELD

SHEET
G-1.2



NOTES:

1. SEE WSDOT SPECIFICATION FOR COMPACTION REQUIREMENTS. COMPACTION PERCENTAGES REFER TO MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR (AASHTO T-180)
2. FOR PIPE ZONE BEDDING AND COMPACTION REQUIREMENTS, SEE STD. PLAN NO. G-1.2
3. CONTRACTOR MAY USE UP TO 2-1/2" DEPTH OF 5/8"-0 OR 3/4" - 0 CRUSHED AGGREGATE IN LIEU OF 1-1/4" - 0 BASE ROCK UNDER SURFACING FOR LEVELING COURSE.
4. ALL EXISTING PAVED SURFACES SHALL BE SAW CUT A MINIMUM OF 12" OUTSIDE OF EDGE OF TRENCH TO PROVIDE A NEAT STRAIGHT EDGE.
5. THE EDGES OF ALL EXISTING ASPHALT SURFACES SHALL BE CLEANED AND A TACK COAT SHALL BE APPLIED PER STD. SPEC. SECTION 5-04.3(5)A. ALL JOINTS SHALL BE SEALED WITH AR-4000 AND SANDED.
6. ALL BACKFILL SHALL BE MECHANICALLY COMPACTED IN LIFTS WHICH DO NOT EXCEED RATED CAPABILITY OF EQUIPMENT USED, BUT IN NO CASE EXCEED 12" LOOSE.
7. GRANULAR BACKFILL SHALL BE CRUSHED SURFACING IN ACCORDANCE WITH WSDOT SECTION 9-03.9(3) BASE COURSE GRADATION.
8. CLASS 1/2", PG 58-22 SUPERPAVE, ASPHALT SHALL BE PLACED IN 2 LIFTS, 5" DEPTH FOR ARTERIALS, 4" DEPTH FOR COLLECTOR & RESIDENTIAL STREETS.
9. FOR UTILITIES INSTALLED WITHIN THE TRAVEL LANE AND PARALLEL WITH THE CENTERLINE OF THE ROAD, A HALF STREET GRIND AND OVERLAY SHALL BE REQUIRED



REV. 4/10/17 BGK

TYPICAL TRENCH SECTIONS

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-1.3

GENERAL WATER NOTES:

1. ALL MATERIALS AND CONSTRUCTION METHODS SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE "CITY OF RIDGEFIELD ENGINEERING STANDARDS FOR PUBLIC WORKS CONSTRUCTION" AND THE LATEST EDITION OF THE "STANDARD SPECIFICATIONS FOR ROADS, BRIDGES AND MUNICIPAL CONSTRUCTION" HEREINAFTER REFERRED TO AS THE "STANDARD SPECIFICATIONS" PREPARED BY THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION, EXCEPT AS NOTED HEREIN OR ON THE STANDARD PLANS. ALL REFERENCES TO AWWA AND/OR APWA SPECIFICATIONS SHALL MEAN THEIR LATEST REVISION.
2. ALL WATER LINE CONSTRUCTION IS SUBJECT TO INSPECTION AND APPROVAL BY THE CITY OF RIDGEFIELD, PRIOR TO COVER. ALL TESTING SHALL BE APPROVED PRIOR TO PAVING. THE CONTRACTOR SHALL NOTIFY THE CITY DEVELOPMENT INSPECTOR AT LEAST 48 HOURS PRIOR TO THE START OF CONSTRUCTION. A PRE-CONSTRUCTION MEETING IS REQUIRED PRIOR TO THE BEGINNING OF CONSTRUCTION.
3. ALL PIPES FURNISHED SHALL BE NEW, AND CONFORM TO THE REQUIREMENTS OF AWWA DI CL52.
4. A TRAFFIC CONTROL PLAN IS REQUIRED PRIOR TO CONSTRUCTION WITHIN A CITY RIGHT-OF-WAY.
5. WHERE EXISTING SERVICE MUST BE INTERRUPTED, THE CONTRACTOR SHALL OBTAIN APPROVAL FROM THE CITY AND NOTIFY ALL CUSTOMERS AFFECTED AS TO THE DATE AND DURATION OF THE INTERRUPTION. NOTIFICATION MUST BE DONE TWO (2) WORKING DAYS IN ADVANCE OF INTERRUPTION. THE CONTRACTOR SHALL SCHEDULE CONSTRUCTION TO PROVIDE MINIMUM INTERRUPTION OF SERVICES AS DETERMINED BY THE INSPECTOR. UNDER NO CIRCUMSTANCES SHALL A CONTRACTOR SCHEDULE A WATER MAIN SHUT-DOWN WITHOUT THE REQUIRED 48 HOUR NOTICE. THE CONTRACTOR SHALL NOT OPERATE THE CITY'S WATER FACILITIES WITHOUT APPROVAL FROM THE CONSTRUCTION INSPECTOR.
6. WHEN EXTENDING AN EXISTING LINE THE CONTRACTOR IS REQUIRED MAINTAIN PHYSICAL SEPARATION BETWEEN THE EXISTING AND NEW SYSTEM UNTIL THE NEW SYSTEM HAS BEEN TESTED AND DISINFECTED.. AFTER PASSING TESTS THE FITTINGS AND PIPE USED FOR THE CONNECTION TO THE EXISTING SYSTEM MUST BE WETTED WITH A CHLORINE SOLUTION UNDER INSPECTION OF CITY STAFF.

WATER METERS:

7. ALL WATER METERS WILL BE FURNISHED AND INSTALLED BY THE CITY.

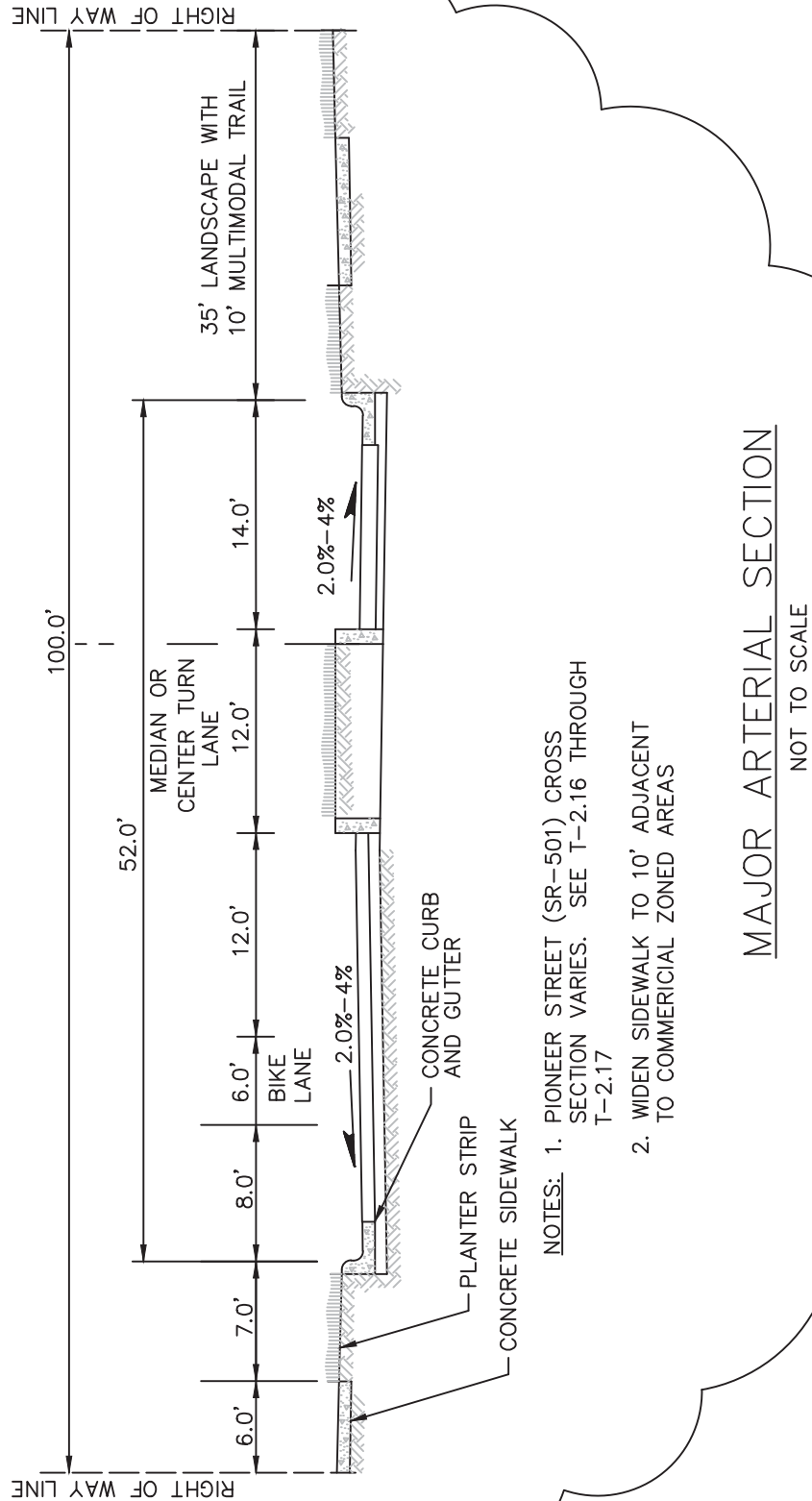
REV 4/7/17 BGK

GENERAL WATER NOTES

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
G-4.1



- NOTES:
1. PIONEER STREET (SR-501) CROSS SECTION VARIES. SEE T-2.16 THROUGH T-2.17
 2. WIDEN SIDEWALK TO 10' ADJACENT TO COMMERCIAL ZONED AREAS

MAJOR ARTERIAL SECTION

NOT TO SCALE

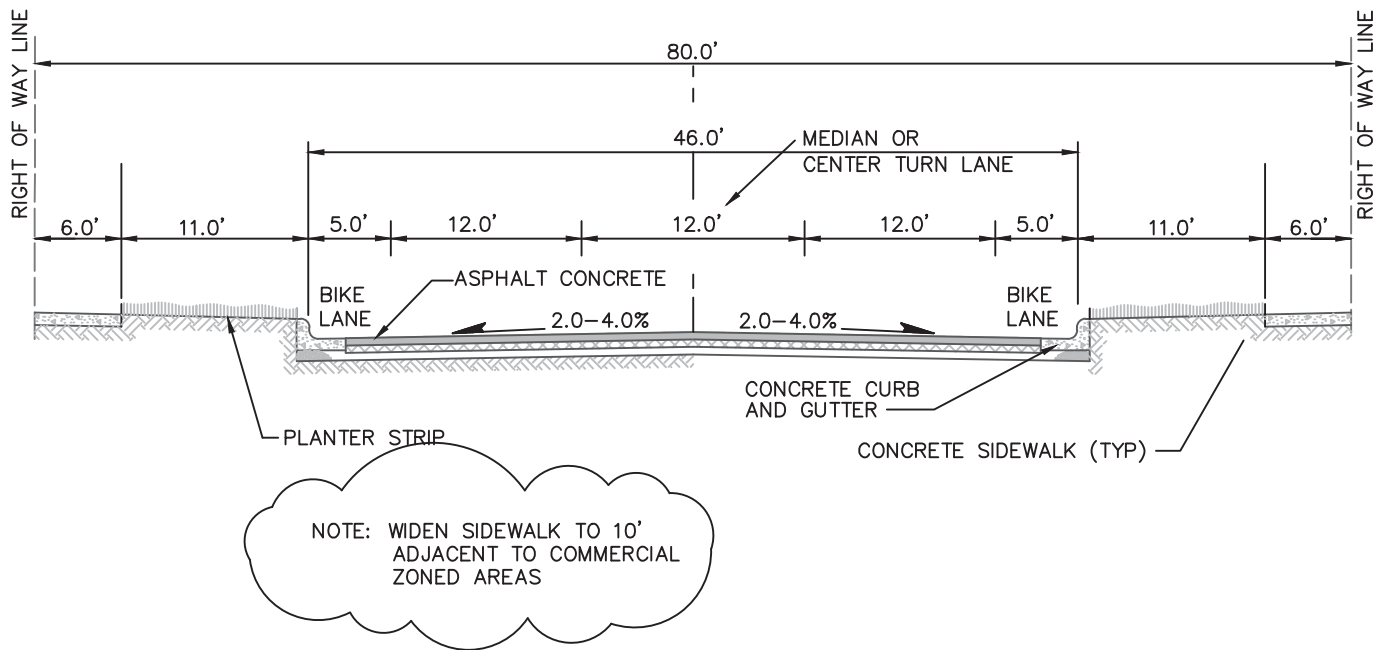
REV. 4/7/17 BGK

MAJOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.1



MINOR ARTERIAL SECTION
NOT TO SCALE

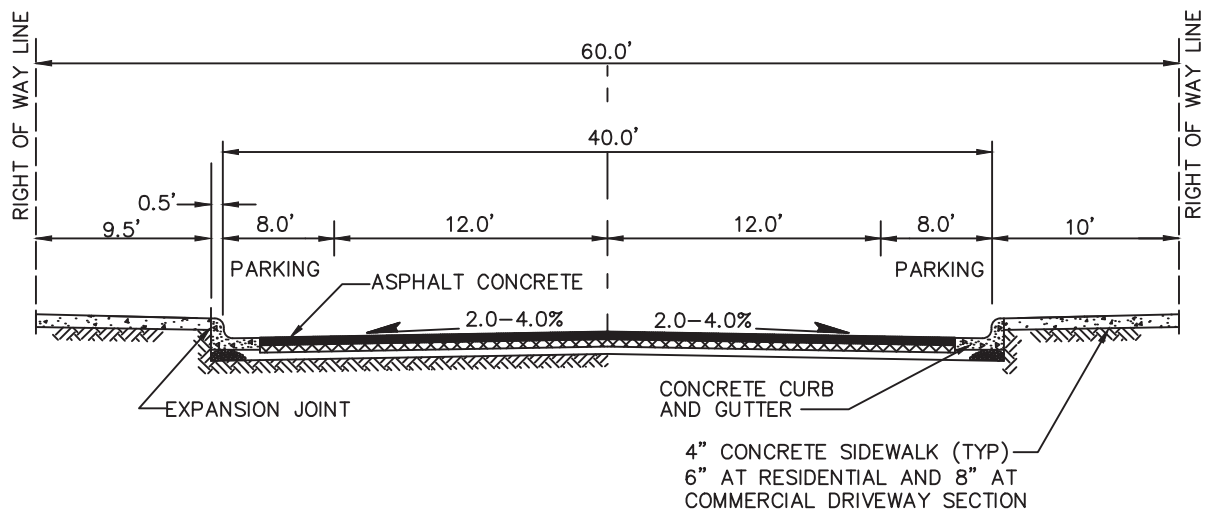
REV. 3/03/08 SCH

MINOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.2



NOTES: TREE WELLS SHALL BE INSTALLED IN SIDEWALK
AT 25' O.C OR AS DIRECTED BY PUBLIC WORKS
DIRECTOR OR COMMUNITY DEVELOPMENT
DIRECTOR

DOWNTOWN MINOR ARTERIAL SECTION

NOT TO SCALE

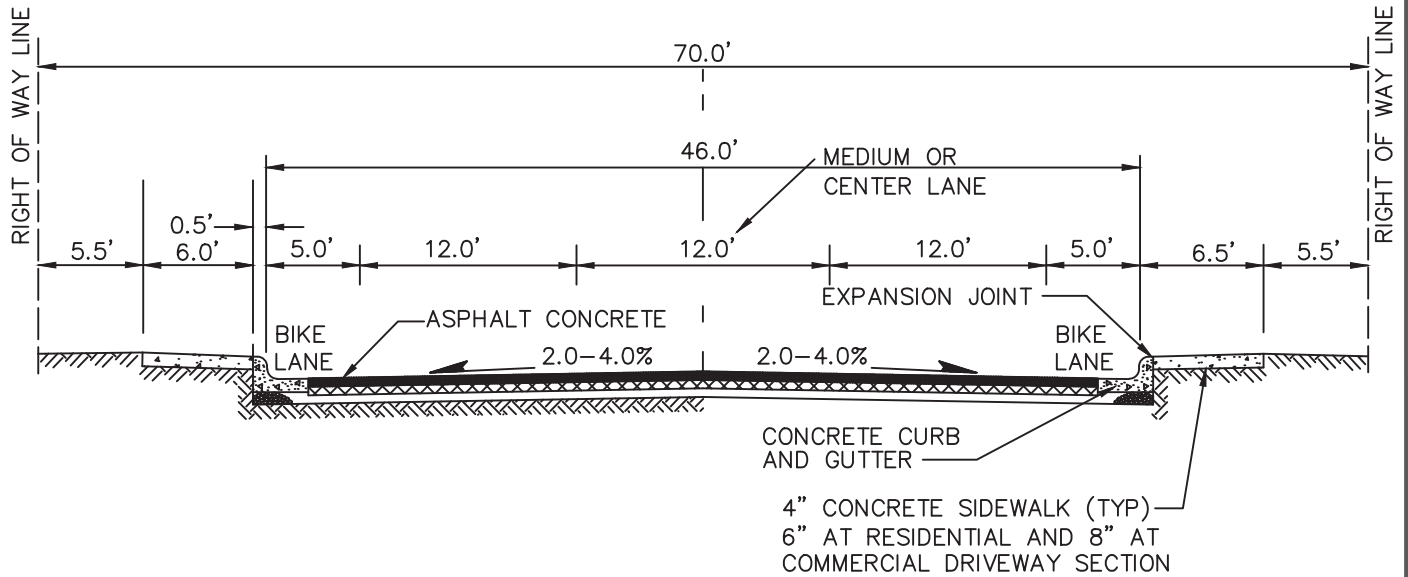
REV. 3/03/08 SCH

DOWNTOWN MINOR ARTERIAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.3



INDUSTRIAL/COMMERCIAL COLLECTOR SECTION

NOT TO SCALE

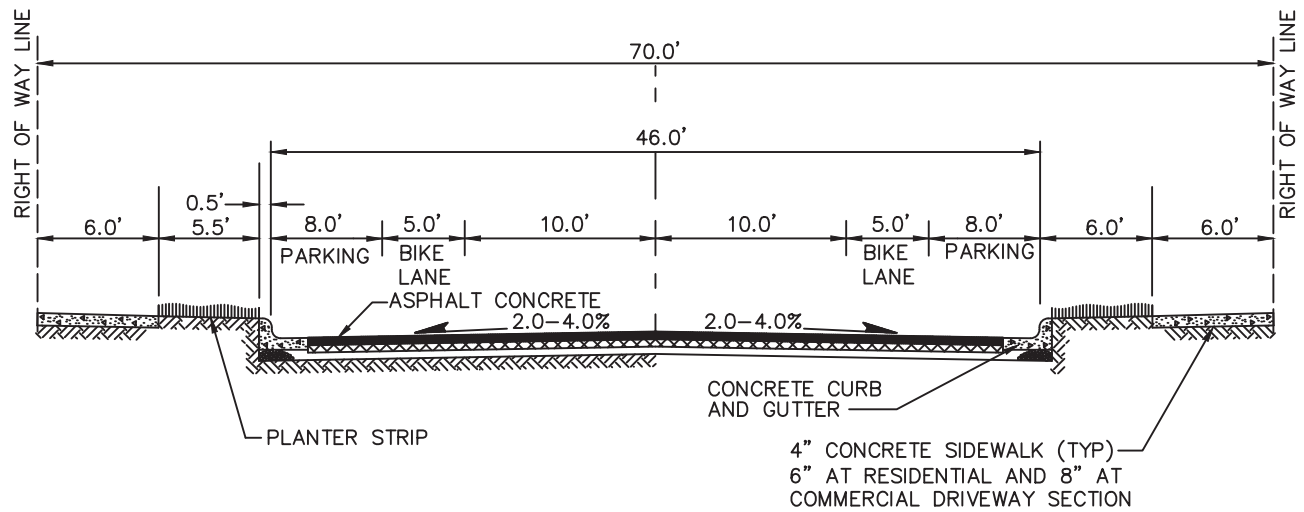
REV. 3/03/08 SCH

INDUSTRIAL/COMMERCIAL COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.4



STANDARD COLLECTOR SECTION
NOT TO SCALE

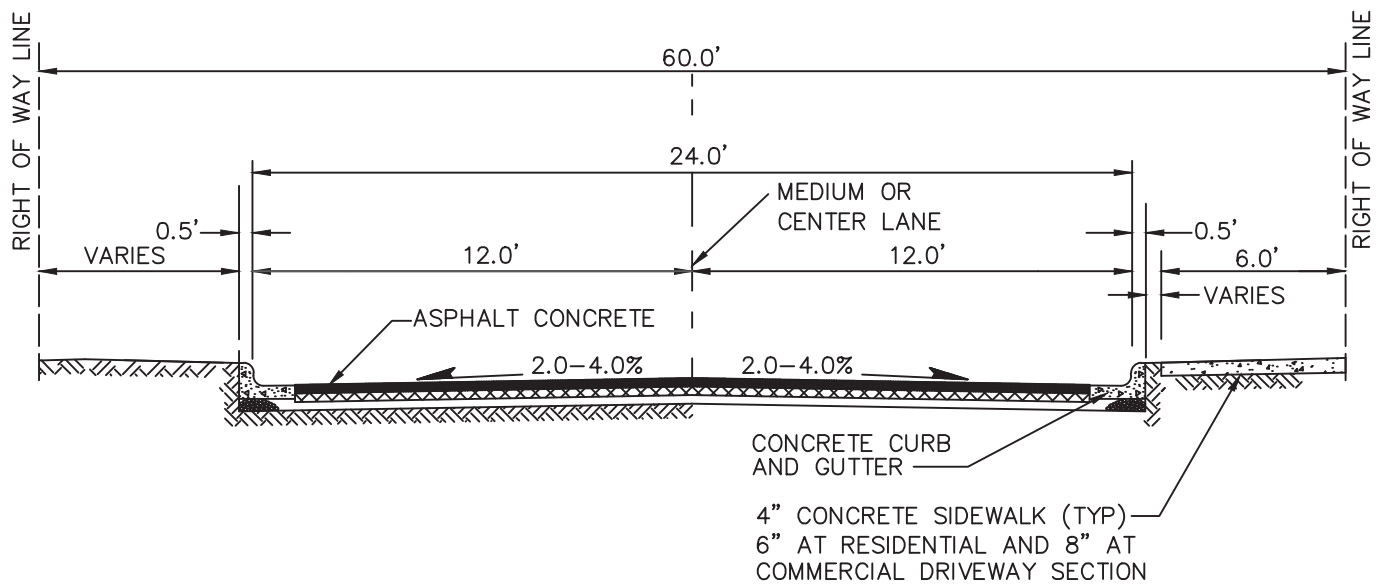
REV. 3/03/08 SCH

STANDARD COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.5



SCENIC COLLECTOR SECTION
NOT TO SCALE

NOTE: SIDEWALK MAY BE A DETACHED PATH

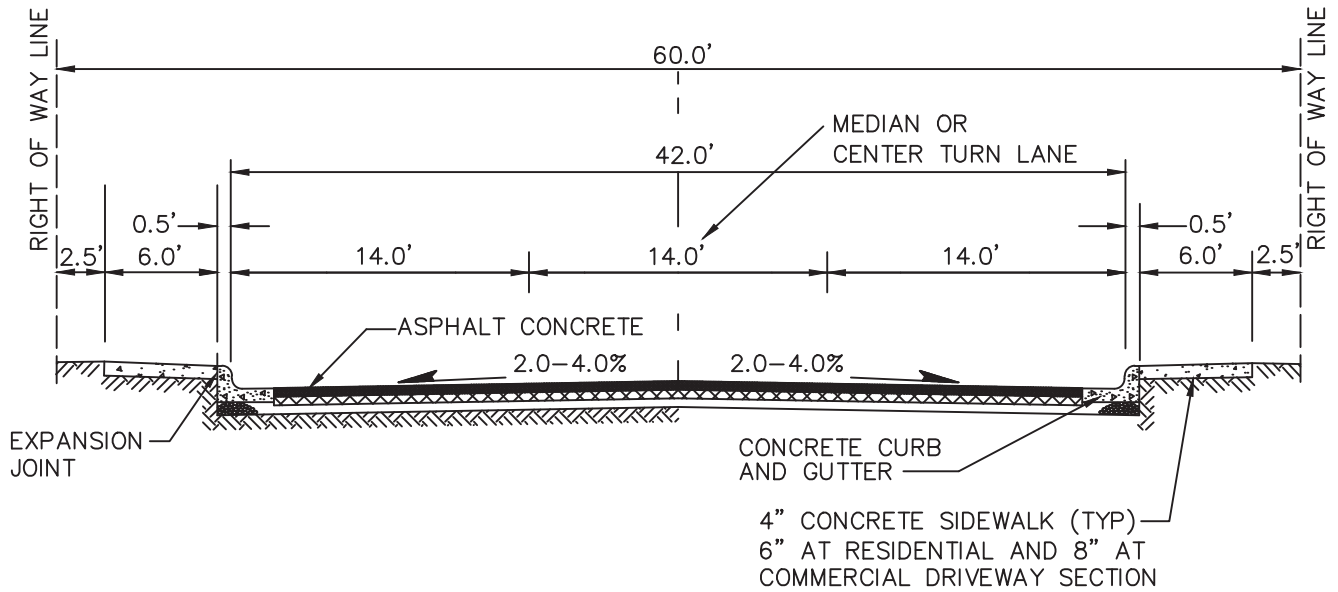
REV. 3/03/08 SCH

SCENIC COLLECTOR SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.6



INDUSTRIAL LOCAL SECTION

NOT TO SCALE

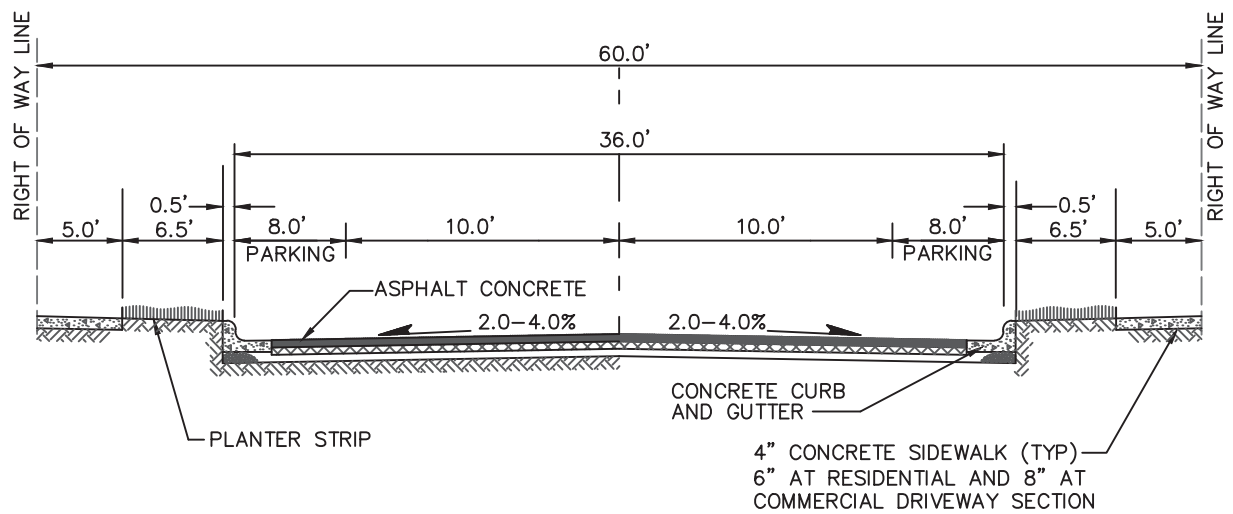
REV. 3/04/08 SCH

INDUSTRIAL LOCAL SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.7



RESIDENTIAL ACCESS SECTION

NOT TO SCALE

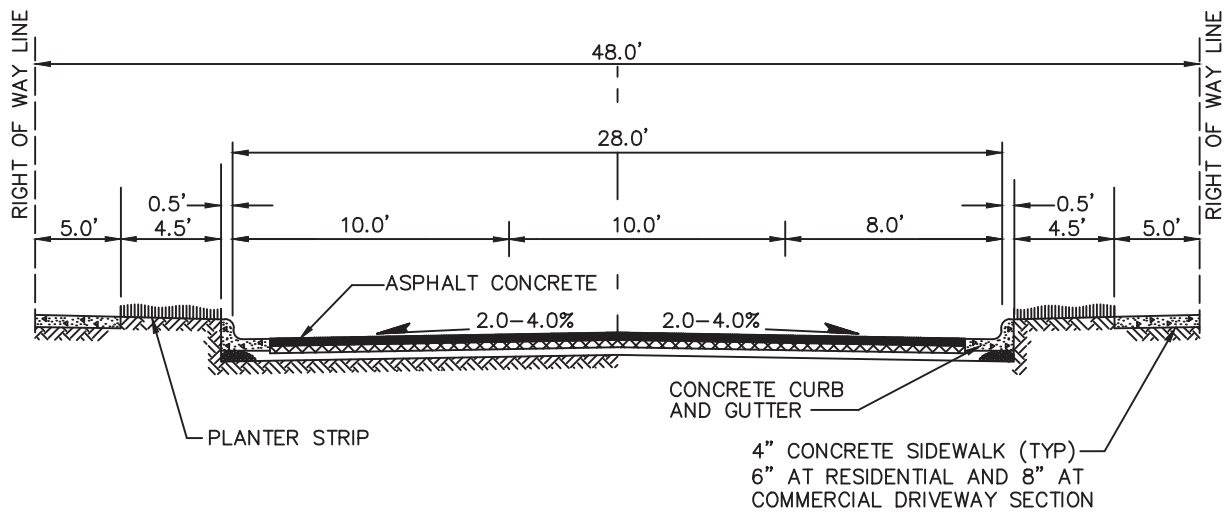
REV. 3/04/08 SCH

RESIDENTIAL ACCESS SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.8



RESIDENTIAL LOCAL A SECTION

NOT TO SCALE

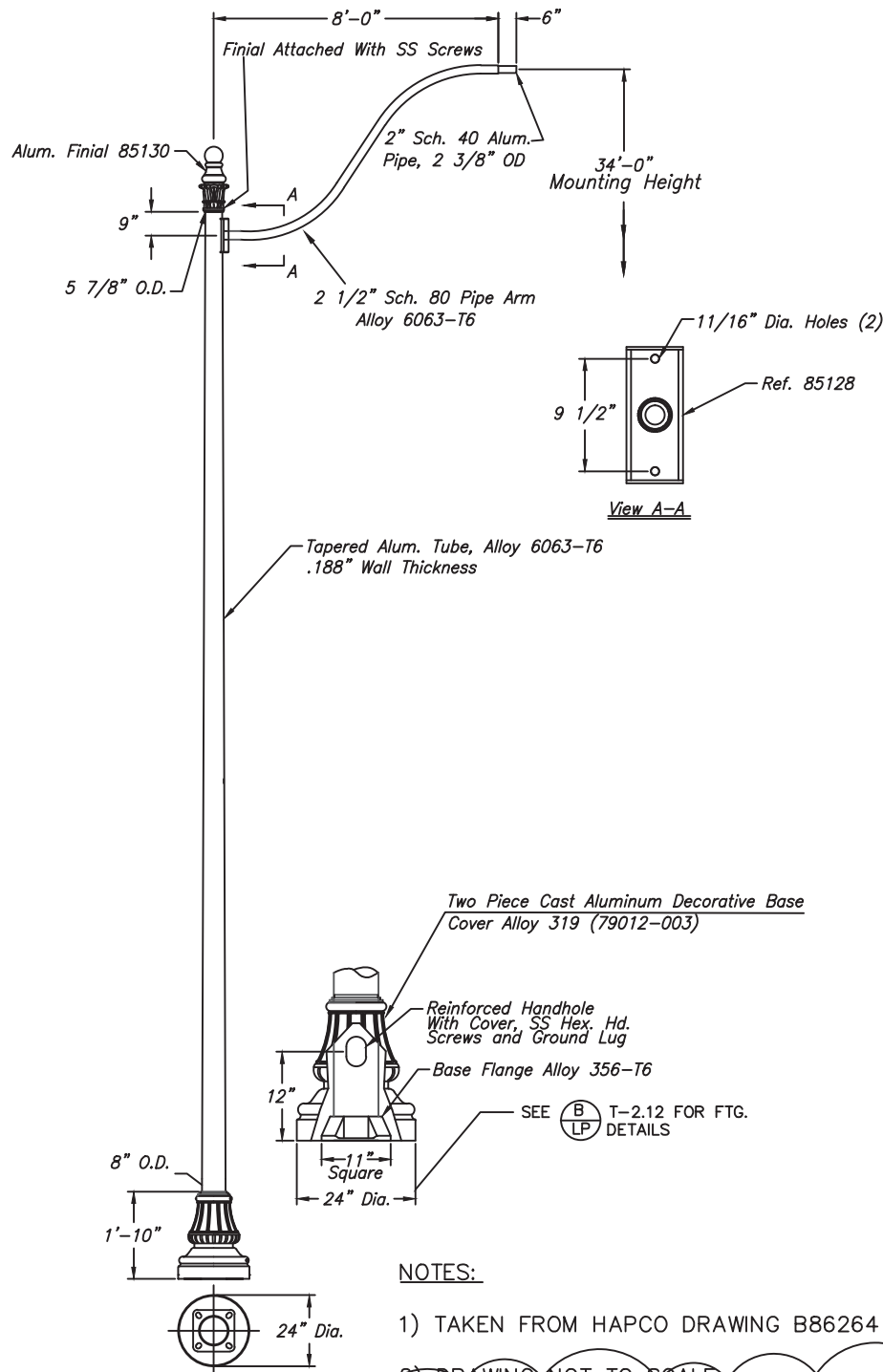
REV. 3/04/08 SCH

RESIDENTIAL LOCAL A SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.9



NOTES:

- 1) TAKEN FROM HAPCO DRAWING B86264
- 2) DRAWING NOT TO SCALE
- 3) LUMINAIRE (FIXTURE) TO BE AMERICAN ELECTRIC ATB2 40BLEDE70 MVOLT R3, BLACK POWDER COAT FINISH
- 4) REFER TO SHEET T-2.12 FOR LIGHT POLE FOUNDATION DETAIL

REV 4/10/17 BGK

TYPICAL ARTERIAL COLLECTOR LIGHT STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

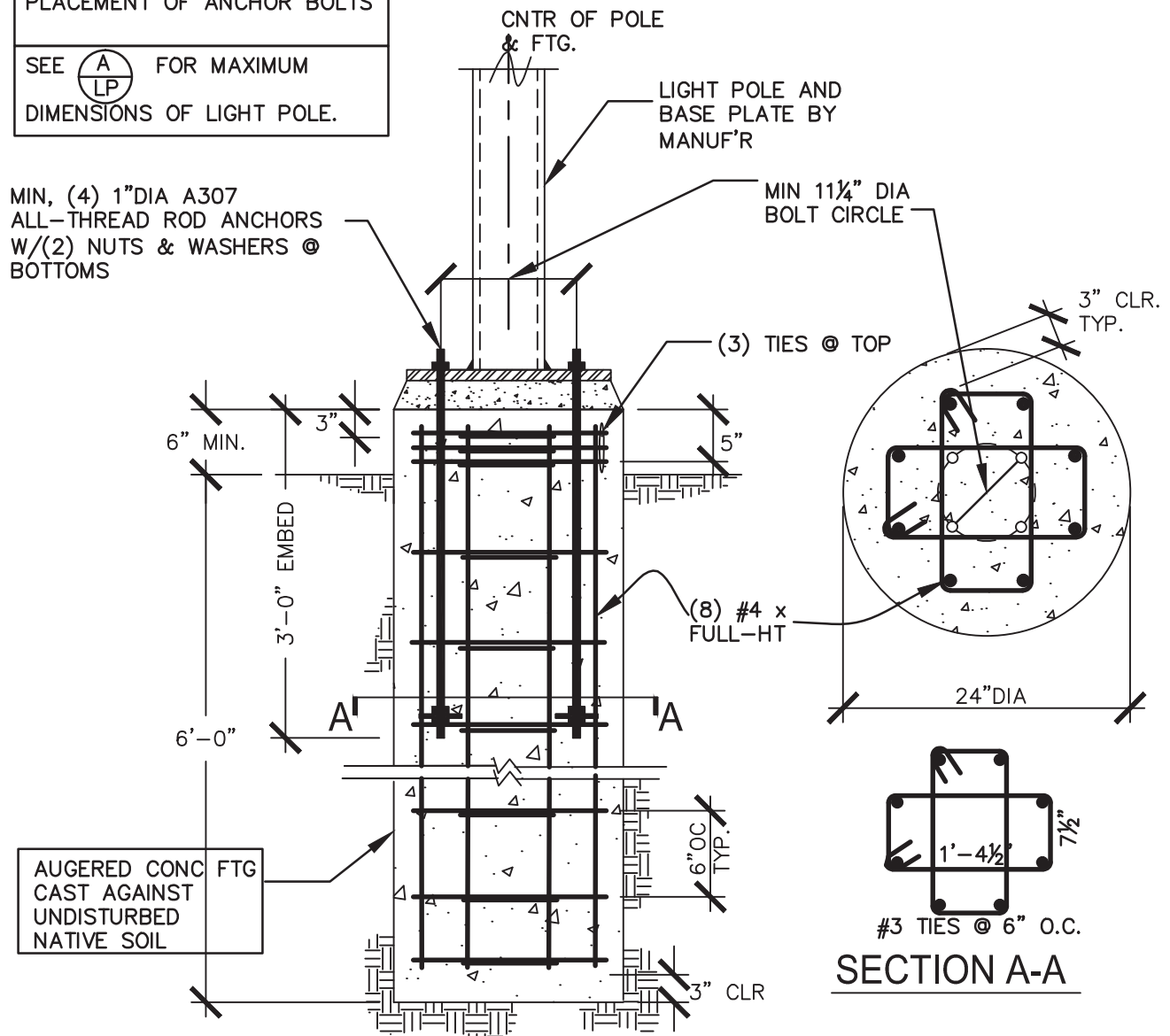
SHEET
T-2.11

SPECIAL INSPECTION REQ'D FOR
PLACEMENT OF ANCHOR BOLTS

SEE  FOR MAXIMUM
DIMENSIONS OF LIGHT POLE.

MIN, (4) 1" DIA A307
ALL-THREAD ROD ANCHORS
W/(2) NUTS & WASHERS @
BOTTOMS

REBAR: ASTM A615 GRADE 60 MIN($F_y=60\text{ksi}$)
CONCRETE: 3000psi MIN COMPRESSIVE STRENGTH
@ 28-DAYS



B
LP

LIGHT POLE FOUNDATION DETAIL

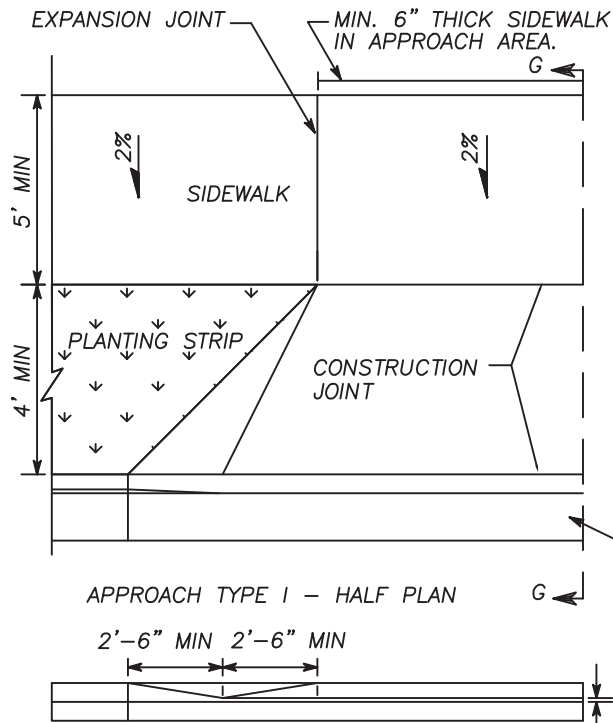
REVISED 10-16-07

TYPICAL ARTERIAL / COLLECTOR LIGHT FOUNDATION STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T-2.12



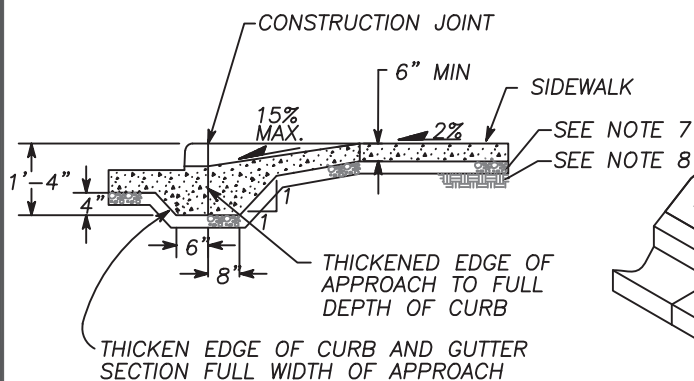
OPTIONAL APPROACH - HALF ELEVATION

NOTE: USE TYPE 1 APPROACH ONLY WHEN A SIDEWALK IS USED AT THE BACK OF THE APPROACH.

NOTES:

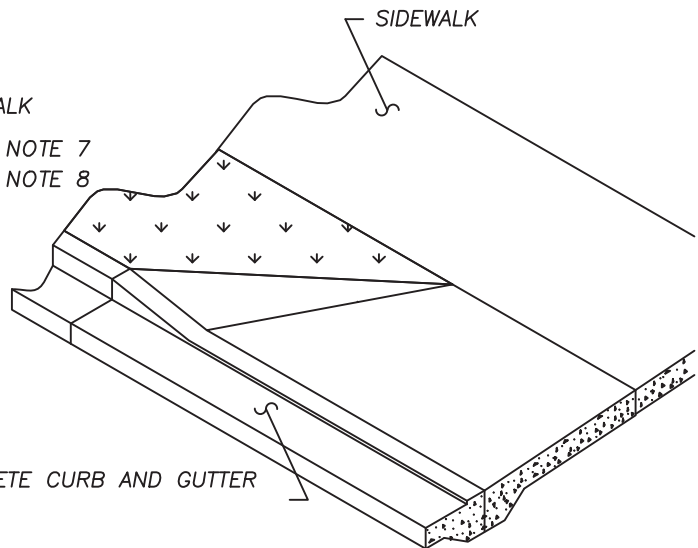
1. A MINIMUM 4' WIDE ACCESSIBLE ROUTE SHALL BE MAINTAINED IN ALL PEDESTRIAN ACCESSIBLE AREAS.
2. CONTRACTION POINTS SHALL BE PLACED ALONG SIDEWALKS IN ACCORD WITH SIDEWALK DETAIL. ALL JOINTS SHALL BE CLEANED AND EDGED.
3. CHANGES IN LEVEL UP TO 1/4" MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1.
4. CEMENT CONCRETE APPROACHES SHALL BE CONSTRUCTED OF AIR-ENTRAINED CLASS 3000 AND MAY BE POURED INTEGRAL WITH CURB.
5. EXISTING CURB, GUTTER, AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF APPROACH.
6. COMMERCIAL DRIVEWAY REQUIRES REINFORCING STEEL (#4 REBAR @ 12" O.C IN EACH DIRECTIONS) MAINTAIN MIN. 3" COVER.
7. 3" DEPTH 3/4"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
8. SUBGRADE PREPARATION PER WSDOT STD. SPEC. 2-06.3(1).

CEMENT CONCRETE CURB AND GUTTER SECTION SHOWN (SEE STANDARD PLANS FOR OTHER CURB DESIGNS).



SECTION G-G

CEMENT CONCRETE CURB AND GUTTER



APPROACH TYPE I - HALF ISOMETRIC

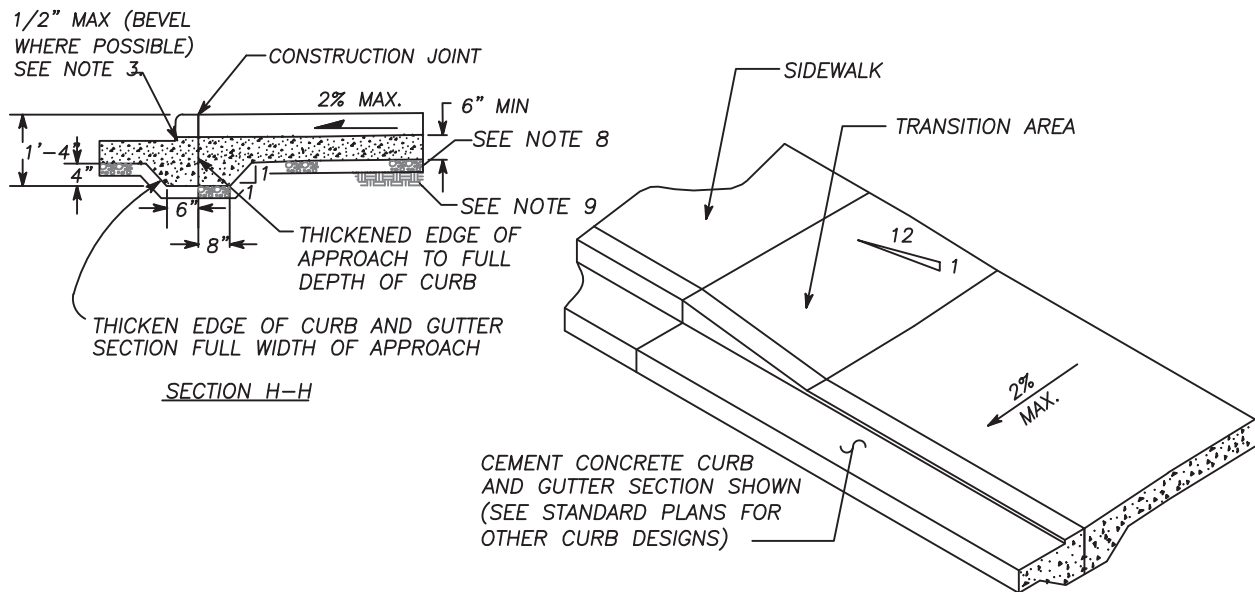
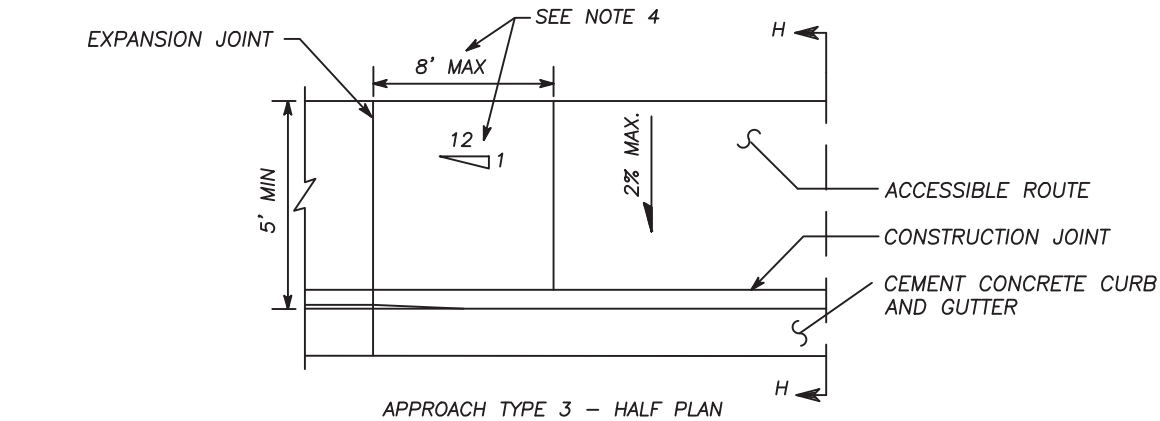
REV. 3/04/08 SCH

CONCRETE DRIVEWAY APPROACH STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.13



NOTES:

1. A MINIMUM 4' WIDE ACCESSIBLE ROUTE SHALL BE MAINTAINED IN ALL PEDESTRIAN ACCESSIBLE AREAS.
2. CONTRACTION JOINTS SHALL BE PLACED ALONG SIDEWALKS IN ACCORD WITH SIDEWALK DETAIL. ALL JOINTS SHALL BE CLEANED AND EDGED.
3. CHANGES IN LEVEL UP TO 1/4" MAY BE VERTICAL AND WITHOUT EDGE TREATMENT. CHANGES IN LEVEL BETWEEN 1/4" AND 1/2" SHALL BE BEVELED WITH A SLOPE NO GREATER THAN 2:1.
4. TRANSITION AREA TO BE SLOPED AT 1v TO 12h, UNLESS STREET GRADE WOULD CREATE A TRANSITION LENGTH GREATER THAN 8', THEN THE MAXIMUM LENGTH OF 8' GOVERNS SLOPE.
5. CEMENT CONCRETE APPROACHES SHALL BE CONSTRUCTED OF AIR-ENTRAINED CONCRETE CLASS 3000 AND MAY BE POURED INTEGRAL WITH CURB.
6. EXISTING CURB, GUTTER AND SIDEWALK TO BE SAWCUT AND REMOVED FOR INSTALLATION OF APPROACH.
7. COMMERCIAL DRIVEWAY REQUIRES REINFORCING STEEL (#4 REBAR @ 12" O.C. IN EACH DIRECTION), MAINTAIN MIN. 3" COVER.
8. 3" DEPTH 3/4"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
9. SUBGRADE PREPARED PER WSDOT STD. SPEC. 2-06.3(1)

APPROACH TYPE 3 - HALF ISOMETRIC

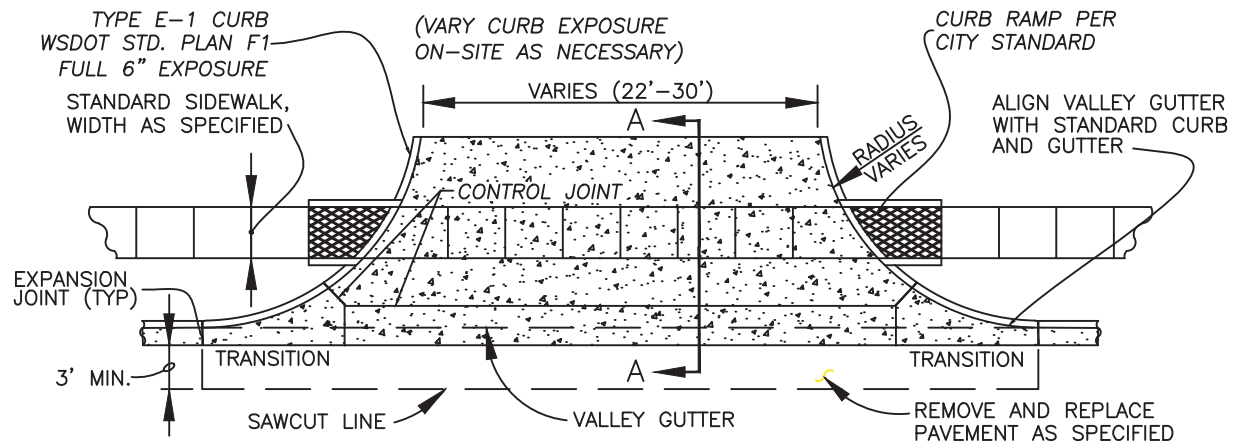
REV. 3/04/08 SCH

CONCRETE DRIVEWAY APPROACH TYPE 3

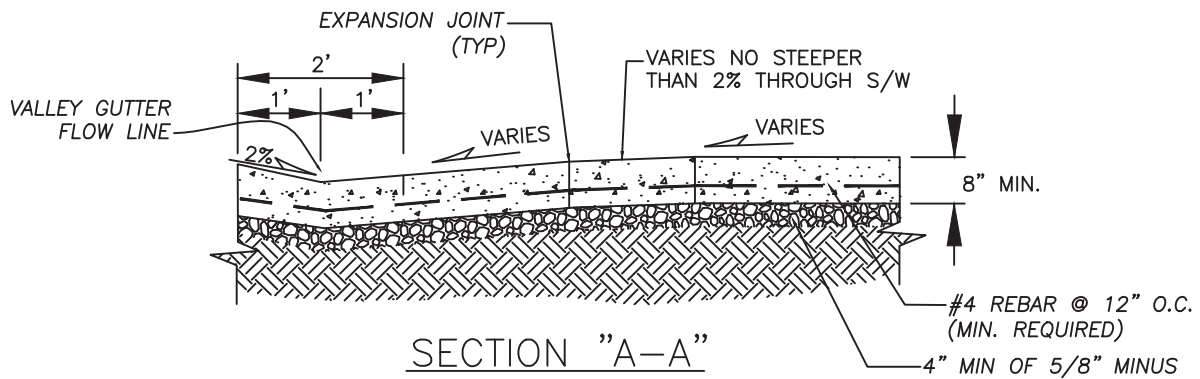
STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.14



PLAN VIEW
COMMERCIAL DRIVEWAY ENTRANCE



NOTES:

1. CONCRETE SHALL BE 3300 PSI (MIN. BREAKING STRENGTH @ 28 DAYS) WITH 3" SLUMP (± 1 "). TOTAL AIR CONTENT (% BY VOLUME OF CONCRETE) SHALL NOT BE LESS THAN 4% OR MORE THAN 7%. MEDIUM BROOM FINISH PARALLEL TO DRIVEWAY CENTERLINE.
2. ALL JOINTS SHALL BE FINISHED WITH 1/4" RADIUS EDGE UNLESS OTHERWISE NOTED.
3. DRIVEWAYS EXCEEDING 15' IN TOTAL WIDTH SHALL HAVE ADDITIONAL LONGITUDINAL JOINTS AS DIRECTED. CONTROL JOINT SPACING SHALL NOT EXCEED 15'.
4. DRIVEWAY SHALL BE CONSTRUCTED WITH REINFORCING STEEL, MINIMUM REQUIRED SHALL BE #4 REBAR @ 12" O.C WITH MIN. 3" COVER.
5. ALL EXISTING EDGES SHALL BE SAW CUT.
6. 4" DEPTH 5/8"-0 CRUSHED AGGREGATE BASE COMPACTED TO 95% OF MAX. DRY DENSITY.
7. SUBGRADE PREPARATION PER WSDOT STD. SPEC. 2-06.3(1).
8. EXISTING CURB SHALL BE REMOVED TO EXISTING JOINT OR SAWCUT SUCH THAT 3' MIN. OF NEW STREET SECTION IS CONSTRUCTED ADJACENT TO NEW DRIVEWAY.
9. MAXIMUM 2% CROSS SLOPE ACROSS PEDESTRIAN CROSSING.
10. CURB RADIUS TO BE 20-FOOT MINIMUM AND 35-FOOT MAXIMUM, AS APPROVED BY CITY ENGINEER.

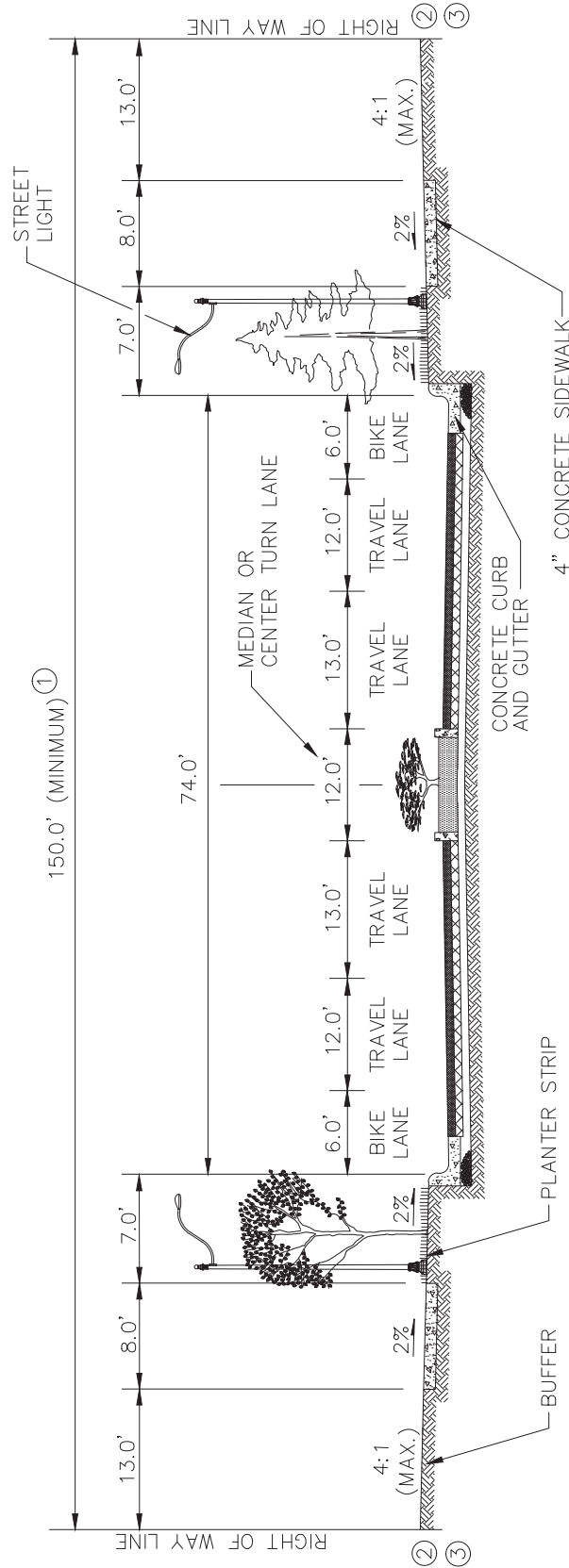
REV. 2/08/08 SCH

MAJOR COMMERCIAL CONCRETE APPROACH STANDARD

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.15



PIONEER STREET (SR 501) FROM 45TH AVENUE TO 56TH PLACE

CONCEPTUAL CROSS SECTION

NOT TO SCALE

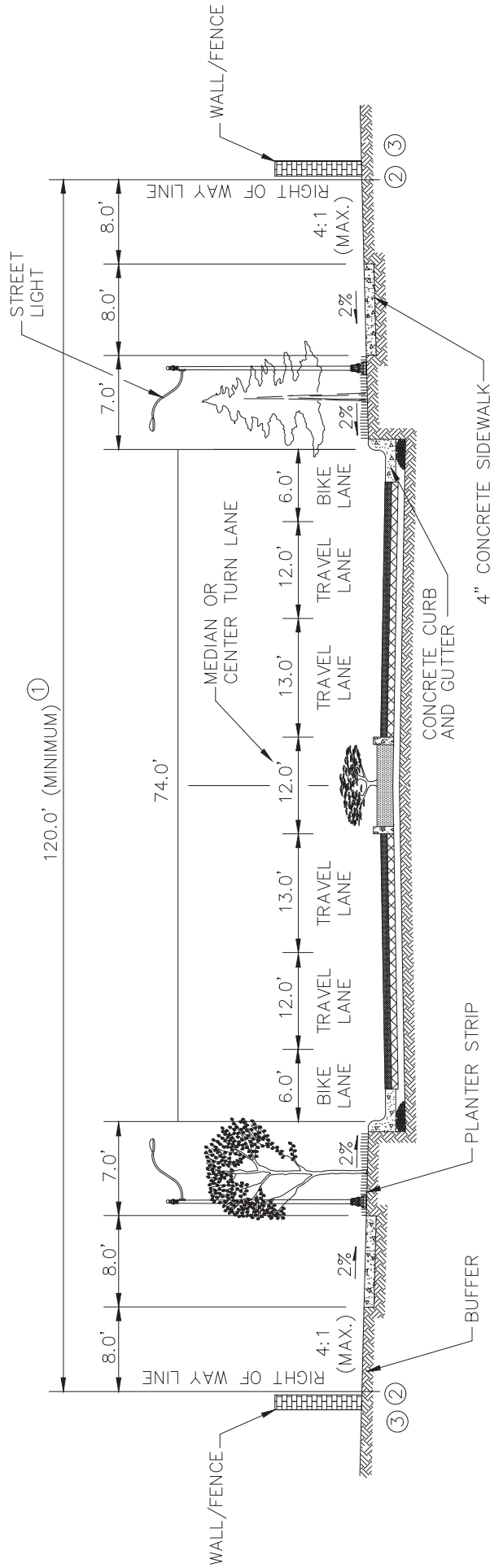
- ① Additional right of way width may be required for additional turn lanes, stormwater treatment facilities, side slopes, and/or otherwise required by WSDOT or the City of Ridgefield.
- ② Additional on-site grading and/or construction of retaining walls outside the right of way may be required to match grade at right of way.
- ③ All new residential development shall be required to install brick, stone, or wrought iron fence at the right-of-way per city code.
- ④ Separate off-line facilities for treatment and detention of stormwater from the right-of-way are required and shall be located in separate tracts dedicated or donated to either WSDOT or the City.

PIONEER STREET (SR 501) FROM 45TH AVENUE TO 56TH PLACE CONCEPTUAL CROSS SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.16



PIONEER STREET (SR 501) FROM 32ND AVENUE TO 45TH AVENUE

CONCEPTUAL CROSS SECTION

NOT TO SCALE

- ① Additional right of way width may be required for additional turn lanes, stormwater treatment facilities, side slopes, and/or otherwise required by WSDOT or the City of Ridgefield.
- ② Additional on-site grading and/or construction of retaining walls outside the right of way may be required to match grade at right of way.
- ③ All new residential development shall be required to install brick, stone, or wrought iron fence at the right-of-way per city code.
- ④ Separate off-line facilities for treatment and detention of stormwater from the right-of-way are required and shall be located in separate tracts dedicated or donated to either WSDOT or the City.

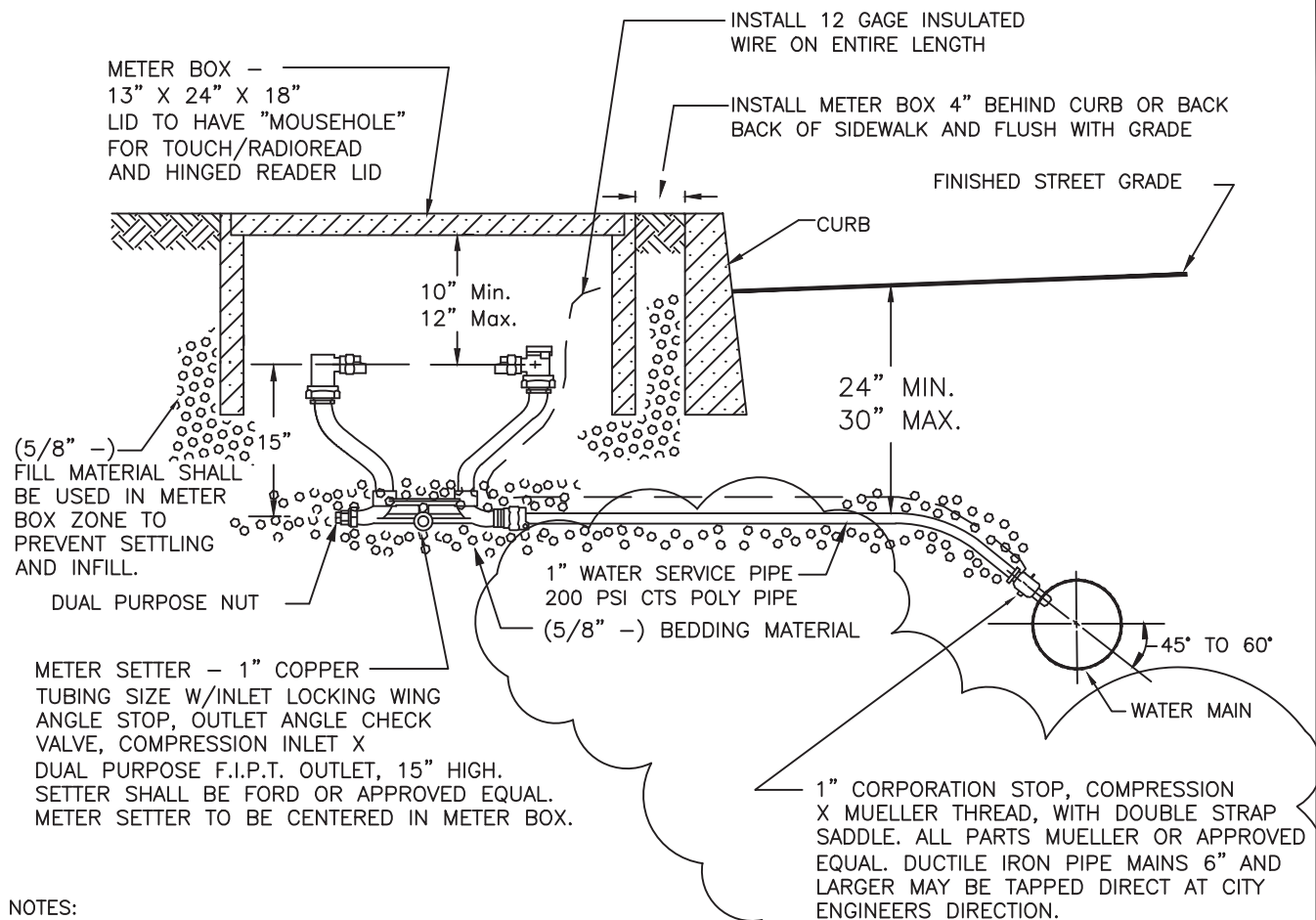
PIONEER STREET (SR 501) FROM 32ND AVENUE TO 45TH AVENUE CONCEPTUAL CROSS SECTION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
T - 2.17

4.3.d



NOTES:

1. METER BOX SHALL BE MANUFACTURED BY RAVEN PRODUCTS UNLESS OTHERWISE APPROVED
2. METER BOX IS NOT ALLOWED IN HARD SURFACE AREAS WITHOUT PRIOR APPROVAL. IF APPROVED THE METER BOX AND LID SHALL BE ARMORCAST H-20 RATED BOX AND LID WITH MASTIC INSTALLED BETWEEN THE METER BOX AND HARD SURFACE.
3. ALL METERS SHALL BE INSTALLED BY THE CITY OF RIDGEFIELD
4. PRIOR TO INSTALLATION OF METER A REQUEST FOR METER INSTALLATION MUST BE SUBMITTED, ALL SERVICE FEES PAID IN FULL AND THE WATER MAIN SHALL BE TESTED AND ACCEPTED BY THE CITY. ALLOW 1-2 WEEKS FOR METER INSTALLATION.
6. PRIOR TO FINAL OCCUPANCY OF BUILDING BACKFILL MUST BE PLACED AROUND METER BOX, THE BOX SET TO FINISHED GRADE AND SURROUNDING LANDSCAPING INSTALLED. CALL PUBLIC WORKS AT 887-8251 FOR FINAL INSPECTION PRIOR TO FINAL OCCUPANCY. ALLOW 48 HOURS FOR FINAL INSPECTION.
7. WATER SERVICES UP TO AND INCLUDING THE SETTER SHALL BE PRESSURE TESTED WITH THE MAIN.

N.T.S

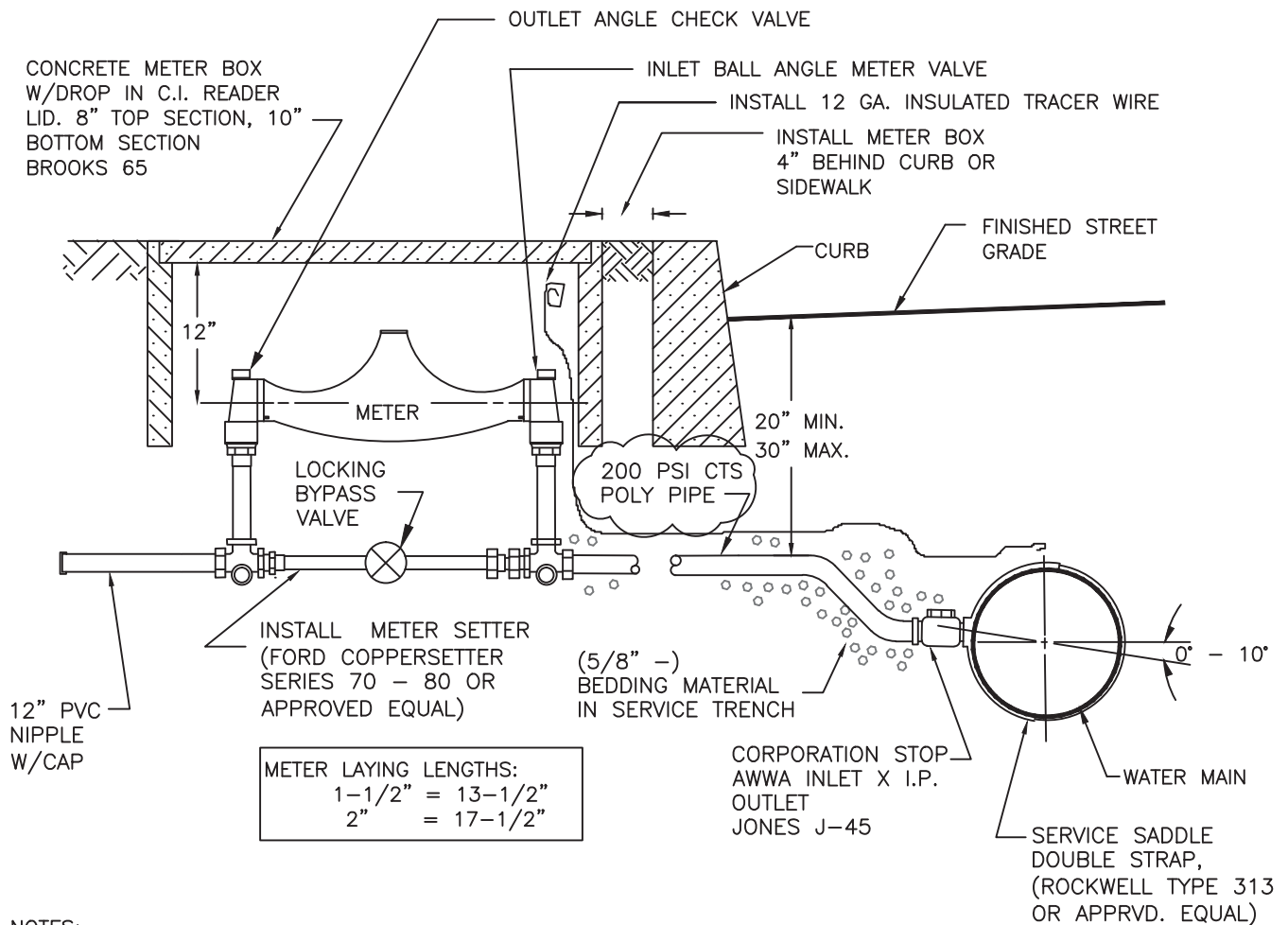
REV. 1/4/16 BGK

STANDARD WATER SERVICE — 1"

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W — 1.2

**NOTES:**

1. ALL METERS SHALL BE INSTALLED BY THE CITY OF RIDGEFIELD.
2. PRIOR TO CITY INSTALLATION OF METERS, ALL SERVICE APPLICATIONS MUST BE COMPLETED AND APPROVED. SERVICE FEES PAID IN FULL AND AS-BUILTS SUBMITTED AND APPROVED.
3. CONTRACTOR SHALL CONTACT CITY PUBLIC WORKS OFFICE (360)887-8251 48 HOURS PRIOR TO INSTALLING ANY WATER SERVICE CONNECTIONS.
4. METERS WILL NOT BE SET BY THE CITY PRIOR TO DISINFECTION OF THE MAIN AND SERVICE, AND PRIOR TO A SUCCESSFUL BACTERIOLOGICAL TEST.
5. WATER SERVICES SHALL BE PRESSURE TESTED ALONG WITH THE MAIN.
6. DURING THE PRESSURE TEST, THE MAIN SHALL BE OPEN FOR INSPECTION OF ALL CORPORATION STOPS.
7. USE 1-7/8" BIT FOR ALL 2" SADDLE TAPS AND 1-3/8" BIT FOR 1-1/2" SADDLE TAPS.
8. METER BOX IS NOT ALLOWED IN HARD SURFACED AREAS WITHOUT PRIOR APPROVAL.

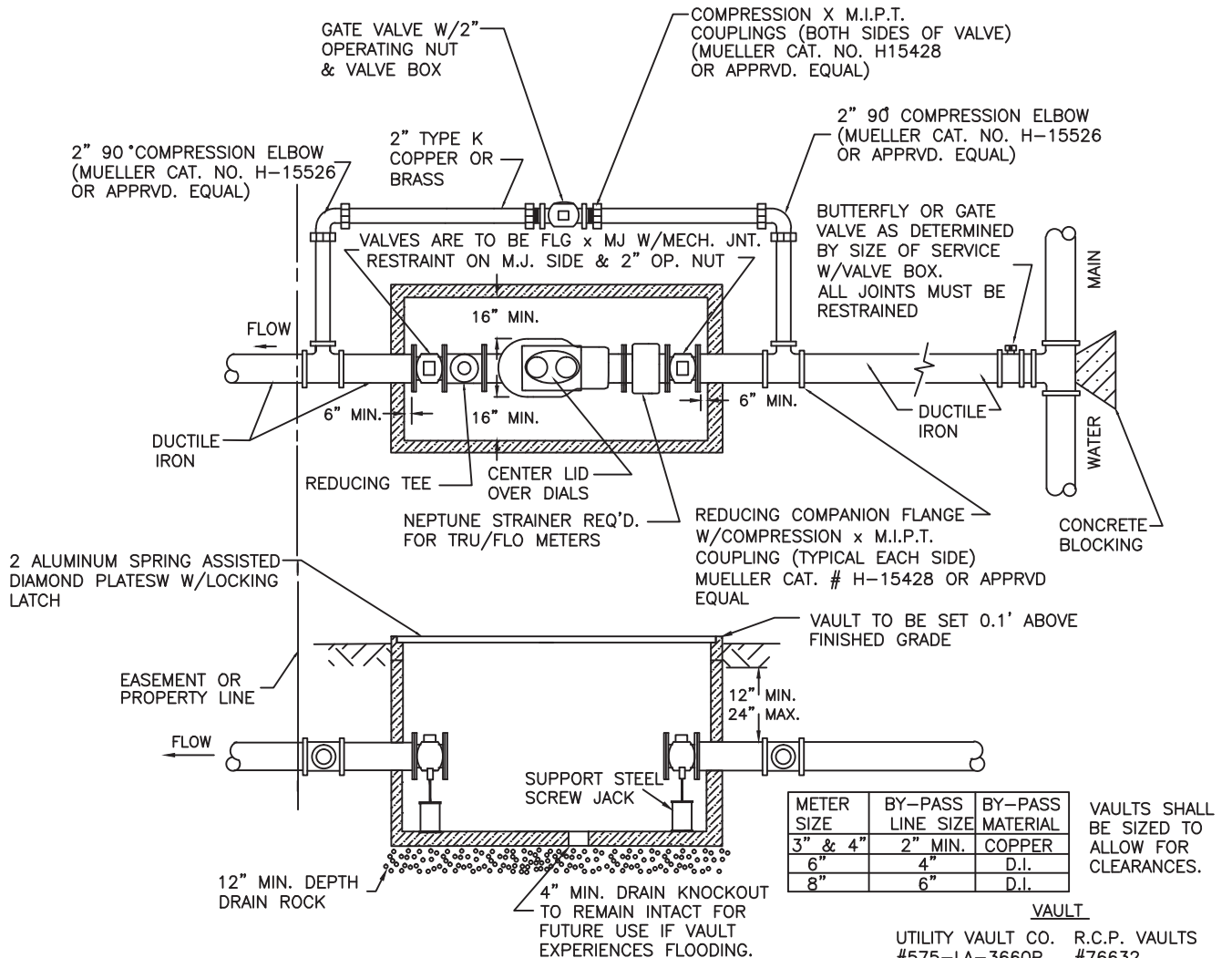
REV 4/7/17 BGK

STANDARD WATER SERVICE - 1 1/2" & 2"

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-1.3

**NOTE:**

- TEN PIPE DIAMETERS OF STRAIGHT PIPE REQ'D. IN & OUT OF METER. (IF USING 6" PIPE, NO BENDS ALLOWED WITHIN 5' OF THE METER IN EITHER DIRECTION. IE: 6" x 10 = 60")
- CONTRACTOR SHALL USE APPROPRIATE METHODS TO ENSURE COPPER PIPE, FITTINGS AND JOINTS WILL REMAIN LEAK-TIGHT.
- ALL METERS 3" AND LARGER SHALL BE INSTALLED BY THE CONTRACTOR.
- METER BOX IS NOT ALLOWED WITHOUT PRIOR APPROVAL.
- VAULT LID DRAINS TO BE PIPED TO CURB OR STORM SEWER.
- VAULT TO BE SEALED AND WATER TIGHT
- METER TYPE TO BE APPROVED BY PUBLIC WORKS PRIOR TO INSTALLATION

REV. 4/7/17 BGK

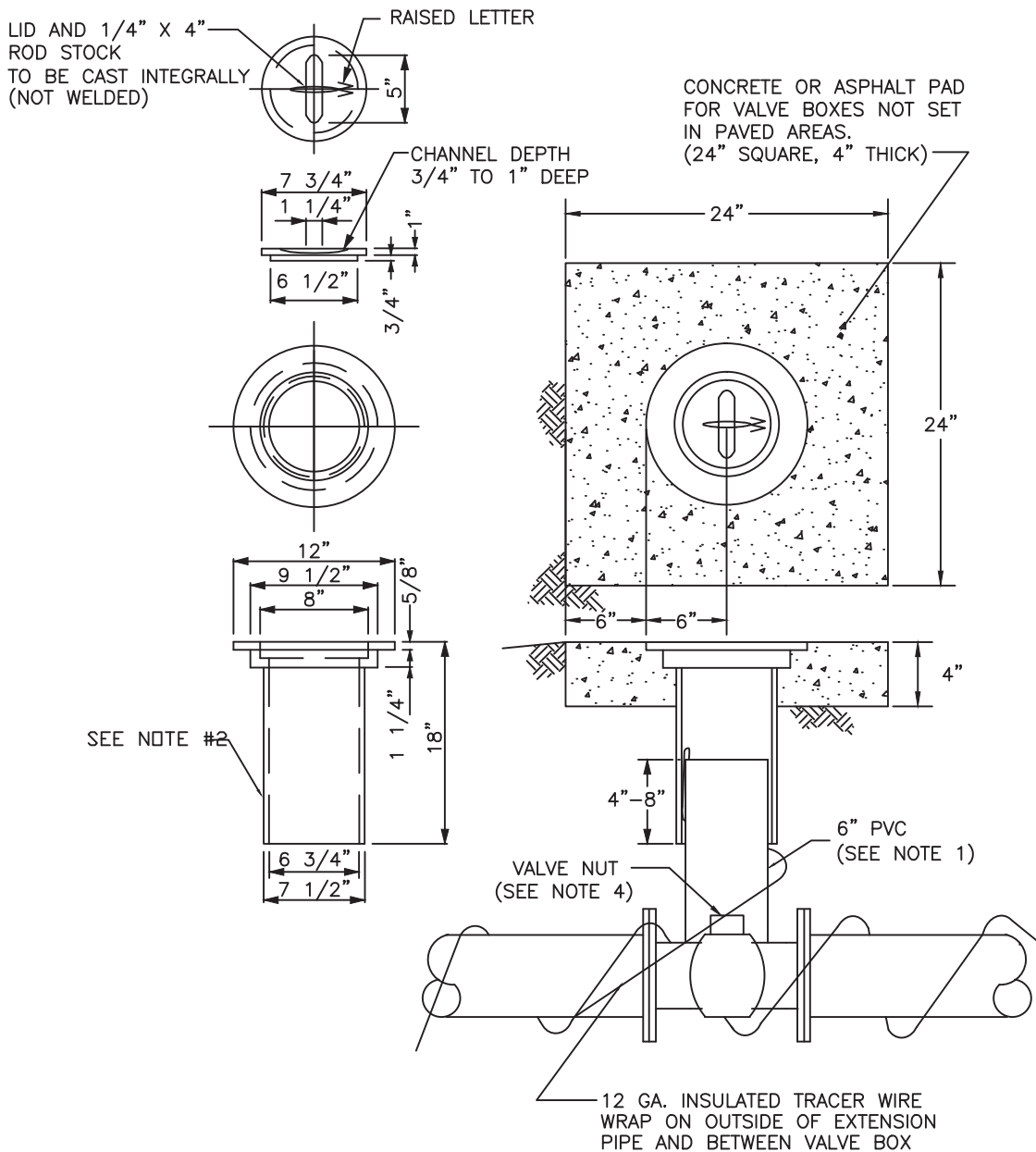
STANDARD WATER SERVICE - 3" AND LARGER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 1.4





NOTES:

1. EXTENSION SHALL BE 6" ASTM D 3034 SDR 35 PVC PIPE (ONE PIECE).
2. U.S FILTER/PACIFIC WATER WORKS NO. 910 OR EQUAL.
3. THERE SHALL BE 1/2" CLEARANCE UNDER THE PIN CAST INTO THE LID.
4. VALVE OPERATOR EXTENSION TERMINATING AT 24" BELOW FINISHED GRADE AND ROCK GUARD REQUIRED WHEN VALVE NUT IS DEEPER THAN 3 FEET.

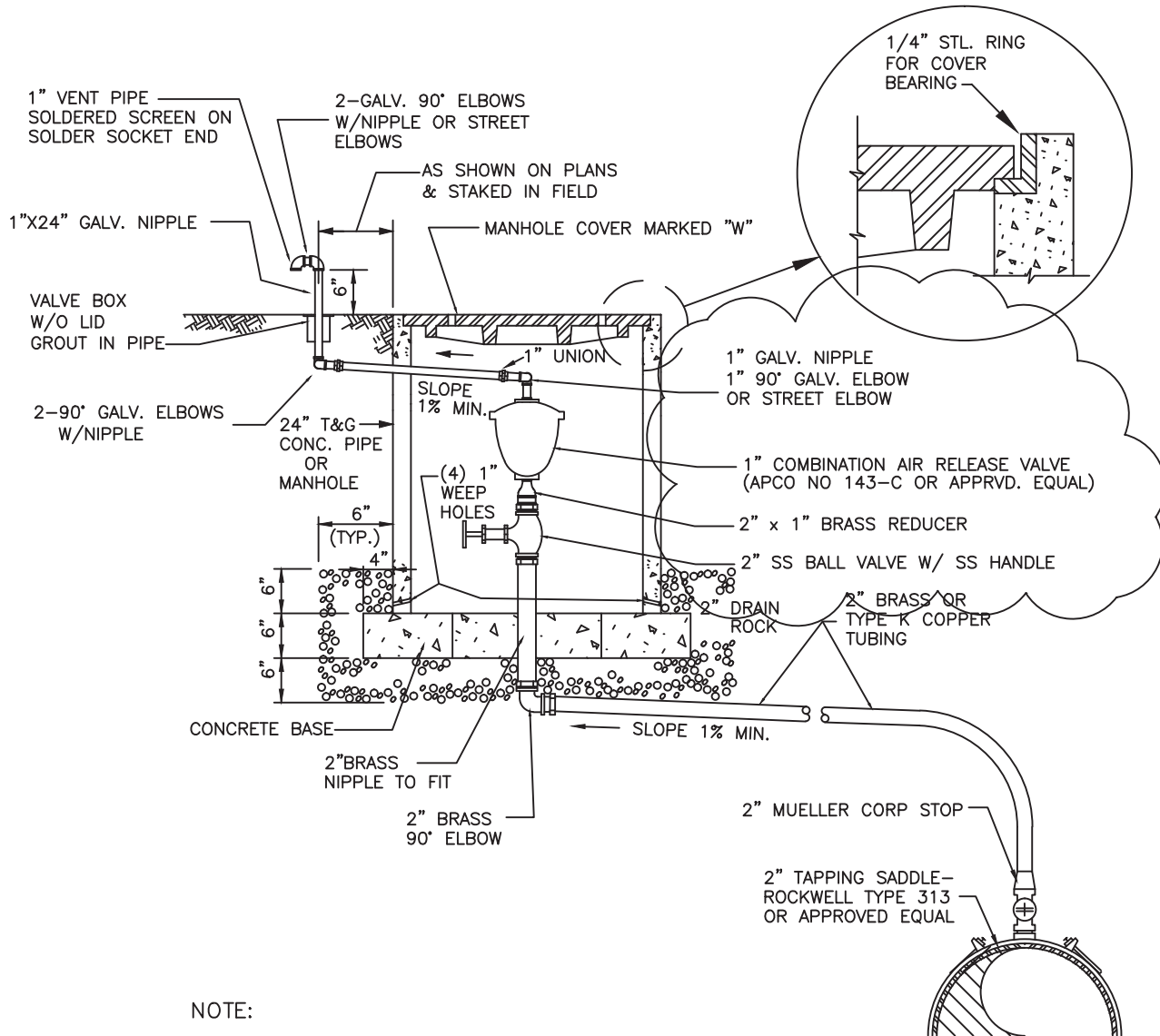
REV. 4/7/17 BCK

STANDARD VALVE BOX AND COVER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.2



NOTE:

1) PLACE VENT AND AIR RELEASE UNIT ASSEMBLY OUTSIDE OF HARD SURFACE AREA IN R.O.W. OR 15' EASEMENT DEDICATED TO THE CITY OF RIDGEFIELD.

2) MUST BE USED FOR ALL AIR RELEASE LOCATIONS UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

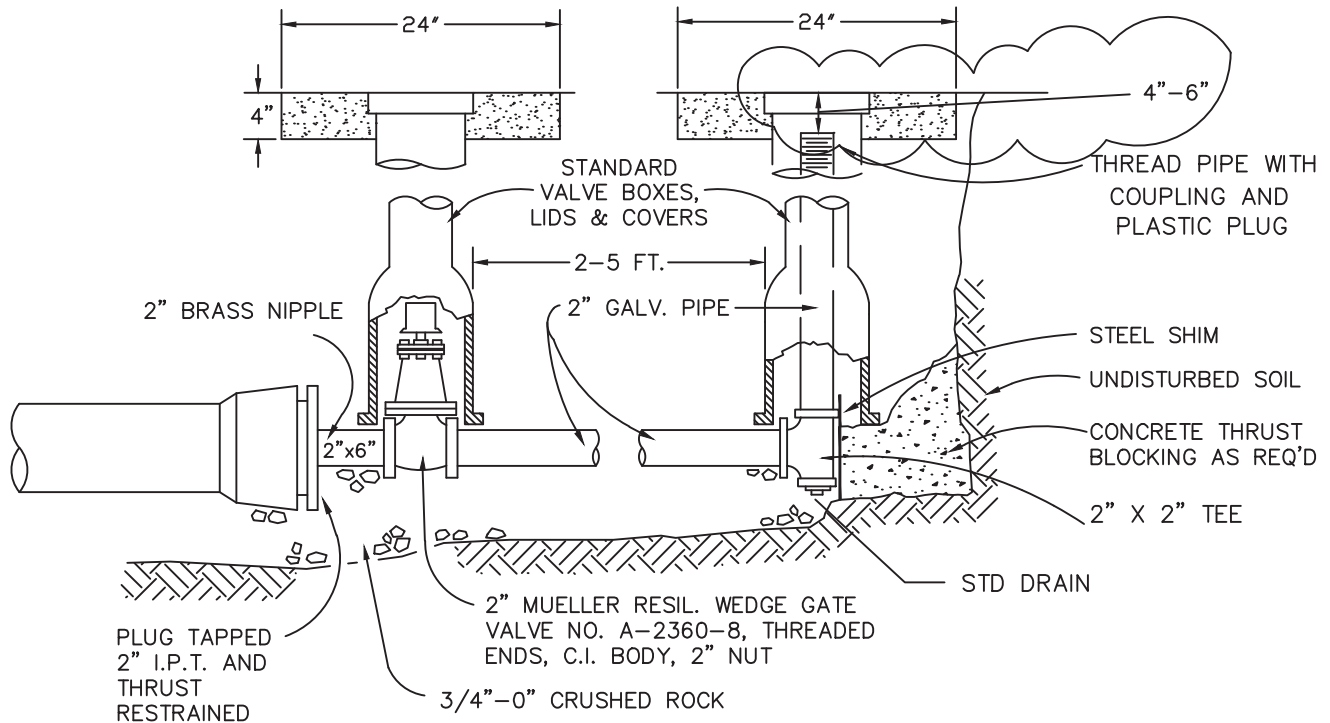
REV. 4/7/17 BGK

COMBINATION AIR RELEASE VALVE

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.4



NOTES:

1. VALVE BOX TO BE CONCRETE ENCASED AS SHOWN, IF NOT IN PAVED AREA.
2. BLOW-OFF UNIT SHALL BE BACKFILLED WITH 3/4"-0" CRUSHED ROCK AND COMPACTED TO 95% OF MAX. DENSITY DETERMINED BY AASHTO T-180.
3. PLACE BLOW-OFF STANDPIPE 3 FT. INSIDE R.O.W. LINE AT END OF STREET (2 FT. FROM BARRICADE).

BLOW-OFF SIZES REQUIRED

MAIN SIZE	BLOW-OFF SIZE
<12"	2"
≥12"	4"

REV 4/7/17 BGK

STANDARD BLOWOFF ASSEMBLY

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.5

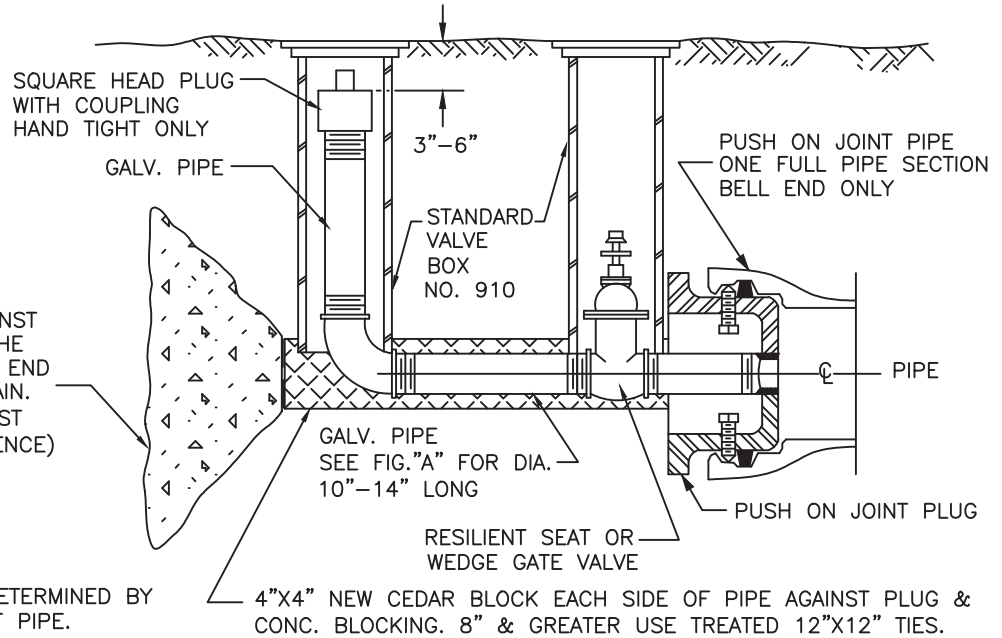
FIGURE "A"

MAIN DIAMETER	BLOW-OFF DIAMETER
<12"	2" MINIMUM
≥12"	4" MINIMUM

POUR THRUST BLOCK AGAINST UNDISTURBED SOIL. USE THE BEARING AREA OF A DEAD END MATCHING THE SIZE OF MAIN. (USE THE STANDARD THRUST BLOCK DETAIL FOR REFERENCE)

NOTE:

SIZE OF BLOWOFF DETERMINED BY SIZE AND LENGTH OF PIPE.



STANDARD TEMPORARY BLOWOFF ASSEMBLY

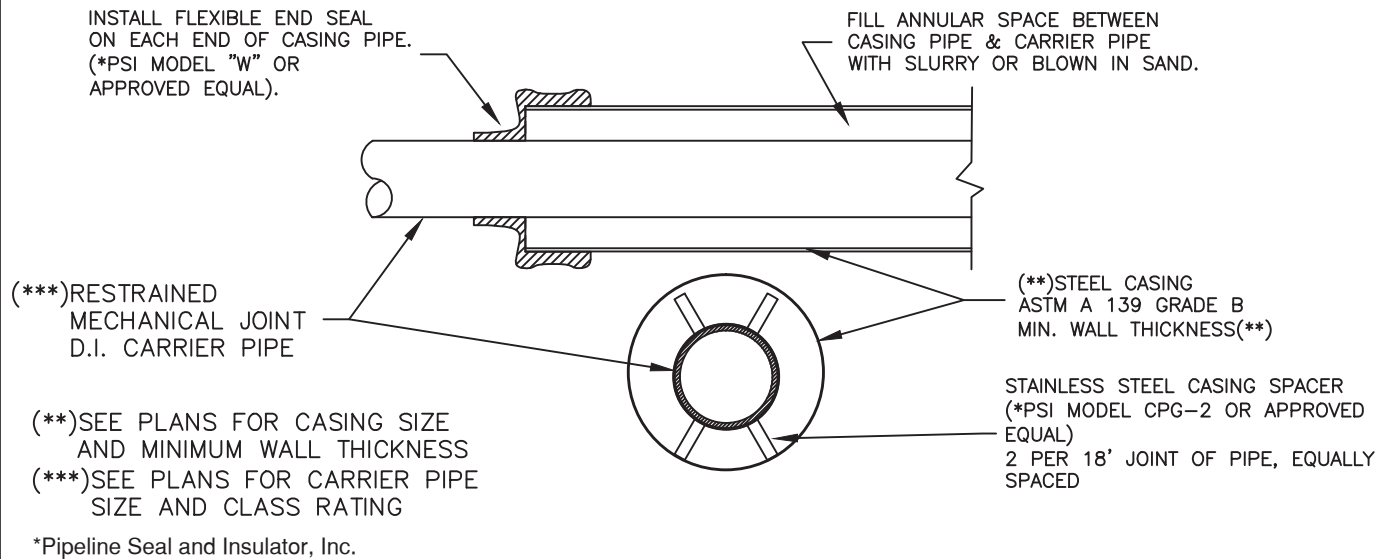
N.T.S.

STANDARD TEMPORARY BLOWOFF ASSEMBLY

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.6



CASING SIZING REQUIREMENTS

CARRIER PIPE	MINIMUM CASING REQUIREMENTS	WALL THICKNESS
4"	16" A36 STEEL	3/8"
6"	16" A36 STEEL	3/8"
8"	24" A36 STEEL	3/8"
10"	24" A36 STEEL	3/8"
12"	24" A36 STEEL	3/8"
16"	36" A36 STEEL	5/8"
24"	48" A36 STEEL	5/8"

NOTES

1. CASING TO BE EXTENDED 5' BEYOND ANY CURB, WALLS, STRUCTURES OR FOOTINGS
2. PUBLIC AND PRIVATE MAINS SHALL BE PLACED IN SEPARATE CASINGS.
3. WRITTEN PERMISSION FROM THE OWNER OF THE RAILROAD TRACKS IS REQUIRED PRIOR TO OBTAINING CITY OF RIDGEFIELD PERMITS TO PROCEED.
4. NO PRIVATE UTILITIES SHALL BE ALLOWED IN CITY OF RIDGEFIELD CASINGS.

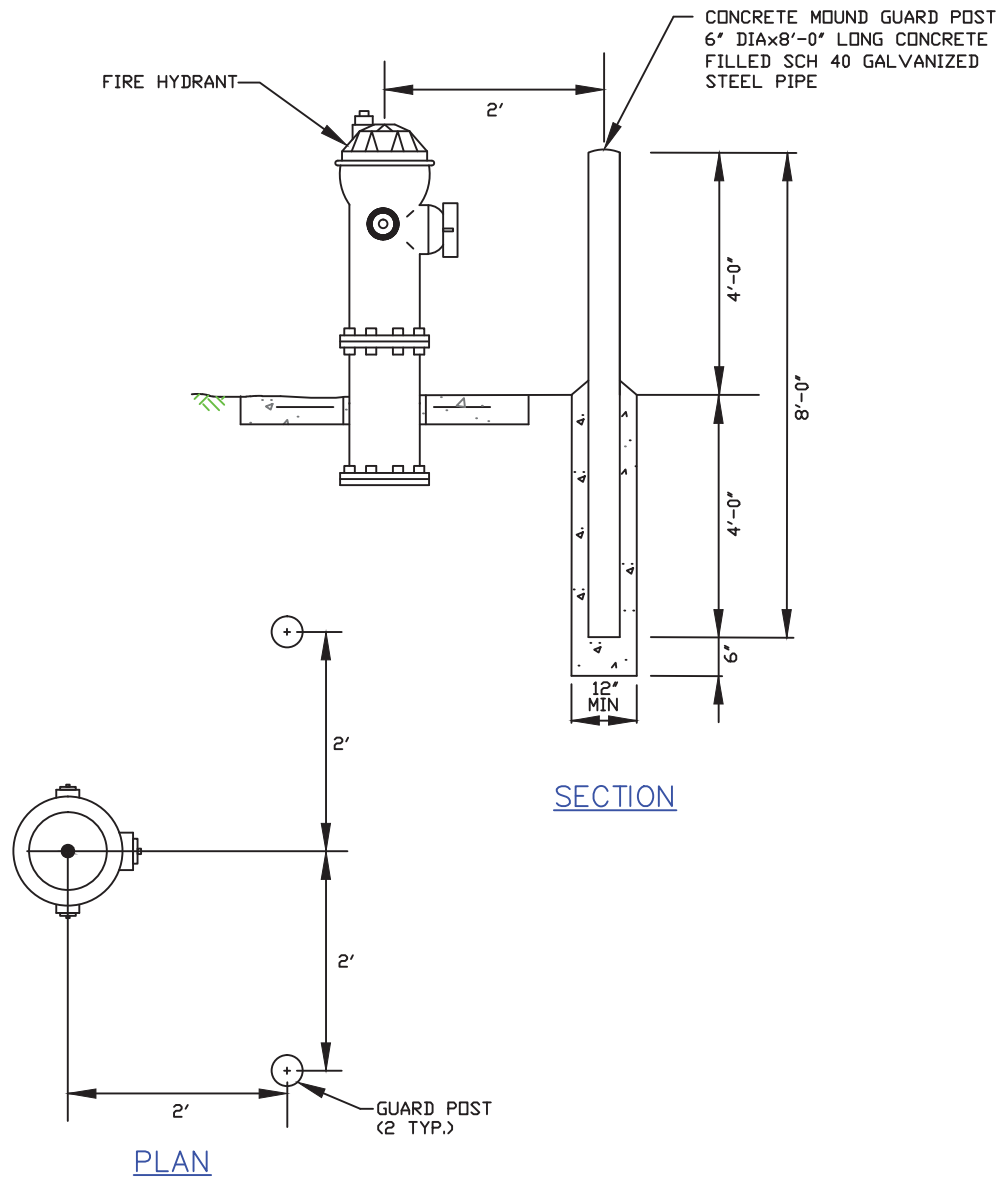
REV. 2/06/08 SCH

PIPE AND CASING DETAIL

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W-2.8



*PAINT GUARD POST RUSTOLEUM SAFETY YELLOW
BASE No. 288-14, COLOR CODE
AX-6732, T-4432, OR EQUAL.

NOTE:

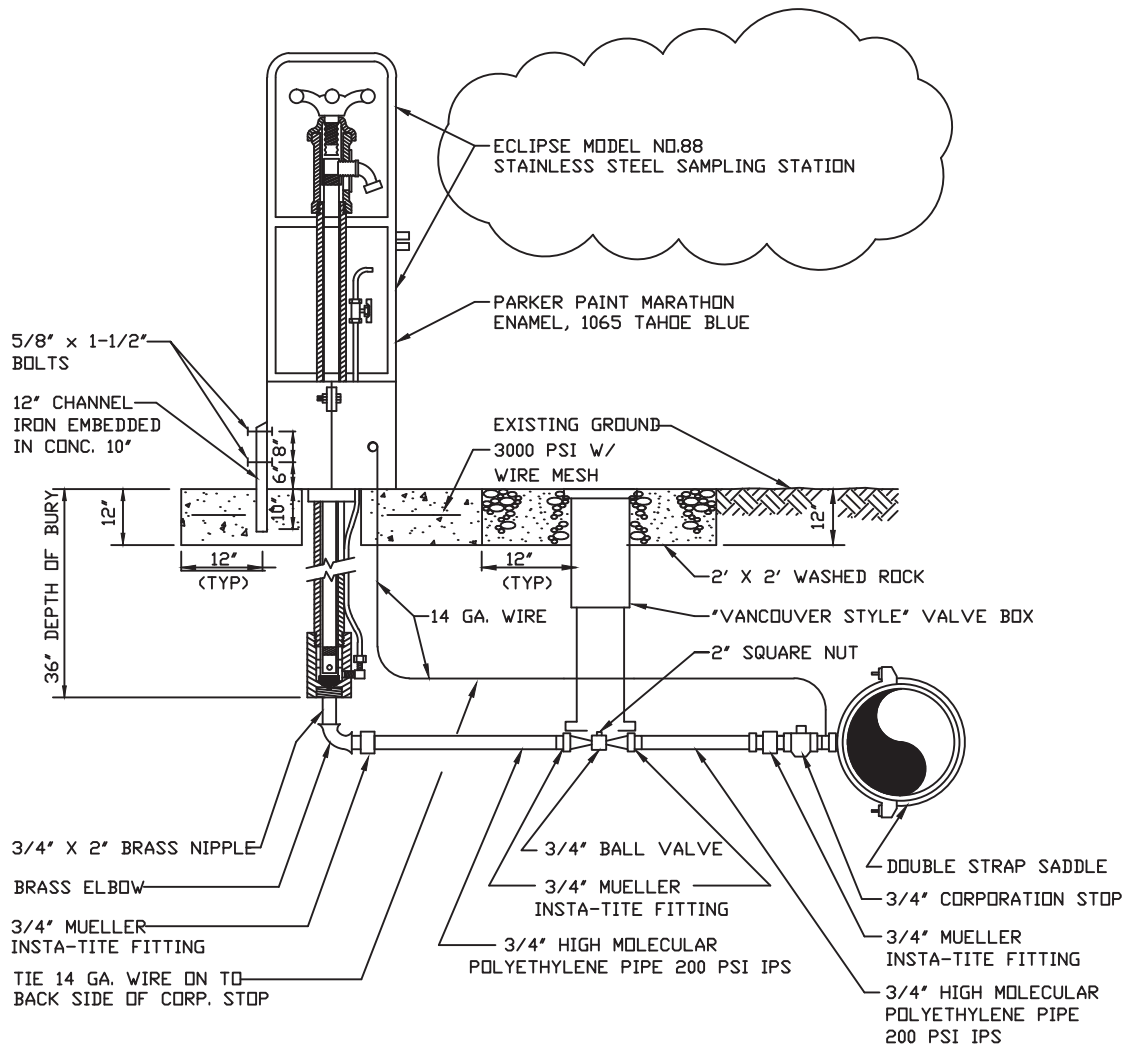
CONCRETE GUARD POSTS SHALL BE INSTALLED
WHEN REQUIRED BY CITY ENGINEER

FIRE HYDRANT GUARD POST

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.9

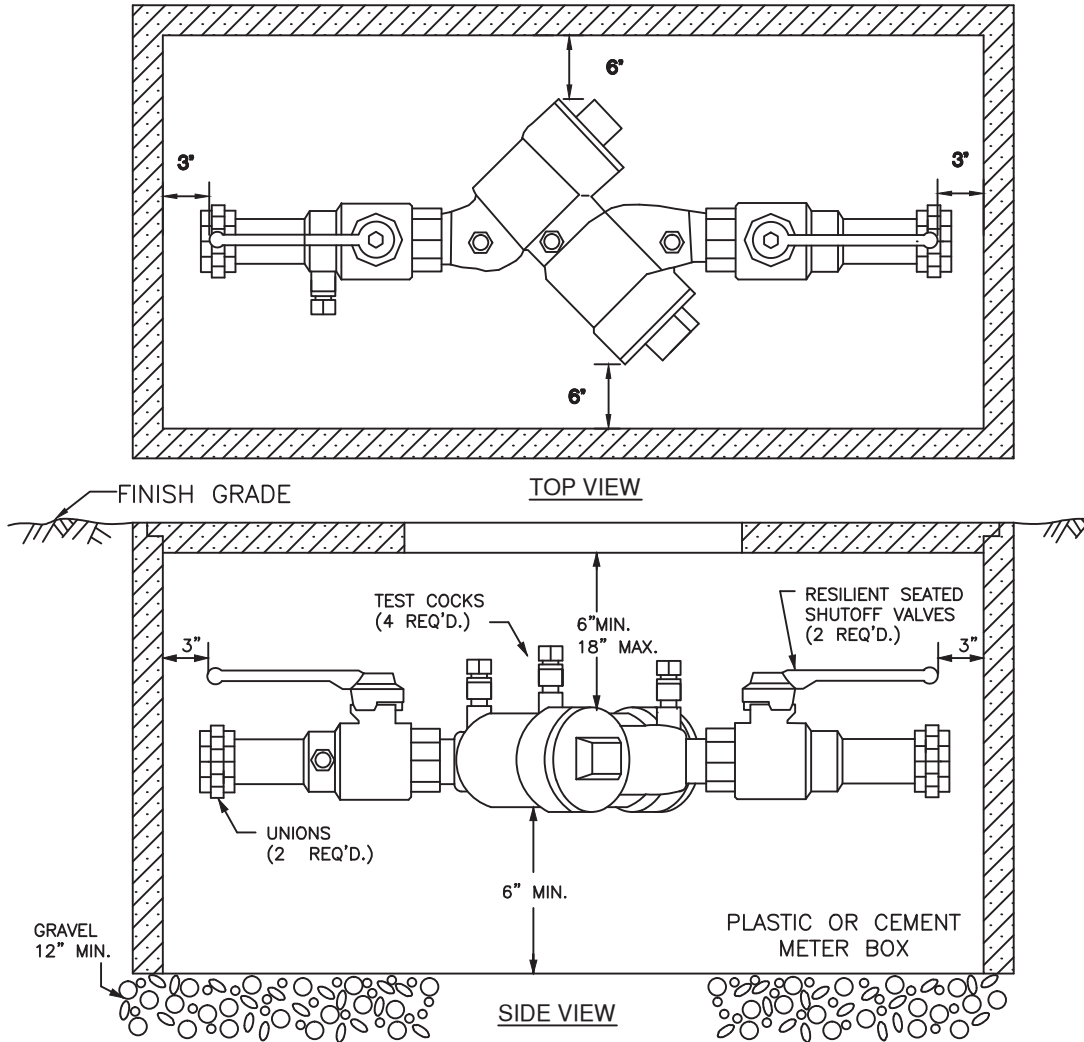


WATER SAMPLING STATION

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 2.10



NOTES:

1. APPROVED DOUBLE CHECK VALVE ASSEMBLY (DCVA) TO LAY HORIZONTAL WITH GROUND. (VERTICAL ALLOWED IF APPROVED BY WA. DEPT. OF HEALTH)
2. DCVA MAY BE INSTALLED ABOVE OR BELOW GROUND PROVIDED ALL CLEARANCES ARE MET.
3. DESIGN FOR BACK SIPHONAGE AND BACK PRESSURE.
4. TEST COCKS TO EITHER FACE OUTWARDS OR UPWARDS FROM ASSEMBLY.
5. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACKFLOW PREVENTER.
6. DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING.
7. DCVA MUST BE ACCESSIBLE.
8. PROTECT DCVA FROM FREEZING.
9. DCVA SHALL BE APPROVED BY THE STATE OF WASHINGTON DEPARTMENT OF HEALTH.
10. A PLUMBING PERMIT IS REQUIRED-CONTACT THE CITY PERMITS COUNTER
11. DCVA MUST BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WA. STATE CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.

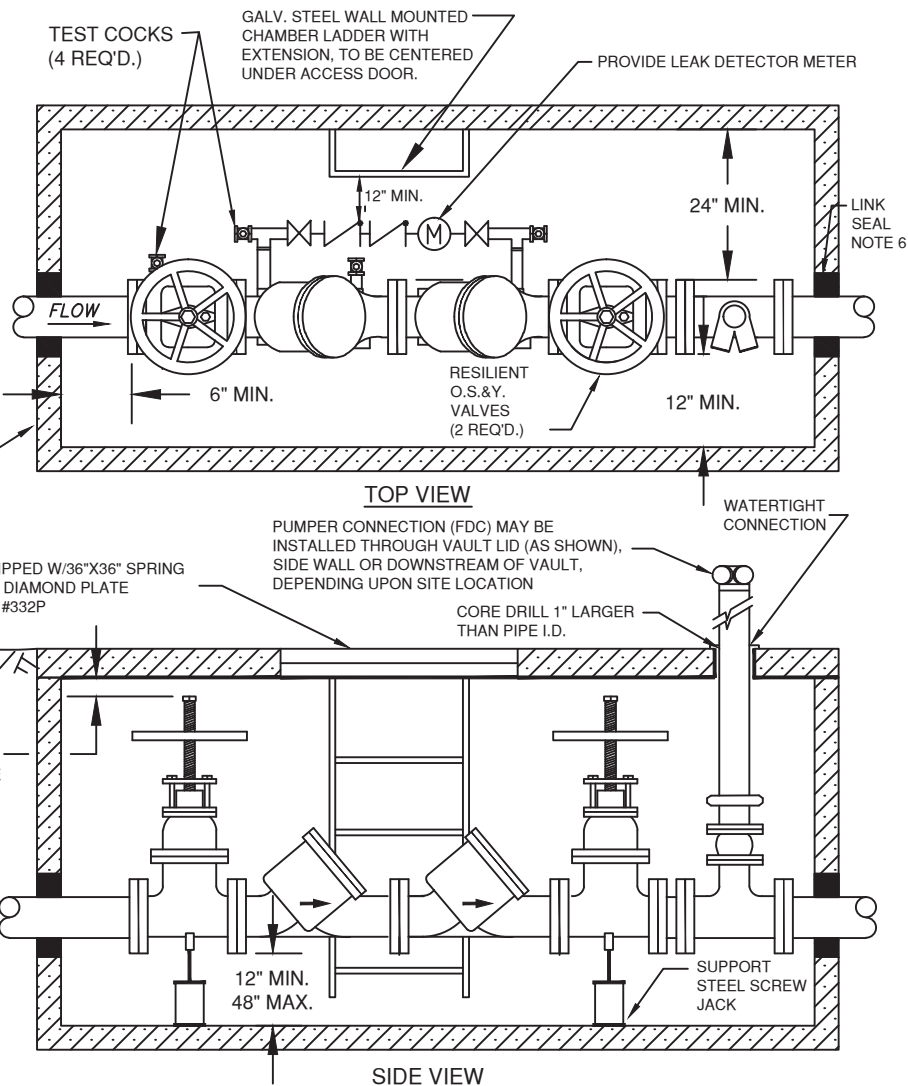
DOUBLE CHECK VALVE ASSEMBLY - 2" & SMALLER

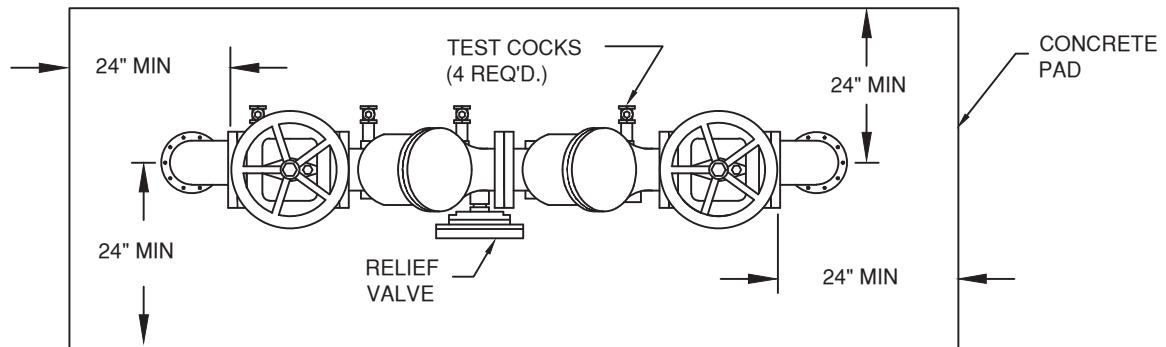
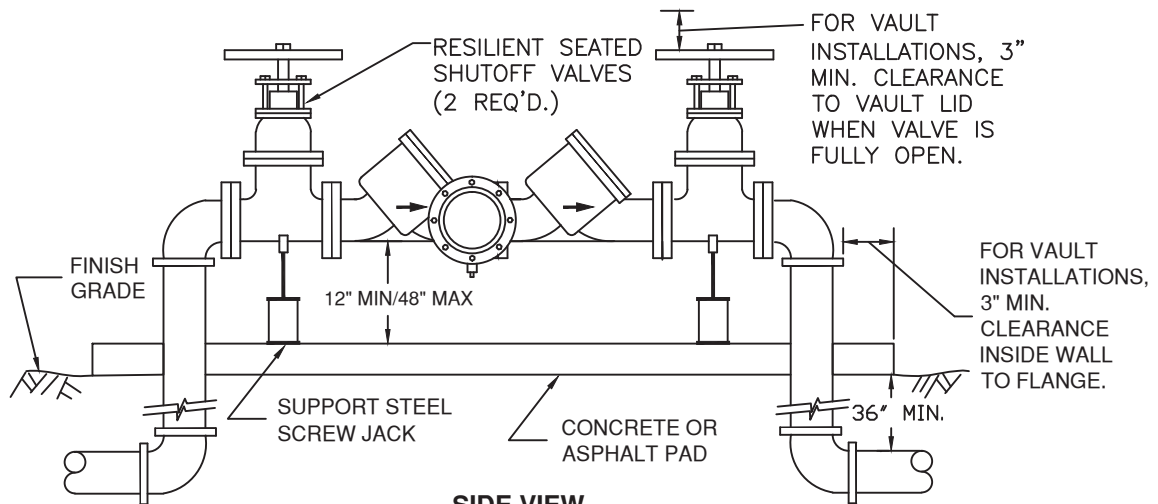
STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.1

Packet Pg. 216



**TOP VIEW****SIDE VIEW****NOTE:**

1. APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) TO LAY HORIZONTAL. (VERTICAL IF APPROVED BY DEPT. OF HEALTH)
2. DESIGNED FOR BACK SIPHONAGE AND BACK PRESSURE.
3. THE WATER LINE SHALL BE DISINFECTED, FLUSHED AND PRESSURE TESTED PRIOR TO INSTALLING THE RPBA. THE RPBA SHALL BE PROTECTED FROM FREEZING AND FLOODING.
4. ALL PIPE, VALVES AND FITTING JOINTS FROM SUPPLY MAIN, SHALL BE FLANGED AND RESTRAINED.
5. PIPE ENTRANCE AND EXIT PROVIDED WITH LINK SEAL, OR APPROVED EQUAL MECHANICAL SEAL.
6. ALL ENCLOSURES SHALL BE PRE-APPROVED PRIOR TO INSTALLATION.
7. RPBA SHALL BE INSTALLED AT PROPERTY LINE OR EASEMENT LINE AND ON OWNER'S PROPERTY.
8. ADEQUATE GRAVITY DRAINAGE SYSTEM REQUIRED WITH APPROVED AIR GAP.
9. MINIMUM 24" CLEARANCE ON ALL SIDES AROUND RPBA.
10. THE RPBA SHALL BE TESTED AFTER INSTALLATION AND PRIOR TO ACCEPTANCE, ALSO YEARLY THEREAFTER BY A CERTIFIED BACKFLOW ASSEMBLY TESTER. TEST RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.
11. A CITY APPROVED VALVE IS REQUIRED BETWEEN THE SUPPLY MAIN AND THE R.P.B.A.
12. PROVIDE HEAT AND/OR INSULATION TO PREVENT FREEZING.
13. SUPPORT PIPE AND FITTINGS TO BE SCHEDULE 80 OR AS APPROVED BY CITY ENGINEER.

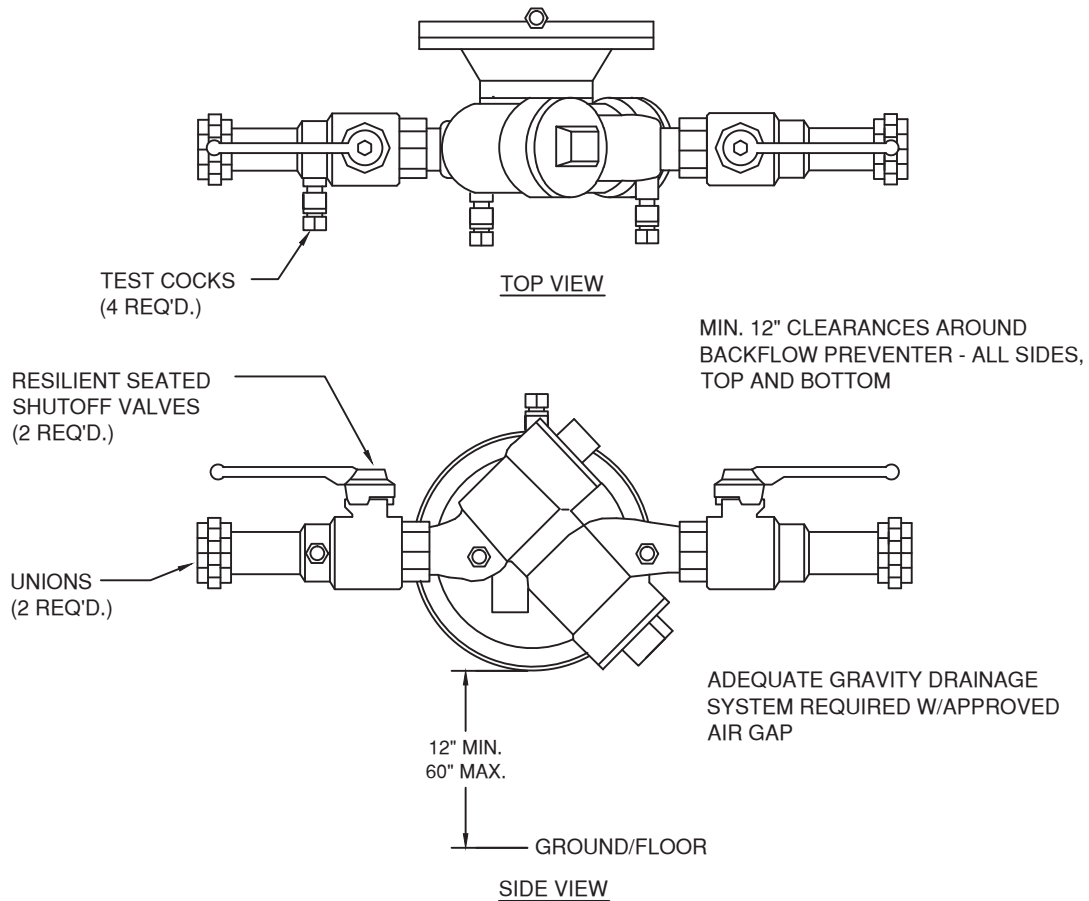
(ABOVE GROUND INSTALLATION ONLY)

REDUCED PRESSURE PRINCIPLE BACKFLOW ASSEMBLY 2-1/2" & LARGER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.4

NOTES:

1. APPROVED REDUCED PRESSURE BACKFLOW ASSEMBLY (RPBA) TO LAY HORIZONTAL WITH GROUND. (VERTICAL ALLOWED IF APPROVED BY WA. DEPT. OF HEALTH)
2. DESIGN RPBA FOR BACK SIPHONAGE AND BACK PRESSURE.
3. THOROUGHLY FLUSH LINES PRIOR TO INSTALLATION OF BACKFLOW PREVENTER.
4. DO NOT INSTALL IN AN AREA SUBJECT TO FLOODING.
5. RPBA MUST BE ACCESSIBLE.
6. PROTECT RPBA FROM FREEZING.
7. A PLUMBING PERMIT IS REQUIRED-CONTACT THE APPROPRIATE JURISDICTION'S PERMITS COUNTER
8. RPBA MUST BE TESTED AFTER INSTALLATION, THEN ANNUALLY BY A WA. STATE CERTIFIED BACKFLOW TESTER. RESULTS SHALL BE SENT TO THE CITY PUBLIC WORKS OFFICE.
9. RPBA SHALL BE APPROVED BY THE STATE OF WASHINGTON. A LIST OF THE APPROVED DEVICES IS AVAILABLE FROM THE DEPARTMENT OF HEALTH.
10. A CITY APPROVED VAULT AND LID REQUIRED. PROVIDE HEAT AND/OR INSULATION TO PREVENT FREEZING,
11. SUPPORT PIPES AND FITTINGS TO BE SCHEDULE 80 PVC OR, AS APPROVED BY THE CITY ENGINEER.

(ABOVE GROUND INSTALLATION ONLY)

REV. 4/15/08 SCH

REDUCE PRESSURE PRINCIPLE BACKFLOW ASSEMBLY - 2" & SMALLER

STANDARD
DETAILS

CITY OF RIDGEFIELD

SHEET
W - 3.5

CITY OF RIDGEFIELD REQUEST FOR COUNCIL ACTION

MEETING DATE: May 25, 2017

ITEM: BUSINESS

AGENDA ITEM TITLE: Motion - Approval of Donation Acceptance - All Terrain Vehicles

GOVERNING LEGISLATION:

Revised Code of Washington Chapter 35.21.100; RMC Chapter 3.80 – Donations of Money and Other Property

PREVIOUS COUNCIL ACTION TAKEN:

The City of Ridgefield has received donations from various persons, businesses and non-profit organizations over the years.

SUMMARY/BACKGROUND:

RCW 35.21.100 states that the City has the authority to accept donations by ordinance and that it must carry out the terms of the donations within its powers granted by law. If no terms or conditions are attached to the donation, the City may expend or use it for any municipal purpose.

Per RMC 3.80.010 the City Manager may accept on behalf of the City of Ridgefield any donation, cash or property with a value up to \$100. City Council may accept donations with a value over \$100 by motion at a regular council meeting.

The City has received the following donation:

2 John Deere HPX Gators All-Terrain Vehicles donated by the Clark County Sheriff's Office. The estimated value for the 2 Gators and winch kit is \$19,292.37. The ATV's were originally purchased through a Homeland Security grant. The Sheriff's Office has replaced these and determined they are surplus and could be offered to another agency for use. The City will continue to use in the manner prescribed by the original grant agreement. The City is required to continue to make these available within the region to partnership agencies in Clark, Wahkiakum and Cowlitz County.

BUDGET/FINANCIAL IMPACTS:

No significant budget or financial impacts are anticipated.

RECOMMENDED ACTION OR MOTION:

Staff recommends that Council approve the acceptance of the donation.

A recommended motion is “I move to accept the donation as presented.”

STAFF CONTACT: Kirk Johnson, Finance Director

ATTACHMENTS: John Deere Gator Transfer 05182018 (PDF)

Region IV Homeland Security

Transfer of Clark County Sheriff's Office LETPP Grant Equipment

To Ridgefield Police Department

Item	Manufacturer	Part/Serial #	Q	Total Price/Value
Gator HPX 4X4	John Deere		2	\$18,629.05
Winch Kit	John Deere	#8009M (Winch); BM19972 (Front Receiver Hitch)	1	\$ 663.32
Total				\$19,292.37

I understand that my agency is responsible for the licensing, maintenance, training, proper storage, maintaining inventory records and use of the equipment. Equipment lost, stolen, or deemed unusable will not be replaced by CRESA or Clark County. Each piece of equipment valued at \$5,000 or more cannot be disposed of without the permission from the grantor as per Common Rule Section 32.

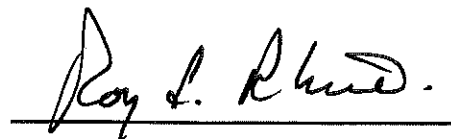
We hold Clark County Sheriff's Office harmless for any and all damages that may result from the acceptance of this equipment. I also understand that our agency may receive an audit in accordance with OMB Circular A-133, Circular A-87 and the conditions of this grant. Inventory must be conducted by the final receiving agency every two years. The final receiving agency **MUST** submit a biennial letter of certification to CRESA declaring that the inventory has been conducted. The letter of certification is due January 30th of the due year.

Original Holder



Date: 5-18-17

Receiver



Date: 5-18-17

Attachment: John Deere Gator Transfer 05182018 (1311 : Acceptance of a Donation - All Terrain Vehicles)



9-1-1 Dispatch Center

Regional Communications Systems - Emergency Management- Emergency Medical Services

MEMO

TO: Region IV Agencies
FROM: Tamie Cody – CRESA
Date: AUGUST 2, 2007
RE: Equipment Distribution Agreements

Attached is the Distribution Agreement for LETPP 05 Equipment that you have procured. Any equipment that was purchased with Grant Funds must be accounted for by the Region IV Coordinating Office for State Audit purposes. Please sign the attached agreement and return to me for final signatures, then a copy will be returned for your records.

Attachment: John Deere Gator Transfer 05182018 (1311 : Acceptance of a Donation - All Terrain Vehicles)

REGION IV
 WASHINGTON STATE OFFICE OF HOMELAND SECURITY
 CLARK REGIONAL EMERGENCY SERVICES AGENCY
 WASHINGTON STATE PATROL
 HOMELAND SECURITY GRANT PROGRAM - CFDA# 97.067

GRANT AWARD CONDITIONS AND CERTIFICATIONS

PROGRAM NAME:	LETPP - 05	GRANT NO:	#C06-0542FED
SUB - GRANTEE:	Clark County Sheriff's Office	FY 2005 AWARD:	\$ 533,929.
ADDRESS:	PO Box 410 Vancouver, WA 98666	AWARD PERIOD:	October 1, 2004 - June 30, 3007
PROGRAM CONTACT:	John Lawler Chuck Atkins	TELEPHONE:	(360) 397-211
		EXT:	4173
FISCAL CONTACT:		TELEPHONE:	(360)

BUDGET

REVENUE

Federal Grant Funds

\$

TOTAL REVENUE: \$

EXPENDITURES

Administration

\$

Citizen Corps Program

\$

Exercises

\$

Planning

\$

Training

\$

EQUIPMENT PROGRAM

\$12,603.76

CBRNE Incident Response

\$

CBRNE Logistic Support

\$

CBRNE Reference Materials

\$

CBRNE Search & Rescue

\$

Decontamination

\$

Detection

\$

Explosive Devise

\$

Interoperable Communications

\$

Medical Supplies & Pharmaceuticals

\$

Personal Protective

\$

Terrorism Incident Prevention

\$

Attachment: John Deere Gator Transfer 05182018 (1311 : Acceptance of a Donation - All Terrain Vehicles)

- b. Reimbursement rates for travel expenses shall not exceed those allowed by the State of Washington. Requests for reimbursement for travel must be supported with a detailed statement identifying the person who traveled, the purpose of the travel, the times, dates, and places of travel, and the actual expenses or authorized rates incurred.
- c. Reimbursements will only be made for actual expenses incurred during the grant period. The Grantee agrees that no grant funds may be used for expenses incurred before **October 1, 2004** or after **June 30, 2007**.
- d. Grantee shall be accountable for and shall repay any overpayment, audit disallowances or any other breach of grant that results in a debt owed to the Federal Government. CRESA shall apply interest, penalties, and administrative costs to a delinquent debt owed by a debtor pursuant to the Federal Claims Collection Standards and OMB Circular A-129.

3. Procurement Standards

- a. Grantees shall follow the same policies and procedures it uses for procurement from its non-Federal funds. Grantees shall use their own procurement procedures and regulations, provided that the procurement conforms to applicable Federal and State law and standards.
- b. All procurement transactions, whether negotiated or competitively bid and without regard to dollar value, shall be conducted in a manner so as to provide maximum open and free competition. All sole-source procurements in excess of \$100,000 must receive prior written approval from Clark Regional Emergency Services Agency. Interagency agreements between units of government are excluded from this provision.
- c. The Grantee shall be alert to organizational conflicts of interest or non-competitive practices among contractors that may restrict or eliminate competition or otherwise restrain trade. Contractors that develop or draft specifications, requirements, statements of work, and/or Requests for Proposals (RFP) for a proposed procurement shall be excluded from bidding or submitting a proposal to compete for the award of such procurement. Any request for exemption must be submitted in writing to the Clark Regional Emergency Services Agency.
- d. All non-state procurement transactions shall be conducted in such a manner that provides, to the maximum extent practical, open and free competition. However, should a recipient elect to award a contract without competition, sole source justification may be necessary. Justification must be provided for non-competitive procurement and should include a description of the program and what is being contracted for, an explanation of why it is necessary to contract noncompetitively, time constraints and any other pertinent information. Grantees may not proceed with a sole source procurement without prior written approval from the Clark Regional Emergency Services Agency.

4. Audit Reports. Grantee shall provide CRESA copies of all audit reports pertaining to this Grant Agreement obtained by Grantee, whether or not the audit is required by OMB Circular A-133.

- H. Indemnification. The Grantee shall, to the extent permitted by Washington Constitution and by the Industrial Insurance Claims Act, defend, save, hold harmless, and indemnify the Clark Regional Emergency Services Agency, their officers, employees, agents, and members from all claims, suits and actions of whatsoever nature resulting from or arising out of the activities of Grantee, its officers, employees, subcontractors, or agents under this grant.

Grantee shall require any of its contractors or subcontractors to defend, save, hold harmless and indemnify the Clark Regional Emergency Services Agency and the Washington State Office of Homeland Security, their officers, employees, agents, and members, from all claims, suits or actions of whatsoever nature resulting from or arising out of the activities of subcontractor under or pursuant to this grant.

Grantee shall, if liability insurance is required of any of its contractors or subcontractors, also require such contractors or subcontractors to provide that the Clark Regional Emergency Services Agency and their officers, employees and members are Additional Insureds, but only with respect to the contractor's or subcontractor's services performed under this grant.

application submission, with the understanding that the application for funds may not be awarded prior to approval of the Grantee's, or any of its contractors or subcontractors, equal employment opportunity program by the Office for Civil Rights, Office of Justice Programs.

If required to formulate an Equal Employment Opportunity Program (EEOP), the Grantee must maintain a current copy on file which meets the applicable requirements.

- G. Services to Limited English Proficient (LEP) Persons. Recipients of ODP financial assistance are required to comply with several federal civil rights laws, including Title VI of the Civil Rights Act of 1964, as amended. These laws prohibit discrimination on the basis of race, color, religion, national origin, and sex in the delivery of services. National origin discrimination includes discrimination on the basis of limited English proficiency. To ensure compliance with Title VI, recipients are required to take reasonable steps to ensure that LEP persons have meaningful access to their programs. Meaningful access may entail providing language assistance services, including oral and written translation, where necessary. Grantees are encouraged to consider the need for language services for LEP persons served or encountered both in developing their proposals and budgets and in conducting their programs and activities. Reasonable costs associated with providing meaningful access for LEP individuals are considered allowable program costs. For additional information, please see <http://www.lep.gov>.
- H. National Environmental Policy Act (NEPA); Special Condition for U.S. Department of Justice Grant Programs.
1. Prior to obligating grant funds, Grantee agrees to first determine if any of the following activities will be related to the use of the grant funds. Grantee understands that this special condition applies to its following new activities whether or not they are being specifically funded with these grant funds. That is, as long as the activity is being conducted by the Grantee, a contractor, subcontractor or any third party and the activity needs to be undertaken in order to use these grant funds, this special condition must first be met. The activities covered by this special condition are:
 - a. new construction;
 - b. minor renovation or remodeling of a property either (a) listed on or eligible for listing on the National Register of Historic Places or (b) located within a 100-year floodplain;
 - c. a renovation, lease, or any other proposed use of a building or facility that will either (a) result in a change in its basic prior use or (b) significantly change its size; and
 - d. implementation of a new program involving the use of chemicals other than chemicals that are (a) purchased as an incidental component of a funded activity and (b) traditionally used, for example, in office, household, recreational, or educational environments.
 2. Application of This Special Condition to Grantee's Existing Programs or Activities: For any of the Grantee's or its contractors' or subcontractors' existing programs or activities that will be funded by these grant funds, the Grantee, upon specific request from the Office for Domestic Preparedness, agrees to cooperate with the Office for Domestic Preparedness in any preparation by the Office for Domestic Preparedness of a national or program environmental assessment of that funded program or activity.
- I. Certification Regarding Drug Free Workplace Requirements. Grantee certifies that it will provide a drug-free workplace by:
1. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance is prohibited in the Grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;
 2. Establishing a drug-free awareness program to inform employees about:
 - a. The dangers of drug abuse in the workplace;
 - b. The Grantee's policy of maintaining a drug-free workplace;
 - c. Any available drug counseling, rehabilitation, and employee assistance programs; and
 - d. The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace.
 3. Requiring that each employee engaged in the performance of the grant be given a copy of the employer's statement required by paragraph (a).



CLARK COUNTY
WASHINGTON

providing past, promising future

(se)hivleu nairrall Terrain - Donation : 1131 81028150 Transfer Gator John Deere Attachment: 45/539

State of Washington

Purchase Order Numbers Must Show On All Vendor Papers, Invoice
Each Purchase Order Separately.

Subject To Terms & Conditions
Purchasing Manager Phone: (360) 397-2323

Vendor:

JOHN DEERE COMPANY
GOVERNMENT & NATIONAL SALES
2000 JOHN DEERE RUN
CARY, NC 27513

Ship To:

CLARK COUNTY SHERIFF
812 W 11 ST SUITE 1
VANCOUVER, WA 98660
US

Bill To (Submit Invoices In Duplicate):

CLARK COUNTY SHERIFF
ATTN ACCOUNTS PAYABLE
PO BOX 410
VANCOUVER, WA 98666
US

ment Terms: Net 30

F.O.B.: /

Date Promised:

Requester: Mead, Karin A

Item	Description	Quantity	Unit	Unit Price	Total
1	9861M - HIGH PERFORMANCE SERIES GATOR HPX 4X4 W/ HP ALL TERRAIN TIRES, OPS-HPX TUBULAR STRUCTURE, BEACONLIGHT KIT, REAR RECEIVER HITCH, BEDLINER FOR CARGO BOX, BRUSH GUARD, DELUXE LIGHT KIT, HORN, WA STATE CONTRACT# 08506	4.00	Each	8,632.55	34,530.20
2	CONTINUED: FENDER GUARD, FLOORMATS, OPS POLY ROOF, OPS POLY WINDSHIELD, GATOR TOOL BOX	4.00	Each	0.00	0.00
3	JOHN DEERE WINCH KIT-GATOR HPX T-SERIES #8009M - WINCH #BM19972- FRONT RECEIVER HITCH	2.00	Each	614.76	1,229.52
4	SHIPPING	1.00	Each	38.61	38.61

4,970
5,387.48
457473

27,258.09
1,326.65
411.66
38,626.40

STANDARD TERMS AND CONDITIONS

No alteration in any of the terms, conditions, delivery, price, quality, quantities, or specifications of this order will be effective without prior consent of the office of purchasing.

The county reserves the right to cancel any unshipped portion of this order. Time of delivery is part of the essence of the contract and the order is subject to cancellation for failure to deliver on time.

For any exception to the delivery date as specified on this purchase order, the vendor shall give prior notification and obtain approval therefrom from the office of purchasing.

SHIPPING INSTRUCTIONS: Unless otherwise specified, please ship prepaid via cheapest Common Carrier F.O.B. Destination. If terms must be F.O.B. Shipping point, prepay and list shipping charges separately on invoices less federal transportation tax. Substitution of prepaid freight and express must be attached to your invoice. The county cannot accept C.O.D. shipments.

Purchase order number must appear on all invoices, packing lists, packages, shipping notices, instruction manuals, and any correspondence.

The vendor agrees to protect the county against all claims for patent or franchise infringement arising from the purchase, installation, or use of the material ordered on this contract, and to assume all expense and damage & rising from such claims.

All specifications and plans referred to in this order shall form a part of the purchase contract.

Cash discount period on all invoices shall commence on the date correctly completed invoices or shipments received by the county whichever is later, if an adjustment or damage occurs on a shipment subject to cash discount, discount will be taken effective on date final approval for payment is authorized.

The county must pay State of Washington sales tax unless purchase order specifically indicates exemption.

Purchase Order Number: 45/539

Revision No: Release No:

Date: 16-FEB-07 Page: 1 of 1

Approved By: Anderson, Allyson L

[Signature]

Authorized Signature
Not An Order Unless Signed!

Subtotal: 35,798.33
Sales/Use Tax: 2,828.07
TOTAL: 38,626.40

The county is exempt from federal excise and transportation taxes. Exemption certificate will be furnished upon request.

LIENS: Vendor, by accepting this purchase order, warrants and represents that the goods, wares or merchandise ordered herein are free and clear from all claims and liens of whatsoever nature.

By reference hereto all federal and Washington State laws governing anti-discrimination are hereby incorporated as part of and binding to this purchase.

Pursuant to Washington State Statute RCW 39.25, upon completion of this contract, bidder shall furnish a certified statement setting forth the nature and source of offshore items in excess of \$2500, which have been utilized in the performance of this purchase.

In the event of a breach by vendor of any provisions of this purchase, the county reserves the right to cancel and terminate forthwith upon giving oral or written notice to vendor.



Garry E. Lucas
Sheriff

July 18, 2007

Invoice
GATOR HPX 4X4 ATVs
Region IV Homeland Security
2006 LETPP

To: Clark Regional Emergency Services Agency
710 West 13th Street
Vancouver, WA 98660-2810

Please reimburse \$38,309.84 for expenses related to the acquisition of four (4) GATOR HPX 4X4 ATVs with accessories and two (2) winch kits / front receiver hitches. This figure represents a total cost of \$35,406.51 plus 8.2% Washington sales tax. It is within the limits of the 2006 LETPP budget of \$36,000.00 plus tax. Copies of the purchase order, the vendor's invoice, the packing slip, and our GL report showing the expense accompany this invoice.

If you have questions, contact John Lawler at (360) 397-2211, ext. 4173 or send an e-mail to john.lawler@clark.wa.gov.

Clark County Sheriff's Office
 707 West 13th Street
 P.O. Box 410
 Vancouver, WA 98666-0410

Account Code: 0001.000.250.333979.000.012427

Attachment: John Deere Gator Transfer 05182018 (1311 : Acceptance of a Donation - All Terrain Vehicles)

CITY OF RIDGEFIELD REQUEST FOR COUNCIL ACTION

MEETING DATE: May 25, 2017

ITEM: PUBLIC HEARING/BUSINESS

AGENDA ITEM TITLE: AN ORDINANCE OF THE CITY OF RIDGEFIELD, WASHINGTON APPROVING a DEVELOPMENT AGREEMENT WITH QUAIL HILL DEVELOPMENT, LLC., STEVEN D. BELT, PIONEER ESTATES LLC., and UNION RIDGE PROPERTY OWNERS ASSOCIATION

GOVERNING LEGISLATION:

RDC 18.310.150, Development Agreements

PREVIOUS COUNCIL ACTION TAKEN: Council held a public hearing on February 17, 2017 and a second reading with adoption on March 9, 2017 for the initial Development Agreement with Quail Hill at Union Ridge. The first Development Agreement extended preliminary plat approval for one parcel, 215443-002. The first Development Agreement provided that a second Agreement to formalize open space requirements for the overall development by June 30, 2017.

SUMMARY/BACKGROUND: The Quail Hill at Union Ridge subdivision received preliminary approval on July 11, 2007. This Development Agreement satisfies a provision of the initial Agreement requiring a formalized open space concept prior to June 30, 2017. The open space concept developed by the applicant is attached, and shows a paved 5 foot wide loop around the basketball court located in the southeast corner of the property with picnic areas with tables and benches. The loop continues as a proposed 4 to 5 foot wide gravel trail, approximately 1,330 feet in length with locations designated for benches, picnic tables, and viewing areas.

BUDGET/FINANCIAL IMPACTS: None

RECOMMENDED ACTION OR MOTION: None. This is the first reading of the ordinance. Second reading is scheduled before City Council on June 8, 2017.

STAFF CONTACT: Jeff Niten, Community Development Director

ATTACHMENTS: 7958.p.exhibit.DA.strip.170522 (PDF)
 5-19-17 Easement - Open Space on large 10 acre piece (DOCX)
 5-19-17 Easement - Trail on parcel 215443008 (DOCX)
 5-19-17 OWNERS AGREEMENT - Common Space Ownership
 Development Maintenance and Use (DOCX)
 5-19-17 Second DA Quail Hill (DOCX)

ORDINANCE NO. 1233

AN ORDINANCE OF THE CITY OF RIDGEFIELD, WASHINGTON APPROVING A DEVELOPMENT AGREEMENT WITH QUAIL HILL DEVELOPMENT, LLC., STEVEN D. BELT, PIONEER ESTATES LLC., AND UNION RIDGE PROPERTY OWNERS ASSOCIATION

WHEREAS, the City is a Washington Municipal Corporation with land use planning and permitting authority over all land within its corporate limits; and,

WHEREAS, the City has the authority to enter into Development Agreements pursuant to RCW 36.70B.170 which provides:

The Legislature finds that the lack of certainty of the approval of development projects can result in a waste of public and private resources, escalate housing costs for consumers and discourage the commitment to comprehensive planning which would make maximum efficient use of resources at the least economic cost to the public. Assurance to a development project applicant that upon government approval the project may proceed in accordance with existing policies and regulations, and subject to conditions of approval, all as set forth in a development agreement, will strengthen the public planning process, encourage private participation and comprehensive planning, and reduce the economic cost of development; and,

WHEREAS, Quail Hill Development LLC. and Steven D. Belt have controlling interests in 9.0 acres of real property zoned Employment (E) and subject to the Employment Mixed Use Overlay (EMUO) located southwest of the intersection of S. 10th Street and S. Union Ridge Parkway, TIN 215443-002; and

WHEREAS, Pioneer Estates LLC. has controlling interest in three parcels totaling 16.4 acres of real property zoned Employment (E) and subject to the Employment Mixed Use Overlay (EMUO) located southwest of the intersection of S. 10th Street and S. Union Ridge Parkway, TIN 215443-004, 215443-006, and 215443-008; and

WHEREAS, the Union Ridge Property Owners Association has controlling interest in 10.34 acres of real property zoned Employment (E) and subject to the Employment Mixed Use Overlay (EMUO) located southwest and east of the intersection of S. 10th Street and S. Union Ridge Parkway, TIN 215383-000; and

WHEREAS, the City and the Applicant have reached agreement regarding the terms and conditions of a Development Agreement related to the development of the Project, which Development Agreement is attached hereto and incorporated herein; and

WHEREAS, the Ridgefield City Council held a public hearing on the above referenced matter on May 25, 2017;

NOW THEREFORE, THE CITY COUNCIL OF THE CITY OF RIDGEFIELD, WASHINGTON HEREBY ORDAINS AS FOLLOWS:

Section 1. **Public Interest.** The City Council for the City of Ridgefield, Washington finds, following a public hearing process, that it is in the public interest for the City of Ridgefield

to approve the Development Agreement with Quail Hill Development, LLC., Steven D. Belt, Pioneer Estates LLC., and the Union Ridge Property Owners Association.

Section 2. **Development Agreement Approved.** The City Council for the City of Ridgefield hereby approves the Development Agreement ("Agreement") attached hereto as Exhibit "A" and authorizes the City Manager to execute the Agreement substantially in the form attached and to take such other actions as may be necessary to effect this Agreement.

Section 3. **Corrections.** The City Clerk and the codifiers of this ordinance are authorized to make necessary clerical corrections to this ordinance including, but not limited to, the correction of scrivener's/clerical errors, references, ordinance numbering, section/subsection numbers and any references thereto.

Section 4. **Severability.** Any provision of this ordinance or its application to any person, legal entity, or circumstance is held invalid, the remainder of the ordinance or its application to other persons, legal entities, or circumstances is not affected.

Section 5. **Effective Date.** This ordinance shall be in full force and effect thirty (30) calendar days after adoption and publication pursuant to law.

ADOPTED BY THE CITY COUNCIL OF THE CITY OF RIDGEFIELD, WASHINGTON THIS 8th DAY OF JUNE 2017.

Mayor, Ron Onslow

ATTEST/AUTHENTICATED:

Julie Basarab
City Clerk

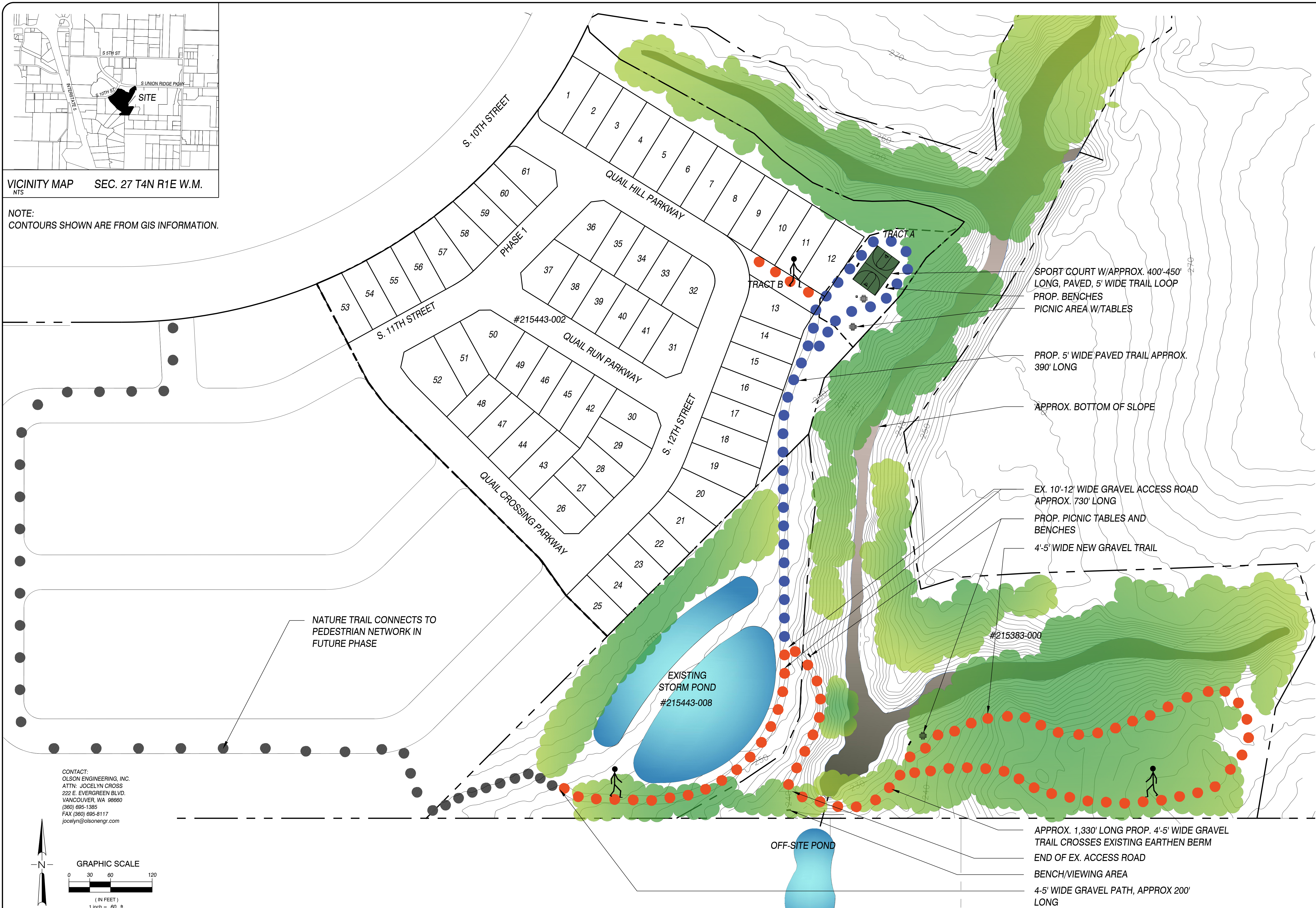
APPROVED AS TO FORM:

Janean Parker
City Attorney

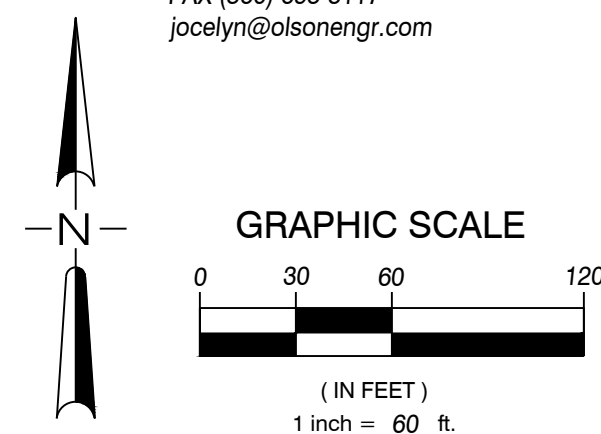
Public Hearing:	May 25, 2017
First Reading:	May 25, 2017
Second Reading/Passage:	June 8, 2017
Date of Publication:	
Effective Date:	

VICINITY MAP
NTS SEC. 27 T4N R1E W.M.

NOTE:
CONTOURS SHOWN ARE FROM GIS INFORMATION.



CONTACT:
OLSON ENGINEERING, INC
ATTN: JOCELYN CROSS
222 E. EVERGREEN BLVD.
VANCOUVER, WA 98660
(360) 695-1385
FAX (360) 695-8117
jocelyn@olsonengr.com



PLOT: consultant3.ctb
FILE: j:/data/7000/7900/7950/7958.01.01/Planning/7958.p.exhibit.DA.strip.dwg

OPEN SPACE AMENITY PLAN

Quail Hill

CLSON LAND SURVEYORS
CLSON ENGINEERS
ENGINEERING INC. 360.695-1365
505-289-9936
222 E. EVERGREEN BLVD., VANCOUVER, WA 98060

CHANGES / REVISIONS	
DESCRIPTION:	DATE:
DESIGNED:	
DRAWN:	
CHECKED: KFS	
DATE: FEBRUARY 2017	
SCALE: H: 1" = 60'	
V:	
COPYRIGHT 2017, OLSON ENGINEERING, INC.	
Quail Hill	
JOB NO. 7958.01.01	
SHEET	
EX1	

After Recording, Return to:

RECORDING COVER SHEET

**OPEN SPACE EASEMENT FOR OPEN SPACE AMENITY DEVELOPMENT,
MAINTENANCE AND USE**

GRANTOR: UNION RIDGE PROPERTY OWNERS ASSOCIATION,
A WASHINGTON NONPROFIT CORPORATION

GRANTEE: CITY OF RIDGEFIELD, A WASHINGTON
MUNICIPAL CORPORATION; PIONEER ESTATES,
LLC, A COLORADO LIMITED LIABILITY COMPANY;
QUAIL HILL DEVELOPMENT, LLC, A WASHINGTON
LIMITED LIABILITY COMPANY; UNION RIDGE
PROPERTY OWNERS ASSOCIATION, A
WASHINGTON NONPROFIT CORPORATION

Abbreviated Legal
Description:

Complete legal descriptions set forth in Exhibits

Assessor's Tax
Parcel Nos.

215443008, 215383000, 215443006, 215443004,
215443002

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

OPEN SPACE EASEMENT FOR OPEN SPACE AMENITY DEVELOPMENT, MAINTENANCE AND USE

THIS OPEN SPACE EASEMENT FOR OPEN SPACE AMENITY DEVELOPMENT, MAINTENANCE AND USE (“Easement” / “Agreement”) is dated for reference purposes _____, and is made for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, by and between:

BENEFITTED PARCEL (Quail Hill 1 Property): Quail Hill Development, LLC, a Washington limited liability company, is the owner of APN 215443-002, situated in Ridgefield, WA (“Quail Hill Property”). The legal description for this parcel is attached as **Exhibit A**. This parcel is to be developed for residential purposes.

BENEFITTED PARCEL (Quail Hill 2 Property): Pioneer Estates LLC, a Colorado limited liability company and Quail Hill Development LLC, a Washington limited liability company (“all collectively Quail Hill 2 Developer”), are the owners of APN 215443004, situated in Ridgefield, WA (“Quail Hill 2 Property”). The legal description for this parcel is attached as **Exhibit B**. This parcel is to be developed for residential purposes.

BENEFITTED PARCEL (Quail Hill 3 Property): Pioneer Estates LLC, a Colorado limited liability company and Quail Hill Development LLC, a Washington limited liability company (“all collectively Quail Hill 3 Developer”) are the owners of APN 215443006, situated in Ridgefield, WA (“Quail Hill 3 Property”). The legal description for this parcel is attached as **Exhibit C**. This parcel is to be developed for residential purposes.

BURDENED OPEN SPACE PARCEL (Open Space Property): Union Ridge Property Owners’ Association, a Washington nonprofit corporation (“Open Space Owners”) is the owner of APN 215383000, situated in Ridgefield, WA (“Open Space Property”). The legal description for this parcel is attached as **Exhibit D**. This parcel is to be maintained and improved as an open space tract, as detailed herein and depicted on **Exhibit E (“Open Space Amenity Plan”)**, which, along with the trail easement provisions on APN 215443008 as set forth in this easement agreement, satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

BENEFITTED PARCEL (Adjacent Open Space Easement Property): Pioneer Estates LLC, a Colorado limited liability company, is the owner of APN 215443008, situated in Ridgefield, WA (“Adjacent Open Space Easement Property”). The legal description for this parcel is attached as **Exhibit F**. This property is subject to a Trail Easement and Maintenance Agreement that establishes an easement and maintenance terms for a walking trail as depicted on **Exhibit E (“Open Space Amenity Plan”)**, which, along with the open space provisions on APN 215383000, will satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

RECITALS

A. Residential development is planned to occur on Quail Hill 1 Property (215443002); Quail Hill 2 Property (215443004), and Quail Hill 3 Property (215443006).

B. In conjunction with this residential development, the City of Ridgefield (“City”) imposes open space requirements.

C. The “**Open Space Amenity Plan**,” attached hereto as **Exhibit E** and incorporated by reference, depicts open space easement areas and amenities as approved by the City. This includes a walking path to be created and maintained in part upon Burdened Open Space Property 215383000. The purpose of this Easement is to formally establish the Open Space Easement and terms for open space amenity development, maintenance and use.

EASEMENT AND AGREEMENT

1. CONSTRUCTION, MAINTENANCE AND REPAIR. All open space amenities shall be constructed and maintained pursuant to the terms of the “**Owners’ Agreement**,” attached hereto as **Exhibit G**, and “**Open Space Amenity Plan**,” attached hereto as **Exhibit E**, both of which are incorporated by reference.

2. EASEMENT. Grantors hereby grant and convey to Grantees a perpetual, nonexclusive easement for the construction, maintenance, repair, replacement, use and enjoyment of all open space amenities and open space depicted on the Open Space Amenity Plan. This easement burdens the entire Burdened Open Space Parcel for these purposes.

3. ENFORCEMENT. Any owner of any real property currently identified as parcel numbers 215443008, 215443006, 215443004, 215443002 (Benefitted Parcels), and as identified in the future following subdivision of these master parcels, as well as the holder of any recorded mortgage or deed of trust on any Benefitted Parcels (as now existing or as subdivided in the future), or any homeowners association with jurisdiction over any Benefitted Parcels (as now existing or as subdivided in the future), shall have the right to enforce, by any proceeding at law or in equity, the provisions of this Agreement. In the event suit or action is instituted to interpret or enforce any of the terms of this Agreement, the prevailing party shall be entitled to recover from the other party such sum as a court may adjudge reasonable as attorneys' fees at trial or on appeal or petition for review of such suit or action, or in arbitration, in addition to any other sums provided by law.

4. INDEMNIFICATION. All individuals and entities with legal interest in the Benefitted Parcels (as now existing or as subdivided in the future), and any homeowners association with jurisdiction over any Benefitted Parcels, shall indemnify and hold the all individuals and entities with ownership interest in the Burdened Open Space Parcel (215383000) harmless from and against all claims, losses and liabilities resulting from

injuries and/or damages that may be caused by or result from entry upon or use of the Burdened Easement Parcel for any reason whatsoever.

5. COVENANTS RUNNING WITH THE LAND. This easement and the terms of the Agreement contained herein shall be deemed covenants running with the land and shall inure to the benefit of and shall be binding upon their respective grantees, successors, and assigns of the parties.

6. INTERPRETATION. This Agreement shall be construed in accordance with the laws of the State of Washington. If any provision or term of this Agreement is determined to be unenforceable by any court of competent jurisdiction, such finding shall not impair any of the remaining provisions hereof.

7. SUCCESSORS AND NO IMPLIED TERMINATION. The terms and provisions of this Agreement shall deemed covenants running with the land be appurtenant to, bind, burden and run with the Burdened and Benefitted Parcels, and shall be binding upon the parties hereto and their respective grantees, assigns or successors in interest. This easement shall not be terminated by implication, nonuse or abandonment and no release of any of the rights granted hereunder shall arise by waiver or course of conduct unless such termination or release is evidenced by a recorded agreement to such effect executed by all of the then owners of the real property benefitted and burdened by this Agreement.

8. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement of the parties hereto with respect to the Easement and terms and supersedes any prior oral or written understandings or agreements regarding it. No provision of this Agreement may be modified or waived unless and to the event such modification or waiver is evidenced by a subsequent written agreement executed by the party or parties to be charged therewith. Any failure or delay in enforcing the terms and conditions of this Agreement shall not constitute a waiver of the right to subsequently do so.

9. NOTICES. Notices under this Agreement shall be in writing and shall be effective when actually delivered. If mailed, a notice is deemed effective when delivered to recipient, as registered or certified mail, postage prepaid, at the address(es) to which notices of property tax assessments affecting the subject property are mailed by the County Tax Assessor's Office according to the assessor's records, or to such other address as the recipient may designate by written notice to the other parties to this Agreement.

IN WITNESS WHEREOF, each of the parties hereto hereby executes this Agreement as of the day and year first above written.

PIONEER ESTATES, LLC:

By: _____
 Name: _____
 Title: _____

QUAIL HILL DEVELOPMENT, LLC:

By: _____
 Name: _____
 Title: _____

**UNION RIDGE PROPERTY OWNERS
 ASSOCIATION:**

By: _____
 Name: _____
 Title: _____

[CREATE NOTARY BLOCKS WHEN SIGNOR DETAILS ARE FIRMED UP]

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

APPROVED: City of Ridgefield

By: _____
Name: _____
Title: _____

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT A**Legal Description Quail Hill 1 Property APN 215443002**

Lot 8, Union Ridge Phase 1A, according to the plat thereof, recorded in Volume 311 of Plats, at Page 406, records of Clark County, Washington.

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT B

Legal Description Quail Hill 2 Property APN 215443004

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT C

Legal Description Quail Hill 3 Property APN 215443006

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT D

Legal Description Burdened Open Space Property APN 215383000

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT E
Open Space Amenity Plan

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT F

Legal Description Adjacent Open Space Easement Property APN 215443008

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

EXHIBIT G
Owner's Agreement

Attachment: 5-19-17 Easement - Open Space on large 10 acre piece (1290 : Quail Hills DA)

After Recording, Return to:

RECORDING COVER SHEET

TRAIL EASEMENT AND MAINTENANCE AGREEMENT

GRANTOR:	PIONEER ESTATES, LLC, A COLORADO LIMITED LIABILITY COMPANY
GRANTEE:	CITY OF RIDGEFIELD, A WASHINGTON MUNICIPAL CORPORATION; PIONEER ESTATES, LLC, A COLORADO LIMITED LIABILITY COMPANY; QUAIL HILL DEVELOPMENT, LLC, A WASHINGTON LIMITED LIABILITY COMPANY; UNION RIDGE PROPERTY OWNERS' ASSOCIATION; A WASHINGTON NONPROFIT CORPORATION
Abbreviated Legal Description:	Complete legal descriptions set forth in Exhibits
Assessor's Tax Parcel Nos.:	215443008, 215383000, 215443006, 215443004, 215443002

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

TRAIL EASEMENT AND MAINTENANCE AGREEMENT

THIS TRAIL EASEMENT AND MAINTENANCE AGREEMENT (“**Agreement**”) is dated for reference purposes _____, and is made for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, by and between:

BENEFITTED PARCEL (Quail Hill 1 Property): Quail Hill Development, LLC, a Washington limited liability company is the owner of APN 215443-002, situated in Ridgefield, WA (“Quail Hill Property”). The legal description for this parcel is attached as **Exhibit A**. This parcel is to be developed for residential purposes.

BENEFITTED PARCEL (Quail Hill 2 Property): Pioneer Estates LLC, a Colorado limited liability company and Quail Hill Development LLC, a Washington limited liability company (“all collectively Quail Hill 2 Developer”), are the owners of APN 215443004, situated in Ridgefield, WA (“Quail Hill 2 Property”). The legal description for this parcel is attached as **Exhibit B**. This parcel is to be developed for residential purposes.

BENEFITTED PARCEL (Quail Hill 3 Property): Pioneer Estates LLC, a Colorado limited liability company and Quail Hill Development LLC, a Washington limited liability company (“all collectively Quail Hill 3 Developer”) are the owners of APN 215443006, situated in Ridgefield, WA (“Quail Hill 3 Property”). The legal description for this parcel is attached as **Exhibit C**. This parcel is to be developed for residential purposes.

BENEFITTED PARCEL (Open Space Property): Union Ridge Property Owners’ Association, a Washington nonprofit corporation (“Open Space Owners”) is the owner of APN 215383000, situated in Ridgefield, WA (“Open Space Property”). The legal description for this parcel is attached as **Exhibit D**. This parcel is to be maintained and improved as an open space tract, as detailed herein and depicted on **Exhibit E (“Open Space Amenity Plan”)**, which, along with the trail easement provisions on APN 215443008 as set forth in this easement agreement, satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

BURDENED EASEMENT PARCEL: (Adjacent Open Space Easement Property): Pioneer Estates LLC, a Colorado limited liability company, is the owner of APN 215443008, situated in Ridgefield, WA (“Adjacent Open Space Easement Property”). The legal description for this parcel is attached as **Exhibit F**. This property is subject to a Trail Easement and Maintenance Agreement that establishes an easement and maintenance terms for a walking trail as depicted on **Exhibit E (“Open Space Amenity Plan”)**, which, along with the open space provisions on APN 215383000, will satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

RECITALS

A. Residential development is planned to occur on Quail Hill 1 Property (215443002); Quail Hill 2 Property (215443004), and Quail Hill 3 Property (215443006).

B. In conjunction with this residential development, the City of Ridgefield (“City”) imposes open space requirements.

C. The “**Open Space Amenity Plan**,” attached hereto as **Exhibit E** and incorporated by reference, depicts open space amenities as approved by the City. This includes a portion of walking path to be created and maintained upon Burdened Easement Parcel 215443008. The purpose of this Trail Easement and Maintenance Agreement is to formally establish the Trail Easement and terms for trail maintenance.

EASEMENT AND AGREEMENT

1. CONSTRUCTION, MAINTENANCE AND REPAIR. The Trail shall be constructed and maintained pursuant to the terms of the “**Owners’ Agreement**,” attached hereto as **Exhibit G**, and “**Open Space Amenity Plan**,” attached hereto as **Exhibit E**, both of which are incorporated by reference.

2. EASEMENT. Grantors hereby grant and convey to Grantees a perpetual, nonexclusive easement for the construction, maintenance, repair, replacement, use and enjoyment of the Trail. This easement extends approximately four feet to 5 feet (4’ – 5’) in width, and runs along the route depicted on the “**Open Space Amenity Plan**.” This easement shall be for ingress and egress as necessary to construct, maintain, repair and replace the Trail, and for the use and enjoyment of the same.

3. ENFORCEMENT. Any owner of any real property currently identified as parcel numbers 215383000, 215443006, 215443004, 215443002 (Benefitted Parcels), and as identified in the future following subdivision of these master parcels, as well as the holder of any recorded mortgage or deed of trust on any Benefitted Parcels (as now existing or as subdivided in the future), or any homeowners association with jurisdiction over any Benefitted Parcels (as now existing or as subdivided in the future), shall have the right to enforce, by any proceeding at law or in equity, the provisions of this Agreement. In the event suit or action is instituted to interpret or enforce any of the terms of this Agreement, the prevailing party shall be entitled to recover from the other party such sum as a court may adjudge reasonable as attorneys’ fees at trial or on appeal or petition for review of such suit or action, or in arbitration, in addition to any other sums provided by law.

4. INDEMNIFICATION. All individuals and entities with legal interest in the Benefitted Parcels (as now existing or as subdivided in the future), and any homeowners association with jurisdiction over any Benefitted Parcels, shall indemnify and hold the all individuals and entities with ownership interest in the Burdened Easement Parcel (215443008) harmless from and against all claims, losses and liabilities resulting from

injuries and/or damages that may be caused by or result from entry upon or use of the Burdened Easement Parcel for any reason whatsoever.

5. COVENANTS RUNNING WITH THE LAND. This easement and the terms of the Agreement contained herein shall be deemed covenants running with the land and shall inure to the benefit of and shall be binding upon their respective grantees, successors, and assigns of the parties.

6. INTERPRETATION. This Agreement shall be construed in accordance with the laws of the State of Washington. If any provision or term of this Agreement is determined to be unenforceable by any court of competent jurisdiction, such finding shall not impair any of the remaining provisions hereof.

7. SUCCESSORS AND NO IMPLIED TERMINATION. The terms and provisions of this Agreement shall deemed covenants running with the land be appurtenant to, bind, burden and run with the Burdened and Benefitted Parcels, and shall be binding upon the parties hereto and their respective grantees, assigns or successors in interest. This easement shall not be terminated by implication, nonuse or abandonment and no release of any of the rights granted hereunder shall arise by waiver or course of conduct unless such termination or release is evidenced by a recorded agreement to such effect executed by all of the then owners of the Benefitted and Burdened parcels identified herein.

8. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement of the parties hereto with respect to the Trail easement and supersedes any prior oral or written understandings or agreements regarding it. No provision of this Agreement may be modified or waived unless and to the event such modification or waiver is evidenced by a subsequent written agreement executed by the party or parties to be charged therewith. Any failure or delay in enforcing the terms and conditions of this Agreement shall not constitute a waiver of the right to subsequently do so.

9. NOTICES. Notices under this Agreement shall be in writing and shall be effective when actually delivered. If mailed, a notice is deemed effective when delivered to recipient, as registered or certified mail, postage prepaid, at the address(es) to which notices of property tax assessments affecting the subject property are mailed by the County Tax Assessor's Office according to the assessor's records, or to such other address as the recipient may designate by written notice to the other parties to this Agreement.

IN WITNESS WHEREOF, each of the parties hereto hereby executes this Agreement as of the day and year first above written.

PIONEER ESTATES, LLC:

By: _____
 Name: _____
 Title: _____

QUAIL HILL DEVELOPMENT, LLC:

By: _____
 Name: _____
 Title: _____

**UNION RIDGE PROPERTY OWNERS
 ASSOCIATION:**

By: _____
 Name: _____
 Title: _____

[CREATE NOTARY BLOCKS WHEN SIGNOR DETAILS ARE FIRMED UP]

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

APPROVED: City of Ridgefield

By: _____
Name: _____
Title: _____

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT A**Legal Description Quail Hill 1 Property APN 215443002**

Lot 8, Union Ridge Phase 1A, according to the plat thereof, recorded in Volume 311 of Plats, at Page 406, records of Clark County, Washington.

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT B

Legal Description Quail Hill 2 Property APN 215443004

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT C

Legal Description Quail Hill 3 Property APN 215443006

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT D

Legal Description Open Space Property APN 215383000

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT E
Open Space Amenity Plan

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT F

Legal Description Burdened Easement Property APN 215443008

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

EXHIBIT G
Owner's Agreement

Attachment: 5-19-17 Easement - Trail on parcel 215443008 (1290 : Quail Hills DA)

After Recording, Return to:

RECORDING COVER SHEET

OWNERS' AGREEMENT: OPEN SPACE OWNERSHIP, DEVELOPMENT, MAINTENANCE AND USE

GRANTORS: Quail Hill Development, LLC, a Washington limited liability company; Pioneer Estates LLC, a Colorado limited liability company; Union Ridge Property Owners' Association, a Washington nonprofit corporation

GRANTEE: Quail Hill Development, LLC, a Washington limited liability company; Pioneer Estates LLC, a Colorado limited liability company; Union Ridge Property Owners' Association, a Washington nonprofit corporation

Abbreviated Legal Description:

Complete legal descriptions set forth on Exhibits

Assessor's Tax Parcel Nos.:

215443008, 215383000, 215443006, 215443004, 215443002

**OWNERS' AGREEMENT:
OPEN SPACE OWNERSHIP, DEVELOPMENT, MAINTENANCE AND USE**

THIS OWNERS' AGREEMENT FOR OPEN SPACE OWNERSHIP, DEVELOPMENT, MAINTENANCE AND USE ("**Agreement**") is dated for reference purposes _____, and is made for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, by and between:

Quail Construction, LLC, a Washington limited liability construction company; Quail Hill Development, LLC, a Washington limited liability company; and Steven D. Belt, an individual (all collectively "Quail Hill 1 Developer") are the owners of APN 215443-002, situated in Ridgefield, WA ("Quail Hill 1 Property"). The legal description for this parcel is attached as **Exhibit A**. This parcel is to be developed for residential purposes pursuant to the terms of preliminary plat approval issued July 11, 2007, Final Order PLZ-07-0024 ("Quail Hill at Union Ridge")

Pioneer Estates, LLC, a Colorado limited liability company and Quail Hill Development, LLC, a Washington limited liability company (all collectively "Quail Hill 2 Developer") are the owners of APN 215443004, situated in Ridgefield, WA ("Quail Hill 2 Property"). The legal description for this parcel is attached as **Exhibit B**. This parcel is to be developed for residential purposes, with all open space requirements to be consistent with the terms and provisions set forth in this Agreement.

Pioneer Estates, LLC, a Colorado limited liability company and Quail Hill Development, LLC, a Washington limited liability company (all collectively "Quail Hill 3 Developer") are the owners of APN 215443006, situated in Ridgefield, WA ("Quail Hill 3 Property"). The legal description for this parcel is attached as **Exhibit C**. This parcel is to be developed for residential purposes, with all open space requirements to be consistent with the terms and provisions set forth in this Agreement.

Union Ridge Property Owners' Association, a Washington nonprofit corporation ("Open Space Owner") is the owner of APN 215383000, situated in Ridgefield, WA ("Open Space Property"). The legal description for this parcel is attached as **Exhibit D**. This parcel is to be maintained and improved as an open space tract, as detailed herein and depicted on **Exhibit E**, which, along with the trail easement provisions on APN 215443008, satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

Pioneer Estates, LLC, a Colorado limited liability company ("Easement Grantor") is the owner of APN 215443008, situated in Ridgefield, WA ("Trail Easement Property"). The legal description for this parcel is attached as **Exhibit F**. This parcel is subject to an easement for a walking trail as detailed herein and depicted on **Exhibit E**, which, along with the open space provisions on APN 215383000, satisfy all open space requirements

imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

RECITALS

A. Residential development is planned to occur on Quail Hill 1 Property (215443002); Quail Hill 2 Property (215443004), and Quail Hill 3 Property (215443006).

B. In conjunction with this residential development, the City of Ridgefield (“City”) imposes open space requirements.

C. The Open Space Amenity Plan, attached hereto as **Exhibit E** and incorporated by reference, depicts open space amenities as approved by the City. The purpose of this Agreement is to establish the terms of open space ownership, development, maintenance and use.

AGREEMENT

1. CONSTRUCTION, MAINTENANCE AND REPAIR. All open space amenities shall be constructed and maintained pursuant to the terms of this Owners’ Agreement, and the Open Space Amenity Plan, attached hereto as **Exhibit E** and incorporated by reference.

2. EASEMENTS. A Trail Easement over portions of parcel 215443008, and an Open Space Easement over the entire parcel 215383000 provide the legal basis for the construction, development, maintenance and use of these parcels for open space and trail purposes.

3. CONSTRUCTION DETAILS. Construction of the open space amenities depicted on the Open Space Amenity Plan, attached hereto as **Exhibit E**, shall proceed as follows:

TIMING – All open space improvements depicted on the Open Space Amenity Plan will be constructed in conjunction with the residential development on Quail Hill 1 Property parcel 215443002 (“Quail Hill at Union Ridge”) by the owner of that property, and shall be completed prior to the issuance of a certificate of occupancy for the final residential unit constructed on parcel 215443002 as authorized by the Quail Hill at Union Ridge plat. The construction of these open space improvements, and recording of open space easements fully encumbering parcel 215383000 and partially encumbering parcel 215443008, shall satisfy all open space requirements associated with residential development of parcels 215443002, 215443004, and 215443006.

PAYMENT – All open space improvements depicted on the Open Space Amenity Plan will be paid for by the owner of Quail Hill 1 Property parcel 215443002. To the extent that parcels 215443004 and 215443006 are not owned in common with parcel 215443002,

parcels 215443004 and 215443006 shall pay their proportionate share of the documented costs of construction of open space improvements depicted on the Open Space Amenity Plan, based on a ratio of the number of residential lots developed upon each parcel, at the time of final plat approval for each respective parcel, compared to the total number of platted residential lots within parcels 215443002, 215443004 and 215443006.

4. MAINTENANCE DETAILS. Maintenance of the open space amenities depicted on the Open Space Amenity Plan, attached hereto as **Exhibit E**, shall be administered as follows:

RESPONSIBLE PARTY – The owner of Quail Hill 1 parcel 215443002 shall be responsible for maintenance of all open space amenities depicted on the Open Space Amenity Plan, until such time as the owner of Quail Hill 1 parcel 215443002 formally transfers this obligation to a properly constituted Homeowners' Association or Associations vested with jurisdiction and authority over the residential developments located on parcel(s) 215443002, 215443004 and 215443006. At the time responsibility for maintenance of open space amenities is transferred to a single Homeowners' Association or multiple Homeowners' Associations, the cost associated with maintenance of open space amenities shall be equally prorated among all residential lots on parcels 215443002, 215443004 and 215443006. Fees for open space amenity maintenance may only be imposed upon residential lots by a properly constituted Homeowners' Association with jurisdiction over the subject lots.

MAINTENANCE OBLIGATIONS – Open space amenities shall be maintained in a condition generally equivalent to that at the time of original construction and in the manner depicted on the Open Space Amenity Plan. Modifications to the Open Space Amenity Plan or maintenance standards require approval by the City of Ridgefield and a vote of approval as required for any Homeowner Association(s) with open space amenity maintenance obligations.

In no event shall the Union Ridge Property Owners Association, or its successor, as owner of parcel number 215383000 (Open Space Property), be responsible for any aspect of maintenance of this open space parcel.

Pioneer Estates LLC, or its successor, as owner of parcel number 215443008 (Easement Property) shall remain responsible for all maintenance of the Easement Property with the exception of the open space recreational trail and associated easement developed pursuant to the terms of this Agreement and Open Space Amenity Plan.

5. ENFORCEMENT. The City, or any owner of any real property currently identified as parcel numbers 215383000 (currently owned by Union Ridge Property Owners Association), 215443008 (currently owned by Pioneer Estates LLC), 215443006 (currently owned by Pioneer Estates LLC and Quail Hill Development LLC), 215443004 (currently owned by Pioneer Estates LLC currently owned by Pioneer Estates LLC and Quail Hill Development LLC), and 215443002 and as identified in the future following

subdivision of these master parcels, as well as the holder of any recorded mortgage or deed of trust on any of these parcels (as now existing or as subdivided in the future), or any homeowners association with jurisdiction over any of these parcels, shall have the right to enforce, by any proceeding at law or in equity, the provisions of this Agreement. In the event suit or action is instituted to interpret or enforce any of the terms of this Agreement, the prevailing party shall be entitled to recover from the other party such sum as a court may adjudge reasonable as attorneys' fees at trial or on appeal or petition for review of such suit or action, or in arbitration, in addition to any other sums provided by law.

6. INDEMNIFICATION. All individuals and entities with legal interest in the parcel numbers 215383000 (currently owned by Union Ridge Property Owners Association), 215443008 (currently owned by Pioneer Estates LLC), 215443006 (currently owned by Pioneer Estates LLC and Quail Hill Development LLC), 215443004 (currently owned by Pioneer Estates LLC and Quail Hill Development LLC), and 215443002 and as identified in the future following subdivision of these master parcels, and any homeowners association with jurisdiction over any of these parcels, shall indemnify and hold the all individuals and entities with ownership interest in parcels 215383000 and 215443008 harmless from and against all claims, losses and liabilities resulting from injuries and/or damages that may be caused by or result from entry upon or use of parcels 215383000 and 215443008 for purposes associated with this Agreement.

7. COVENANTS RUNNING WITH THE LAND. This Agreement shall be deemed a covenant running with the land and shall inure to the benefit of and shall be binding upon the respective grantees, successors, and assigns of the parties.

Nothing in this Agreement may be interpreted as modifying the Union Ridge Master Plan, the Union Ridge Development Agreement dated June 30, 2005 recorded under Clark County Auditor's File No. 4194773, as amended, the Declaration of Covenants, Conditions, Restrictions, and Easements for Union Ridge recorded on April 15, 2003 under Clark County Auditor's File No. 3621230, as amended, and the Union Ridge vested rights. Nor shall this Agreement be interpreted to modify the conditions and regulations applicable to Union Ridge, except as modified in this Agreement.

8. INTERPRETATION. This Agreement shall be construed in accordance with the laws of the State of Washington. If any provision or term of this Agreement is determined to be unenforceable by any court of competent jurisdiction, such finding shall not impair any of the remaining provisions hereof.

9. SUCCESSORS AND NO IMPLIED TERMINATION. The terms and provisions of this Agreement shall deemed covenants running with the land and shall be appurtenant to, bind, burden and run with all parcels identified herein, and shall be binding upon the parties hereto and their respective grantees, assigns or successors in interest. This Agreement shall not be terminated by implication, nonuse or abandonment and no release of any of the rights granted hereunder shall arise by waiver or course of conduct unless such termination or release is evidenced by a recorded agreement to such effect executed

by all real property benefitted or burdened by this Agreement, and any homeowners association(s) with jurisdiction over such real property.

10. ENTIRE AGREEMENT. This Agreement constitutes the entire agreement of the parties hereto with respect to the terms detailed herein, and supersedes any prior oral or written understandings or agreements regarding it. No provision of this Agreement may be modified or waived unless and to the event such modification or waiver is evidenced by a subsequent written agreement executed by the party or parties to be charged therewith. Any failure or delay in enforcing the terms and conditions of this Agreement shall not constitute a waiver of the right to subsequently do so.

11. NOTICES. Notices under this Agreement shall be in writing and shall be effective when actually delivered. If mailed, a notice is deemed effective when delivered to recipient, as registered or certified mail, postage prepaid, at the address(es) to which notices of property tax assessments affecting the subject property are mailed by the County Tax Assessor's Office according to the assessor's records, or to such other address as the recipient may designate by written notice to the other parties to this Agreement.

QUAIL HILL DEVELOPMENT, LLC

By:
Its:

Date

State of Washington)

) ss.

City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

Signature

(Seal or stamp)

Title

My appointment expires _____

UNION RIDGE PROPERTY OWNERS' ASSOCIATION

By:
Its:

Date

State of Washington)

) ss.

City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

Signature

(Seal or stamp)

Title

My appointment expires _____

PIONEER ESTATES, LLC

 By:
 Its:

 Date

State of Washington)

) ss.

City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

 Signature

(Seal or stamp)

 Title

My appointment expires _____

City of Ridgefield

By: _____
Its: _____

_____ Date

State of Washington)
) ss.

City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

Signature

(Seal or stamp)

Title

My appointment expires _____

Approved as to form:

City Counsel

EXHIBIT A**Legal Description Quail Hill 1 Property APN 215443002**

Lot 8, Union Ridge Phase 1A, according to the plat thereof, recorded in Volume 311 of Plats, at Page 406, records of Clark County, Washington.

EXHIBIT B**Legal Description Quail Hill 2 Property APN 215443004**

EXHIBIT C**Legal Description Quail Hill 3 Property APN 215443006**

EXHIBIT D**Legal Description Open Space Property APN 215383000**

EXHIBIT E
Open Space Amenity Plan

EXHIBIT F**Legal Description Burdened Easement Property APN 215443008**

MAIL TAX STATEMENTS TO:

AFTER RECORDING RETURN TO:

Jordan Ramis PC
Attn: James D. Howsley
1499 S.E. Tech Center Place, Suite 380
Vancouver, WA 98683

RECORDING COVER SHEET

This space provided for recorder's use.

INSTRUMENT TITLE: DEVELOPMENT AGREEMENT

GRANTOR(S): Quail Hill Development, LLC, a Washington limited liability company; Pioneer Estates LLC, a Colorado limited liability company; Union Ridge Property Owners' Association, a Washington nonprofit corporation

GRANTEE: CITY OF RIDGEFIELD, WASHINGTON

ABBREVIATED LEGAL DESC: _____

FULL LEGAL DESC: See **Exhibit ____** To This Document

ASSESSOR'S PROPERTY TAX

PARCEL ACCOUNT NUMBER(S): 215443-002; 215383-000; 215443-008; 215443004
and 215443006

REFERENCE NUMBER OF
RELATED DOCUMENTS: _____

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

DEVELOPMENT AGREEMENT

Effective Date: _____

PARTIES:

Quail Hill Development, LLC, a Washington limited liability company is the owner of APN 215443-002, situated in Ridgefield, WA (“Quail Hill 1 Property”). The legal description for this parcel is attached as **Exhibit A**. This parcel is to be developed for residential purposes pursuant to the terms of preliminary plat approval issued July 11, 2007, Final Order PLZ-07-0024 (“Quail Hill at Union Ridge”)

Pioneer Estates, LLC, a Colorado limited liability company and Quail Hill Development, LLC, a Washington limited liability company (all collectively “Quail Hill 2 Developer”) are the owners of APN 215443004, situated in Ridgefield, WA (“Quail Hill 2 Property”). The legal description for this parcel is attached as **Exhibit B**. This parcel is to be developed for residential purposes, with all open space requirements to be consistent with the terms and provisions set forth in this Agreement.

Pioneer Estates, LLC, a Colorado limited liability company and Quail Hill Development, LLC, a Washington limited liability company (all collectively “Quail Hill 3 Developer”) are the owners of APN 215443006, situated in Ridgefield, WA (“Quail Hill 3 Property”). The legal description for this parcel is attached as **Exhibit C**. This parcel is to be developed for residential purposes, with all open space requirements to be consistent with the terms and provisions set forth in this Agreement.

Union Ridge Property Owners’ Association, a Washington nonprofit corporation (“Open Space Owner”) is the owner of APN 215383000, situated in Ridgefield, WA (“Open Space Property”). The legal description for this parcel is attached as **Exhibit D**. This parcel is to be maintained and improved as an open space tract, as detailed herein and depicted on **Exhibit E**, which, along with the trail easement provisions on APN 215443008, satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

Pioneer Estates, LLC, a Colorado limited liability company (“Easement Grantor”) is the owner of APN 215443008, situated in Ridgefield, WA (“Trail Easement Property”). The legal description for this parcel is attached as **Exhibit F**. This parcel is subject to an easement for a walking trail as detailed herein and depicted on **Exhibit E**, which, along with the open space provisions on APN 215383000, satisfy all open space requirements imposed in conjunction with development of the Quail Hill 1 Property, Quail Hill 2 Property, and Quail Hill 3 Property.

The City of Ridgefield is a Washington municipal corporation (“City”), and is responsible for land use planning and permitting pursuant to the Growth Management Act, RCW 35A.63 and RCW 58.17.

Developer and City are collectively referred to as the Parties.

AUTHORITIES

The parties are authorized to enter this Development Agreement by RCW 36.70B.170(1).

Whereas, pursuant to RCW 36.70B.170, a development agreement may set forth the development standards and other provisions that will apply to, govern and vest the development, use and mitigation of the development of real property for the duration specified in the agreement, which statute provides:

(1) A local government may enter into a Development Agreement with a person having ownership or control of real property within its jurisdiction. A city may enter into a development agreement for real property outside its boundaries as part of a proposed annexation or a service agreement. A development agreement must set forth the development standards and other provisions that will apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement. A development agreement will be consistent with applicable development regulations adopted by a local government planning under chapter 36.70A RCW;

Whereas, the legislative findings supporting the enactment of this section provide:

The legislature finds that the lack of certainty of the approval of development projects can result in a waste of public and private resources, escalate housing costs for consumers and discourage the commitment to comprehensive planning which would make maximum efficient use of resources at the least economic cost to the public. Assurance to a development project applicant that upon government approval the project may proceed in accordance with existing policies and regulations, and subject to conditions of approval, all as set forth in a development agreement, will strengthen the public planning process, encourage private, participation and comprehensive planning, and reduce the economic costs of development. Further, the lack of public facilities and services is a serious impediment to development of new housing and commercial uses. Project applicants and local governments may include provisions and agreements whereby applicants are reimbursed over time for financing

public facilities. It is the intent of the legislature by RCW 36.70B.170 through 36.70B.210 to allow local governments and owners and developers of real property to enter into development agreements;

RCW 58.17.140 provides that a final plat must generally be submitted for approval within five (5) years after preliminary plat approval. However, if the preliminary plat was approved before January 1, 2015, the applicant has seven (7) years to submit a final plat; and if a preliminary plat was approved before January 1, 2008 and is not subject to the Shoreline Management Act, the applicant has ten (10) years to file for final plat approval. Cities and counties may adopt procedures by ordinance for extensions of these time periods. Further, RCW 58.17.140 provides that nothing prevents a City from adopting by ordinance procedures which would allow extensions of time that may or may not contain additional or altered conditions and requirements.

Ridgefield Development Code (“RDC”) Section 18.620.080(B) authorizes the City Council to extend final plat approval for a period of up to two years upon application. Extensions are subject to the criteria and conditions detailed under RDC 18.620.080(B).

The City is authorized to enter into a development agreement to define the development standards and other provisions that will apply to and govern and vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement

RECITALS:

1. The City issued preliminary plat approval for the Quail Hill 1 Property on July 11, 2007, Final Order PLZ-07-0024 (“Quail Hill at Union Ridge”), attached as **Exhibit H** (the “Preliminary Plat Approval” and Subdivision Map).
2. Preliminary plat approval will expire July 11, 2017.
3. On March 9, 2017, the City approved a Development Agreement (“First DA”) to extend the Quail Hill 1 preliminary plat approval, after finding that the standards for extension as defined under RDC 18.620.080(B)(1), (2), (3), and (4)(c) were satisfied.
4. The First DA extended the preliminary plat approval for a period of one year, to July 11, 2018; PROVIDED that a supplemental Development Agreement (“Supplemental DA”) is recorded on or before June 30, 2017 as detailed herein.
5. This Development Agreement serves as the “Supplemental DA.” The purpose of this Supplemental DA is as follows:

- a. Define how the Open Space Parcel (215383000) and Easement Parcel (215443008) will be utilized to satisfy all open space requirements imposed as a condition of the development of the Quail Hill 1 (215443002); Quail Hill 2 (215443004), and Quail Hill 3 (215443006). The agreement executed between the owners of the Open Space Parcel, Easement Parcel, Quail Hill Parcel 1, Quail Hill Parcel 2, and Quail Hill Parcel 3 is attached hereto and incorporated by reference as **Exhibit G** (“**Owners’ Agreement**”).
- b. Formalize the **Open Space Amenity Plan** which provides location and construction detail for the walking trail, benches, sport court, tot lots and similar amenities. The Open Space Amenity Plan is attached hereto and incorporated by reference as **Exhibit E**.

6. The City will benefit from the Quail Hill 1 preliminary plat extension and Open Space Amenity Plan, as it will enable the Quail Hill plat to be timely and appropriately developed to meet current residential housing needs and generate associated revenue for the City, and will ensure that the City receives the benefit of the creative and integrated development of the large Open Space Parcel for recreational purposes at a percentage that exceeds the code required percentage for all three parcels (Quail Hill 1, Quail Hill 2, and Quail Hill 3) subject to residential development and subject to the terms of this Supplemental DA.

AGREEMENT

NOW, THEREFORE, the Parties agree as follows:

As provided in the First DA, Preliminary plat approval for the Quail Hill 1 development is extended to July 11, 2018;

The Owners’ Agreement executed between the owners of the Open Space Parcel, Easement Parcel, Quail Hill Quail Hill 1, Quail Hill 2, and Quail Hill 3, attached hereto as **Exhibit G**, is approved and compliance with the Owners’ Agreement shall satisfy all open space requirements imposed in conjunction with the development of the Quail Hill Quail Hill 1, Quail Hill 2, and Quail Hill 3 parcels.

The Open Space Amenity Plan attached hereto as **Exhibit E** is approved and open space amenities shall be preserved and developed as provided in the plan and pursuant to the terms of the Owners’ Agreement.

At the time that a Homeowners’ Association(s) are formed in conjunction with development of Quail Hill 1, Quail Hill 2, and Quail Hill 3 parcels, such Association(s) shall be bound by the terms of this Supplemental DA and the Owners’ Agreement and Open Space Amenity Plan. The governing instruments of such Association(s) shall

explicitly reference this Supplemental DA and the Owners' Agreement and shall incorporate terms regarding associated obligations and benefits.

The recording of this Supplemental DA will satisfy the First DA's requirement that "a supplemental Development Agreement be recorded on or before June 30, 2017..."

Nothing in this Agreement may be interpreted as modifying the Union Ridge Master Plan, the Union Ridge Development Agreement dated June 30, 2005 recorded under Clark County Auditor's File No. 4194773, as amended, the Declaration of Covenants, Conditions, Restrictions, and Easements for Union Ridge recorded on April 15, 2003 under Clark County Auditor's File No. 3621230, as amended, and the Union Ridge vested rights. Nor shall this Agreement be interpreted to modify the conditions and regulations applicable to Union Ridge, except as modified in this Agreement.

The Parties, Authorities and Recitals sections of this Supplemental DA are fully incorporated by reference herein.

MISCELLANEOUS PROVISIONS

Recitals. Each of the Recitals contained herein are intended to be, and are incorporated as, covenants between the Parties and will be so construed.

Execution of Agreement; Counterparts; Electronic Signatures. This Agreement may be executed in several counterparts; each of which shall be deemed an original and all of which shall constitute one and the same instrument, and shall become effective when counterparts have been signed by each of the Parties and delivered to the other Parties; it being understood that all Parties need not sign the same counterparts – PROVIDED that all signature pages will be recorded together, and the complete recorded Agreement will constitute the final instrument. The exchange of copies of this Agreement and of signature pages by facsimile transmission (whether directly from one facsimile device to another by means of a dial-up connection or whether mediated by the worldwide web), by electronic mail in "portable document format" (".pdf") form, or by any other electronic means intended to preserve the original graphic and pictorial appearance of a document, or by combination of such means, shall constitute effective execution and delivery of this Agreement as to the Parties and may be used in lieu of the original Agreement for all purposes. Signatures of the Parties transmitted by facsimile shall be deemed to be their original signatures for all purposes.

Effective Date. This Agreement is effective on the date of recording.

Termination. This Agreement will terminate upon the mutual agreement of the Parties in writing, which will be recorded.

City's Reserved Authority. Notwithstanding anything in this Agreement to the contrary, the City will have the authority to impose new or different regulations to the extent

required by a serious threat to public health and safety as required by RCW 36.70B; provided, however that traffic congestion generally is not a serious threat to public health and safety but the impact of congestion at any particular location may degrade to a level that constitutes a safety hazard, and that such action will only be taken by legislative act of the Ridgefield City Council after appropriate public process.

Authorization. The persons executing this Agreement on behalf of all real property subject to this development agreement and the City are authorized to do so and, upon execution by such parties, this Development Agreement will be a valid and binding obligation of such parties in accordance with its terms. The Parties have each obtained any and all consents required to enter into this Agreement and to consummate or cause to be consummated the transactions contemplated hereby.

Run with the Land. This Agreement will run with the land and be binding on the Parties' successors and assigns, and will be recorded with the Clark County Auditor.

Term. The Term of this Agreement will expire on [REDACTED], unless earlier extended by the Parties.

Public Hearing. The Ridgefield City Council has approved execution of this Agreement by ordinance after a public hearing.

Dispute Resolution. Should a disagreement arise between the Parties, the Parties agree to attempt to resolve the disagreement by first meeting and conferring. If such meeting proves unsuccessful to resolve the dispute, the disagreement may be resolved by a civil action.

Venue. This Agreement will be construed in accordance with the laws of the State of Washington, and venue is in the Clark County Superior Court.

Performance. Failure by any Party at any time to require performance by the other Parties of any of the provisions hereof will not affect the Parties' rights hereunder to enforce the same, nor will any waiver by a Party of the breach hereof be held to be a waiver of any succeeding breach or a waiver of this clause.

Severability. If any portion of this Agreement will be invalid or unenforceable to any extent, the validity of the remaining provisions will not be affected thereby. If a material provision of this Agreement is held invalid or unenforceable such that a Party does not receive the benefit of its bargain, then the other Parties will renegotiate in good faith terms and provisions that will effectuate the spirit and intent of the Parties' agreement herein.

Inconsistencies. If any provisions of the Ridgefield Development Code and land use regulations are deemed inconsistent with this Agreement, the court shall first attempt to

harmonize the provisions and if unable to do so, the provisions of this Agreement will prevail, excepting the City's reserved authority as explicitly defined herein.

Amendments. This Agreement may only be amended by mutual written agreement of the Parties, and all amendments will be recorded in the Clark County deed records.

Survival. Any covenant or condition set forth in this Agreement, the full performance of which is not specifically required prior to the expiration or earlier termination but which by its terms is to survive the termination of this Agreement, will survive the expiration or earlier termination of this Agreement and will remain fully enforceable thereafter.

No Benefit to Third Parties. The Parties are the only parties to this Agreement and are the only parties entitled to enforce its terms, except as otherwise specifically provided in this Agreement. There are no third-party beneficiaries.

Entire Agreement. This Agreement constitutes the entire agreement between the Parties as to the subject matter, and merges, supersedes, and terminates the Prior Development Agreements.

Notices. All notices will be in writing and may be delivered by personal delivery, by overnight courier service, or by deposit in the United States Mail, postage prepaid, as certified mail, return receipt requested, and addressed as follows:

City:	City of Ridgefield
With a copy to:	Steve Stuart P.O. Box 608 Ridgefield, WA 98642-0608
Quail Hill Developer:	Quail Hill Development LLC 4501 NE Minnehaha Vancouver, WA 98661

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

With a copy to: Jordan Ramis, PC
Attn: James D. Howsley
1499 SE Tech Center Place, Suite 380
Vancouver, WA 98683

Pioneer Estates, LLC: _____

With a copy to: _____

Union Ridge Property Owners' Association:

With a copy to: _____

Notices will be deemed received by the addressee upon the earlier of actual delivery or refusal of a party to accept delivery thereof. The addresses to which notices are to be delivered may be changed by giving notice of such change in address in accordance with this notice provision.

Time is of the Essence. Time is of the essence in the performance of and adherence to each and every provision of this Agreement.

Non-waiver. Waiver by any Party of strict performance of any provision of this Agreement will not be deemed a waiver of or prejudice a Party's right to require strict performance of the same or any other provision in the future. A claimed waiver must be in writing and signed by the Party granting a waiver. A waiver of one provision of this Agreement will be a waiver of only that provision. A waiver of a provision in one instance will be a waiver only for that instance, unless the waiver explicitly waives that provision for all instances.

Headings, Table of Contents. The section headings are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

Interpretation of Agreement; Status of Parties. This Agreement is the result of arm's-length negotiations between the Parties and will not be construed against any Party by reason of its preparation of this Agreement. Nothing contained in this Agreement will be construed as creating the relationship of principal and agent, partners, joint venturers, or any other similar relationship between the Parties.

Future Assurances. Each of the Parties will promptly execute and deliver such additional documents and will do such acts that are reasonably necessary, in connection with the performance of their respective obligations under this Agreement according to the Schedule so as to carry out the intent of this Agreement.

Signatures appear on the following pages.

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

QUAIL HILL DEVELOPMENT, LLC

By: _____ Date _____
 Its: _____

State of Washington)
) ss.
 City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

(Seal or stamp)

 Signature

 Title
 My appointment expires _____

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

UNION RIDGE PROPERTY OWNERS' ASSOCIATION

By: _____ Date _____
 Its: _____

State of Washington)
) ss.
 City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

(Seal or stamp)

 Signature

 Title
 My appointment expires _____

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

PIONEER ESTATES, LLC

By: _____
Its: _____

Date _____

State of Washington)
) ss.
City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

(Seal or stamp)

Signature

Title

My appointment expires _____

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

City of Ridgefield

By:
Its:

Date

State of Washington)
) ss.
City of _____)

I certify that I know or have satisfactory evidence that _____ is the person who appeared before me, and said person acknowledged that (he/she) signed this instrument, on oath stated that (he/she) was authorized to execute the instrument and acknowledged it as the _____, of _____ to be the free and voluntary act of such party for the uses and purposes mentioned in the instrument.

Dated: _____, 2017.

(Seal or stamp)

Signature

Title

My appointment expires _____

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

Approved as to form:

City Counsel

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT A**Legal Description Quail Hill 1 Property APN 215443002**

Lot 8, Union Ridge Phase 1A, according to the plat thereof, recorded in Volume 311 of Plats, at Page 406, records of Clark County, Washington.

EXHIBIT B

Legal Description Quail Hill 2 Property APN 215443004

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT C

Legal Description Quail Hill 3 Property APN 215443006

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT D

Legal Description Open Space Property APN 215383000

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT E

Open Space Amenity Plan

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT F

Legal Description Burdened Easement Property APN 215443008

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT G
Owner's Agreement

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)

EXHIBIT H

Preliminary Plat Approval (PLZ-07-0024; Quail Hill at Union Ridge)

Attachment: 5-19-17 Second DA Quail Hill (1290 : Quail Hills DA)