Appendix L
Concept Drawings from
the 1999 TSP

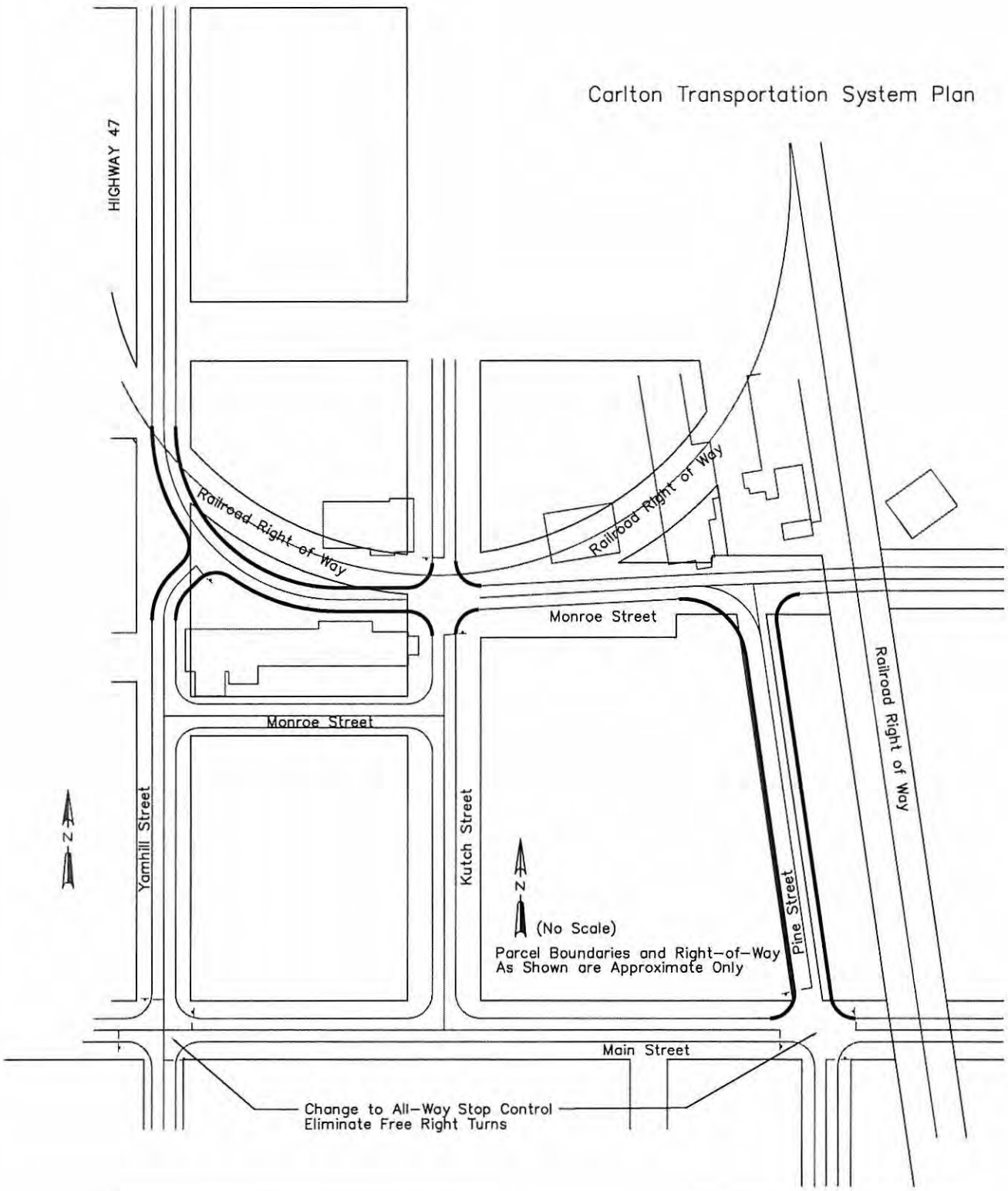

Figure 6-4
Yamhill/Monroe Intersection Channelization (Option 1)

Existing
Future

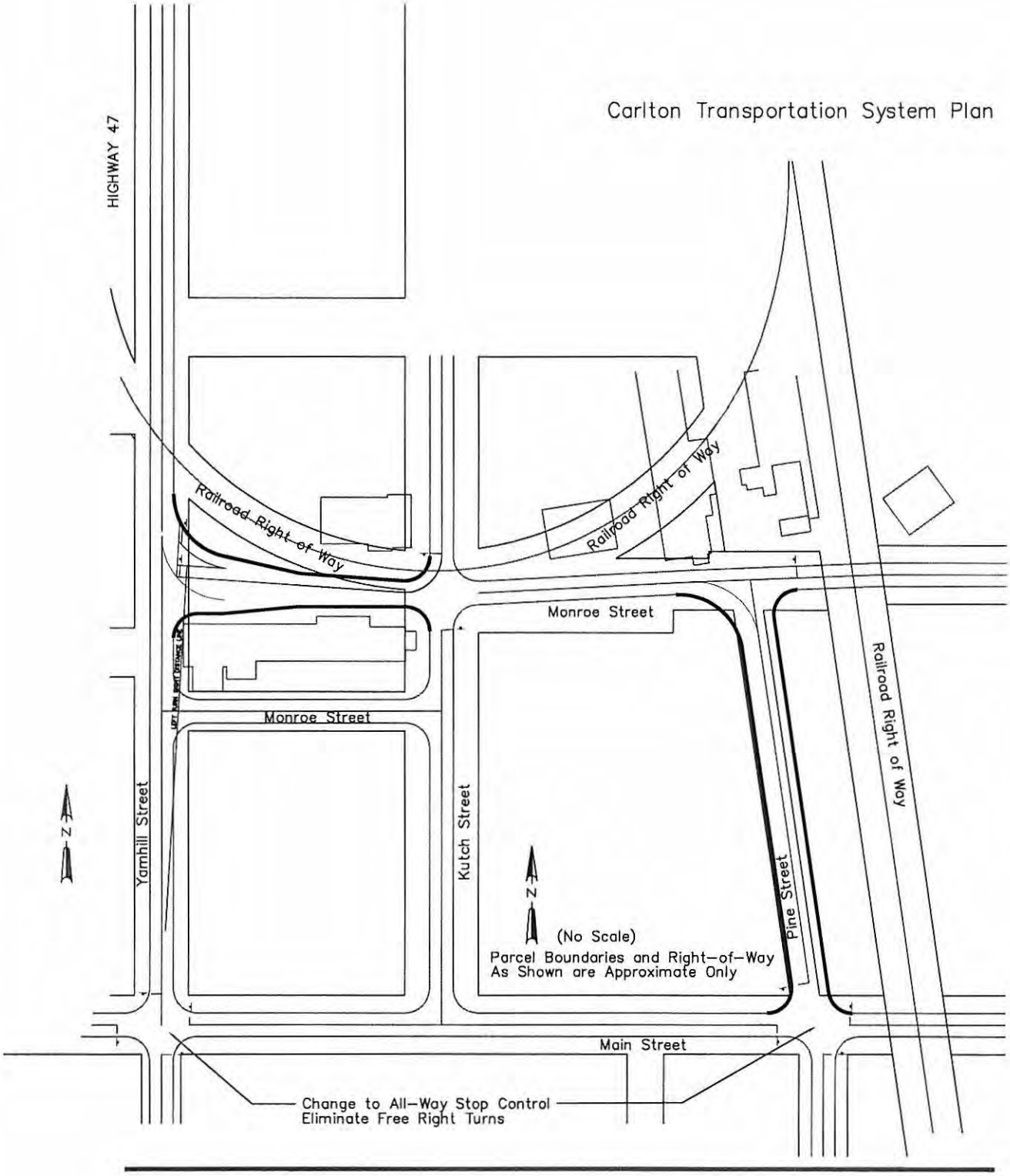

Figure 6-5
Yamhill/Monroe Intersection Channelization (Option 2)

Appendix M
Alternative 2 Operations and Queuing Analysis Worksheets

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Scenario Report

Scenario:	Default Scenario
Command:	Default Command
Volume:	Default Volume
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

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2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Turning Movement Report
PM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 N Yamhill St/W Madison St													
Base	0	312	0	21	369	0	0	0	0	9	0	32	743
Added	0	138	0	2	174	0	0	0	0	0	0	2	316
Total	0	450	0	23	543	0	0	0	0	9	0	34	1059
#2 S Scott St/W Main St													
Base	2	1	2	1	0	2	4	179	1	2	299	3	496
Added	2	2	13	4	2	4	4	55	2	12	67	3	170
Total	4	3	15	5	2	6	8	234	3	14	366	6	666
#3 Yamhill St/W Main St													
Base	5	8	3	37	8	160	116	97	2	0	139	33	608
Added	0	6	2	37	6	60	43	30	0	1	22	33	240
Total	5	14	5	74	14	220	159	127	2	1	161	66	848
#4 S Pine St/W Main St													
Base	10	176	32	4	178	2	5	88	10	48	156	5	714
Added	25	36	29	54	48	1	1	39	28	20	31	45	357
Total	35	212	61	58	226	3	6	127	38	68	187	50	1071
#5 N 4th St/E Main St													
Base	0	0	0	4	0	4	4	112	0	0	208	4	336
Added	0	0	0	2	0	7	10	105	0	0	86	3	213
Total	0	0	0	6	0	11	14	217	0	0	294	7	549
#6 S Pine St/W Polk St													
Base	1	225	3	23	226	1	2	1	0	7	2	12	503
Added	0	61	4	23	65	5	5	2	0	3	2	20	190
Total	1	286	7	46	291	6	7	3	0	10	4	32	693
#35 N Yamhill St/Truck Bypass													
Base	0	156	1	171	37	0	0	0	0	1	0	163	529
Added	0	59	3	99	75	0	0	0	0	2	0	79	317
Total	0	215	4	270	112	0	0	0	0	3	0	242	846

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Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 N Yamhill St/W Madison St	B	11.6	0.000	B	14.0	0.000	+ 2.431 D/V
# 2 S Scott St/W Main St	B	11.6	0.000	B	13.7	0.000	+ 2.127 D/V
# 3 Yamhill St/W Main St	A	9.3	0.327	B	11.7	0.485	+ 0.157 V/C
# 4 S Pine St/W Main St	C	15.9	0.000	E	38.6	0.000	+22.753 D/V
# 5 N 4th St/E Main St	B	10.1	0.000	B	11.2	0.000	+ 1.099 D/V
# 6 S Pine St/W Polk St	B	13.3	0.000	C	17.0	0.000	+ 3.729 D/V
# 35 N Yamhill St/Truck Bypass	A	10.0	0.000	B	11.4	0.000	+ 1.421 D/V

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #1 N Yamhill St/W Madison St

Average Delay (sec/veh): 0.8 Worst Case Level Of Service: B[14.0]

Street Name:	N Yamhill St									W Madison St								
Approach:	North Bound				South Bound				East Bound				West Bound					
Movement:	L	-	T	- R	L	-	T	- R	L	-	T	- R	L	-	T	- R		
Control:	Uncontrolled				Uncontrolled				Stop Sign				Stop Sign					
Rights:	Include				Include				Include				Include					
Lanes:	0	0	1	0 0	0	1	0	0 0	0	0	0	0 0	0	0	1!	0 0		
Volume Module: >> Count Date: 1 Oct 2007 << 4:45 to 5:45 p.m.																		
Base Vol:	0	312	0		21	369	0		0	0	0		9	0	32			
Growth Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
Initial Bse:	0	312	0		21	369	0		0	0	0		9	0	32			
Added Vol:	0	138	0		2	174	0		0	0	0		0	0	2			
PasserByVol:	0	0	0		0	0	0		0	0	0		0	0	0			
Initial Fut:	0	450	0		23	543	0		0	0	0		9	0	34			
User Adj:	1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00		1.00	1.00	1.00			
PHF Adj:	0.95	0.95	0.95		0.95	0.95	0.95		1.00	1.00	1.00		0.85	0.85	0.85			
PHF Volume:	0	474	0		24	572	0		0	0	0		11	0	40			
Reduct Vol:	0	0	0		0	0	0		0	0	0		0	0	0			
FinalVolume:	0	474	0		24	572	0		0	0	0		11	0	40			
Critical Gap Module:																		
Critical Gp:	xxxxx	xxxx	xxxxx		4.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		6.4	6.5	6.2			
FollowUpTim:	xxxxx	xxxx	xxxxx		2.2	xxxx	xxxxx		xxxxx	xxxx	xxxxx		3.5	4.0	3.3			
Capacity Module:																		
Cnflict Vol:	xxxx	xxxx	xxxxx		475	xxxx	xxxxx		xxxx	xxxx	xxxxx		1095	1095	475			
Potent Cap.:	xxxx	xxxx	xxxxx		1098	xxxx	xxxxx		xxxx	xxxx	xxxxx		239	216	594			
Move Cap.:	xxxx	xxxx	xxxxx		1097	xxxx	xxxxx		xxxx	xxxx	xxxxx		234	211	594			
Volume/Cap:	xxxx	xxxx	xxxx		0.02	xxxx	xxxx		xxxx	xxxx	xxxx		0.05	0.00	0.07			
Level Of Service Module:																		
2Way95thQ:	xxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx			
Control Del:	xxxxx	xxxx	xxxxx		8.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	xxxx	xxxxx			
LOS by Move:	*	*	*		A	*	*		*	*	*		*	*	*			
Movement:	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT	LT	-	LTR	- RT		
Shared Cap.:	xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	xxxx	xxxxx		xxxx	449	xxxxx			
SharedQueue:	xxxxx	xxxx	xxxxx		0.1	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	0.4	xxxxx			
Shrd ConDel:	xxxxx	xxxx	xxxxx		8.4	xxxx	xxxxx		xxxxx	xxxx	xxxxx		xxxxx	14.0	xxxxx			
Shared LOS:	*	*	*		A	*	*		*	*	*		*	B	*			
ApproachDel:	xxxxxx				xxxxxx				xxxxxx				14.0					
ApproachLOS:	*				*				*				B					

Note: Queue reported is the number of cars per lane.

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Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #2 S Scott St/W Main St

Average Delay (sec/veh): 1.0 Worst Case Level Of Service: B[13.7]

Street Name:	S Scott St						W Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module: >> Count Date: 2 Oct 2007 << 4:45 to 5:45 p.m.												
Base Vol:	2	1	2	1	0	2	4	179	1	2	299	3
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	2	1	2	1	0	2	4	179	1	2	299	3
Added Vol:	2	2	13	4	2	4	4	55	2	12	67	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	4	3	15	5	2	6	8	234	3	14	366	6
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.85	0.85	0.85	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	5	4	18	6	2	7	9	260	3	16	407	7
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	5	4	18	6	2	7	9	260	3	16	407	7
Critical Gap Module:												
Critical Gp:	7.1	6.5	6.2	7.1	6.5	6.2	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	3.5	4.0	3.3	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	725	724	262	731	722	410	413	xxxx	xxxxx	263	xxxx	xxxxx
Potent Cap.:	343	355	782	340	355	646	1156	xxxx	xxxxx	1313	xxxx	xxxxx
Move Cap.:	332	348	782	325	348	646	1156	xxxx	xxxxx	1313	xxxx	xxxxx
Volume/Cap:	0.01	0.01	0.02	0.02	0.01	0.01	0.01	xxxx	xxxx	0.01	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.1	xxxx	xxxxx	7.8	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	552	xxxxx	xxxx	427	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	0.1	xxxxx	xxxxx	0.1	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	11.8	xxxxx	xxxxx	13.7	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	B	*	*	B	*	*	*	*	*	*	*
ApproachDel:		11.8			13.7			xxxxxx			xxxxxx	
ApproachLOS:		B			B			*			*	

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Future Volume Alternative)

Intersection #3 Yamhill St/W Main St

Cycle (sec):	100	Critical Vol./Cap.(X):	0.485	
Loss Time (sec):	0 (Y+R=4.0 sec)	Average Delay (sec/veh):	11.7	
Optimal Cycle:	0	Level Of Service:	B	

Street Name:	Yamhill St						W Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Min. Green:	0	0	0	0	0	0	0	0	0	0	0	0
Lanes:	0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0			0 0 1! 0 0		
Volume Module: >> Count Date: 1 Oct 2007 << 4:45 to 5:45 p.m.												
Base Vol:	5	8	3	37	8	160	116	97	2	0	139	33
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	5	8	3	37	8	160	116	97	2	0	139	33
Added Vol:	0	6	2	37	6	60	43	30	0	1	22	33
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	5	14	5	74	14	220	159	127	2	1	161	66
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.80	0.80	0.80	0.95	0.95	0.95	0.90	0.90	0.90	0.95	0.95	0.95
PHF Volume:	6	18	6	78	15	232	177	141	2	1	169	69
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
Reduced Vol:	6	18	6	78	15	232	177	141	2	1	169	69
PCE Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
MLF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
FinalVolume:	6	18	6	78	15	232	177	141	2	1	169	69
Saturation Flow Module:												
Adjustment:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Lanes:	0.21	0.58	0.21	0.24	0.05	0.71	0.55	0.44	0.01	0.01	0.70	0.29
Final Sat.:	114	318	114	165	31	490	364	291	5	3	473	194
Capacity Analysis Module:												
Vol/Sat:	0.05	0.05	0.05	0.47	0.47	0.47	0.48	0.48	0.48	0.36	0.36	0.36
Crit Moves:		****			****			****			****	
Delay/Veh:	9.0	9.0	9.0	11.8	11.8	11.8	12.7	12.7	12.7	10.6	10.6	10.6
Delay Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
AdjDel/Veh:	9.0	9.0	9.0	11.8	11.8	11.8	12.7	12.7	12.7	10.6	10.6	10.6
LOS by Move:	A	A	A	B	B	B	B	B	B	B	B	B
ApproachDel:		9.0			11.8			12.7			10.6	
Delay Adj:		1.00			1.00			1.00			1.00	
ApprAdjDel:		9.0			11.8			12.7			10.6	
LOS by Appr:		A			B			B			B	
AllWayAvgQ:	0.0	0.0	0.0	0.7	0.7	0.7	0.8	0.8	0.8	0.5	0.5	0.5

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Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #4 S Pine St/W Main St

Average Delay (sec/veh): 16.2 Worst Case Level Of Service: E[38.6]

Street Name:	S Pine St						W Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1!	0	0	0 0 1!	0	0	0 0 1!	0	0	1	0	0 1 0
Volume Module: >> Count Date: 3 Oct 2007 << 4:45 to 5:45 p.m.												
Base Vol:	10	176	32	4	178	2	5	88	10	48	156	5
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	10	176	32	4	178	2	5	88	10	48	156	5
Added Vol:	25	36	29	54	48	1	1	39	28	20	31	45
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	35	212	61	58	226	3	6	127	38	68	187	50
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.85	0.85	0.85	0.95	0.95	0.95	0.90	0.90	0.90
PHF Volume:	37	223	64	68	266	4	6	134	40	76	208	56
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	37	223	64	68	266	4	6	134	40	76	208	56
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	6.2	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	3.3	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	274	xxxx	xxxxx	289	xxxx	xxxxx	873	772	278	827	742	260
Potent Cap.:	1300	xxxx	xxxxx	1284	xxxx	xxxxx	273	333	766	293	346	783
Move Cap.:	1295	xxxx	xxxxx	1282	xxxx	xxxxx	112	303	760	170	316	780
Volume/Cap:	0.03	xxxx	xxxx	0.05	xxxx	xxxx	0.06	0.44	0.05	0.44	0.66	0.07
Level Of Service Module:												
2Way95thQ:	0.1	xxxx	xxxxx	0.2	xxxx	xxxxx	xxxx	xxxx	xxxxx	2.0	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	42.0	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	E	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	327	xxxxx	xxxx	xxxx	361
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	3.1	xxxxx	xxxxx	xxxx	5.6
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	28.6	xxxxx	xxxxx	xxxx	37.6
Shared LOS:	*	*	*	*	*	*	*	D	*	*	*	E
ApproachDel:	xxxxxx			xxxxxx			28.6			38.6		
ApproachLOS:	*			*			D			E		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #5 N 4th St/E Main St

Average Delay (sec/veh): 0.6 Worst Case Level Of Service: B[11.2]

Street Name:	N 4th St						E Main St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 0	0	0	0 0 1!	0	0	0 1	0	0	0	0 1	0
Volume Module: >> Count Date: 3 Oct 2007 << 4:45 to 5:45 p.m.												
Base Vol:	0	0	0	4	0	4	4	112	0	0	208	4
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	0	0	4	0	4	4	112	0	0	208	4
Added Vol:	0	0	0	2	0	7	10	105	0	0	86	3
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	0	0	6	0	11	14	217	0	0	294	7
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	0.85	0.85	0.85	0.90	0.90	0.90	0.90	0.90	0.90
PHF Volume:	0	0	0	7	0	13	16	241	0	0	327	8
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	0	0	7	0	13	16	241	0	0	327	8
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	6.4	6.5	6.2	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx
FollowUpTim:	xxxxx	xxxx	xxxxx	3.5	4.0	3.3	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	603	603	331	334	xxxx	xxxxx	xxxx	xxxx	xxxxx
Potent Cap.:	xxxx	xxxx	xxxxx	465	416	716	1236	xxxx	xxxxx	xxxx	xxxx	xxxxx
Move Cap.:	xxxx	xxxx	xxxxx	461	411	716	1236	xxxx	xxxxx	xxxx	xxxx	xxxxx
Volume/Cap:	xxxx	xxxx	xxxx	0.02	0.00	0.02	0.01	xxxx	xxxx	xxxx	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	A	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	599	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	0.1	xxxxx	0.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	11.2	xxxxx	7.9	xxxx	xxxxx	xxxxx	xxxx	xxxxx
Shared LOS:	*	*	*	*	B	*	A	*	*	*	*	*
ApproachDel:	xxxxxx			11.2			xxxxxx			xxxxxx		
ApproachLOS:	*			B			*			*		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #6 S Pine St/W Polk St

Average Delay (sec/veh): 1.8 Worst Case Level Of Service: C[17.0]

Street Name:	S Pine St									W Polk St					
Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0 1!	0 0	0	0 1!	0 0	0	1	0 0 0	0	0 1!	0 0
Volume Module: >> Count Date: 1 Oct 2007 << 4:45 to 5:45 p.m.												
Base Vol:	1	225	3	23	226	1	2	1	0	7	2	12
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	1	225	3	23	226	1	2	1	0	7	2	12
Added Vol:	0	61	4	23	65	5	5	2	0	3	2	20
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	1	286	7	46	291	6	7	3	0	10	4	32
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	0.95	0.95	0.95	0.95	0.95	0.95	0.80	0.80	0.80	0.80	0.80	0.80
PHF Volume:	1	301	7	48	306	6	9	4	0	13	5	40
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	1	301	7	48	306	6	9	4	0	13	5	40
Critical Gap Module:												
Critical Gp:	4.1	xxxx	xxxxx	4.1	xxxx	xxxxx	7.1	6.5	xxxxx	7.1	6.5	6.2
FollowUpTim:	2.2	xxxx	xxxxx	2.2	xxxx	xxxxx	3.5	4.0	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	313	xxxx	xxxxx	309	xxxx	xxxxx	742	718	xxxxx	716	717	312
Potent Cap.:	1259	xxxx	xxxxx	1263	xxxx	xxxxx	334	357	xxxxx	348	358	733
Move Cap.:	1259	xxxx	xxxxx	1262	xxxx	xxxxx	301	343	xxxxx	334	343	729
Volume/Cap:	0.00	xxxx	xxxx	0.04	xxxx	xxxx	0.03	0.01	xxxx	0.04	0.01	0.05
Level Of Service Module:												
2Way95thQ:	0.0	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	7.9	xxxx	xxxxx	8.0	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	A	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	313	xxxx	xxxxx	xxxx	538	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.1	xxxx	xxxxx	xxxxx	0.4	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	17.0	xxxx	xxxxx	xxxxx	12.5	xxxxx
Shared LOS:	*	*	*	*	*	*	C	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			17.0			12.5		
ApproachLOS:	*			*			C			B		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass A

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #35 N Yamhill St/Truck Bypass

Average Delay (sec/veh): 5.9 Worst Case Level Of Service: B[11.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	- T	- R	L	- T	- R	L	- T	- R	L	- T	- R
Control:	Uncontrolled			Uncontrolled			Stop Sign			Stop Sign		
Rights:	Include			Include			Include			Include		
Lanes:	0	0 0	1 0	1	0 1	0 0	0	0 0	0 0 0	0	0 1!	0 0
Volume Module:												
Base Vol:	0	156	1	171	37	0	0	0	0	1	0	163
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	0	156	1	171	37	0	0	0	0	1	0	163
Added Vol:	0	59	3	99	75	0	0	0	0	2	0	79
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	0	215	4	270	112	0	0	0	0	3	0	242
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	0	215	4	270	112	0	0	0	0	3	0	242
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	0	215	4	270	112	0	0	0	0	3	0	242
Critical Gap Module:												
Critical Gp:	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx	xxxxx	xxxx	xxxxx	6.4	6.5	6.2
FollowUpTim:	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx	xxxxx	xxxx	xxxxx	3.5	4.0	3.3
Capacity Module:												
Cnflict Vol:	xxxx	xxxx	xxxxx	219	xxxx	xxxxx	xxxx	xxxx	xxxxx	869	869	217
Potent Cap.:	xxxx	xxxx	xxxxx	1362	xxxx	xxxxx	xxxx	xxxx	xxxxx	325	292	828
Move Cap.:	xxxx	xxxx	xxxxx	1362	xxxx	xxxxx	xxxx	xxxx	xxxxx	275	234	828
Volume/Cap:	xxxx	xxxx	xxxx	0.20	xxxx	xxxx	xxxx	xxxx	xxxx	0.01	0.00	0.29
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	0.7	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	8.3	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx
LOS by Move:	*	*	*	A	*	*	*	*	*	*	*	*
Movement:	LT - LTR - RT			LT - LTR - RT			LT - LTR - RT			LT - LTR - RT		
Shared Cap.:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	808	xxxxx
SharedQueue:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	1.3	xxxxx
Shrd ConDel:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	11.4	xxxxx
Shared LOS:	*	*	*	*	*	*	*	*	*	*	B	*
ApproachDel:	xxxxxx			xxxxxx			xxxxxx			11.4		
ApproachLOS:	*			*			*			B		

Note: Queue reported is the number of cars per lane.

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass B

Scenario Report

Scenario:	Default Scenario
Command:	Default Command
Volume:	Default Volume
Geometry:	Default Geometry
Impact Fee:	Default Impact Fee
Trip Generation:	Default Trip Generation
Trip Distribution:	Default Trip Distribution
Paths:	Default Path
Routes:	Default Route
Configuration:	Default Configuration

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass B

Turning Movement Report
PM

Volume	Northbound			Southbound			Eastbound			Westbound			Total
Type	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Volume
#1 N Yamhill St/W Madison St													
Base	0	312	0	21	369	0	0	0	0	9	0	32	743
Added	0	138	0	2	174	0	0	0	0	0	0	2	316
Total	0	450	0	23	543	0	0	0	0	9	0	34	1059
#2 S Scott St/W Main St													
Base	2	1	2	1	0	2	4	179	1	2	299	3	496
Added	2	2	13	4	2	4	4	55	2	12	67	3	170
Total	4	3	15	5	2	6	8	234	3	14	366	6	666
#3 Yamhill St/W Main St													
Base	5	8	3	37	8	160	116	97	2	0	139	33	608
Added	0	6	2	37	6	60	43	30	0	1	22	33	240
Total	5	14	5	74	14	220	159	127	2	1	161	66	848
#4 S Pine St/W Main St													
Base	10	176	32	4	178	2	5	88	10	48	156	5	714
Added	25	36	29	54	48	1	1	39	28	20	31	45	357
Total	35	212	61	58	226	3	6	127	38	68	187	50	1071
#5 N 4th St/E Main St													
Base	0	0	0	4	0	4	4	112	0	0	208	4	336
Added	0	0	0	2	0	7	10	105	0	0	86	3	213
Total	0	0	0	6	0	11	14	217	0	0	294	7	549
#6 S Pine St/W Polk St													
Base	1	225	3	23	226	1	2	1	0	7	2	12	503
Added	0	61	4	23	65	5	5	2	0	3	2	20	190
Total	1	286	7	46	291	6	7	3	0	10	4	32	693
#35 N Yamhill St/Truck Bypass													
Base	156	0	1	0	0	0	0	171	37	1	163	0	529
Added	59	0	3	0	0	0	0	99	75	2	79	0	317
Total	215	0	4	0	0	0	0	270	112	3	242	0	846

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Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass B

Impact Analysis Report
Level Of Service

Intersection	Base LOS	Base Del/ Veh	Base V/ C	Future LOS	Future Del/ Veh	Future V/ C	Change in
# 1 N Yamhill St/W Madison St	B	11.6	0.000	B	14.0	0.000	+ 2.431 D/V
# 2 S Scott St/W Main St	B	11.6	0.000	B	13.7	0.000	+ 2.127 D/V
# 3 Yamhill St/W Main St	A	9.3	0.327	B	11.7	0.485	+ 0.157 V/C
# 4 S Pine St/W Main St	C	15.9	0.000	E	38.6	0.000	+22.753 D/V
# 5 N 4th St/E Main St	B	10.1	0.000	B	11.2	0.000	+ 1.099 D/V
# 6 S Pine St/W Polk St	B	13.3	0.000	C	17.0	0.000	+ 3.729 D/V
# 35 N Yamhill St/Truck Bypass	B	12.3	0.000	C	18.4	0.000	+ 6.033 D/V

Kittelson & Associates, Inc -- Project #9086
Carlton Transportation System Plan Update -- Carlton, Oregon
2030 Future Traffic Conditions -- Alternative 2: Truck Bypass B

Level Of Service Computation Report
2000 HCM Unsignalized Method (Future Volume Alternative)

Intersection #35 N Yamhill St/Truck Bypass

Average Delay (sec/veh): 4.8 Worst Case Level Of Service: C[18.4]

Approach:	North Bound			South Bound			East Bound			West Bound		
Movement:	L	T	R	L	T	R	L	T	R	L	T	R
Control:	Stop Sign			Stop Sign			Uncontrolled			Uncontrolled		
Rights:	Include			Include			Include			Include		
Lanes:	0 0 1! 0 0			0 0 0 0 0			0 0 0 1 0			0 1 0 0 0		
Volume Module:												
Base Vol:	156	0	1	0	0	0	0	171	37	1	163	0
Growth Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Initial Bse:	156	0	1	0	0	0	0	171	37	1	163	0
Added Vol:	59	0	3	0	0	0	0	99	75	2	79	0
PasserByVol:	0	0	0	0	0	0	0	0	0	0	0	0
Initial Fut:	215	0	4	0	0	0	0	270	112	3	242	0
User Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Adj:	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
PHF Volume:	215	0	4	0	0	0	0	270	112	3	242	0
Reduct Vol:	0	0	0	0	0	0	0	0	0	0	0	0
FinalVolume:	215	0	4	0	0	0	0	270	112	3	242	0
Critical Gap Module:												
Critical Gp:	6.4	6.5	6.2	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	4.1	xxxx	xxxxx
FollowUpTim:	3.5	4.0	3.3	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	2.2	xxxx	xxxxx
Capacity Module:												
Cnflict Vol:	574	574	326	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	382	xxxx	xxxxx
Potent Cap.:	484	432	720	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1188	xxxx	xxxxx
Move Cap.:	483	431	720	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	1188	xxxx	xxxxx
Volume/Cap:	0.45	0.00	0.01	xxxx	xxxx	xxxx	xxxx	xxxx	xxxx	0.00	xxxx	xxxx
Level Of Service Module:												
2Way95thQ:	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Control Del:	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx
LOS by Move:	*	*	*	*	*	*	*	*	*	A	*	*
Movement:	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT	LT -	LTR -	RT
Shared Cap.:	xxxx	486	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx	xxxx	xxxx	xxxxx
SharedQueue:	xxxxx	2.3	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	0.0	xxxx	xxxxx
Shrd ConDel:	xxxxx	18.4	xxxxx	xxxxx	xxxx	xxxxx	xxxxx	xxxx	xxxxx	8.0	xxxx	xxxxx
Shared LOS:	*	C	*	*	*	*	*	*	*	A	*	*
ApproachDel:		18.4			xxxxxx			xxxxxx			xxxxxx	
ApproachLOS:		C			*			*			*	

Note: Queue reported is the number of cars per lane.

Project Name:	Carlton Transportation System Plan Update
Project #:	9086
Analysis Scenario:	Alternative 2: Main Street Bypass
Analysis Period:	PM Peak Hour
Analyst:	CMS
Date:	August 16, 2008

Two-Minute Rule

S = (v)(t)(L)

S = 95th Percentile Storage Length (feet)
v = average left-turn volume arriving in a 2-minute interval
t = variable (ability to store all vehicles)
L = average vehicle length (feet)

"t" Value:	1.85
Veh. Length (ft):	25

PHV = peak hour left turn volume

		NB	SB	EB	WB
	PHV				
	v				
	S				
	PHV				
	v				
	S				
	PHV	6	78	117	1
N Yamhill St/W Main St	v	0.20	2.60	3.90	0.03
	S	9	120	180	2
	PHV	37	68	6	76
S Pine St/W Main St	v	1.23	2.27	0.20	2.53
	S	57	105	9	117
	PHV		270		3
N Yamhill St/W Monroe St (A)	v		9.00		0.10
	S		416		5
	PHV	215			3
N Yamhill St/W Monroe St (B)	v	7.17			0.10
	S	331			5

Project Name:	Carlton Transportation System Plan Update
Project #:	9086
Analysis Scenario:	Alternative 2: Main Street Bypass
Analysis Period:	0.25 (peak 15 minute analysis)
Analyst:	CMS
Date:	August 16, 2008

V = flow rate for movement
C = capacity of movement
Q = 95th percentile queue (veh)
S = storage need (ft)

# of Int:	6
Veh. Length (ft):	25

* Queue length calculated using Equation (17-37) presented in *Highway Capacity Manual 2000*.

		NB LT	NB TH	NB RT	SB LT	SB TH	SB RT	EB LT	EB TH	EB RT	WB LT	WB TH	WB RT
	V												
	C												
	Q												
	S												
	V												
	C												
	Q												
	S												
N Yamhill St/W Main St	V		30			325			320			239	
	C		546			686			660			670	
	Q		0.2			2.6			2.7			1.6	
	S		25			75			75			50	
S Pine St/W Main St	V	37			68				180		76	264	
	C	1295			1282				327		170	361	
	Q	0.1			0.2				3.1		2.1	5.6	
	S	25			25				100		75	150	
N Yamhill St/W Monroe St (A)	V				270							245	
	C				1362							808	
	Q				0.7							1.3	
	S				25							50	
N Yamhill St/W Monroe St (B)	V		219								3		
	C		486								1188		
	Q		2.3								0.0		
	S		75								25		

Appendix N
Cost Estimate
Spreadsheet

ATTACHMENT D
COST ESTIMATES
City of Carlton Transportation System Plan

Sidewalk Improvements

Street Segment	ROW Width (feet)	Street Width (feet)	ROW Width (feet)	Street Width (feet)	Sidewalk	Bikeway	Pavement Condition	Length (feet) East/North	Length (feet) West/South	Difference ROW - Street	Difference Sufficient	Sidewalk width needed East	Sidewalk width needed West	Sidewalk width needed North	Sidewalk width needed South	Curb & Gutter	Construction Total	Engineering R 15%	Contingency Fa 50% pre ELA	Total
1st Street																				
Monroe St to Main St	40	24	40	24	east side	no	fair-good	460	460	8	yes	6	6			920	$ 44,160	$ 6,624	$ 22,080	$ 72,864
3rd Street																				
Monroe St to Main St	50	20	50	20	west side	no	fair	460	460	15	yes	6					$ 16,560	$ 2,484	$ 8,280	$ 27,324
Main St to Washington St	40-50	21	40	21	west side	no	poor-fair	594	594	9.5	yes	6	6			1188	$ 57,024	$ 8,554	$ 28,512	$ 94,090
Washington St to Harrison St	50	21	50	21	both/int - east side	no	poor-fair	248	158	14.5	yes	6	6			406	$ 19,488	$ 2,923	$ 9,744	$ 32,155
Harrison St to Polk St	50	21-24	50	24	int both	no	poor-fair	504	504	13	yes	6	6				$ 36,288	$ 5,443	$ 18,144	$ 59,875
3rd Street Total (Monroe to Polk)								**1,806**	**1,716**			**24**	**18**	**0**	**0**	**1,594**	**$ 129,360**	**$ 19,404**	**$ 64,680**	**$ 213,444**
4th Street																				
4th Street Total (Main to Johnson)								**1,600**	**1,600**			**6**	**6**			**3200**	**$ 153,600**	**$ 23,040**	**$ 76,800**	**$ 253,440**
Grant Street																				
River St to Cunningham St	50							550	550					6	6		$ 39,600	$ 5,940	$ 19,800	$ 65,340
Cunningham St to Carr St	50	19-20	50	20	both	no	fair	290	290	15	yes			6	6	580	$ 27,840	$ 4,176	$ 13,920	$ 45,936
Carr St to Scott St	50	20-21	50	21	int - south side	no	fair	289	95	14.5	yes			6	6	384	$ 18,432	$ 2,765	$ 9,216	$ 30,413
Scott St to Howe St	40	20	40	20	int - south side	no	fair	288	288	10	yes			6	6		$ 20,736	$ 3,110	$ 10,368	$ 34,214
Howe St to Yamhill St	40	22	40	22	int - both	no	good	144	288	9	yes			6	6		$ 15,552	$ 2,333	$ 7,776	$ 25,661
Yamhill St to Kutch St	40	39	40	39	no	no	poor-fair	266	266	0.5	no			6	6		$ 19,152	$ 2,873	$ 9,576	$ 31,601
Kutch St to Park St	40	20-36	40	36	south side	no	poor-fair	218	218	2	no			6	6	218	$ 18,312	$ 2,747	$ 9,156	$ 30,215
Park St to Pine St	40	32	40	32	int - both	no	fair	188	188	4	no			6	6	188	$ 15,792	$ 2,369	$ 7,896	$ 26,057
Grant Street Total (Cunningham to Pine)								**2,233**	**2,183**			**0**	**0**	**42**	**42**	**1,370**	**$ 175,416**	**$ 26,312**	**$ 87,708**	**$ 289,436**
Kutch Street																				
Lincoln Street to Johnson St	25-60	22-36	25-60	22-36	int - both	no	fair	176	146	1.5	no					322	$ 3,864	$ 4,444	$ 1,932	$ 10,240
Johnson St to Jefferson St	75	22	75	22	both	no	fair	351	351	26.5	yes	6	6				$ 25,272	$ 3,791	$ 12,636	$ 41,699
Jefferson St to Madison St	75	21	75	21	both	no	fair	363	363	27	yes	6	6				$ 26,136	$ 3,920	$ 13,068	$ 43,124
Madison St to Monroe St	75	30	75	30	west side	no	fair	272	272	22.5	yes	6	6				$ 19,584	$ 2,938	$ 9,792	$ 32,314
Kutch Street Total (Lincoln to Monroe)								**1,162**	**1,132**			**18**	**18**	**0**	**0**	**322**	**$ 74,856**	**$ 15,092**	**$ 37,428**	**$ 127,376**

Main Street																					
Pine St to 1st St								360	360					8		720	$ 25,920	$ 3,888	$ 12,960	$ 42,768
1st St to 2nd St	60	22	60	22	both	no	fair	259	259	19	yes			6	6	518	$ 24,864	$ 3,730	$ 12,432	$ 41,026
2nd St to 3rd St	60	22	60	22	both	no	fair	261	261	19	yes			6	6	522	$ 25,056	$ 3,758	$ 12,528	$ 41,342
3rd St to 4th St	60	23	60	23	both	no	fair	269	269	18.5	yes			6	6	538	$ 25,824	$ 3,874	$ 12,912	$ 42,610
4th St to 5th St	60	22	60	22	north side	no	good	281	281	19	yes			6		562	$ 16,860	$ 2,529	$ 8,430	$ 27,819
5th St to 6th St	60	22	60	22	north side	no	good	244	244	19	yes			6		488	$ 14,640	$ 2,196	$ 7,320	$ 24,156
6th St to 7th St	60	33	60	33	north side	no	good	192	192	13.5	yes				6	384	$ 11,520	$ 1,728	$ 5,760	$ 19,008
Main Street Total (1st to 7th)								**1,866**	**1,866**			**0**	**0**	**38**	**24**	**3,732**	**$ 144,684**	**$ 21,703**	**$ 72,342**	**$ 238,729**
Monroe Street																				
Kutch St to Pine St	50-75	20	50	20	south side	no	poor	326	326	15	yes			6	6		$ 23,472	$ 3,521	$ 11,736	$ 38,729
Pine St to Gilwood St	60	22-28	60	28	south side	no	fair	284	284	16	yes			6	6		$ 20,448	$ 3,067	$ 10,224	$ 33,739
Gilwood St to 1st St	60	37	60	37	south side	no	fair	144	144	11.5	yes			6	6		$ 10,368	$ 1,555	$ 5,184	$ 17,107
1st St to 2nd St	60	20-21	60	21	both	no	fair-good	256	256	19.5	yes			6	6	512	$ 24,576	$ 3,686	$ 12,288	$ 40,550
2nd St to 3rd St	60	22	60	22	both/north - int	no	poor-fair	266	266	19	yes			6	6		$ 19,152	$ 2,873	$ 9,576	$ 31,601
Monroe Street Total (Kutch to 3rd)								**1,276**	**1,276**			**0**	**0**	**30**	**30**	**512**	**$ 98,016**	**$ 14,702**	**$ 49,008**	**$ 161,726**
Polk Street																				
Pine St to Arthur St	50	20	50	20	north side	no	fair	249	249	15	yes			6	6		$ 17,928	$ 2,689	$ 8,964	$ 29,581
Arthur St to 2nd St	50	20	50	20	north side	no	fair	377	377	15	yes			6	6	754	$ 36,192	$ 5,429	$ 18,096	$ 59,717
2nd St to 3rd St	50	20	50	20	north side	no	fair	270	270	15	yes			6	6	540	$ 25,920	$ 3,888	$ 12,960	$ 42,768
Polk Street Total (Pine to 3rd)								**896**	**896**			**0**	**0**	**18**	**18**	**1,294**	**$ 80,040**	**$ 12,006**	**$ 40,020**	**$ 132,066**
Washington Street																				
Pine St to Eastern Terminus	50	19	50	19	no	no	good	155	155	15.5	yes			6	6		$ 11,160	$ 1,674	$ 5,580	$ 18,414
RR ROW Crossing								240	240					6	6		$ 17,280	$ 2,592	$ 8,640	$ 28,512
Western terminus to 2nd St	50	18-20	50	20	int - both	no	gravel	205	280	15	yes			6	6		$ 17,460	$ 2,619	$ 8,730	$ 28,809
2nd St to 3rd St	50	25	50	25	int - both	no	good	275	275	12.5	yes			6	6	550	$ 26,400	$ 3,960	$ 13,200	$ 43,560
Washington Street Total (Pine to 3rd)								**875**	**950**			**0**	**0**	**24**	**24**	**550**	**$ 72,300**	**$ 10,845**	**$ 36,150**	**$ 119,295**
Yamhill Street																				
North City Limits to Lincoln St	40-60	23/30	40-60	23/30	no	no	poor-fair	744	744	8.5	yes	6	6			1488	$ 71,424	$ 10,714	$ 35,712	$ 117,850
Lincoln St to Johnson St	40-74	23/30-32	40-74	23/30-32	int - west side	no	poor-fair	253	453	8.5	yes	6	6			706	$ 33,888	$ 5,083	$ 16,944	$ 55,915
Johnson St to Jefferson St	60-90	23/35	60-90	23/35	west side	no	poor-fair	349	349	18.5	yes	6	6			698	$ 33,504	$ 5,026	$ 16,752	$ 55,282
Jefferson St to Madison St	55	22/28-37	55	22/28-37	int - east side	no	poor-fair	366	366	9	yes	6	6			732	$ 35,136	$ 5,270	$ 17,568	$ 57,974
Madison St to Monroe Street	55	23/33	55	23/33	int - west side	no	poor-fair	386	281	11	yes	6	6			667	$ 32,016	$ 4,802	$ 16,008	$ 52,826
Monroe St to Main Street	55	38	55	38	int - both	no	fair	316	316	8.5	yes	6	6			632	$ 30,336	$ 4,550	$ 15,168	$ 50,054
Yamhill Street Total (City Limits to Washington)								**2,414**	**2,509**			**36**	**36**	**0**	**0**	**4,923**	**$ 236,304**	**$ 35,446**	**$ 118,152**	**$ 389,902**

$ 1,998,278

Roadway Improvements

Street Segment	ROW Width (feet)	Street Width (feet)	ROW Width (feet)	Street Width (feet)	Sidewalk	Bikeway	Pavement Condition		Length		Lane Width	Reverse Curve	Taper (sq ft)	Cost per Sq Ft	Reconstruct Sidewalk	Sides	Construction Total	Engineering Factor 15%	Contingency Factor 50% pre ELA	Total
Alternative 1																				
N Yamhill St / W Main St																				
Signing & Striping																				$ 25,000
SB Left Turn Lane	55	38	55	38	int - both				175		14	150	1470	$13			$78,260	$ 11,739	$ 39,130	$ 129,129
																				$ 154,129
S Pine St / W Main St																				
Signing & Striping																				$ 25,000
Alternative 2																				
N Yamhill St / W Main St																				
Signing & Striping															Alternative 1 Total		**$78,260**	**$11,739**	**$39,130**	**$333,258**
S Pine St / W Main St																				
Signing & Striping																				$ 25,000
WB Left Turn Lane	60	40			both				75		14	150	1225	$13			$56,875	$ 8,531	$ 28,438	$ 93,844
																				$ 118,844
N Yamhill St / W Monroe St (A)																				
Signing & Striping																				$ 25,000
SB Left Turn Lane	55	23/33	55	23/33	int - west side				25		14	150	1470	$13			$50,960	$ 7,644	$ 25,480	$ 84,084
																				$ 109,084
N Yamhill St / W Monroe St (A)																				
Signing & Striping																				
									Segment		Total	Exising								
Bypass (N Pine & W Monroe)									Length		ROW	Pavement								
Widen and Reconfigure									740		65	40		$13			$240,500	$ 36,075	$ 120,250	$ 396,825
Monroe (Yamhill to Kutch)									260		65	0		$13			$219,700	$ 32,955	$ 109,850	$ 362,505
Total Bypass																	**$460,200**	**$69,030**	**$230,100**	**$759,330**
Alternative 3																				
N Yamhill St / W Main St																				
Utility Relocation																				
Curb Radii Modifications																				**$ 50,000**
Left Turn Lanes																				
N Yamhill Street																				
UGB to Main Street	55	22/28-37	55	22/28-37	int - east side				2500		14	150	1470	$13			$501,410	$ 75,212	$ 250,705	$ 827,327
S Pine Street																				
Grant St to Washington St	50	30			west side				2750								$0	$ -	$ -	$ -
									2750		14	150	1470	$13			$546,910	$ 82,037	$ 273,455	$ 902,402
Railroad ROW Crossings																				
Roosevelt Street									100		40			$13			$52,000	$ 7,800	$ 26,000	$ 85,800
Wilson Street									70		40			$13			$36,400	$ 5,460	$ 18,200	$ 60,060
Washington Street									60		15			$13			$11,700	$ 1,755	$ 5,850	$ 19,305

Street Segment	ROW Width (feet)	Street Width (feet)	ROW Width (feet)	Street Width (feet)	Sidewalk	Bikeway	Pavement Condition		Length		Lane Width	Reverse Curve	Taper (sq ft)	Cost per Sq Ft	Reconstruct Sidewalk	Sides	Construction Total	Engineering Factor 15%	Contingency Factor 50% pre ELA	Total
Bicycle Lanes																				
N Yamhill Street																				
North City Limits to Lincoln St	40-60	23/30			no	no	poor-fair		744		10			$13	$6	2	$96,792	$ 14,519	$ 48,396	$ 159,707
Lincoln St to Johnson St	40-74	23/30-32			int - west side	no	poor-fair		453		10			$13	$6	2	$58,962	$ 8,844	$ 29,481	$ 97,287
Johnson St to Jefferson St	60-90	23/35			west side	no	poor-fair		349		10			$13			$45,370	$ 6,806	$ 22,685	$ 74,861
Jefferson St to Madison St	55	22/28-37			int - east side	no	poor-fair		366		10			$13			$47,580	$ 7,137	$ 23,790	$ 78,507
Madison St to Monroe Street	55	23/33			int - west side	no	poor-fair		386		10			$13			$50,180	$ 7,527	$ 25,090	$ 82,797
Monroe St to Main Street	55	38			int - both	no	fair		316		10			$13			$41,080	$ 6,162	$ 20,540	$ 67,782
Main St to Grant St									300		10			$13			$39,000	$ 5,850	$ 19,500	$ 64,350
									2914	**5828**										**$ 625,291**
S Pine Street																				
Main St to Grant St	50	34			west side	no	fair-good		315		10			$13	$6	1	$40,986	$ 6,148	$ 20,493	$ 67,627
Grant St to Washington St	50	30			west side	no	fair-good		266		10			$13	$6	1	$34,616	$ 5,192	$ 17,308	$ 57,116
Washington St to Harrison St	50	23			both	no	good		253		10			$13	$6	2	$32,962	$ 4,944	$ 16,481	$ 54,387
Harrison St to Taft St	50	23			both	no	good		257		10			$13	$6	2	$33,482	$ 5,022	$ 16,741	$ 55,245
Taft St to Polk St	50	22-23			both	no	good		239		10			$13	$6	2	$31,142	$ 4,671	$ 15,571	$ 51,384
Polk St to Cleveland St	50	22-23			both	no	good		253		10			$13	$6	2	$32,962	$ 4,944	$ 16,481	$ 54,387
Cleveland St to Highway 47	50	22-23			int - east side	no	good													
Highway 47 to Wilson St	50	17			no	no	fair		279		10			$13			$36,270	$ 5,441	$ 18,135	$ 59,846
Wilson St to Adams St	50	17			no	no	fair		324		10			$13			$42,120	$ 6,318	$ 21,060	$ 69,498
Adams St to Taylor St	50	17			int - east side	no	fair		278		10			$13			$36,140	$ 5,421	$ 18,070	$ 59,631
									2464	**4928**										**$ 529,122**
Main Street																				
Western City Limits to Cunningham St	84-92	21			no	no	good		690		10			$13			$89,700	$ 13,455	$ 44,850	$ 148,005
Cunningham St to Carr St	60-90	24-32			both	bo	poor-fair		290		10			$13			$37,700	$ 5,655	$ 18,850	$ 62,205
Carr St to Scott St	52-60	24-32			both	no	poor-fair		295		10			$13	$6	1	$38,386	$ 5,758	$ 19,193	$ 63,337
Scott St to Yamhill St	60	24-32			both	no	poor-fair		581	3712	10			$13	$6	2	$75,602	$ 11,340	$ 37,801	$ 124,743
Yamhill St to Kutch St	60	40			both	no	good		276		10			$13	$6	2	$35,952	$ 5,393	$ 17,976	$ 59,321
Kutch St to Park St	60	40			both	no	good		209		10			$13	$6	2	$27,242	$ 4,086	$ 13,621	$ 44,949
Park St to Pine St	60	40			both	no	good		185	1340	10			$13	$6	2	$24,122	$ 3,618	$ 12,061	$ 39,801
Pine St to 1st St	60	40			both	no	fair		361		10			$13	$6	1	$46,966	$ 7,045	$ 23,483	$ 77,494
1st St to 2nd St	60	22			both	no	fair		259		10			$13			$33,670	$ 5,051	$ 16,835	$ 55,556
2nd St to 3rd St	60	22			both	no	fair		261		10			$13			$33,930	$ 5,090	$ 16,965	$ 55,985
3rd St to 4th St	60	23			both	no	fair		269		10			$13			$34,970	$ 5,246	$ 17,485	$ 57,701
4th St to 5th St	60	22			north side	no	good		278		10			$13	$6	1	$36,176	$ 5,426	$ 18,088	$ 59,690
5th St to 6th St	60	22			north side	no	good		247		10			$13	$6	1	$32,146	$ 4,822	$ 16,073	$ 53,041
6th St to Eastern City Limits	60	33			north side	no	good		1164	5678	10			$13	$6	1	$151,356	$ 22,703	$ 75,678	$ 249,737
									5365	10730										**$ 1,151,565**
Polk Street																				
Pine St to Arthur St	50	20			north side	no	fair		248		10			$13			$32,240	$ 4,836	$ 16,120	$ 53,196
Arthur St to 2nd St	50	20			north side	no	fair		377		10			$13			$49,010	$ 7,352	$ 24,505	$ 80,867
2nd St to 3rd St	50	20			north side	no	fair		270		10			$13	$6	1	$35,136	$ 5,270	$ 17,568	$ 57,974
									895	1790										**$ 192,037**
3rd Street																				
Main St to Washington St	40-50	21			west side	no	poor-fair		594		10			$13	$6	1	$77,256	$ 11,588	$ 38,628	$ 127,472
Washington St to Harrison St	50	21			both/int - east side	no	poor-fair		248		10			$13			$32,240	$ 4,836	$ 16,120	$ 53,196
Harrison St to Polk St	50	21-24			int both	no	poor-fair		504		10			$13			$65,520	$ 9,828	$ 32,760	$ 108,108
									1346	**2692**										**$ 288,776**
Grant Street																				
Yamhill to Pine									672	1344	10			$13			**$87,360**	**$ 13,104**	**$ 43,680**	**$ 144,144**
Bike Lane Total																				**$ 2,786,863**
Multi-Use Path																				
Railroad Right of Way									5230		10			$2			$120,290	$ 18,044	$ 60,145	**$ 198,479**
									5230		10			$6			$313,800	$ 47,070	$ 156,900	**$ 517,770**

Appendix O
Project Prospectus Sheets

Project #: R1	**Geometric Configuration**	**Mode:** Auto
Location: N Yamhill St / W Main St		**Priority:** Short

Description: Widen southbound approach to increase southbound right-turn turning radius

Functional Classification: State Highway **Existing ROW:** 55-60 feet

Required ROW: Unknown

Project Cost: $50,000.00 ☑ Cost Constrained Plan ☑ ROW Purchase Required

Purpose: Facilitate truck turning movements to reduce conflicts and potential for crashes

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: R2	**Geometric Configuration**	**Mode:** Auto
Location: W Main St / S Pine St		**Priority:** Short

Description: Widen northbound approach to increase turning radii for northbound left turns

Functional Classification: State Highway **Existing ROW:** 50-60 feet

Required ROW: Unknown

Project Cost: $50,000.00 ☑ Cost Constrained Plan ☑ ROW Purchase Required

Purpose: Facilitate truck turning movements to reduce conflicts and potential for crashes

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: R3	**Center Left Turn Lanes**	**Mode:** Auto
Location: N Yamhill St (UGB to Main)		**Priority:** Mediun
Description: Install center left turn lane		
Functional Classification: State Highway		**Existing ROW:** 40-90 feet **Required ROW:** 65 feet
Project Cost: $827,326.50	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: Provide storage for left turning vehicles without blocking through traffic		

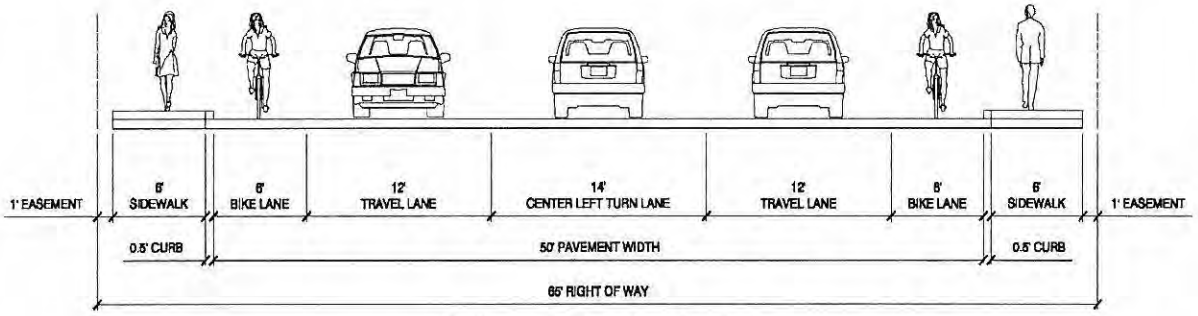
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: R4	**Center Left Turn Lanes**	**Mode:** Auto
Location: S Pine St (Grant to UGB)		**Priority:** Medium
Description: Install center left turn lane		
Functional Classification: State Highway		**Existing ROW:** 50 feet **Required ROW:** 65 feet
Project Cost: $902,403.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: Provide storage for left turning vehicles without blocking through traffic		

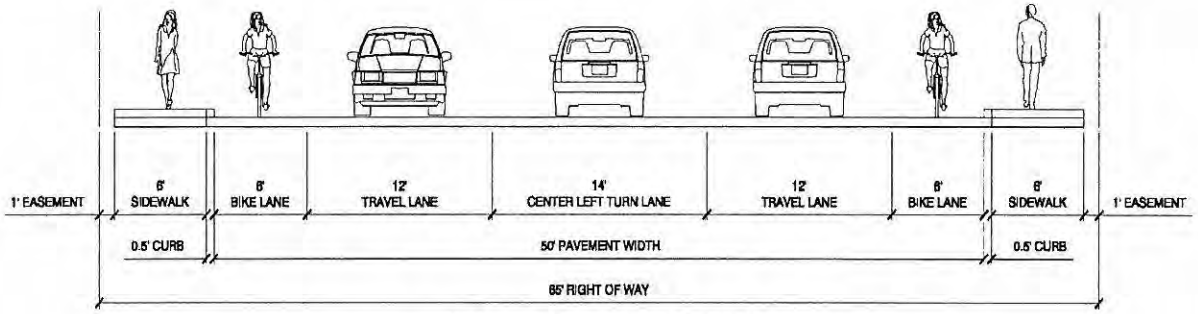
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: R5	**Bypass**	**Mode:** Auto
Location: N Pine St and W Monroe St		**Priority:** Medium
Description: Widen and reconfigure existing roadways to accommodate bypass vehicles		
Functional Classification: State Highway (assuming construction of bypass)		**Existing ROW:** 60 feet **Required ROW:** 65 feet
Project Cost: $868,414.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: Allow heavy vehicles and traffic to bypass downtown, enhancing the Main Street environment for all users		

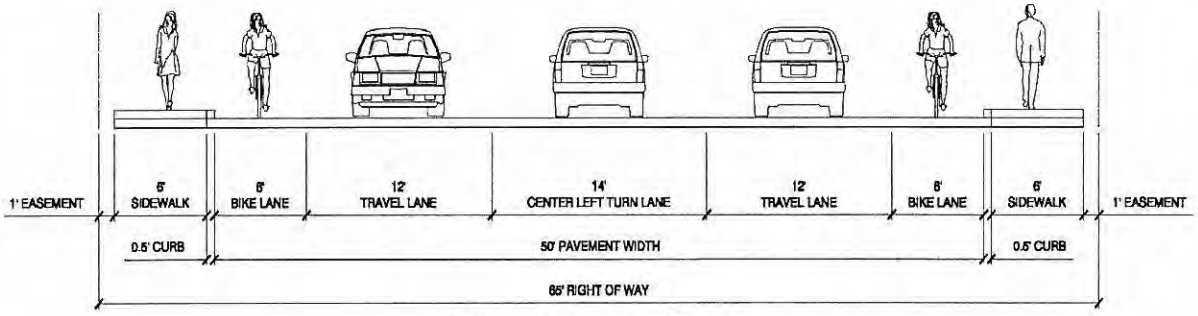
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: R6	**Railroad Right-of-Way Crossing**	**Mode:** Auto
Location: Roosevelt St		**Priority:** Long
Description: Extend Roosevelt Street across railroad right-of-way		
Functional Classification: Collector		**Existing ROW:** NA **Required ROW:** 71 feet
Project Cost: $85,800.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: Connect Roosevelt St across railroad right-of-way		

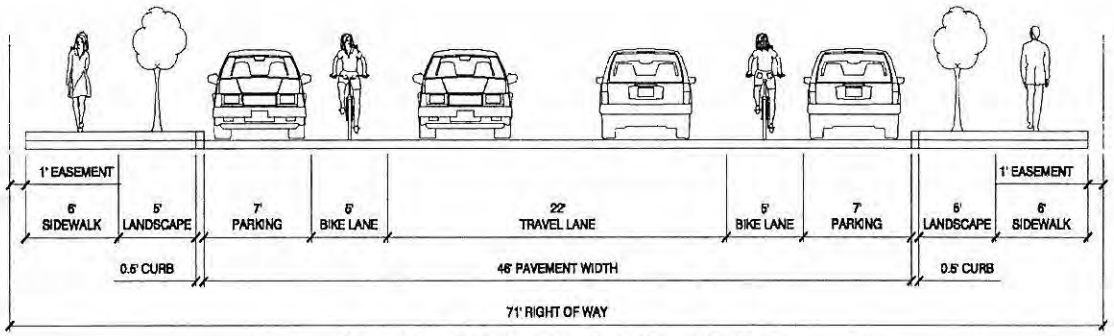
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



New Street Collector Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 79ft of ROW and 39.5ft of half street ROW

Project #: R7	**Railroad Right-of-Way Crossing**	**Mode:** Auto
Location: Wilson St		**Priority:** Long
Description: Extend Wilson Street across railroad right-of-way		
Functional Classification: Collector		**Existing ROW:** NA **Required ROW:** 71 feet
Project Cost: $60,060.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: Connect Wilson St across railroad right-of-way		

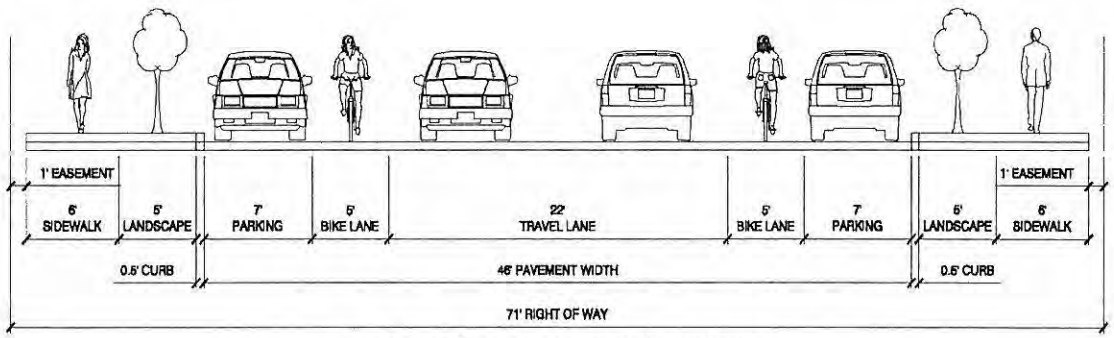
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



New Street Collector Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 79ft of ROW and 39.5ft of half street ROW

Project #: P1	**Sidewalk**	**Mode:** Pedestrian
Location: 3rd Street		**Priority:** Short
Description: Construct sidewalks on both sides of 3rd Street between Monroe Street and Park Street		
Functional Classification: School Zone Collector (Main to Polk) Local (Monroe to Main)		**Existing ROW:** 40-50 feet **Required ROW:** 49-57 feet
Project Cost: $213,444.00	☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage pedestrian activity and connect students to Carlton Elementary		

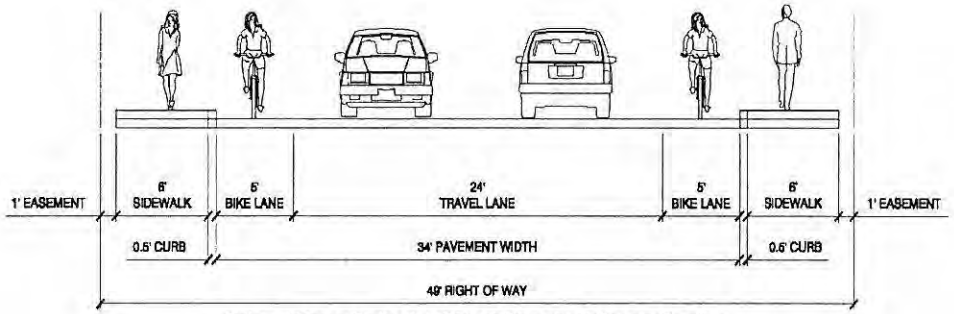
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

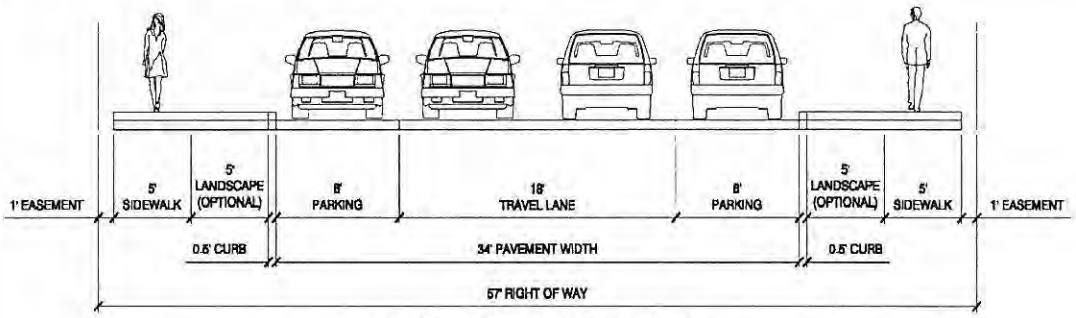


School Zone Collector Street Standard Cross-Section

*Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street

** On-street parking allowed where ROW permits

Typical Cross-Section:



Local Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 57ft of ROW and 28.5ft of half street ROW

** Bike lanes and 10ft sidewalks required on Yamhill Street from Main Street to Grant Street resulting in 67ft of ROW and 33.5ft of half street ROW

Project #: P2	**Crosswalk**	**Mode:** Pedestrian
Location: Highway 47 (Monroe Street)		**Priority:** Short
Description: Install pedestrian crosswalk across Highway 47 at Monroe Street		
Functional Classification: State Highway		**Existing ROW:** 55 feet **Required ROW:** 65 feet
Project Cost: $50,000.00	☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To improve safety and facilitate pedestrians crossing Highway 47 and to provide better connections in the pedestrian network		

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: P3	**Crosswalk**	**Mode:** Pedestrian
Location:	Highway 47 (Washington Street)	**Priority:** Medium
Description:	Install pedestrian crosswalk across Highway 47 at Washington Street	
Functional Classification:	State Highway	**Existing ROW:** 50 feet **Required ROW:** 65 feet
Project Cost:	$50,000.00 ☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To improve safety and facilitate pedestrians crossing Highway 47 and to provide better connections in the pedestrian network	

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: P4	**Pedestrian Crossing of Railroad Right-of-Way**	**Mode:** Bike/Ped
Location:	Washington St at Railroad Right-of-Way	**Priority:** Short

Description: Construct multi-use path along Washington Street across the existing railroad right-of-way

Functional Classification: Local **Existing ROW:** 50 feet
Required ROW: 47 feet

Project Cost: $19,305.00 ☑ Cost Constrained Plan ☐ ROW Purchase Required

Purpose: To encourage bicycle and pedestrian activity and connect students to Carlton Elementary

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: P5	**Sidewalk**	**Mode:** Pedestrian
Location:	Grant Street (River to Pine)	**Priority:** Short
Description:	Construct sidewalks on both sides of Grant Street between River Street and Pine Street	
Functional Classification:	Collector (Cunningham to Pine) Local (River to Cunningham)	**Existing ROW:** 40-50 feet **Required ROW:** 47-55 feet
Project Cost:	$289,436.00 ☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To encourage pedestrian activity and connect residents to Lower Wennerberg Park	

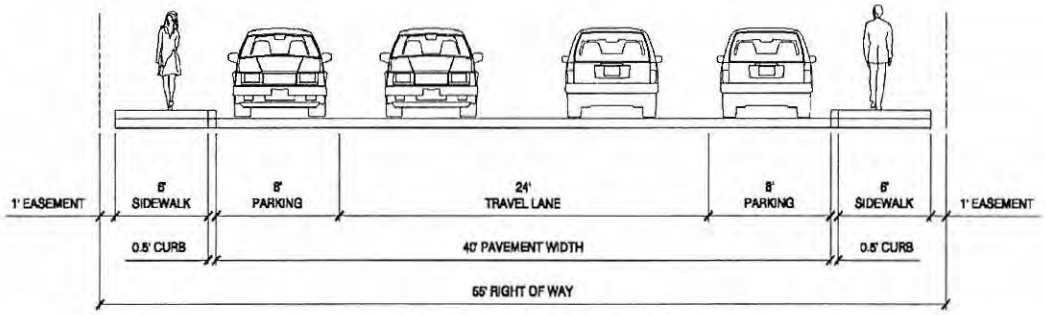
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

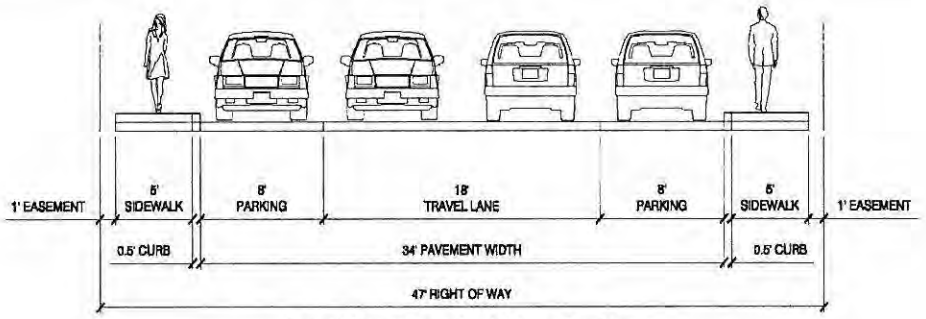


Collector Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property

Typical Cross-Section:



Local Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 57ft of ROW and 28.5ft of half street ROW
** Bike lanes and 10ft sidwalks required on Yamhill Street from Main Street to Grant Street resulting in 67ft of ROW and 33.5ft of half street ROW

Project #: P6	**Sidewalk**	**Mode:** Pedestrian
Location: Main Street (1st to 7th)		**Priority:** Short
Description: Construct sidewalks on both sides of Main Street between 1st Street and 7th Street		
Functional Classification: Arterial		**Existing ROW:** 60 feet **Required ROW:** 65 feet
Project Cost: $238,728.60	☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton		

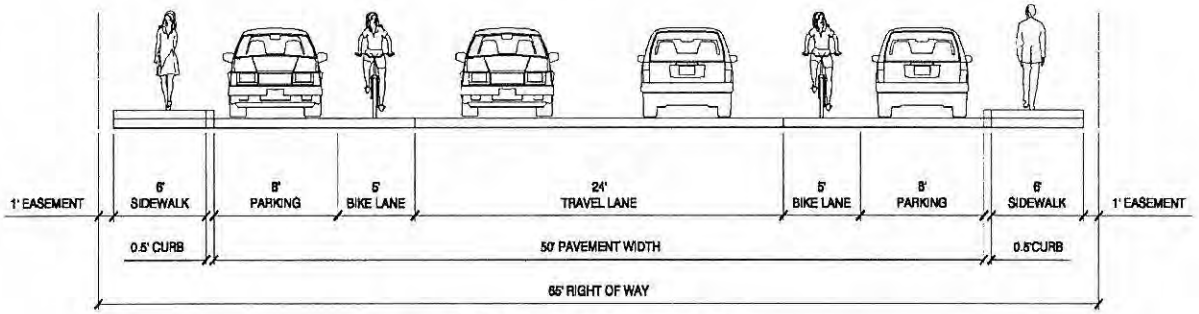
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Main Street (Excluding Hwy 47)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: P7	**Sidewalk**	**Mode:** Pedestrian
Location:	Monroe Street (Kutch to 3rd)	**Priority:** Short
Description:	Construct sidewalks on both sides of Monroe Street between Kutch Street and 3rd Street	
Functional Classification:	Collector	**Existing ROW:** 50-60 feet **Required ROW:** 55 feet
Project Cost:	$161,726.40 ☑ Cost Constrained Plan	☐ ROW Purchase Required
Purpose:	To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton	

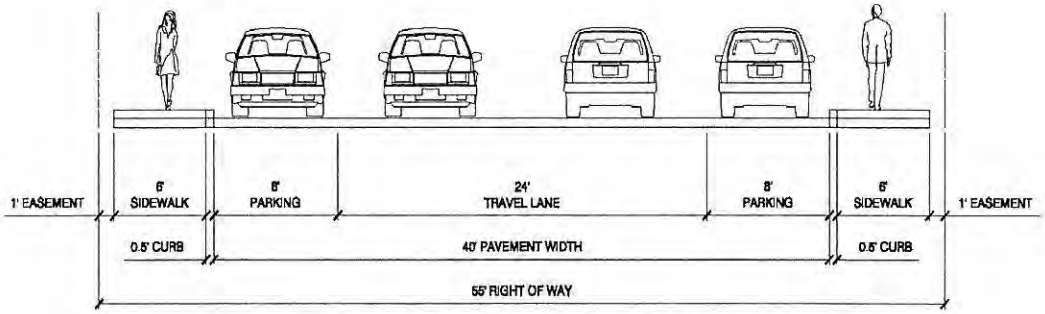
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Collector Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property

Project #: P8	**Sidewalk**	**Mode:** Pedestrian
Location:	Polk Street (Pine to 3rd)	**Priority:** Medium
Description:	Construct sidewalks on both sides of Polk Street between Pine Street and 3rd Street	
Functional Classification:	School Zone Collector	**Existing ROW:** 50 feet **Required ROW:** 49 feet
Project Cost:	$132,066.00 ☑ Cost Constrained Plan	☐ ROW Purchase Required
Purpose:	To encourage pedestrian activity and connect students to Carlton Elementary	

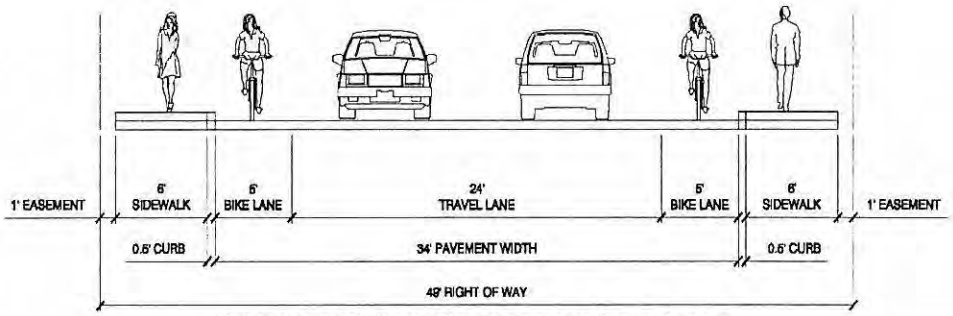
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



School Zone Collector Street Standard Cross-Section

*Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street

** On-street parking allowed where ROW permits

Project #: P9	**Sidewalk**	**Mode:** Pedestrian
Location: 1st Street (Monroe to Main)		**Priority:** Medium

Description: Construct sidewalks on both sides of 1st Street between Monroe Street and Main Street

Functional Classification: Collector **Existing ROW:** 40 feet
Required ROW: 55 feet

Project Cost: $72,864.00 ☑ Cost Constrained Plan ☑ ROW Purchase Required

Purpose: To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton

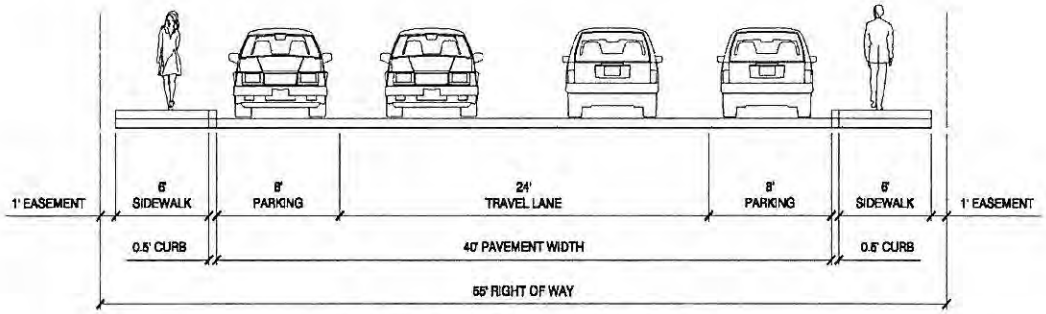
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Collector Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property

Project #: P10	**Sidewalk**	**Mode:** Pedestrian
Location: 4th Street (Main to Johnson)		**Priority:** Short
Description: Construct sidewalks on both sides of 4th Street between Main Street and Johnson Street		
Functional Classification: Collector		**Existing ROW:** 30-60 feet **Required ROW:** 55 feet
Project Cost: $253,440.00	☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton		

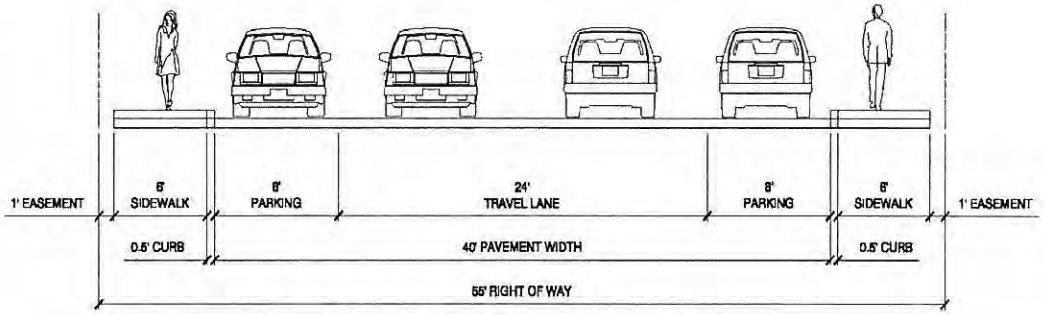
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Collector Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property

Project #: P11	**Sidewalk**	**Mode:** Pedestrian
Location:	Kutch Street (Lincoln to Monroe)	**Priority:** Short
Description:	Construct sidewalks on both sides of Kutch Street between Lincoln Street and Monroe Street	
Functional Classification:	Collector	**Existing ROW:** 25-75 feet **Required ROW:** 55 feet
Project Cost:	$127,376.40 ☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton	

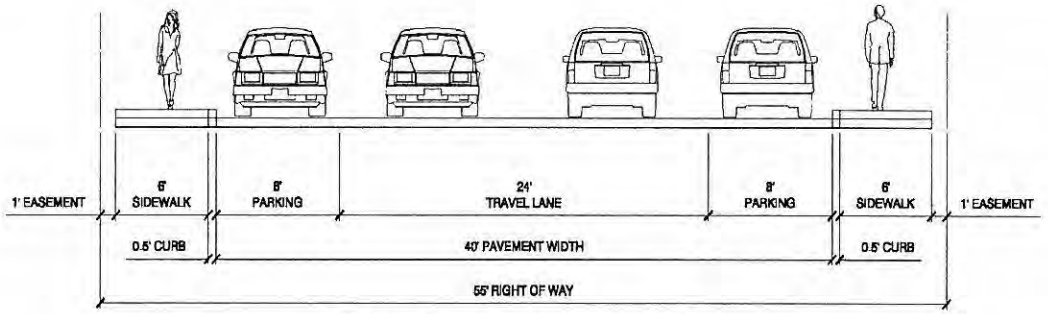
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Collector Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property

Project #: P12	**Sidewalk**	**Mode:** Pedestrian
Location: Washington Street (Pine to 3rd)		**Priority:** Medium

Description: Construct sidewalks on both sides of Washington Street between Pine Street and 3rd Street

Functional Classification: Local **Existing ROW:** 50 feet
Required ROW: 47-57 feet

Project Cost: $119,295.00 ☑ Cost Constrained Plan ☐ ROW Purchase Required

Purpose: To encourage pedestrian activity and connect students to Carlton Elementary

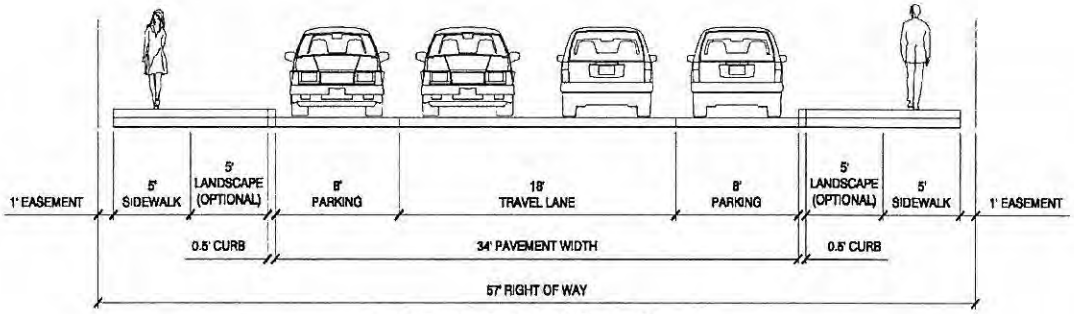
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Local Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 57ft of ROW and 28.5ft of half street ROW
** Bike lanes and 10ft sidwalks required on Yamhill Street from Main Street to Grant Street resulting in 67ft of ROW and 33.5ft of half street ROW

Project #: P13	**Sidewalk**	**Mode:** Pedestrian
Location:	Yamhill Street (UGB to Main)	**Priority:** Long
Description:	Construct sidewalks on both sides of Yamhill Street between northern UGB and Main Street	
Functional Classification:	State Highway	**Existing ROW:** 40-90 feet **Required ROW:** 65 feet
Project Cost:	$389,902.00 ☐ Cost Constrained Plan	☐ ROW Purchase Required
Purpose:	To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton	

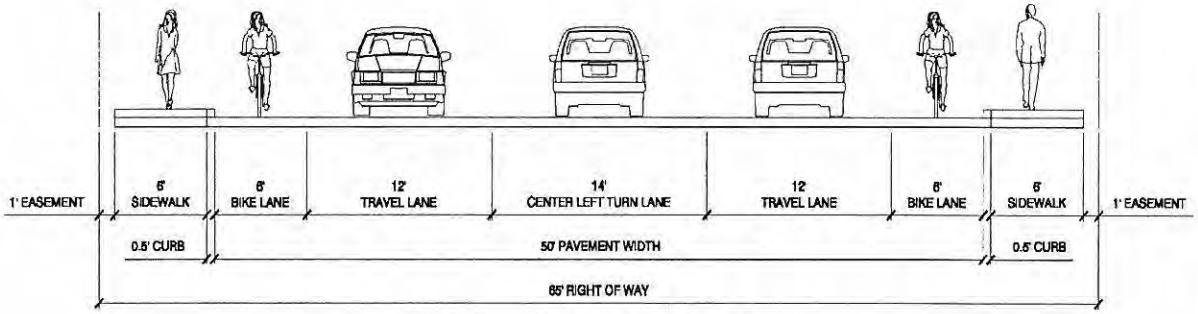
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: P14	**Multiuse Path**	**Mode:** Bike/Ped
Location: Railroad Right-of-Way		**Priority:** Long

Description: Construct multi-use path along the existing railroad right-of-way between the south and north city limits

Functional Classification:

Existing ROW: NA

Required ROW: NA

Project Cost: $517,770.00 ☐ Cost Constrained Plan ☐ ROW Purchase Required

Purpose: To encourage bicycle and pedestrian activity and create safe, off-street connections

Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:

NA

Project #: P15	**Sidewalk**	**Mode:** Pedestrian
Location: W Main St (Scott to Yamhill)		**Priority:** Medium
Description: Construct sidewalks on both sides of Main Street between Scott Street and Yamhill Street		
Functional Classification: Arterial		**Existing ROW:** 60 **Required ROW:** 65 feet
Project Cost: $91,872.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton		

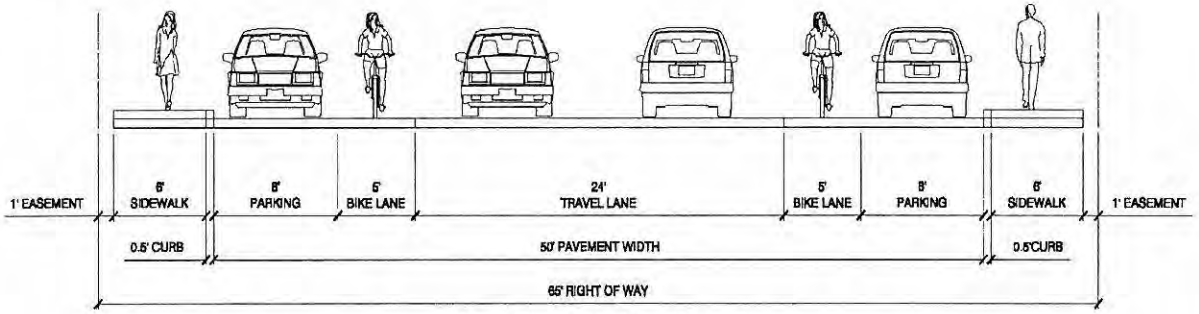
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Main Street (Excluding Hwy 47)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: P16	**Sidewalk**	**Mode:** Pedestrian
Location:	W Main St (Cunningham to Scott)	**Priority:** Long
Description:	Construct sidewalks on both sides of Main Street between Cunningham Street and Scott Street	
Functional Classification:	Arterial	**Existing ROW:** 52-90 feet **Required ROW:** 65 feet
Project Cost:	$92,664.00 ☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To encourage pedestrian activity and urbanize the roadway network, helping to facilitate growth in downtown Carlton	

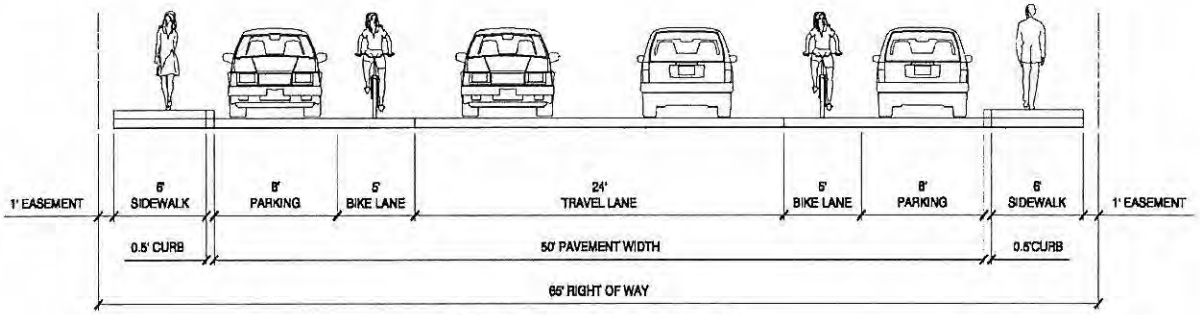
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Main Street (Excluding Hwy 47)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: B1	**Bike Lanes**	**Mode:** Bicycle
Location: 3rd St (Main to Polk)		**Priority:** Short
Description: Install 5' bike lanes on both sides of 3rd Street between Main Street and Polk Street through widening		
Functional Classification: School Zone Collector		**Existing ROW:** 40-50 feet **Required ROW:** 49 feet
Project Cost: $288,776.40	☑ Cost Constrained Plan	☐ ROW Purchase Required
Purpose: To encourage bicycle activity and connect students to Carlton Elementary		

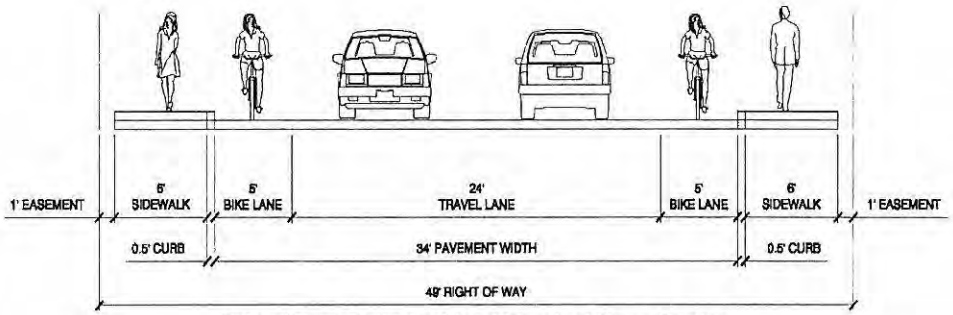
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



School Zone Collector Street Standard Cross-Section

*Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street

** On-street parking allowed where ROW permits

Project #: B2	**Bike Lanes**	**Mode:** Bicycle
Location: Grant Street (Yamhill to Pine)		**Priority:** Medium
Description: Install 5' bike lanes on both sides of Grant Street between Yamhill Street and Pine Street through widening		
Functional Classification: Collector		**Existing ROW:** 40 feet **Required ROW:** 65 feet
Project Cost: $144,144.00	☑ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage bicycle activity and create a connection that avoids downtown Main Street		

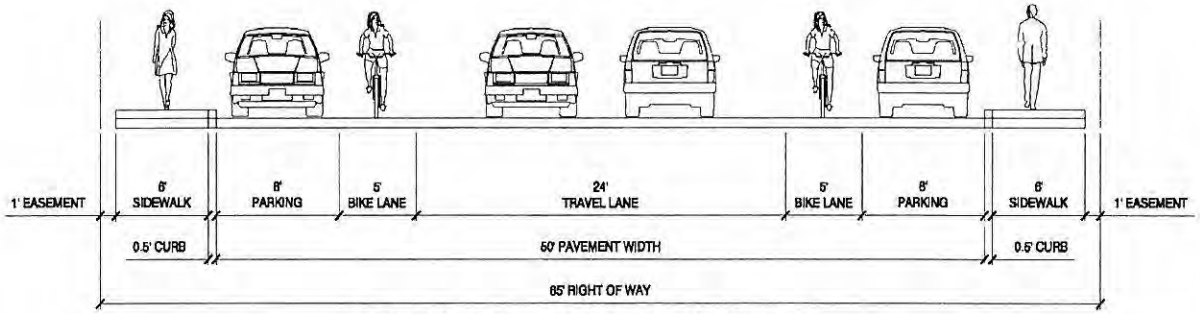
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Grant Street From Yamhill Street to Pine Street

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 65ft of ROW and 32.5ft of half street ROW

Project #: B3	**Bike Lanes**	**Mode:** Bicycle
Location: Polk St (Pine to 3rd)		**Priority:** Short

Description: Install 5' bike lanes on both sides of Polk Street between Pine Street and 3rd Street through widening

Functional Classification: School Zone Collector **Existing ROW:** 50 feet
Required ROW: 49 feet

Project Cost: $192,036.90 ☑ Cost Constrained Plan ☐ ROW Purchase Required

Purpose: To encourage bicycle activity and connect students to Carlton Elementary

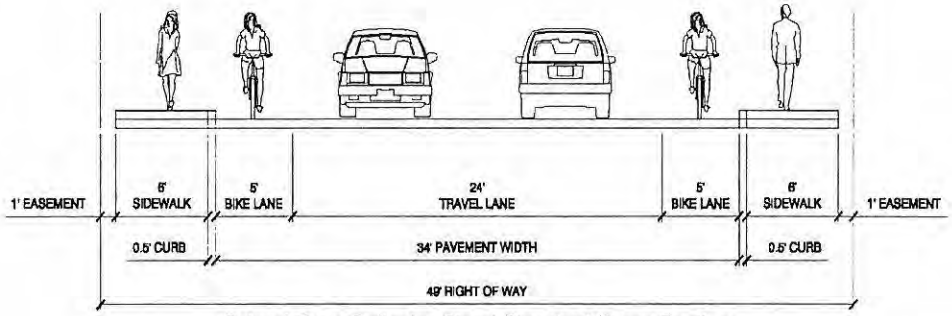
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



School Zone Collector Street Standard Cross-Section

*Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street

** On-street parking allowed where ROW permits

Project #: B4	**Bike Lanes**	**Mode:** Bicycle
Location:	N Yamhill St (UGB to Grant St)	**Priority:** Medium
Description:	Install 5' bike lanes on both sides of Yamhill Street between the northern UGB and Grant Street through widening	
Functional Classification:	State Highway (North UGB to Main) Local (Main to Grant)	**Existing ROW:** 40-90 feet **Required ROW:** 65-67 feet
Project Cost:	$625,291.00 ☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To encourage bicycle activity and urbanize the roadway network to facilitate growth in downtown Carlton	

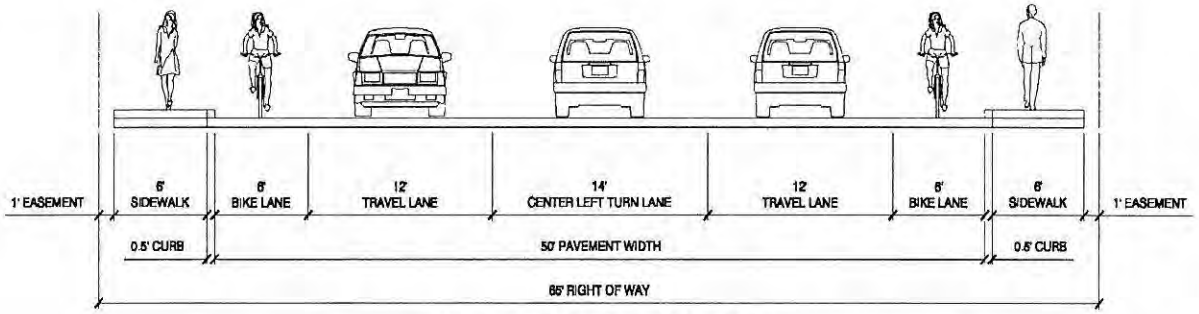
Project Location:

Legend:

Selected Project

Other Projects

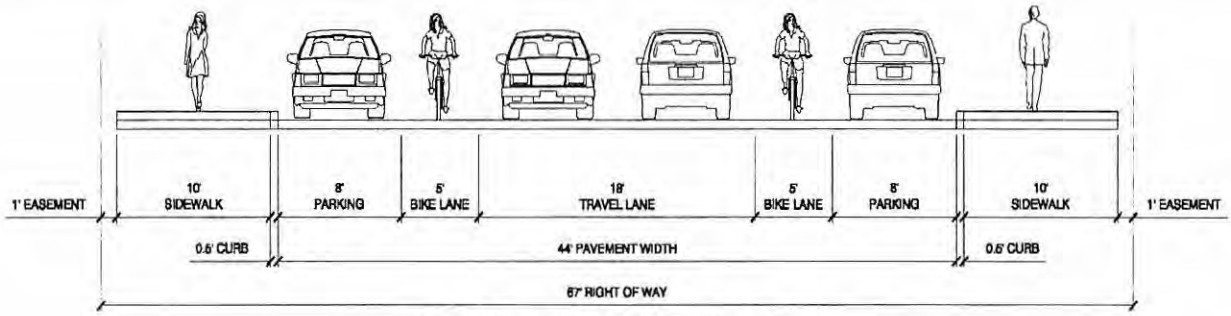
Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Typical Cross-Section:



Yamhill Street From Main St to Grant Street

Project #: B5	**Bike Lanes**	**Mode:** Bicycle
Location: S Pine St (Main to Taylor)		**Priority:** Long
Description: Install 5' bike lanes on both sides of Pine Street between Main Street and Taylor Street through widening		
Functional Classification: State Highway		**Existing ROW:** 50 feet **Required ROW:** 65 feet
Project Cost: $529,122.00	☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose: To encourage bicycle activity and urbanize the roadway network to facilitate growth in Carlton		

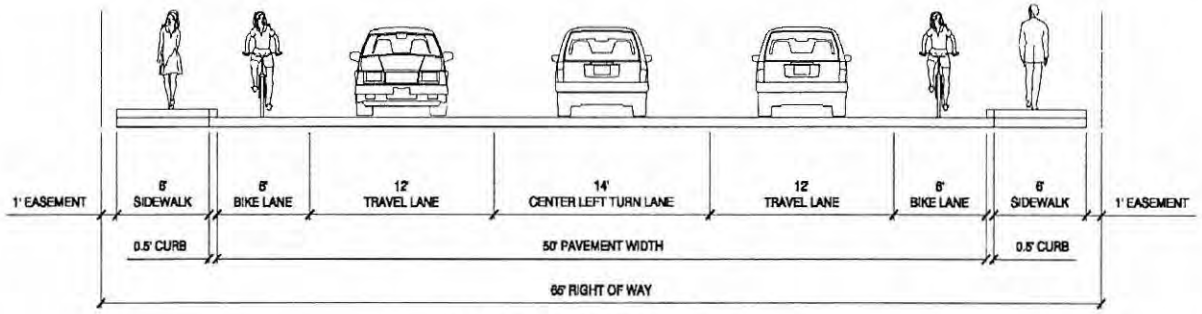
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Project #: B6	**Bike Lanes**	**Mode:** Bicycle
Location:	Main St (west UGB to east UGB, excluding Hwy 47)	**Priority:** Long
Description:	Install 5' bike lanes on both sides of Main Street between the west city limits and east city limits, excluding the Highway 47 portion, through widening	
Functional Classification:	Arterial	**Existing ROW:** 52-92 feet **Required ROW:** 65 feet
Project Cost:	$1,007,493.00 ☐ Cost Constrained Plan	☑ ROW Purchase Required
Purpose:	To encourage bicycle activity and urbanize the roadway network to facilitate growth in Carlton	

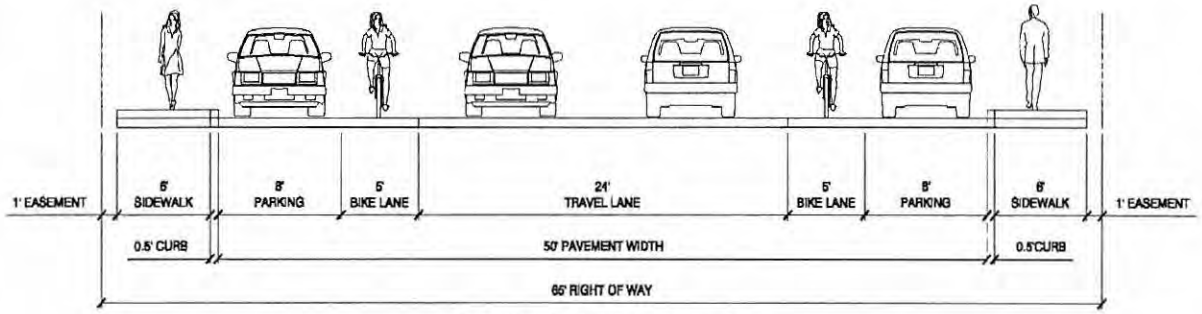
Project Location:

Legend:

Selected Project

Other Projects

Typical Cross-Section:



Main Street (Excluding Hwy 47)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

Appendix P
Policy and Code Revisions

AMENDMENTS TO THE CARLTON DEVELOPMENT CODE

Chapter 17.60 (General Provisions)

17.60.010 Purpose.

The purpose of this chapter is to:

A. Carry out the comprehensive plan with respect to development standards and policies.

B. Insure that natural features of the landscape, such as landforms, natural drainage-ways, trees and wooded areas, are preserved as much as possible and protected during construction.

C. Promote energy conservation and efficiency in development through site planning and landscaping.

D. Promote and maintain healthy environments and minimize development impacts upon surrounding properties and neighborhoods.

E. Provide an economical, safe, accessible, and multi-modal transportation system for the community.

17.60.30 Application of public facility standards.

Standards for the provision and utilization of public facilities or services available within the city of Carlton shall apply to all land developments in accordance with the following table of reference. No development permit shall be approved unless the following improvements are provided for prior to occupancy or operation, or unless future provision is assured in accordance with Chapter 17.216.

Public Facilities Improvement Requirements Table

	Fire Hydrant	Streets	Water Hookup	Sewer Hookup	Storm Drain	Street Lights
Single-family Dwelling & Duplex	No	C-2	Yes	Yes	Yes	No
Multifamily Dwelling	C-1	Yes	Yes	Yes	Yes	Yes
New Commercial Building	C-1	Yes	Yes	Yes	Yes	Yes
Commercial **Change of Use or** Expansion	C-1	C-3	Yes	Yes	Yes	Yes
New Industrial Building	C-1	Yes	Yes	Yes	Yes	Yes
Industrial **Change of Use or** Expansion	C-1	C-3	Yes	Yes	Yes	Yes
Partition, Subdivisions, PUD, or Manufactured Home Park	C-1	Yes	Yes	Yes	Yes	Yes

Legend:
No = Not required
Yes = Required
C = Conditional, as noted:

C-1 Fire Hydrants for Commercial, Industrial Expansions, or Residential Uses: One or more fire hydrants are required as per the Uniform Building Code and Uniform Fire Code or if adequate fire flows are not available to the site. If the existing water lines are insufficient to provide adequate fire flows, water lines shall be upgraded to provide sufficient capacity at the developer's expense.

C-2 New Single-Family Dwellings or Duplexes: Are responsible for sidewalk construction across all property frontages including curb and gutter where necessary. In addition, if so required by the city engineer, a three-quarter street improvement to city street standards for all boundary streets (See Section 17.128.050).

C-3 Street Improvements for Commercial or Industrial **Change of Use or** Expansions: The city will require improvement to full city standards when the use meets any of the following criteria:

a. The expanded use generates an average of 100+ trips per day as documented in the Trip Generation Manual of the Institute of Transportation engineers or other qualified source; or

b. The expanded use includes at least weekly shipping and delivery trips by vehicles over twenty thousand (20,000) pounds gross vehicle weight; or

c. The subject use expands by at least twenty-five (25) percent.

Lots fronting on Highway 47 must obtain access permits from the Oregon Department of Transportation (ODOT).

17.60.040 Design standards.

The design of all improvements within existing and proposed rights-of-way and easements, all improvements to be maintained by the city, and all improvements for which city approval is required, shall comply with the requirements of the most recently adopted Standard Specifications for Public Works Construction in the City of Carlton. (Ord. 619, 2003)

Chapter 17.64 (Street Standards)

17.64.010 Purpose.

A. To provide for safe, efficient, and convenient vehicular movement in the city.

B. To provide adequate access to all proposed and anticipated developments in the city.

C. To provide adequate area in all public rights-of-way for sidewalks, **bikeways, landscape strips,** sanitary sewers, storm sewers, water lines, natural gas lines, power lines, and other utilities commonly and appropriately placed in such rights-of-way.

D. Preserve and protect the existing and intended function of the road and other transportation facilities.

E. Ensure that land uses authorized under Comprehensive Plan Map and Zoning Map amendments are consistent with the identified function, capacity, and level of service of transportation facilities.

17.64.020 Scope.

The provisions of this chapter shall be applicable to:

A. The creation, dedication, or construction of all new public or private streets, pedestrian facilities, and bikeways in all subdivisions, partitions, or other developments in the city.

B. The extension or widening of existing public or private street rights-of-way, easements, or street improvements including those which may be proposed by an individual or the city, or which may be required by the city in association with other development approvals.

C. The construction or modification of any utilities, bikeways, or sidewalks in public rights-of-way or private street easements.

D. The planting of street trees or other landscape materials in public rights-of-way **(landscape strip)**.

17.64.030 General provisions.

The following provisions shall apply to the dedication, construction, improvement, or other development of all public streets in the city, and are intended to provide a general overview of typical minimum design standards. All streets shall be designed in conformance with the specific requirements of the most recently adopted Standard Specifications for Public Works Construction in the City of Carlton **and the Transportation System Plan**.

The standard sections contained in Standard Specifications for Public Works Construction in the City of Carlton **and the Transportation System Plan** are minimum requirements only and shall not be construed as prohibiting the city engineer from requiring thicker sections or engineer designed pavement sections in lieu of standard sections where conditions warrant.

A. The location, width, and grade of streets shall be considered in their relation to existing and planned streets, to topographical conditions, to public convenience and safety, and to the proposed use of the land to be served by the streets.

B. Development proposals shall provide for the continuation, and connection to, all streets, bikeways and pedestrian facilities within the development and to existing streets, bikeways and pedestrian facilities outside the development.

C. Alignment. All streets other than minor streets or cul-de-sacs, as far as practical, shall be in alignment with existing streets by continuation of the centerline thereof. The staggering of street alignments resulting in "T" intersections shall leave a minimum distance recommended by the city engineer.

D. Future Extension of Streets. **In order to promote the development of an efficient network of city streets and connections to state and county roads, development shall provide future street extensions as shown on the Future Street Plan found in the Carlton Transportation System Plan.**

In addition to providing for future street extensions shown on the Future Street Plan, ~~Where necessary to give access to or permit a satisfactory future development of adjoining land,~~ streets, bikeways and pedestrian facilities, shall **also** be extended to the boundary of a tract being developed**, where necessary to give access to or permit a satisfactory future development of adjoining land**. Reserve strips and street plugs may be required to preserve the objectives of street extensions.

E. Existing Streets.

1. Three-quarter improvements to all existing streets adjacent to, within or necessary to serve the property, shall be required at the time of partitioning or subdivision, unless the applicant demonstrates to the satisfaction of the city engineer that the condition and sections of the existing streets meet city standards and are in satisfactory condition to handle projected traffic loads.

Full street improvements to all existing streets adjacent to, within or necessary to serve the property, shall be required when it is determined that the vehicular and/or pedestrian impacts from the proposed development necessitate such improvements.

2. For infill development that does not include partitioning or subdivision, construction of sidewalks, including curb and gutter where necessary, along all property frontages shall be the minimum requirement of development. A three-quarter street improvement shall be required if the city engineer determines that the existing streets are not in condition to handle projected traffic loads.

3. The city shall require the applicant to record an approved improvement deferral agreement or non-remonstrance agreement, see Section 17.216.030, in lieu of street improvements, where the following criteria are met:

   a. The existing roadway condition and sections are adequate to handle existing and projected traffic loads; and

   b. Existing public utilities (water, sanitary sewer and storm sewer) located within the existing roadway are adequate, or can be improved without damaging the existing roadway surface.

F. New Streets. Where new streets are created, full street improvements shall be required. Three-quarter streets may be approved in lieu of full street improvements on boundary streets when the city finds it to be practical to require the completion of the other one-quarter street improvement when the adjoining property is developed. The city may allow three-quarter street improvements if all of the following criteria are met:

1. The adjoining land abutting the opposite side of the street is undeveloped; and

2. Storm water drainage is provided for on the non-curbed side of three-quarter street improvements in areas judged by the city engineer to have drainage concerns.

   One-foot wide reserve strips and street plugs may be required to preserve the objectives of three-quarter streets.

G. Cul-de-Sacs. Cul-de-sacs shall have maximum lengths of four hundred (400) feet and serve no more than eighteen (18) dwelling units. All cul-de-sacs shall terminate with circular turn-a-rounds.

H. Dead-End Streets. When it appears necessary to continue a street or public access way into a future subdivision or adjacent acreage, streets, or public access way shall be platted to a boundary of a subdivision or partition. The street may be platted without a turnaround unless the planning commission finds that a turnaround is necessary.

I. Street Names. Street names and numbers shall conform to the established pattern in the city and shall be subject to the approval of the city. Street names shall be required for all new publicly dedicated streets and private streets.

J. Grades and Curves. Grades shall not exceed six percent on arterials, ten (10) percent on collectors, or twelve (12) percent on any other public or private street. To provide for adequate drainage, all streets shall have a minimum slope of 0.5 percent. Center line radii of curves shall not be less than three hundred (300) feet on major arterials, two hundred (200) feet on minor arterials, or one hundred (100) feet on other streets, and shall be to an even ten (10) feet. On arterials there shall be a tangent of not less than one hundred (100) feet between reversed curves. Where existing conditions, particularly topography, make it otherwise impractical to provide buildable lots, the planning commission may accept steeper grades and sharper curves.

K. Marginal Access Streets. If a development abuts or contains an existing or proposed arterial street or railroad right-of-way, the city may require marginal access streets, reverse frontage lots with suitable depth, screen planting contained in a non-access reservation along the rear or side property line, or such other treatment as may be necessary for adequate protection of residential properties and to afford separation of through and local traffic.

L. Vision Clearance Area. Vision clearance areas shall be maintained on corner lots at the intersection of all public streets and at the intersections of a public street with a private street as outlined in Section 17.92.080.

M. Spacing Between Public Road Intersections. Spacing between public road intersections for each functional class of road shall conform to access spacing standards found in 17.100.030.

N. Landscape Strip. The landscape strip includes the area located between a sidewalk and the curb (see figure below). This area serves many important functions including creating space for a variety of underground utilities such as telephone, cable television, fiber optic cables, etc. The landscape strip is also beneficial for locating utility poles, fire hydrants, benches, bus shelters and other features that might otherwise block or obstruct pedestrian travel along sidewalks. Landscaping helps to soften the hard edge created by pavement and curbs. Large trees can also provide cooling summer shade for parked cars and pedestrians. A canopy of street trees can help to slow traffic and enhance the beauty of the community. The physical separation from the street also improves the design of sidewalks by maintaining a constant grade without dipping at driveways, and makes American with Disabilities Act compliance easier. During winter months, snow can be plowed into these areas from the street and not block sidewalks. The landscape strip provides a physical separation from the adjacent roadway, providing enhanced pedestrian comfort and improved walking experience.

Landscaping and plant materials used in the landscape strip are subject to the provisions of Chapter 17.84. Maintenance of landscape strips in the right-of-way is the continuing obligation of the adjacent property owner.

17.64.040 Right-of-way and improvement widths.

The following standards are general criteria for **all types of** public streets, bikeways**, landscape strips** and sidewalks in the city. These standards shall be the minimum requirements for all streets, except where modifications are permitted under Section 17.64.050.

~~Street Classification~~	~~ROW Width~~	~~Curb to Curb Width~~	~~3/4 Street Improvement~~	~~Bikeway Width~~	~~Sidewalk Width~~
~~Arterials~~	~~60 feet~~	~~44 feet~~	~~33 feet~~	~~5 feet each side~~	~~6 feet~~
~~Collector~~	~~60 feet~~	~~40 feet~~	~~24 feet~~	~~5 feet each side~~	~~5 feet~~
~~Local Residential~~	~~50 feet~~	~~34 feet~~	~~24 feet~~	~~N/R~~	~~5 feet~~
~~Alley~~	~~20 feet~~	~~12 feet~~	~~Not Applicable~~	~~N/R~~	~~N/R~~
~~Cul-de-sac bulb~~	~~45 foot radius~~	~~38 foot radius~~	~~Not Applicable~~	~~N/R~~	~~N/R~~

Street Classification		ROW Width (ft)	Pavement Width (ft)	Sidewalk Width (ft)	Landscape Strip (ft)	Bikeway Width (ft)	Parking
Local	Typical	47-57	34	5 [1]	5 (optional)	N/R	2 sides
	Commercial/Industrial Districts	60	36	5 [1]	5 (optional)	N/R	2 sides
	Local Narrow Option [2]	39-49	26	5	5 (optional)	N/R	1 side
Collector	Existing Street	55	40	6 [1]	N/R	None [4]	2 sides
	New Street	71	46	6 [1]	5	5	2 sides
	School Zone [3]	49	34	6	N/R	5	None [5]
Arterials	Highway 47 (N. and S. of Main St.)	65	50	6 [1]	N/R	6	None
	Highway 47 (Main Street - STA)	60	40	10	N/R	None	2 sides
	Main Street (E. and W. of Highway 47)	65	50	6 [1]	N/R	5	2 sides
Alley		20	12 feet	N/R	N/R	N/R	N/R
Cul-de-sac bulb		45 foot radius	38 foot radius	5	N/R	N/R	N/R

[1] Ten-foot sidewalks required along commercially zoned property.
[2] Local narrow option allowed in residential areas only that provide access to 19 or fewer dwelling units.
[3] Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street.
[4] Bicycle lanes required on Grant Street from Yamhill Street to Pine Street and Yamhill Street from Main Street to Grant Street.
[5] On-street parking permitted to be included during design phase where ROW available.

The property line radius at intersections of local streets shall be twenty (20) feet. All other intersection property line radii shall be according to the specifications of the city engineer.

17.64.050 Modification of right-of-way and improvement width.

The city, pursuant to the review procedures of Chapter 17.196, may allow modification to the public street standards of Section 17.64.040, when both of the following criteria are satisfied:

A. The modification is necessary to provide design flexibility in instances where:

1. Unusual topographic conditions require a reduced width or grade separation of improved surfaces; or
2. Parcel shape or configuration precludes accessing a proposed development with a street which meets the full standards of Section 17.64.040; or
3. A modification is necessary to preserve trees or other natural features determined by the city to be significant to the aesthetic character of the area; or
4. A planned unit development is proposed and the modification of street standards is necessary to provide greater privacy or aesthetic quality to the development.

B. Modification of the standards of Section 17.64.040 shall only be approved if the city finds that the specific design proposed provides adequate vehicular access based on anticipated traffic volumes. (Ord. 619, 2003)

Chapter 17.84 (Site and Landscaping Design)

17.84.020 Scope.

All construction, expansion, or redevelopment of structures or parking lots for commercial, multi-family, or industrial uses shall be subject to the landscaping requirements of this chapter. **The construction of new streets containing landscape strips shall also be subject to the landscaping requirements of this chapter.**

17.84.090 Recommended and Prohibited Street Trees

A list of recommended and prohibited street trees will be provided by the City of Carlton.

Chapter 17.88 (Development Standards for Land Divisions)

17.88.040 Standards for blocks.

A. General. The length, width, and shape of blocks shall be designed with regard to providing adequate building sites for the use contemplated; consideration of needs for convenient access, circulation, control, and safety of street traffic; and recognition of limitations and opportunities of topography.

B. Sizes.

1. Block Length. Except as provided in 17.100.030 for the Main Street Special Transportation Area (STA), blocks **in residential and commercial districts** shall **be a minimum of 100-feet long and shall** not exceed **600** ~~one thousand (1,000)~~feet in length between street **right-of-way** lines, ~~except blocks adjacent~~

~~to arterial streets, or~~ unless the previous adjacent development pattern or topographical conditions justify a variation. ~~The recommended minimum distance between intersections of arterial streets is one thousand eight hundred (1,800) feet.~~ **Blocks that exceed 600 feet in length shall provide additional pedestrian and bicycle accessways.**

2. **Block Perimeter. Block perimeters in residential and commercial districts shall not exceed 1,400 feet.**

C. Alleys. Alleys may be provided in all districts, however, alleys shall be provided in commercial and industrial areas, unless other permanent provisions for access to off-street parking and loading facilities are provided.

Chapter 17.100 (Access Control Standards)

17.100.010 Purpose.

The purpose is to implement the access management policies of the City of Carlton, Transportation System Plan. Access control standards manage access to land development while preserving the flow of traffic in terms of safety, capacity, functional classification, and level of service. Major roadways, including highways, arterials, and collectors serve as the primary network for moving people and goods. These transportation corridors also provide access to businesses and homes and have served as the focus for commercial and residential development. If access points are not properly designed, these roadways will be unable to accommodate the needs of development and retain their primary transportation function. To achieve this purpose, state and local roadways have been categorized in the City of Carlton, Transportation System Plan by function and classified for access purposes based upon their level of importance and function. Regulations are applied to these roadways for the purpose of reducing traffic accidents, personal injury, and property damage attributable to poorly designed access systems, and to thereby improve the safety and operation of the roadway network. This protects the substantial public investment in the existing transportation system and reduces the need for expensive remedial measures. (Ord. 619, 2003)

17.100.020 Applicability.

This title shall apply to all ~~arterials and collectors~~ **public streets** within Carlton and to all properties that abut these roadways.

17.100.030 Access spacing standards.

A hierarchy of spacing standards is established that is dependent on the functional classification of the street.

Function Street Classification	Posted Speed Range	Minimum Spacing Between Driveways and/or Streets
Highway 47		
Yamhill to Pine Street (Main Street STA)	20 mph	~~350 feet~~ Streets: Existing city block spacing Driveways: 175 feet or mid-block if block is less than 350 feet
North city limits to Main Street	20-30 mph	450-600 feet
South city limits to Main Street	20-30 mph	450-600 feet
Arterial	25-35 mph	Streets: 220 feet Driveways: 110 feet or mid-block if block is less than 220 feet
Collector	20-25 mph	75 feet
Local	20-25 mph	50 feet

(Ord. 619, 2003)

17.100.040 General standards.

A. Lots that front on more than one street shall be required to locate motor vehicle accesses on the street with the lower functional classification.

B. When a residential subdivision is proposed that would abut an arterial, it shall be designed to provide through lots along the arterial with access from a marginal access or local street. Access rights of these lots, to the arterial shall be dedicated to the city of Carlton and recorded with the deed. A berm or buffer yard may be required at the rear of through lots to buffer residences from traffic on the arterial.

C. Subdivisions with frontage on the state highway system shall be designed to share access points to and from the highway. If access off of a secondary street is possible, then access should not be allowed onto the state highway.

D. Wherever a proposed development abuts unplatted developable land within the urban growth boundary, street stubs shall be provided to provide access to abutting properties or to logically extend the street system into the surrounding area.

E. Local streets shall connect with surrounding streets to permit the convenient movement of traffic between residential neighborhoods or facilitate emergency access and evacuation. Connections shall be designed to avoid or minimize through traffic on local streets. Appropriate design and traffic control such as four-way stops and traffic calming measures are the preferred means of discouraging through traffic.

F. In all cases reasonable access or the minimum number of access connections, direct or indirect, necessary to provide safe access to and from a street shall be granted.

G. New connections shall not be permitted within the functional area of an intersection as defined by the connection spacing standards of this title, unless no other reasonable access to the property is available. (Ord. 619, 2003)

17.100.070 Review procedures.

A. Access Permit Required. Access to a public street (e.g., a new curb cut or driveway approach) requires an Access Permit. An access permit may be in the form of a letter to the applicant, or it may be attached to a land use decision notice as a condition of approval. In either case, approval of an access permit shall follow the procedures and requirements of the applicable road authority, as determined through the Type I review procedures found in Section 17.188.010. ~~Applicants for site design reviews impacting access shall submit a preliminary site plan that shows:~~

~~1. Location of existing and proposed access point(s) on both sides of the road where applicable;~~

~~2. Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;~~

~~3. Number and direction of lanes to be constructed on the driveway plus striping plans;~~

~~4. All planned transportation features (such as sidewalks, bikeways, signs, signals, etc.);~~

B. Traffic Study Requirements.

1. The City shall require a traffic impact analysis (TIA) prepared by a qualified professional to determine access, circulation, and other transportation requirements when:

   a. The development generates 25 or more peak-hour trips or 250 or more daily trips.

   b. An access spacing exception is required for the site access driveway(s) and the development generates 10 or more peak-hour trips or 100 or more daily trips.

   c. The development is expected to impact intersections that are currently operating at the upper limits of the acceptable range of level of service during the peak operating hour.

   d. The development is expected to significantly impact adjacent roadways and intersections that have previously been identified as high crash locations or areas that contain a high concentration of pedestrians or bicyclists such as a schools.

2. Transportation Assessment. If a TIA is not required, the applicant's traffic engineer shall submit a transportation assessment letter to the City indicating the proposed land use action is exempt. This letter shall outline the trip-generating characteristics of the proposed land use and verify that the site-access driveways or roadways meet City of Carlton sight-distance requirements and roadway design standards.

   The Pubic Works Director may waive the requirement for a transportation assessment letter if a clear finding can be made that the proposed land use action does not generate 25 or more peakhour trips or 250 or more daily trips and the existing and or proposed driveway(s) meet the City's sight-distance requirements and access spacing standards.

C. Conditions of Approval. The City may require the closing or consolidation of existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), development of a frontage street, installation of traffic control devices, and/or other mitigation as a condition of granting an access permit, to ensure the safe and efficient operation of the street and highway system.

DB. ~~Development~~ Access permit reviews shall address the following ~~access~~ criteria:

1. Access shall be properly placed in relation to sight distance, driveway spacing, and other related considerations, including opportunities for joint and cross access;
2. The road system shall provide adequate access to buildings for residents, visitors, deliveries, emergency vehicles, and service vehicles;
3. The access shall be consistent with the access management standards in the most current adopted City of Carlton, Transportation System Plan.

EC. Any application that involves access to the State Highway System shall be reviewed by the Oregon Department of Transportation for conformance with state access management standards. (Ord. 619, 2003)

Chapter 17.144 (Summary of Application Types)

17.144.020 Type I action.

A ministerial action reviewed by staff based on clear and objective standards. No conditions may be placed on the decision and notice of the decision is sent only to the applicant. Appeal is to the planning commission. The following actions are processed under the Type I procedure:

A. Minor variance;
B. Lot line adjustment;

C. Fence permit;
D. Sign permit;
E. Floodplain permit;
F. Home occupation~~.~~;
G. Access permit.

Chapter 17.176 (Subdivisions and Planned Unit Developments)

17.176.020 Application and fee.

A. The following submittal requirements shall apply to all preliminary plan applications for subdivisions and PUDs:

1. All applications shall be submitted on forms provided by the city to the city recorder along with the appropriate fee. It shall be the applicant's responsibility to submit a complete application that addresses the review criteria of this chapter;

2. The applicant shall submit ten (10) clear and legible copies of the preliminary plan on sheets that are twenty-four (24) inches by thirty-six (36) inches in size. Preliminary plans shall be drawn to a scale of one-inch equals one hundred (100) feet or larger;

3. General Information. The following general information shall be shown on the preliminary plan:

   a. Vicinity map extending one thousand two hundred (1,200) feet in each direction showing all streets, property lines, streams, and other pertinent data to locate the proposal;

   b. North arrow, scale of drawing and date of preparation;

   c. Tax map and tax lot number or tax account of the subject property;

   d. Dimensions and size in square feet or acres of the subject property;

   e. The names and addresses of the property owner, partitioner and engineer, surveyor, or other individual responsible for laying out the partition.

4. Existing Conditions. The preliminary plan shall show:

   a. Location of all existing easements within the property;

   b. Location of city utilities (water, sanitary sewer, storm drainage) within or adjacent to the property proposed for use to serve the development;

   c. The location and direction of watercourses or drainage swales. The location and disposition of any wells, wetlands identified on the State Wetland Inventory, septic tanks, and drain fields in the development;

d. Existing uses of the property, including location of existing structures on the property. It should be noted whether the existing structures are to be removed or to remain on the property;

e. Contour lines related to an established benchmark, having the following minimum intervals:

i. Areas with less than five percent slope: one-foot contours;

ii. Areas with slope between five percent and ten (10) percent: two-foot contours;

iii. Areas with slope greater than ten (10) percent: five-foot contours;

5. Proposed Plan. The preliminary plan shall clearly show to scale the following:

a. Proposed name of the PUD or subdivision;

b. Locations, approximate dimensions and area in square feet of all proposed lots. Identification of each lot and block by number;

c. Proposed streets and their names, approximate grade, radius of curves, and right-of-way widths;

d. Any other legal access to the subdivision or PUD, other than a public street;

e. Location, width and purpose of any proposed easements;

f. If the development is to be constructed in phases, indicate the area of each phase.

6. Supplemental Information. Proposed deed restrictions, if any, in outline form.

7. A traffic impact analysis if requested by the city manager;

AMENDMENTS TO THE CARLTON PUBLIC WORKS DESIGN STANDARDS

Division 2 (Streets)

2.7 EXISTING STREET CLASSIFICATIONS

1) Arterial:

- Hwy 47 (Arthur south of Taylor, Pine from Wilson to Main, Yamhill north of Main)
- Main Street

2) Collector (~~1999~~ **2009** TSP):

- Johnson Street from Yamhill Street to Kutch Street
- **Johnson Street from 4th Street to 7th Street**
- Jefferson Street from Yamhill Street to Kutch Street
- Madison Street from Yamhill Street to Kutch Street
- Monroe Street from Scott Street to 5th Street
- Cunningham Street from Grant Street to Main Street
- Scott Street from Main Street to Monroe Street
- Grant Street from Cunningham Street to Pine Street
- Kutch Street from ~~Johnson~~ **Roosevelt** Street to ~~Monroe~~ **Main** Street
- **1st Street from Roosevelt Street to Main Street**
- 3rd Street from southern terminus to Main Street
- 4th Street from Main Street to Johnson Street
- 7th Street from Main Street to northern terminus
- Park Street from south city limits to Grant Street
- Polk Street from Park Street to 3rd Street
- **Roosevelt Street from western terminus to 1st Street**
- **Wilson Street from Pine Street to Arthur Street**

2.11 IMPROVEMENT STANDARDS BY STREET CLASSIFICATION

a. **The Carlton Transportation System Plan and Subsection 17.64.040 of the Carlton Development Code define the standards for street right-of-way and improvement requirements.** The table below summarizes the improvement standards for each road classification.

Street Classification		ROW Width (ft)	Pavement Width (ft)	Sidewalk Width (ft)	Landscape Strip (ft)	Bikeway Width (ft)	Parking
Local	Typical	47-57	34	5 [1]	5 (optional)	N/R	2 sides
	Commercial/Industrial Districts	60	36	5 [1]	5 (optional)	N/R	2 sides
	Local Narrow Option [2]	39-49	26	5	5 (optional)	N/R	1 side
Collector	Existing Street	55	40	6 [1]	N/R	None [4]	2 sides
	New Street	71	46	6 [1]	5	5	2 sides
	School Zone [3]	49	34	6	N/R	5	None [5]
Arterials	Highway 47 (N. and S. of Main St.)	65	50	6 [1]	N/R	6	None
	Highway 47 (Main Street - STA)	60	40	10	N/R	None	2 sides
	Main Street (E. and W. of Highway 47)	65	50	6 [1]	N/R	5	2 sides
Alley		20	12 feet	N/R	N/R	N/R	N/R
Cul-de-sac bulb		45 foot radius	38 foot radius	5	N/R	N/R	N/R

[1] Ten-foot sidewalks required along commercially zoned property.

[2] Local narrow option allowed in residential areas only that provide access to 19 or fewer dwelling units.

[3] Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street.

[4] Bicycle lanes required on Grant Street from Yamhill Street to Pine Street and Yamhill Street from Main Street to Grant Street.

[5] On-street parking permitted to be included during design phase where ROW available.

For reference, the minimum clear widths required for fire apparatus access roads (fire lanes) under the Oregon Fire Code (OFC) may take precedence in some situations (20' fire lane width required where there are no fire hydrants, 26' fire lane width required for streets with fire hydrants, OFC 503 & OFC App. D). OFC requirements cannot be modified solely by a land use approval.

Note: If a land use variance is granted for parking one side only, one curb to be painted and signed for no parking at time of street construction.

2.20 SIDEWALKS

e. Sidewalks shall be constructed of concrete, and shall be a minimum of 4-inches thick except at driveway crossings, which shall be a minimum of 6-inches thick. Sidewalks shall meet the minimum widths outlined below**, unless a greater width is required by the Carlton Transportation System Plan and Section 17.64.040 of the Carlton Development Code**. The location of sidewalks within the public right-of-way shall be as approved by the City during the design process.

MINIMUM SIDEWALK WIDTHS		
Street Classification	Min. Sidewalk Width from back of curb	Location unless otherwise approved
ODOT	6.0 **- 10.0** ft or current ODOT standard	Curbline
Arterial Street	6.0 **- 10.0** ft.	Curbline
Collector Street	~~5.0~~ 6.0 ft	Curbline
Commercial or Industrial Street	5.0 ft	Curbline
Local Street	5.0 ft	Curbline

AMENDMENTS TO THE CARLTON COMPREHENSIVE PLAN

Replace TRANSPORTATION Findings, Goals and Policies with the following:

[June 2009]

TRANSPORTATION
[Goal 12]

The City's transportation goals, objectives and policies provide the overall guidance for the future development of the transportation system.

The **overall goal** of the Carlton TSP is to:

> *Develop a balanced multi-modal transportation system that will accommodate future growth in a safe, convenient, and economically feasible manner. In developing the future transportation system of the City of Carlton, the existing character of the city should be preserved.*

This goal is supported by more four (4) related transportation goals. The City's transportation goals are further defined and supported by specific transportation objectives and policies that help guide the future development of the Carlton transportation system. The goals, objectives and policies of the TSP include the following:

Goal 1 - Preserve the function, capacity, level of service, and safety of State Highway 47.

<u>Objectives</u>

A. Maintain and implement access management standards that meet the requirements of the TPR and also consider the needs of the community.

B. Construct an alternate truck route to mitigate current truck impacts through downtown Carlton.

C. Preserve the capacity and function of the state highway by promoting alternative modes of transportation, transportation demand management programs (i.e. ridesharing and park and ride), and transportation system management (TSM) measures.

D. Maintain a volume to capacity ratio of 0.85 or better along Highway 47 and 0.95 within the portion of Highway 47 designated as a Special Transportation Area (STA).

E. Evaluate the need for traffic control devices along Highway 47.

Policies

A. The City shall coordinate all transportation-related activities impacting Highway 47 with the Oregon Department of Transportation.

B. The City shall conform to Oregon Department of Transportation standards and practices with transportation issues concerning Highway 47.

C. The City shall coordinate with the Oregon Department of Transportation on all land use decisions impacting Highway 47.

D. The City shall work with the Oregon Department of Transportation to further refine and implement the Highway 47 transportation improvements identified in the Transportation System Plan.

Goal 2 - Enhance the transportation mobility and safety of the local street system.

Objectives

A. Continue to develop the road system as the principal mode of transportation.

B. Maintain a volume to capacity ratio of 0.85 or better.

C. Maintain and implement the adopted local street plan to preserve future rights-of-way for future streets and to maintain adequate local circulation in a manner consistent with Carlton's existing street grid system.

D. Require developments to construct their accesses consistent with the local street plan.

E. Maintain and implement access management policies for the local arterial, collector and local street system and direct commercial development access to local streets wherever possible.

F. Encourage development to occur near existing community centers where services are presently available to minimize the need for expanding services and to more efficiently utilize existing resources.

G. Work with the Oregon Speed Control Board to examine the need for speed reduction in specific areas such as adjacent to local schools.

H. Identify local traffic problems and recommend solutions.

I. Review and revise, if necessary, street cross section standards for local, collector, and arterial streets to enhance safety and mobility.

J. Develop and adhere to a transportation improvement program implementing the improvement recommendations of the TSP as funding is identified.

K. Consider the use of reduced street widths and other traffic calming techniques to provide safe passage for pedestrians and bicyclists, and a more livable neighborhood environment for residents.

Policies

A. Approval Processes for Transportation Facilities

The following policies relate to the approval process for transportation facilities:

1. The Transportation System Plan is an element of the City's Comprehensive Plan. It identifies the general location of transportation improvements. When a specific alignment is selected for proposed public road and highway projects it shall be permitted without a plan amendment if the new alignment falls within a transportation corridor identified in the Transportation System Plan.

2. Except where specifically regulated, the operation, maintenance, repair, and preservation of existing transportation facilities shall be allowed without land use review when, under ordinary circumstances they do not have a significant impact on land use.

3. Except where specifically regulated, the dedication of right-of-way, authorization of construction and the construction of facilities and improvements, for improvements designated in the Transportation System Plan, and for improvement that are consistent with clear and objective dimensional standards, shall be allowed without land use review. The classification of the roadway and approval of road standards shall be in accordance with appropriate procedures.

4. Changes in the frequency of transit services that are consistent with the Transportation System Plan and that under ordinary circumstances do not have a significant impact on land use shall be allowed without land use review.

5. For State projects that require an Environmental Impact Study (EIS) or Environmental Assessment (EA), the draft EIS or EA shall serve as the documentation for local land use review, if local review is required. Where the project is not consistent with the Transportation System Plan, formal review of the draft EIS or EA and concurrent completion of necessary goal exceptions or plan amendments shall occur prior to project commencement.

B. Protection of Transportation Facilities

1. The City shall protect the function of existing and planned roadways as identified in the Transportation System Plan.

2. The City shall include a consideration of the impact of proposed development on existing and planned transportation facilities in all land use decisions.

3. The City shall protect the function of existing or planned roadways and roadway corridors through the application of appropriate land use regulations.

4. The City shall consider the potential to establish or maintain accessways, sidewalks, walkways, paths, and trails prior to the vacation of any public easement or right-of-way.

5. The City shall preserve right-of-way for existing and planned transportation facilities through exactions, voluntary dedication, and setbacks.

6. The City shall coordinate with ODOT and the railroad owners/operators to preserve the railroad right-of-way for future rail service.

7. The review of development applications and associated conditions of approval for right-of-way dedications and street improvements shall consider the impact of the development and rough proportionality through an individual determination.

C. The local street plan in the Transportation System Plan shall be implemented by local developments. The local street plan identifies general alignments of future local streets and maintains a grid system whenever possible. Developers shall be required to follow the local street plan. Flexibility is allowed only as the proposed modifications still meet the integrity of the overall local street plan and circulation objectives.

Any modifications to the local street plan shall be in accordance with the appropriate land use application for the modification proposed. The decision for modification shall be based on the criteria for the appropriate land use application and whether the integrity of the overall local street plan is still met and circulation objectives can still be achieved.

D. Railroad Crossing

In the event a developer is unable to acquire the necessary right-of-way and permission to cross the Union Pacific Railroad right-of-way, for the purposes of street extensions as shown in the City's Transportation System Plan, after good faith attempts, then the City shall consider proceeding to acquire such right-of-way through the exercise of the City's power of eminent domain. The street extension must serve proposed uses which are permitted under the City Zoning Code, and for which preliminary plat approval has been granted if required.

The City shall keep account of time and expenses incurred in acquiring said right-of- way, including court costs, and the developer shall pay all such expenses, together with the amount of judgement or settlement, as a condition of issuance of construction permits. The City may require the posting of a cash bond, or other security acceptable to the City, to cover the estimated costs of the proceeding and costs for compensation to the owner of the railroad right-of-way.

Any settlement of condemnation action must be concurred in by the developer. In the event the developer decides to abandon the development, the developer shall pay to the City all costs incurred in preparing for and prosecuting the condemnation action.

All rights-of-way acquired by the developer, or for the developer, shall be dedicated to the City prior to construction of any street.

Goal 3 - Increase the use of alternative modes of transportation (walking, bicycling, rideshare/carpooling, and transit) through improved access, safety, and service. Increasing the use of alternative transportation modes includes maximizing the level

of access to all social, work, and welfare resources for the transportation disadvantaged. The City of Carlton seeks for its transportation disadvantaged citizens the creation of a customer-oriented regionally coordinated public transit system that is efficient, effective, and founded on present and future needs.

Objectives

A. Maintain and implement the Transportation System Plan's pedestrian and bicycle plan providing for sidewalks, bikeways, and safe crossings.

B. Promote alternative modes and rideshare/carpool programs through community awareness and education.

C. Plan for future expanded transit service by coordinating with regional transit service efforts.

D. Seek Transportation and Growth Management (TGM) and other funding for projects evaluating and improving the environment for alternative modes of transportation.

E. Seek further improvement of mass transit systems to the City of Carlton by encouraging more frequent scheduling of commercial carriers and by continued support of those systems presently developed for mass transit in the region.

F. Transportation Disadvantaged

1. Continue to support programs for the transportation disadvantaged where such programs are needed and are economically feasible.

2. Increase all citizens' transportation choices.

3. Create a customer-oriented focus in the provision of transportation services.

4. Hold any regional system accountable for levels and quality of service.

5. Enhance public transportation sustainability.

6. Promote regional planning of transportation services.

7. Use innovative technology to maximize efficiency of operation, planning, and administration of public transportation.

8. Inter-community and intra-community transportation are equally necessary for the transportation disadvantaged.

Policies

A. Pedestrian and Bicycle Circulation

1. The City shall maintain and implement the Transportation System Plan's network of streets, access-ways, and other improvements, including bikeways, sidewalks, and safe street crossings to promote safe and convenient bicycle and pedestrian circulation within the community.

2. The City shall require streets and access ways where appropriate to provide direct and convenient access to major activity centers, including downtown, schools, shopping areas, and community centers.

3. The City shall maintain and implement the Transportation System Plan's sidewalk improvement plan to develop the pedestrian system. Included within the pedestrian plan is a priority system that shall be followed.

4. Bicycle facilities on local streets shall be shared facilities with general traffic since local street traffic volumes are low and narrow local roads create a hardship in the development of exclusive bike lanes.

5. Retrofitting existing arterials and collectors within the Urban Growth Boundary with bike lanes shall be considered only when deemed appropriate and practical by the City Council.

6. The development of bike lanes shall be considered for all new arterials and collectors within the Urban Growth Boundary. Consideration of the development of bike lanes shall be based on availability of right-of-way and financial ability.

7. Where practicable, bikeways and pedestrian accessways shall connect to local and regional travel routes.

8. Bikeways and pedestrian access ways shall be designed and constructed to minimize potential conflicts between transportation modes. Design and construction of such facilities shall follow the guidelines established by the Oregon Bicycle and Pedestrian Plan.

9. Bicycle parking facilities shall be provided at all new residential multifamily developments of four units or more, commercial, industrial, recreational, and institutional facilities.

10. The City will coordinate with the Yamhill-Carlton School District to develop and promote the use of safe and convenient pedestrian and bicycle facilities to the elementary school and high school bus stops.

B. Transit

1. Supporting the continued operation of existing public transit services is a priority.

2. The City shall support efforts to coordinate with governmental and private agencies in the planning and provision of public transportation services and support a regional program to improve services, particularly for the transportation disadvantaged.

3. The City will cooperate with Yamhill County and other agencies in expanding public transit opportunities, including bus and rail.

4. The City will coordinate with other jurisdictions when the need for park-and-ride facilities is studied.

5. The City will coordinate with local businesses to increase transit and shuttle service and the use of park-and-ride and overflow parking lots during special events such as festivals and peak wine tasting events.

Goal 4 - Improve coordination between the City of Carlton, Yamhill County, and the Oregon Department of Transportation (ODOT).

<u>Objectives</u>

A. Cooperate with ODOT in the implementation of the Statewide Transportation Improvement Program (STIP).

B. Encourage improvement of state highways, especially Highway 47.

C. Work with Yamhill County and ODOT in establishing cooperative road improvement programs and schedules.

D. Work to obtain the right-of-way needed for roads identified in the TSP.

E. Take advantage of federal and state highway funding programs.

Policies

A. The City shall coordinate with the Oregon Department of Transportation to implement the highway improvements listed in the Statewide Transportation Improvement Program (STIP) that are consistent with the Transportation System Plan and comprehensive plan.

B. The City shall consider the findings of ODOT's draft Environmental Impact Statements and Environmental Assessments as an integral part of the land use decision-making procedures if the documents are received in a timely manner for review by the City of Carlton. A timely manner shall constitute a minimum time frame of 45 days for review and comment by the City of Carlton. Other actions required, such as a goal exception or plan amendment, will be combined with review of the draft EA or EIS and land use approval process.

Replace TRANSPORTATION Planning Resources and Atlas with the following:

[May 2009]

TRANSPORTATION

The City of Carlton prepared and adopted by Ordinance No. 681, [June 2009], an updated Transportation System Plan (TSP) entitled *City of Carlton, Transportation System Plan,* May 2009. The purpose of this document was to address the requirements of the Transportation Planning Rule [TPR] and Statewide Goal 12, and key transportation issues identified by the City as part of the 2009 Transportation Plan Update. The following is a summary of the key information found in the Carlton TSP. For in depth information, the TSP should be consulted.

Background

The *Carlton Transportation System Plan* (TSP) establishes the City's goals, policies and strategies for developing and improving the transportation system within the Carlton Urban Growth Boundary. The Carlton TSP serves as a twenty-year plan to guide transportation improvements and enhance overall mobility for vehicles, pedestrians and bicyclists throughout the city.

The City of Carlton adopted the first TSP in 1999 in order to better manage the City's existing and future transportation facilities and to promote the development of a safe, well-planned transportation system. The City initiated the 2009 TSP update in response to recent population, employment and transportation system changes and to ensure the transportation system will adequately meet the City's needs through the year 2030.

System Inventory

As part of the planning process, an updated inventory was conducted of the existing transportation system in the City of Carlton. This inventory included the street system as well as pedestrian, bikeway, public transportation, rail, air, water and pipeline systems. A copy of the updated street system inventory is available as an appendix in the 2009 TSP.

Roadway Functional Classifications

The roadway functional classification system groups city streets into categories based upon the character of service they are intended to provide. [See, *Roadway Functional Classifications Map*]. Identification of the appropriate roadway functions is the basis for planning roadway improvements and establishing appropriate standards (right-of-way, roadway width, design speed).

Carlton has three (3) types of roadway functional classifications that are described as follows:

- ***Arterials*** – Intra- and inter-community roadways connecting community centers with major facilities. In general, arterials serve both through traffic and local traffic. Access should be partially controlled with infrequent access to abutting properties.

- ***Collectors*** - Streets connecting residential neighborhoods with smaller community centers and facilities as well as access to the arterial system. Property access is generally a higher priority for collector arterials; through-traffic movements are served as a lower priority.

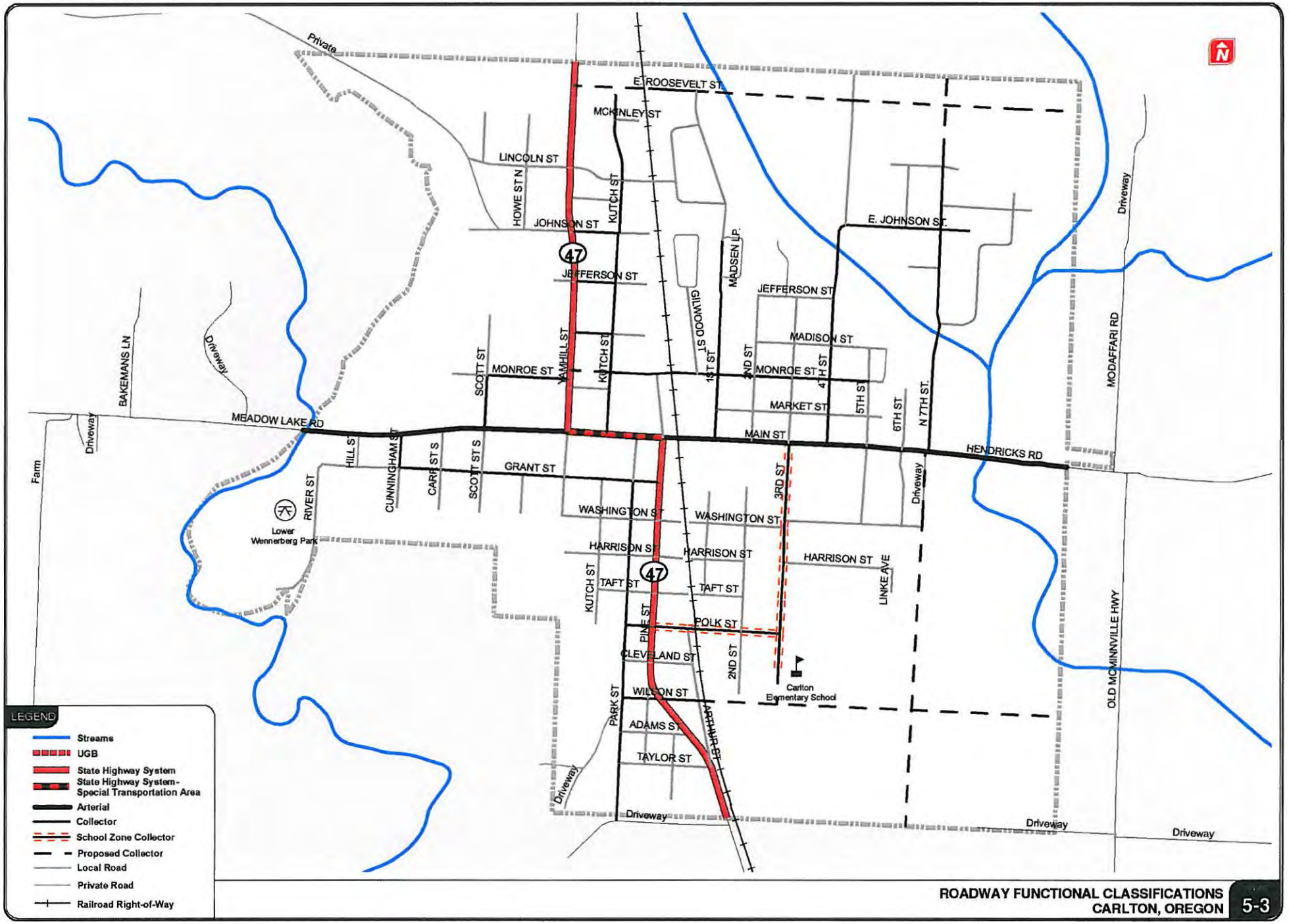
- ***Local Access Streets*** - Streets within residential neighborhoods connecting housing (also can be commercial, industrial, etc.) with the arterial system. Property access is the main priority; through traffic movement is not encouraged.

The following arterials were identified:

- Highway 47
- Main Street

The following collectors were identified:

- Johnson Street from Yamhill Street to Kutch Street
- Johnson Street from 4th Street to 7th Street
- Jefferson Street from Yamhill Street to Kutch Street
- Madison Street from Yamhill Street to Kutch Street
- Monroe Street from Scott Street to 5th Street
- Cunningham Street from Grant Street to Main Street
- Scott Street from Main Street to Monroe Street
- Grant Street from Cunningham Street to Pine Street
- Kutch Street from Roosevelt Street to Main Street
- 1st Street from Roosevelt Street to Main Street
- 3rd Street from southern terminus to Main Street
- 4th Street from Main Street to Johnson Street
- 7th Street from Main Street to northern terminus
- Park Street from south city limits to Grant Street
- Polk Street from Park Street to 3rd Street
- Roosevelt Street from western terminus to 1st Street
- Wilson Street from Pine Street to Arthur Street



ROADWAY FUNCTIONAL CLASSIFICATIONS
CARLTON, OREGON

The TSP updated included a review of existing and future transportation conditions and deficiencies for all transportation modes serving the City of Carlton. A summary of the current conditions and future deficiencies of the transportation modes serving Carlton is provided as follows:

Roadway Network

- Intersection Operations: All of the unsignalized study intersections in Carlton currently operate acceptably and are forecast to continue to operate acceptably in 2030.
- Roadway Segment Operations: All of the Highway 47 roadway segments in Carlton currently operate acceptably and are forecast to continue to operate acceptably in 2030.
- Roadway Deficiencies: The following roadway deficiencies have been identified:
    - There are only four crossings of the Union Pacific railroad right-of-way that runs north and south within the city. This creates many east-west discontinuities in the otherwise continuous roadway network grid.
    - The following facilities were considered for upgrade from local street to collector classification based on the connectivity they provide and relationship to access and railroad right-of-way crossings:
        - 1st Street from Roosevelt Street to Main Street
        - Kutch Street from Johnson Street to Roosevelt Street
        - Kutch Street from Main Street to Monroe Street
        - Johnson Street from 4th Street to 7th Street
    - During peak hours, approximately one truck every 1.5 minutes pass through the downtown area of the City of Carlton along Main Street and create a negative impact to the downtown/community environment. Up to four times that many trucks pass through the Yamhill Street/Main Street intersection. Approximately seventy percent of the trucks on Main Street continue through town on Highway 47 and have the potential to be rerouted by a local by-pass.
    - Trucks have a difficult time negotiating the Yamhill Street/Main Street and Pine Street/Main Street intersections and encroach on both the approaches and departures of the intersections.
    - Highway 47 within the UGB has a crash rate slightly higher than the statewide average for similar facilities. This is a result of the relatively short study segment length. The crashes are primarily located at or near the two Main Street intersections along Highway 47 which have relatively low intersection crash rates.
    - Crashes at the two Main Street intersections along Highway 47 are likely related to the unusual three-way stop-control. The three-way stop-control at the Yamhill

Street/Main Street and Pine Street/Main Street intersections causes confusion to some motorists who mistake the intersections as all-way stop controlled.

- Left-turn lane warrants will be met at any intersection along N. Yamhill Street with a left-turn volume greater than ten vehicles in the peak hour. Left-turn lane warrants will be met any intersection along S. Pine Street with a left-turn volume greater than approximately 20 vehicles during the peak hour.

Pedestrian Network

- **Existing Pedestrian Conditions:** There are many sidewalk locations that are missing or deficient within the City of Carlton. Many of the existing sidewalks are in poor physical condition, too narrow, or poorly maintained with overgrown vegetation. The sidewalk system within the City is fragmented and disjointed and is difficult to use the sidewalks to safely walk from one area of town to another.
- **Pedestrian Deficiencies:** Sidewalks in good condition are desirable and should be provided on all collector, arterial, and local streets within the city limits; however, due to cost constraints a system of prioritization is necessary. Sidewalks shall be prioritized based on the necessity to provide Safe Routes to School and each roadway's importance in the roadway hierarchy. Priority sidewalk gaps, maintenance areas, and pedestrian crossings (in no particular order) include the following:
  - Safe Routes to School:
    - S 3rd Street between E Monroe Street and Carlton Elementary School
    - W Polk Street between S Pine Street and Carlton Elementary School
    - E. Monroe Street from N. Kutch Street to N. 3rd Street
    - N. Kutch Street from LE. Lincoln Street to E. Monroe Street
    - Pedestrian crossing along Highway 47 at Monroe Street
    - Railroad right-of-way crossing at E. Washington Street
    - Pedestrian crossing along Highway 47 at Washington Street
  - Other priority arterials/collectors
    - Main Street from N 7th Street to N 1st Street
    - Railroad Right-of-Way Crossings to improve east-west connectivity throughout the City.
    - N Yamhill Street from Main Street to Lincoln Street
    - W Grant Street from S Pine Street to S River Street
    - N 1st Street from E. Monroe Street to E. Main Street

Bicycle Network

- **Existing Bicycle Conditions:** There are currently no designated bicycle facilities in Carlton.
- **Bicycle Deficiencies:** Bicycle lanes are desirable on all collector and arterial roadways; however, roadways with traffic volumes greater than 3,000 vehicles per day, those on Safe Routes to School, as well as those that create recreational opportunities should be the priority. Based on these criteria, the following prioritizes potential bicycle facilities:
    - Highway 47 within the city limits
    - Main Street within the city limits
    - Polk Street between S Pine Street and Carlton Elementary
    - 3rd Street between Main Street and Carlton Elementary School
    - Railroad right-of-way multi-use path

Public Transit Service

- **Existing Public Transportation:** Several public transportation services are provided within the City of Carlton. Including:
    - LINKS – provides service via the Highway 47 Corridor LINK service which connects between Carlton and McMinnville, Yamhill, Cove, Gaston and Hillsboro (which connects with Metro's MAX light-rail system).
    - 99W Corridor LINK – fixed route service connecting McMinnville, Lafayette, Dayton, Dundee, Newberg and Sherwood
    - YCTA Paratransit Service – dial-a-ride service to all residents with 24-hour advance notice.
- **Future Transportation:** Future transit needs in the City of Carlton could include expanded regional and intercity commuter services, expanded transit frequency during Carlton Fun Days and peak wine tasting times, park-and-ride lots, as well as more widespread awareness of the existing Cherriots Rideshare carpool program.

Rail Service

- There is one rail right-of-way owned by the Union Pacific Railroad that runs through the City of Carlton, but no tracks remain in the right-of-way that runs through Carlton.

Air Service

- No public airports are located within the City of Carlton. A general aviation airport is located in McMinnville, north of Carlton. The nearest airport with scheduled passenger

service is the Portland International Airport, located approximately 25 miles northeast of Carlton.

Pipeline Service

- There are currently no major regional pipelines through Carlton.

Water Transportation

- There are no navigable waterways within the City of Carlton, and therefore no water transportation services available.

Transportation Funding

- **Existing Funding:** An average of approximately $66,000 per year in 2007 dollars has been spent within the City of Carlton on transportation projects over the past 15 years. The majority of the funds have been provided by ODOT. The City of Carlton has provided approximately $4,400 per year on average for transportation projects.
- **Transportation SDC:** Assuming a future TSDC rate of $250 per daily trip, future funds from a TSDC program would be approximately $1,475,000. This equates to approximately $73,750 per year over the next twenty years.
- **Future Funding:** It is anticipated that approximately $2.8 million will be available for transportation project funding over the next twenty years (with approximately $87,500 provided by the City of Carlton, $1,233,500 provided by ODOT, and $1,475,000 provided by TSDC funds).

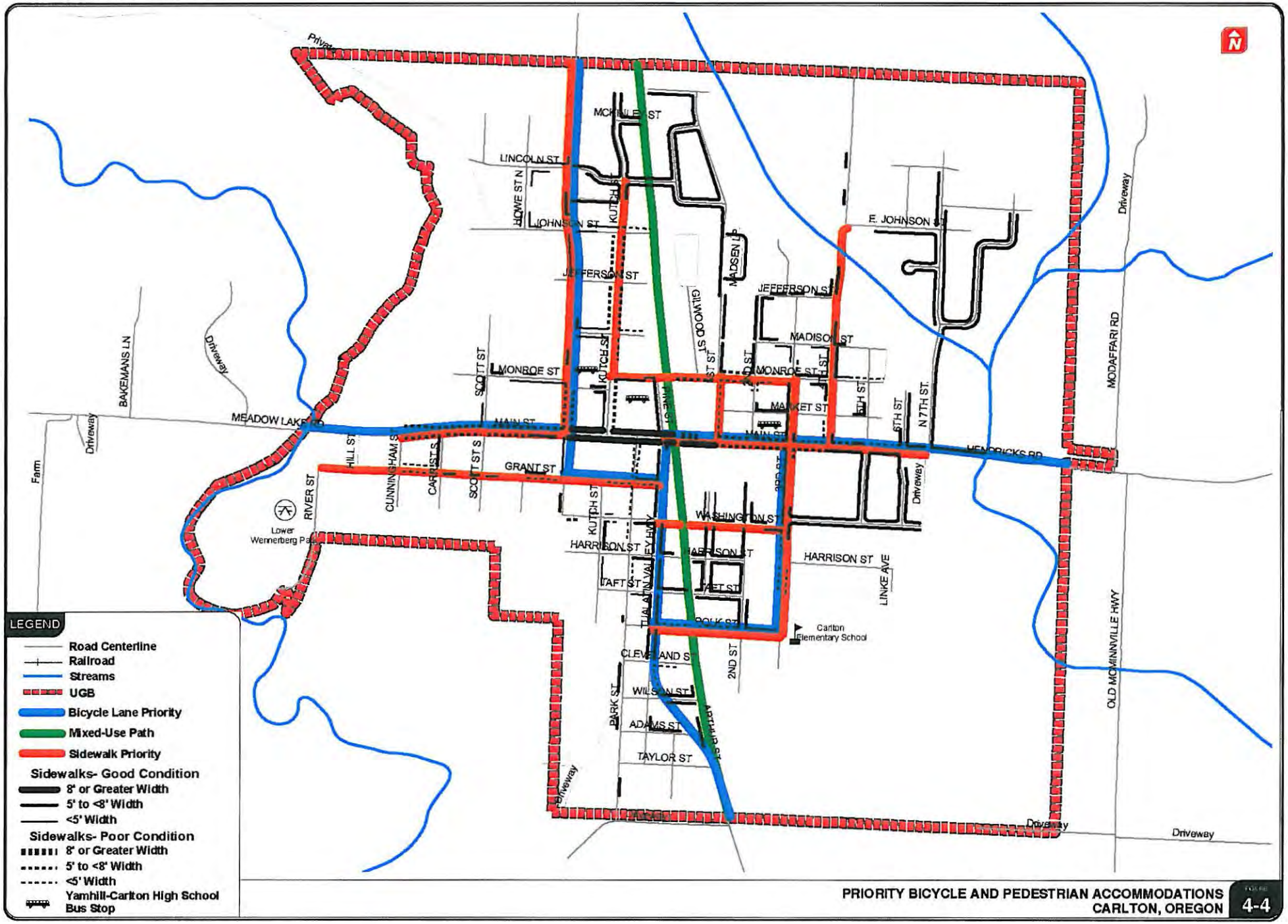
Alternatives Analysis

The TSP included an analysis of alternatives to address the future transportation deficiencies identified for the roadway, pedestrian, bicycle, and public transit networks. The primary focus of the alternatives analysis was the development of alternatives to mitigate truck traffic through the downtown and to address safety concerns at the three-way stop control intersections on Main Street (Yamhill/Main and Pine/Main street intersections). The roadway alternatives analysis also included a review of left turn-lane warrants on Highway 47 and additional locations for potential railroad right-of-way crossings to improve east-west street connectivity within the city.

Pedestrian and Bicycle Plan

The TSP prioritized the need for sidewalks based on Safe Routes to School and system connectivity needs and identified all of the roadways that warrant exclusive bicycle lanes based on their projected vehicle traffic volumes as well as additional bicycle routes that may warrant bicycle lanes based on their need to serve children. Priority sidewalk and bicycle lane projects are identified as follows. [See Priority Bicycle and Pedestrian Accommodations Map].

- Provide sidewalks on the following locations:
    - 3rd Street between E Monroe Street and Carlton Elementary School
    - Polk Street between S Pine Street and Carlton Elementary School
    - Monroe Street from N Kutch Street to N 3rd Street
    - N Kutch Street from W Lincoln Street to W Monroe Street
    - E Main Street from 7th Street to Pine Street
    - Railroad Right-of-Way Crossings to improve east-west connectivity throughout the City.
    - N Yamhill Street from W Main Street to Lincoln Street
    - W Grant Street from S Pine Street to S River Street
    - N 1st Street from E Monroe Street to E Main Street
    - N 4th Street from E Main Street to E Roosevelt Street
- Provide railroad right-of-way crossing at E. Washington Street
- Provide pedestrian crossings in the following locations:
    - Highway 47 at Monroe Street
    - Highway 47 at Washington Street
- Provide bicycle lanes in the following locations:
    - Highway 47 within the city limits
    - Main Street within the city limits, excluding the Highway 47 segment
    - Polk Street between S Pine Street and Carlton Elementary
    - S 3rd Street between E Main Street and Carlton Elementary School
    - N Yamhill Street between W Main Street and W Grant Street
    - Construct a multi-use path in the railroad right-of-way.



PRIORITY BICYCLE AND PEDESTRIAN ACCOMMODATIONS
CARLTON, OREGON

FIGURE 4-4

Public Transportation Alternatives

The TSP update identified the following public transportation system alternatives:

Expanded Transit Service
The City of Carlton will coordinate with the Yamhill County Transit Area District (YCTA) on increasing service to the City of Carlton and identify the potential local share or match that could facilitate increased service. The need for a future transit stop in the vicinity of the intersection of N 4th Street/E Main Street will be monitored.

Event Transit Service
Increased transit and park-and-ride lots during Carlton Fun Days and peak wine tasting times will be addressed by a Carlton Event Management Plan or by local businesses during peak wine tasting times. The city will help coordinate local businesses to establish a shuttle and identify overflow parking areas during peak wine tasting times.

Cherriots Rideshare Program
The City of Carlton will work with rideshare programs to enhance the publicity of their service. Many activities such as local newspaper articles, postings and flyers in all public buildings, or information booth at a local event, can be completed by the City.

Public Transit Costs
Some of the costs to increase transit to Carlton by the YCTA may be capital and operational. The ability to use System Development Charges for these types of costs should be explored further.

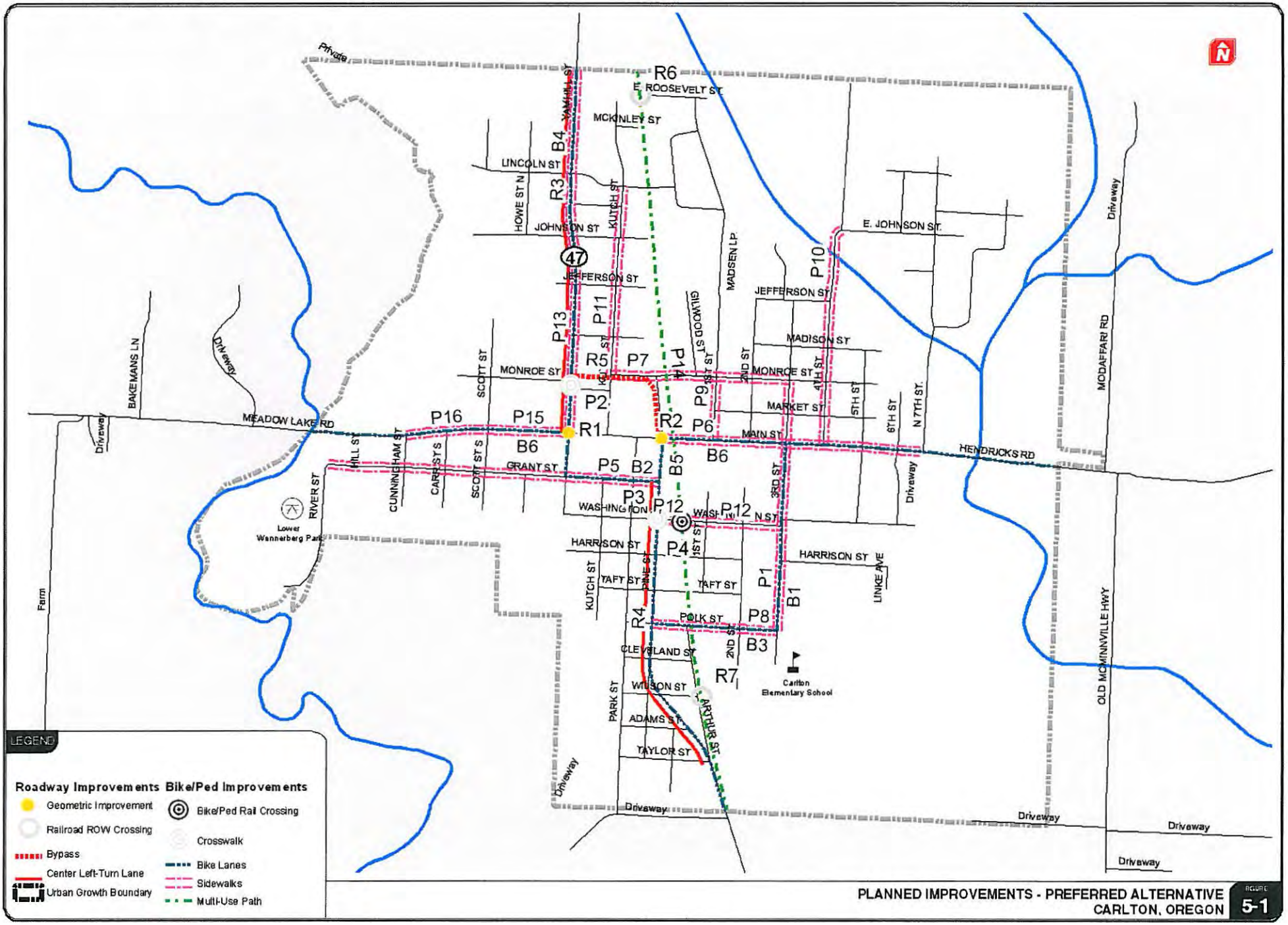
Preferred Plan and Financially Constrained Alternative

The improvements identified in the alternatives analysis were reviewed to determine which Main Street alternative was the preferred alternative and to prioritize the timeframe for completing additional roadway and multi-modal improvements included in the Preferred Transportation System Plan (*Preferred Plan*). A Financially Constrained Transportation System Plan (*Financially Constrained Alternative*) was also developed to consider project priorities under a constrained financial scenario, where project costs are matched to the City's projected future transportation funds.

Preferred Plan
The *Preferred Plan* summarizes all of the roadway, pedestrian, bicycle, and transit improvements required to address the City of Carlton's transportation goals. No mitigations are required to meet the ODOT mobility standards along Highway 47; however geometric improvements have been identified to improve safety. Because none of the identified improvements are driven by a timeframe based on future volume projections, the projects were categorized as either short-,

medium-, or long-term priority based on how they met the City's goals and to establish an order in which the projects could potentially be pursued. [See Preferred Plan Map].

The following table identifies the roadway improvements in the *Preferred Plan* and each improvement's priority for development in the short, medium and long-term. The short-term priority projects are identified as projects that can be achieved relatively inexpensively and easily based on available right-of-way. The medium-term priority improvements are those that are necessary to fully address the City's goal of enhancing the pedestrian environment along Main Street and meeting ODOT's future need for left-turn lanes on Highway 47 at the cross-streets. The long-term priority projects are those that will be driven by development and are likely to be constructed by development.



PLANNED IMPROVEMENTS - PREFERRED ALTERNATIVE
CARLTON, OREGON

FIGURE 5-1

The following table identifies the roadway improvements in the *Preferred Plan* and each improvement's timeframe for completion. The short-term priority projects are identified as projects that can be achieved relatively inexpensively and easily based on available right-of-way (including converting the two Main Street/Highway 47 intersections to all-way stops to simplify the traffic control and operations for all users and improve the turning radii). The medium priority improvements are those that are necessary to fully address the City's goal of enhancing the pedestrian environment along Main Street and meeting ODOT's future need for left-turn lanes on Highway 47 at the cross-streets. The long-term priority projects are those that will be driven by development and are likely to be constructed by development.

Preferred Plan Roadway Improvements

Project Number	Location	Description	Cost[1]	Timeframe Priority
R1	Yamhill Street / W Main Street	Turning Radius Improvements	$50,000	Short
R2	Pine Street / W Main Street	Turning Radius Improvements	$50,000	Short
R3	N Yamhill Street (UGB to Main)	Install center left-turn lane	$827,327	Medium
R4	S Pine Street (Grant to UGB)	Install center left-turn lane	$902,403	Medium
R5	N Pine Street and W Monroe Street	Construct Main Street bypass	$868,414	Medium
R6	Roosevelt Street (at Railroad ROW)	Connect Roosevelt Street across railroad right-of-way	$85,800[2]	Long
R7	Wilson Street (at Railroad ROW)	Connect Wilson Street across railroad right-of-way	$60,060[2]	Long
Total			**$2,844,004**	
Total – Development Funded			**$2,698,144**	

[1] Does not include needed right-of-way acquisition.

Pedestrian improvements for the *Preferred Plan* are identified as follows.

Preferred Plan Pedestrian Improvements

Project Number	Location	Description	Cost	Timeframe Priority
P1	3rd Street (Monroe to Polk)	Install sidewalks	$213,444	Short
P2	Highway 47 (at Monroe St)	Install crosswalks	$50,000	Short
P3	Highway 47 (at Washington St)	Install crosswalks	$50,000	Medium
P4	Washington Street (at Railroad ROW)	Provide ped/bike connection across railroad right-of-way	$19,305	Short
P5	W Grant Street (River to Pine)	Install sidewalks	$289,436	Short
P6	Main Street (1st to 7th)	Install sidewalks	$238,729	Short
P7	Monroe Street (Kutch to 3rd)	Install sidewalks	$161,726	Short
P8	Polk Street (Pine to 3rd)	Install sidewalks	$132,066	Medium
P9	N 1st Street (Monroe to Main)	Install sidewalks	$72,864	Medium
P10	N 4th Street (Johnson to Main)	Install sidewalks	$253,440	Short
P11	N Kutch Street (Lincoln to Monroe)	Install sidewalks	$127,376	Short
P12	Washington Street (Pine to 3rd)	Install sidewalks	$119,295	Medium
P13	N Yamhill Street (UGB to Main)	Install sidewalks	$389,902	Long
P14	Railroad right-of-way	Construct multi-use path along right-of-way	$517,770	Long
P15	W Main Street (Scott to Yamhill)	Install sidewalks	$91,872	Medium
P16	W Main Street (Cunningham to Scott)	Install sidewalks	$92,664	Long
Total			**$2,819,889**	

Pedestrian improvements in the *Preferred Plan* were prioritized as short-, medium-, and long-term projects according to their relative importance to the transportation system. Improvements that establish vital connections and improve safety are given the highest priority to complete in the short term. For example, pedestrian improvements on 3rd Street, Washington Street, Grant Street, and Main Street would strengthen connections to major attractors, such as Carlton Elementary School and Wennerberg Park. Crosswalks on Highway 47 are also prioritized, as they improve pedestrian safety along the busiest roadways in the City.

The following table lists the bicycle improvements identified in the *Preferred Plan.*

Preferred Plan Bicycle Improvements

Project Number	Location	Description	Cost	Timeframe Priority
B1	3rd Street (Main to Polk)	Install bike lanes	$288,776	Short
B2	Grant Street (Yamhill to Pine)	Install bike lanes	$144,144	Medium
B3	Polk Street (Pine to 3rd)	Install bike lanes	$192,037	Short
B4	N Yamhill Street (UGB to Grant)	Install bike lanes	$625,291	Medium
B5	S Pine Street (Main to Taylor)	Install bike lanes	$529,122	Long
B6	Main Street (excluding Hwy 47)	Install bike lanes	$1,007,493	Long
Total			**$2,786,863**	

Bicycle priorities identified in the table above were based on timing, their relative importance to the transportation system, and cost given their relatively high costs compared to the pedestrian projects. With the costs of the majority of the medium- and long-term priority projects, several pedestrian projects could be completed instead. Third Street and Grant Street are identified as a priority to complete in the short term to coincide with the short-term priority pedestrian projects along the same corridors.

The list of transit system improvements for the *Preferred Plan* are identified in the table below. The *Preferred Plan* provides funding for transit through a local match to the Yamhill County Transit Area. Building a bus stop on Main Street is identified as a lower priority as it will be driven by development in the City.

Preferred Plan Transit Improvements

Project Number	Type	Description	Cost	Timeframe Priority
T1	Transit Match	Provide local match funds to expand YCTA service in Carlton	$275,000	Medium
T2	Transit Stop	Construct transit stop on Main Street between 4th Street and 7th Street	$25,000	Development driven
Total			$300,000	

Financially Constrained Alternative

Because the estimated costs to construct the *Preferred Plan* far exceed the projected future transportation funding, the TSP describes a *Financially Constrained Alternative*. The *Financially Constrained Alternative* considers project prioritization and costs and attempts to match them to the projected transportation funding flows while addressing as many of the City's transportation goals as possible. [See *Financially Constrained Alternative* Map].

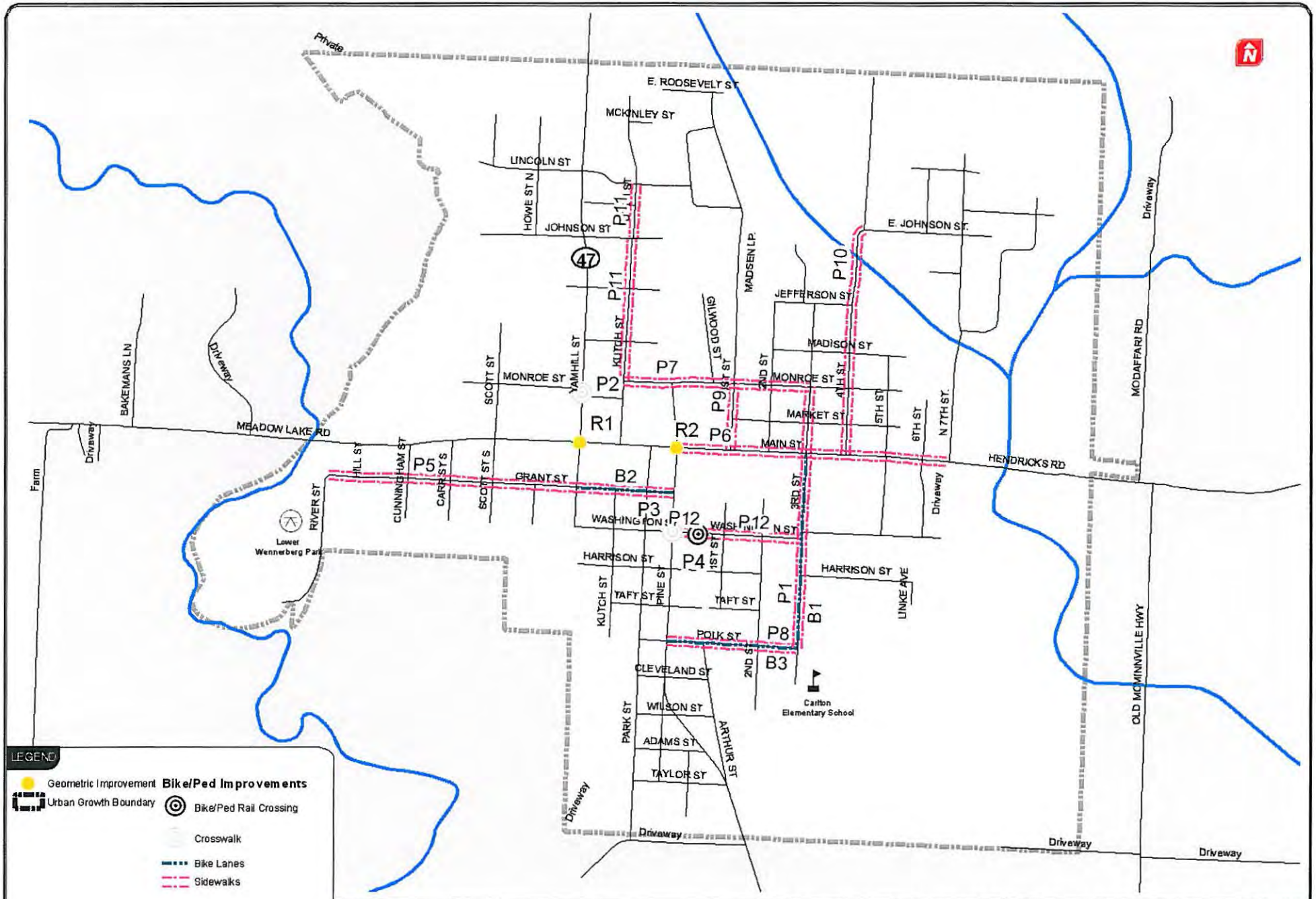
The downtown bypass was omitted from the *Financially Constrained Alternative* in order to meet more of the City's overall goals including the enhancement of the pedestrian and bicycle system as the bypass would consume a significant amount of the projected funding. However, all of the short-term roadway improvements were included in the *Financially Constrained Alternative*. The remaining funding was allocated to pedestrian, bicycle, and transit projects.

The following tables summarize the *Financially Constrained Alternative* projects by mode and timeframe.

Financially Constrained Alternative Roadway Improvements

Project Number	Location	Description	Cost[1]	Timeframe
R1	Yamhill Street / W Main Street	Turning Radius Improvements	$50,000	0-5 years
R2	Pine Street / W Main Street	Turning Radius Improvements	$50,000	0-5 years
Total			**$100,000**	

The *Financially Constrained Alternative* for roadway improvements identified in the table above includes intersection improvements on Main Street. Fixing the constrained turning movements is a priority in this alternative. The bypass and left-turn roadway improvements are omitted in order to provide more resources for non-auto improvements.



PLANNED IMPROVEMENTS - FINANCIALLY CONSTRAINED ALTERNATIVE
CARLTON, OREGON

FIGURE 5-2

Financially Constrained Alternative Pedestrian Improvements

Project Number	Location	Description	Cost	Timeframe
P1	3rd Street (Monroe to Polk)	Install sidewalks	$213,444	0-5 years
P2	Highway 47 (at Monroe St)	Install crosswalks	$50,000	0-5 years
P3	Highway 47 (at Washington St)	Install crosswalks	$50,000	5-10 years
P4	Washington Street (at Railroad ROW)	Provide ped/bike connection across railroad right-of-way	$19,305	5-10 years
P5	W Grant Street (River to Pine)	Install sidewalks	$289,436	5-10 years
P6	Main Street (1st to 7th)	Install sidewalks	$238,729	5-10 years
P7	Monroe Street (Kutch to 3rd)	Install sidewalks	$161,726	10-20 years
P8	Polk Street (Pine to 3rd)	Install sidewalks	$132,066	10-20 years
P9	N 1st Street (Monroe to Main)	Install sidewalks	$72,864	10-20 years
P10	N 4th Street (Johnson to Main)	Install sidewalks	$253,440	10-20 years
P11	N Kutch Street (Lincoln to Monroe)	Install sidewalks	$127,376	10-20 years
P12	Washington Street (Pine to 3rd)	Install sidewalks	$119,295	10-20 years
Total			**$1,727,681**	

The *Financially Constrained Alternative* for pedestrian improvements is identified in the table above and includes as many improvements as possible while balancing the needs of the other modes, according to short-term priorities identified in the *Preferred Plan*. Almost all of the pedestrian improvements identified in the *Preferred Plan* are included in this plan with the exception of North Yamhill Street and the multi-use path along the railroad right-of-way.

Financially Constrained Alternative Bicycle Improvements

Project Number	Location	Description	Cost	Timeframe
B1	3rd Street (Main to Polk)	Install bike lanes	$288,776	0-5 years
B2	Grant Street (Yamhill to Pine)	Install bike lanes	$144,144	10-20 years
B3	Polk Street (Pine to 3rd)	Install bike lanes	$192,037	5-10 years
Total			**$624,957**	

Bicycle improvements identified in the table above are based on priorities in the *Preferred Plan* while balancing costs with other modes. Only the bicycle improvements providing direct access to the elementary school and providing a by-pass to Highway 47 along Main Street are included.

Financially Constrained Alternative Transit Improvements

Project Number	Type	Description	Cost	Timeframe
T1	Transit Match	Provide local match funds to expand YCTA service in Carlton	$275,000	5-10 years
T2	Transit stop	Construct transit stop on Main Street between 4th and 7th	$25,000	Development driven
Total			$300,000	

The overall cost of transit improvements in the *Preferred Plan* is relatively low when compared with other modes, and as such they are all included in the *Financially Constrained Alternative*, as shown in the table above. They type and amount of additional transit service that can be provided with $275,000 is unknown but this number is approximately ten percent of the projected project funding.

Additional Transportation System Plan Elements

The Oregon Transportation Planning Rule (TPR) requires certain elements within a TSP. In addition to the elements described above these were also included in the Carlton TSP as summarized below.

Future Street Plan

The purpose of the Future Street Plan is to identify future right-of-way that the City of Carlton may need in order to have and maintain, as much as possible, a balanced street network. [See, *Future Street Plan Map*].

The plan designates:

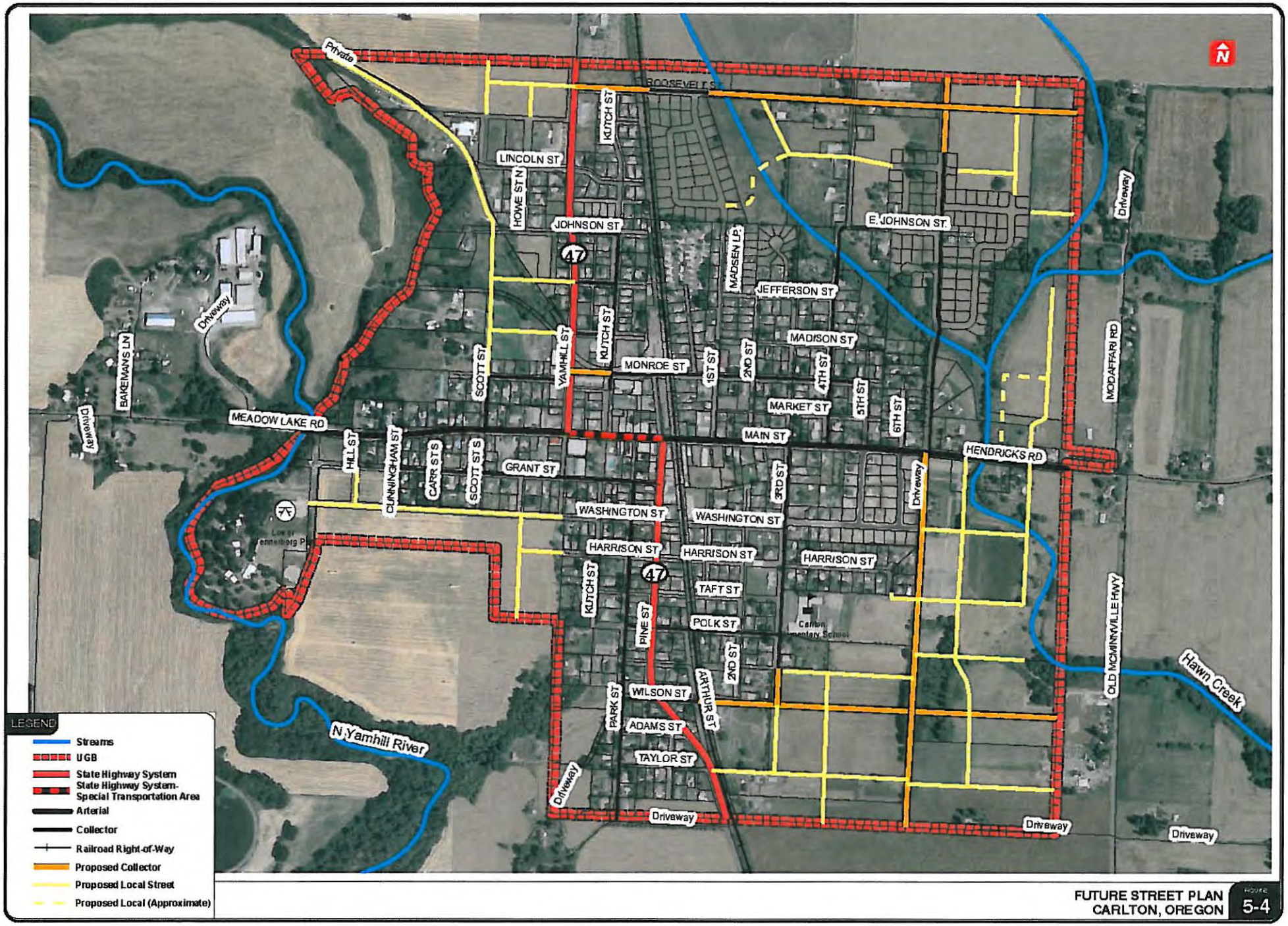
1. where existing collector/arterials could be extended or new ones could be added;

2. where new local access streets and/or pedestrian ways could be located to provide better connection between existing streets (grid infill); and

3. where new local access streets could be located to provide adequate connection to significant local destinations for both automobiles and pedestrians.

The Future Street Plan map shows the extension of the local and collector street network. All of the future roadways are anticipated to be local roadways with the exception of two roadways that have been identified as future collector roadways. They include the east extension of Wilson Street and the southern extension of 7th Street.

Depending on future lot sizes, additional local road(s) may be needed within the grids to access all of the lots. Layout of internal roads is flexible and will be determined by local developers to suit market and site constraints. However, suitable pedestrian access ways to all sides of the grid are required to the maximum extent possible.



FUTURE STREET PLAN
CARLTON, OREGON

FIGURE 5-4

Street Design Standards

The City's street design standards identify the specific pavement and right-of-way widths for future street improvements. The street design standards also identify sidewalk, landscaping and bicycle lane improvements that contribute to the character and design of city streets.

The Street Design Standards table below summarizes the City's street design standards.

Street Classification		ROW Width (ft)	Pavement Width (ft)	Sidewalk Width (ft)	Landscape Strip (ft)	Bikeway Width (ft)	Parking
Local	Typical	47-57	34	5 [1]	5 (optional)	N/R	2 sides
	Commercial/Industrial Districts	60	36	5 [1]	5 (optional)	N/R	2 sides
	Local Narrow Option [2]	39-49	26	5	5 (optional)	N/R	1 side
Collector	Existing Street	55	40	6 [1]	N/R	None [4]	2 sides
	New Street	71	46	6 [1]	5	5	2 sides
	School Zone [3]	49	34	6	N/R	5	None [5]
Arterials	Highway 47 (N. and S. of Main St.)	65	50	6 [1]	N/R	6	None
	Highway 47 (Main Street - STA)	60	40	10	N/R	None	2 sides
	Main Street (E. and W. of Highway 47)	65	50	6 [1]	N/R	5	2 sides
Alley		20	12 feet	N/R	N/R	N/R	N/R
Cul-de-sac bulb		45 foot radius	38 foot radius	5	N/R	N/R	N/R

[1] Ten-foot sidewalks required along commercially zoned property.

[2] Local narrow option allowed in residential areas only upon conditional use approval. For a developer to use this standard, a study has to be conducted providing that on-street parking will not be an issue along the street in question.

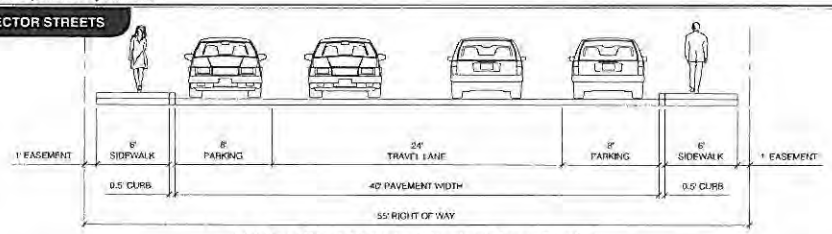
[3] Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street.

[4] Bicycle lanes required on Grant Street from Yamhill Street to Pine Street and Yamhill Street from Main Street to Grant Street.

[5] On-street parking permitted to be included during design phase where ROW available.

The Street Cross Sections figure illustrates the City's street design standards.

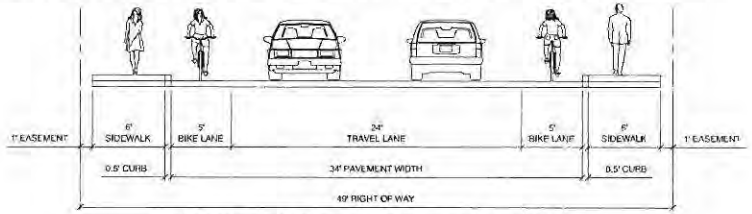
COLLECTOR STREETS



Existing Street Collector Standard Cross-Section

* Sidewalks along commercially zoned property to be 10ft wide resulting in 65ft of ROW and 32.5ft of half street ROW

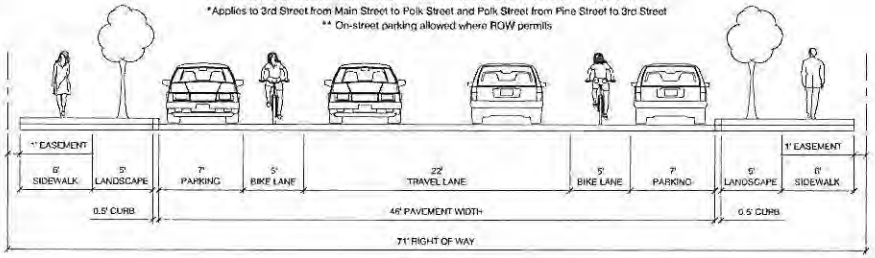
** Bike lanes required on Grant Street from Yamhill Street to Pine Street resulting in 65ft of ROW and 32.5ft of half street ROW or 37.5ft of half street ROW along commercially zoned property



School Zone Collector Street Standard Cross-Section

*Applies to 3rd Street from Main Street to Polk Street and Polk Street from Pine Street to 3rd Street

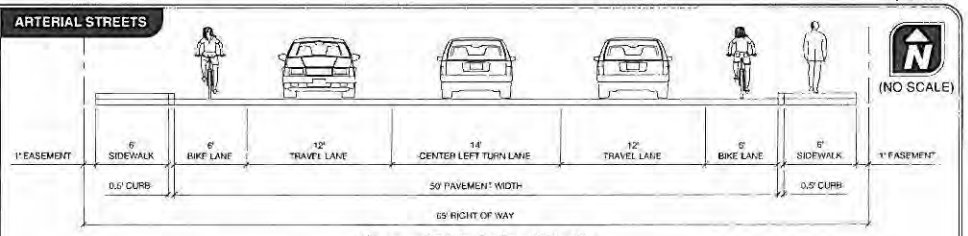
** On-street parking allowed where ROW permits



New Street Collector Standard Cross-Section

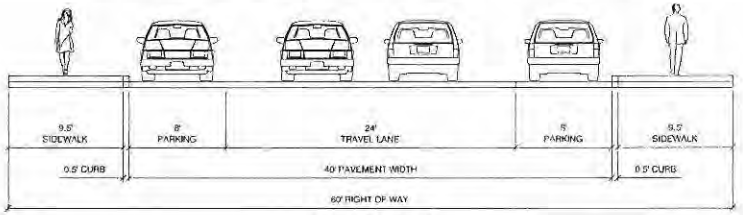
* Sidewalks along commercially zoned property to be 10ft wide resulting in 79ft of ROW and 39.5ft of half street ROW

ARTERIAL STREETS



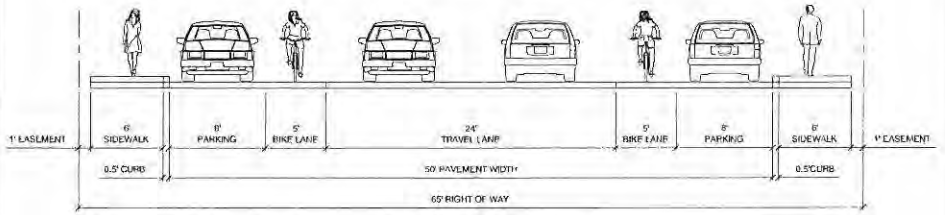
Highway 47 (Excluding Main St.)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW



Main St.(Hwy 47)

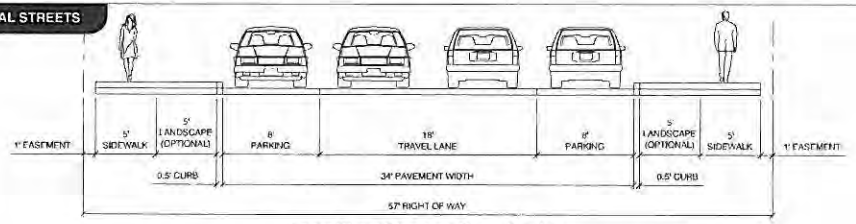
(Standard intended to be equal to existing cross-section)



Main Street (Excluding Hwy 47)

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 73ft of ROW and 36.5ft of half street ROW

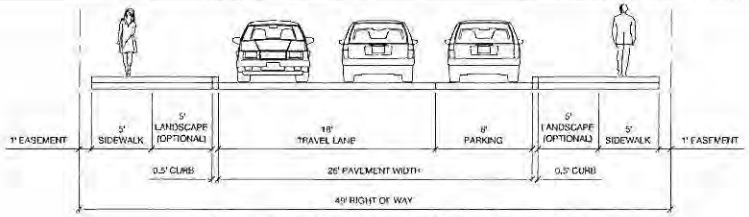
LOCAL STREETS



Local Street Standard Cross-Section

* Sidewalks along commercially zoned property to be 10 feet wide resulting in 57ft of ROW and 28.5ft of half street ROW

** Bike lanes and 10ft sidewalks required on Yamhill Street from Main Street to Grant Street resulting in 67ft of ROW and 33.5ft of half street ROW



Local "Skinny" Street Standard Cross-Section

*Parking allowed on both sides if driveways are staggered and not aligned across street from each other

TYPICAL CROSS SECTIONS
CARLTON, OREGON

FIGURE **5-5**

Access Management

Access management is the process in which access to land development is balanced with the need for safe and efficient traffic flow of the roadway system. Access management standards are closely associated with the functional classification of a roadway. Typically, along state highways and arterials, the frequency of driveways and intersecting streets is more restrictive because the movement of traffic usually takes a higher priority. Along collector streets, access standards are less restrictive than along arterials and state highways to allow a greater balance between access and mobility. Access standards along local streets are restricted by safety considerations as property access is the primary function of these streets.

The City of Carlton has one (1) state highway (Highway 47). Within the Special Transportation Area (STA) of Highway 47 (Main Street between Yamhill to Pine Street), the access spacing standard is the existing city block spacing for streets and 175 feet or mid-block for driveways if the existing block is less than 350 feet. For the portion of Highway 47 located between the north city limits to Yamhill Street there is a minimum 600 foot minimum spacing requirement. From the south city limits to Main Street there is a minimum spacing of 450 where the posted speed limit is 20 miles per hour and 600 feet where the posted speed limit is 30 mph.

The minimum access spacing standard for arterials is 220 feet for street intersections and 110 feet for driveways, or mid-block if the existing block is less than 220 feet. The remaining streets within Carlton are either collector or local streets. The access spacing standard for collectors is 75 feet. The access spacing standard for local streets is 50 feet between driveways.

Transportation Demand Management

The intent of the transportation demand management element is to reduce the peak travel demand from the home-to-work and return trips. TDM measures help reduce the need for new or wider roadways.

The TSP identifies the following Travel Demand Management measures to be implemented in Carlton:

- **Event Transit Service**
  City of Carlton will have an Event Management Plan that coordinates with local businesses to increase transit and shuttle service and the use of park-and-ride and overflow parking lots during festivals and peak wine tasting times.

- **Rideshare Program**
  The City of Carlton will work with area's rideshare program to enhance the publicity of their service. Publicity activities could include local newspaper articles, postings and flyers in all public buildings, or information booth at a local event.

- **Promote Walking and Bicycle School Trips**
  The City of Carlton will work with the school district to promote walking and bicycle trips to the elementary school and high school bus stops. Assistance may be available through the Safe Routes to School Program to assist with this outreach.