

Appendix

Bridge Conditions

Intersection Volumes

Intersection Traffic Operations

US 97/Parkway Travel Time Reliability

Environmental Considerations

Bridge Conditions

City of Bend Bridge Sufficiency Rating Summary (Draft)

Bridge ID	Year Constructed	Road	Feature Crossed	Status	Condition
17C040	1973	Archie Briggs Road	Deschutes River	-	Very Poor
17C05	1973	Archie Briggs Road	Deschutes River	-	Very Poor
17C59	1986	Empire Avenue	B.N.R.R.	Functionally Obsolete	Poor
01134A	1966	Hwy 4 Spur	Central Oregon Canal	-	Fair
17B001	1940	Divisin Street	C.O.I. North Canal	-	Fair
09410	1965	Boyd Acres Road	Pilot Butte Canal North	Functionally Obsolete	Fair
20613	2006	Newport Avenue	Deschutes River	-	Fair
17B005	1962	Galveston Avenue	Deschutes River	Functionally Obsolete	Fair
17B003	1962	Portland Avenue	Deschutes River	Functionally Obsolete	Fair
09409	1965	Boyd Acres Road	North Unit Main Canal	Functionally Obsolete	Fair
17C29	1975	Yeoman Road	Pilot Butte Canal	-	Fair
17B002	1935	Division Street	North Unit Main Canal	Structurally Deficient	Good
09C47A	1976	Ferguson Road	Coi Canal	-	Good
15453A	1968	Brosterhaus Road	Coi Main Canal	-	Good
09815	1968	27th Street, SE	C.O.I. Canal	-	Good
21153	2009	Mount Washington Drive	Deschutes River	-	Good
09C60	1972	Blakely Road	Coi Main Canal	-	Good
09C74A	1974	Deschutes Market Road	North Unit Canal	-	Good
16852	1983	Colorado Ave	Deschutes River	-	Good
16853	1983	Shevlin Hixon Drive	Sw Shelvin Hixon Dr.	-	Good
16372	1980	15th Street	Dirmain C O I Canal	-	Good
19642	1972	Brookwood Boulevard	Coi Main Canal	-	Good
18718	1993	Brinson Boulevard	Pilot Butte Canal	-	Good
18719	1993	Brinson Boulevard	North Unit Main Canal	-	Good
17C52	1978	China Hat Road	Arnold Canal	-	Good
18374	1994	Empire Avenue	C.O.I. Canal	-	Good

Intersection Volumes

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97
E/W street:	Tumalo PI
City, State	Bend OR
Study ID #	
Location	44.159961 - -121.259232
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	1579	128	0	0	1115	226	0	0	0	85	0	0	0	456	0	1707	1341	85	456	1200	2035	226	128
Percent Heavy Vehicles																							
0.0%	3.1%	3.9%	0.0%	0.0%	8.3%	4.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	0.0%	3.2%	7.7%	0.0%	3.1%	7.7%	3.1%	4.9%	3.9%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Tumalo PI				Deschutes Pleasant Ridge					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	119	7	0	0	78	23	0	0	0	13	0	0	0	38	0		
04:35:00 PM	0	109	11	0	0	98	14	0	0	0	5	0	0	0	36	0		
04:40:00 PM	0	134	8	0	0	101	22	0	0	0	7	0	0	0	37	0	860	
04:45:00 PM	0	149	9	0	0	94	20	0	0	0	4	0	0	0	38	0	896	
04:50:00 PM	0	117	17	0	0	102	20	0	0	0	4	0	0	0	32	0	915	
04:55:00 PM	0	111	15	0	0	110	16	0	0	0	0	0	0	0	35	0	893	
05:00:00 PM	0	143	14	0	0	67	12	0	0	0	10	0	0	0	31	0	856	
05:05:00 PM	0	136	10	0	0	79	12	0	0	0	10	0	0	0	30	0	841	
05:10:00 PM	0	151	10	0	0	87	28	0	0	0	8	0	0	0	40	0	878	
05:15:00 PM	0	135	9	0	0	96	15	0	0	0	10	0	0	0	50	0	916	
05:20:00 PM	0	155	6	0	0	101	21	0	0	0	4	0	0	0	54	0	980	
05:25:00 PM	0	120	12	0	0	102	23	0	0	0	10	0	0	0	35	0	958	3589

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Tumalo PI				Deschutes Pleasant Ridge					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Tumalo PI				Deschutes Pleasant Ridge				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	114	7	0	0	69	22	0	0	0	13	0	0	0	36	0		
04:35:00 PM	0	105	10	0	0	88	14	0	0	0	5	0	0	0	35	0		
04:40:00 PM	0	132	8	0	0	94	21	0	0	0	7	0	0	0	35	0	815	
04:45:00 PM	0	145	8	0	0	87	19	0	0	0	4	0	0	0	36	0	853	
04:50:00 PM	0	115	17	0	0	95	20	0	0	0	4	0	0	0	32	0	879	
04:55:00 PM	0	107	14	0	0	100	16	0	0	0	0	0	0	0	33	0	852	
05:00:00 PM	0	140	14	0	0	62	12	0	0	0	10	0	0	0	30	0	821	
05:05:00 PM	0	130	8	0	0	72	10	0	0	0	10	0	0	0	27	0	795	
05:10:00 PM	0	147	10	0	0	83	25	0	0	0	8	0	0	0	40	0	838	
05:15:00 PM	0	130	9	0	0	90	15	0	0	0	10	0	0	0	49	0	873	
05:20:00 PM	0	152	6	0	0	91	20	0	0	0	4	0	0	0	54	0	943	
05:25:00 PM	0	113	12	0	0	92	21	0	0	0	10	0	0	0	35	0	913	3418

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Tumalo PI				Deschutes Pleasant Ridge				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	5	0	0	0	9	1	0	0	0	0	0	0	0	2	0		
04:35:00 PM	0	4	1	0	0	10	0	0	0	0	0	0	0	0	1	0		
04:40:00 PM	0	2	0	0	0	7	1	0	0	0	0	0	0	0	2	0	45	
04:45:00 PM	0	4	1	0	0	7	1	0	0	0	0	0	0	0	2	0	43	
04:50:00 PM	0	2	0	0	0	7	0	0	0	0	0	0	0	0	0	0	36	
04:55:00 PM	0	4	1	0	0	10	0	0	0	0	0	0	0	0	2	0	41	
05:00:00 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	1	0	35	
05:05:00 PM	0	6	2	0	0	7	2	0	0	0	0	0	0	0	3	0	46	
05:10:00 PM	0	4	0	0	0	4	3	0	0	0	0	0	0	0	0	0	40	
05:15:00 PM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	1	0	43	
05:20:00 PM	0	3	0	0	0	10	1	0	0	0	0	0	0	0	0	0	37	
05:25:00 PM	0	7	0	0	0	10	2	0	0	0	0	0	0	0	0	0	45	171

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	0



Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97
E/W street:	Cooley Rd
City, State	Bend OR
Study ID #	
Location	44.109312 - -121.295092
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:55:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
40	1411	77	1	110	1229	44	0	185	143	15	0	185	69	58	0	1529	1383	343	312	1430	1654	153	330
Percent Heavy Vehicles																							
5.0%	4.4%	0.0%	0.0%	5.5%	7.5%	4.5%	0.0%	1.1%	0.0%	0.0%	0.0%	1.1%	5.8%	0.0%	0.0%	4.2%	7.2%	0.6%	1.9%	6.6%	3.9%	5.2%	1.8%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0	2

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Cooley Rd				Cooley Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	1	132	5	0	10	128	7	0	13	13	2	0	4	4	5	0		
04:35:00 PM	3	113	8	1	7	76	3	0	23	13	2	0	16	3	3	0		
04:40:00 PM	3	138	5	0	1	100	4	0	15	11	1	0	18	3	7	0	901	
04:45:00 PM	2	116	4	0	11	107	7	0	18	11	2	0	12	6	1	0	874	
04:50:00 PM	6	100	3	0	16	87	2	0	18	10	1	0	18	5	5	0	874	
04:55:00 PM	1	136	11	0	7	119	5	0	11	5	1	0	5	4	9	0	882	
05:00:00 PM	5	128	5	0	6	102	2	0	17	14	1	0	11	11	2	0	889	
05:05:00 PM	7	127	10	0	13	103	1	0	12	11	1	0	26	5	6	0	940	
05:10:00 PM	2	93	9	0	7	107	3	0	13	8	2	0	26	10	8	0	914	
05:15:00 PM	2	115	5	0	9	95	2	0	14	16	1	0	22	8	9	0	908	
05:20:00 PM	4	108	9	0	9	106	4	0	16	16	0	0	10	7	3	0	878	
05:25:00 PM	4	105	3	0	14	99	4	0	15	15	1	0	17	3	0	0	870	3567

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Cooley Rd				Cooley Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US 97				US 97				Cooley Rd				Cooley Rd				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:30:00 PM	1	124	5	0	10	118	7	0	13	13	2	0	4	4	5	0				
04:35:00 PM	2	109	8	1	7	70	3	0	22	13	2	0	16	3	3	0				
04:40:00 PM	3	132	5	0	1	88	4	0	14	11	1	0	18	3	7	0	852			
04:45:00 PM	2	114	4	0	9	102	6	0	18	11	2	0	12	5	1	0	832			
04:50:00 PM	6	95	3	0	15	80	1	0	18	10	1	0	17	5	5	0	829			
04:55:00 PM	1	133	11	0	4	112	5	0	11	5	1	0	5	4	9	0	843			
05:00:00 PM	5	119	5	0	6	94	2	0	17	14	1	0	11	9	2	0	842			
05:05:00 PM	7	123	10	0	13	99	1	0	12	11	1	0	26	5	6	0	900			
05:10:00 PM	2	88	9	0	7	99	3	0	13	8	2	0	25	9	8	0	872			
05:15:00 PM	1	112	5	0	9	91	2	0	14	16	1	0	22	8	9	0	877			
05:20:00 PM	4	103	9	0	9	97	4	0	16	16	0	0	10	7	3	0	841			
05:25:00 PM	4	97	3	0	14	87	4	0	15	15	1	0	17	3	0	0	828	3395		

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US 97				US 97				Cooley Rd				Cooley Rd				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:30:00 PM	0	8	0	0	0	10	0	0	0	0	0	0	0	0	0	0				
04:35:00 PM	1	4	0	0	0	6	0	0	1	0	0	0	0	0	0	0				
04:40:00 PM	0	6	0	0	0	12	0	0	1	0	0	0	0	0	0	0	49			
04:45:00 PM	0	2	0	0	2	5	1	0	0	0	0	0	0	1	0	0	42			
04:50:00 PM	0	5	0	0	1	7	1	0	0	0	0	0	1	0	0	0	45			
04:55:00 PM	0	3	0	0	3	7	0	0	0	0	0	0	0	0	0	0	39			
05:00:00 PM	0	9	0	0	0	8	0	0	0	0	0	0	0	2	0	0	47			
05:05:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	40			
05:10:00 PM	0	5	0	0	0	8	0	0	0	0	0	0	1	1	0	0	42			
05:15:00 PM	1	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	31			
05:20:00 PM	0	5	0	0	0	9	0	0	0	0	0	0	0	0	0	0	37			
05:25:00 PM	0	8	0	0	0	12	0	0	0	0	0	0	0	0	0	0	42	172		

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min		1 HR	
	NB	SB	EB	WB	Sum	Sum		
04:30:00 PM	0	0	0	0				
04:35:00 PM	0	0	0	0				
04:40:00 PM	0	0	0	0	0			
04:45:00 PM	0	0	0	0	0			
04:50:00 PM	0	0	0	0	0			
04:55:00 PM	0	0	1	0	1			
05:00:00 PM	1	0	0	0	2			
05:05:00 PM	0	0	0	0	2			
05:10:00 PM	0	0	0	0	1			
05:15:00 PM	0	0	0	0	0			
05:20:00 PM	0	0	0	0	0			
05:25:00 PM	0	0	0	0	0	2		

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97
E/W street:	Robal Rd
City, State	Bend OR
Study ID #	
Location	44.10277 - -121.299136
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:00:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
229	1448	14	1	21	1508	33	2	97	12	41	0	107	35	19	0	1692	1564	150	161	1657	1566	297	47
Percent Heavy Vehicles																							
0.4%	3.2%	7.1%	0.0%	9.5%	5.6%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.9%	8.6%	10.5%	0.0%	2.9%	5.6%	1.3%	3.7%	5.2%	3.3%	1.3%	6.4%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	5

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Robal Rd				Robal Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	15	108	0	0	4	110	0	0	10	3	4	0	6	3	3	0		
04:35:00 PM	19	97	2	0	3	111	6	0	9	0	3	0	16	5	7	0		
04:40:00 PM	23	127	1	0	1	126	2	0	6	2	0	0	4	3	0	0	839	
04:45:00 PM	21	120	3	0	3	118	2	0	6	1	1	0	15	2	3	0	868	
04:50:00 PM	21	115	1	0	0	115	7	0	10	0	4	0	5	1	0	0	869	
04:55:00 PM	17	111	2	0	3	134	2	0	5	1	3	0	11	4	4	0	871	
05:00:00 PM	24	130	2	0	1	124	0	0	9	3	3	0	10	3	1	0	886	
05:05:00 PM	23	140	2	1	0	135	4	1	9	1	8	0	9	1	0	0	941	
05:10:00 PM	15	146	0	0	2	134	2	0	9	0	7	0	9	1	0	0	969	
05:15:00 PM	24	113	1	0	1	135	4	1	9	1	0	0	7	5	1	0	961	
05:20:00 PM	6	116	0	0	2	149	4	0	9	0	5	0	4	1	0	0	923	
05:25:00 PM	21	125	0	0	1	117	0	0	6	0	3	0	11	6	0	0	888	3567

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Robal Rd				Robal Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Robal Rd				Robal Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	15	106	0	0	3	103	0	0	10	3	4	0	6	3	3	0		
04:35:00 PM	19	94	2	0	3	109	6	0	9	0	3	0	16	5	6	0		
04:40:00 PM	23	123	0	0	1	113	2	0	6	2	0	0	4	3	0	0	805	
04:45:00 PM	20	116	3	0	3	111	2	0	6	1	1	0	15	1	2	0	830	
04:50:00 PM	21	113	1	0	0	110	7	0	10	0	4	0	5	1	0	0	830	
04:55:00 PM	17	105	2	0	3	128	2	0	5	1	3	0	10	4	4	0	837	
05:00:00 PM	24	125	2	0	1	116	0	0	9	3	3	0	10	3	1	0	853	
05:05:00 PM	23	136	2	1	0	131	4	1	9	1	8	0	9	1	0	0	907	
05:10:00 PM	15	140	0	0	1	128	2	0	9	0	7	0	9	1	0	0	935	
05:15:00 PM	24	109	1	0	1	129	4	1	8	1	0	0	7	4	1	0	928	
05:20:00 PM	6	111	0	0	2	143	4	0	8	0	5	0	4	0	0	0	885	
05:25:00 PM	21	123	0	0	1	102	0	0	6	0	3	0	11	6	0	0	846	3423

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Robal Rd				Robal Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	2	0	0	1	7	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	1	0		
04:40:00 PM	0	4	1	0	0	13	0	0	0	0	0	0	0	0	0	0	34	
04:45:00 PM	1	4	0	0	0	7	0	0	0	0	0	0	0	1	1	0	38	
04:50:00 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	39	
04:55:00 PM	0	6	0	0	0	6	0	0	0	0	0	0	1	0	0	0	34	
05:00:00 PM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	33	
05:05:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	34	
05:10:00 PM	0	6	0	0	1	6	0	0	0	0	0	0	0	0	0	0	34	
05:15:00 PM	0	4	0	0	0	6	0	0	1	0	0	0	0	1	0	0	33	
05:20:00 PM	0	5	0	0	0	6	0	0	1	0	0	0	0	1	0	0	38	
05:25:00 PM	0	2	0	0	0	15	0	0	0	0	0	0	0	0	0	0	42	144

Pedestrians Crossing

Time					15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	2	0	2	
04:45:00 PM	0	0	0	0	2	
04:50:00 PM	0	0	2	0	4	
04:55:00 PM	0	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	1	0	0	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	5

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	Nels Anderson PI
City, State	Bend OR
Study ID #	
Location	44.100648 - -121.300596
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:00:00 PM
PHF (15-Min Int)	0.94

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
241	1678	39	0	0	1594	66	0	0	0	213	0	0	0	11	0	1958	1660	213	11	1807	1689	307	39
Percent Heavy Vehicles																							
0.0%	3.2%	7.7%	0.0%	0.0%	5.1%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	5.0%	0.0%	0.0%	4.5%	3.1%	0.3%	7.7%

PHV - Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				Nels Anderson PI				Nels Anderson PI					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	32	138	4	0	0	122	8	0	0	0	23	0	0	0	1	0		
04:35:00 PM	17	130	1	0	0	124	6	0	0	0	17	0	0	0	2	0		
04:40:00 PM	24	140	5	0	0	135	3	0	0	0	20	0	0	0	1	0	953	
04:45:00 PM	20	153	3	0	0	124	2	0	0	0	11	0	0	0	0	0	938	
04:50:00 PM	20	141	5	0	0	125	7	0	0	0	20	0	0	0	1	0	960	
04:55:00 PM	25	122	2	0	0	136	6	0	0	0	18	0	0	0	1	0	942	
05:00:00 PM	19	140	4	0	0	139	4	0	0	0	17	0	0	0	0	0	952	
05:05:00 PM	16	168	2	0	0	138	4	0	0	0	23	0	0	0	1	0	985	
05:10:00 PM	14	161	3	0	0	149	6	0	0	0	13	0	0	0	0	0	1021	
05:15:00 PM	15	123	4	0	0	132	6	0	0	0	14	0	0	0	2	0	994	
05:20:00 PM	20	132	3	0	0	133	10	0	0	0	21	0	0	0	0	0	961	
05:25:00 PM	19	130	3	0	0	137	4	0	0	0	16	0	0	0	2	0	926	3842

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				Nels Anderson PI				Nels Anderson PI					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Nels Anderson PI				Nels Anderson PI				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	32	135	4	0	0	114	8	0	0	0	23	0	0	0	1	0		
04:35:00 PM	17	126	1	0	0	122	6	0	0	0	17	0	0	0	2	0		
04:40:00 PM	24	136	5	0	0	124	3	0	0	0	20	0	0	0	1	0	921	
04:45:00 PM	20	149	3	0	0	114	2	0	0	0	11	0	0	0	0	0	903	
04:50:00 PM	20	138	4	0	0	120	7	0	0	0	20	0	0	0	1	0	922	
04:55:00 PM	25	117	2	0	0	130	6	0	0	0	18	0	0	0	1	0	908	
05:00:00 PM	19	134	3	0	0	130	4	0	0	0	17	0	0	0	0	0	916	
05:05:00 PM	16	161	2	0	0	135	4	0	0	0	23	0	0	0	1	0	948	
05:10:00 PM	14	157	3	0	0	141	6	0	0	0	13	0	0	0	0	0	983	
05:15:00 PM	15	118	4	0	0	126	5	0	0	0	14	0	0	0	2	0	960	
05:20:00 PM	20	128	3	0	0	128	10	0	0	0	21	0	0	0	0	0	928	
05:25:00 PM	19	126	2	0	0	128	4	0	0	0	16	0	0	0	2	0	891	3703

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Nels Anderson PI				Nels Anderson PI				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	3	0	0	0	8	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	4	0	0	0	11	0	0	0	0	0	0	0	0	0	0	32	
04:45:00 PM	0	4	0	0	0	10	0	0	0	0	0	0	0	0	0	0	35	
04:50:00 PM	0	3	1	0	0	5	0	0	0	0	0	0	0	0	0	0	38	
04:55:00 PM	0	5	0	0	0	6	0	0	0	0	0	0	0	0	0	0	34	
05:00:00 PM	0	6	1	0	0	9	0	0	0	0	0	0	0	0	0	0	36	
05:05:00 PM	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	37	
05:10:00 PM	0	4	0	0	0	8	0	0	0	0	0	0	0	0	0	0	38	
05:15:00 PM	0	5	0	0	0	6	1	0	0	0	0	0	0	0	0	0	34	
05:20:00 PM	0	4	0	0	0	5	0	0	0	0	0	0	0	0	0	0	33	
05:25:00 PM	0	4	1	0	0	9	0	0	0	0	0	0	0	0	0	0	35	139

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	0



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 SB ramps				US 97 SB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	1	0	2	0	0	53	35	0	32	22	2	0		
04:35:00 PM	0	0	0	0	0	0	1	0	2	62	32	0	27	27	1	0		
04:40:00 PM	0	0	0	0	1	0	3	0	0	56	36	0	27	32	2	0	456	
04:45:00 PM	0	0	0	0	1	0	0	0	0	55	26	0	36	24	0	0	451	
04:50:00 PM	0	0	0	0	0	0	1	0	0	70	19	0	30	50	1	0	470	
04:55:00 PM	0	0	0	0	0	1	1	0	0	66	24	0	31	37	0	0	473	
05:00:00 PM	0	0	0	0	0	0	2	0	0	71	34	0	24	26	0	0	488	
05:05:00 PM	0	0	0	0	1	1	5	0	0	50	44	0	20	41	0	0	479	
05:10:00 PM	0	0	0	0	0	0	0	0	1	68	44	0	11	24	0	0	467	
05:15:00 PM	0	0	0	0	0	0	0	0	1	65	40	0	18	33	0	0	467	
05:20:00 PM	0	0	0	0	0	0	0	0	0	47	46	0	39	40	0	0	477	
05:25:00 PM	0	0	0	0	0	0	0	0	0	42	27	0	32	39	0	0	469	1865

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 SB ramps				US 97 SB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	2	3	0	0	7	0	0	20	
04:45:00 PM	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	25	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	21	
04:55:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	10	
05:00:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	7	
05:05:00 PM	0	0	0	0	1	0	2	0	0	5	0	0	0	1	0	0	14	
05:10:00 PM	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	18	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	0	19	
05:20:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	0	15	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	58

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	1	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	2	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	0	0	0	0	2	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97 NB ramps
E/W street:	Empire Blvd
City, State	Bend OR
Study ID #	
Location	44.090827 - -121.300392
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:50:00 PM
PHF (15-Min Int)	0.93

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
164	3	356	0	0	0	0	0	153	604	0	0	0	595	224	0	523	0	757	819	0	380	759	960
Percent Heavy Vehicles																							
2.4%	0.0%	2.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.7%	5.0%	0.0%	0.0%	0.0%	2.2%	2.7%	0.0%	2.5%	0.0%	4.1%	2.3%	#DIV/0!	1.8%	2.2%	4.1%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	3	0	0	0	1	0	0	4	3	0	0	0	3

All Vehicle Volumes																		
Time	Northbound US 97 NB ramps				Southbound US 97 NB ramps				Eastbound Empire Blvd				Westbound Empire Blvd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	15	0	27	0	0	0	0	0	10	42	0	0	0	46	13	0		
04:35:00 PM	14	0	24	0	0	0	0	0	15	55	0	0	0	38	18	0		
04:40:00 PM	15	0	26	0	0	0	0	0	13	45	0	0	0	54	26	0	496	
04:45:00 PM	13	0	22	0	0	0	0	0	8	50	0	0	0	53	24	0	513	
04:50:00 PM	21	0	41	0	0	0	0	0	10	60	0	0	0	57	10	0	548	
04:55:00 PM	13	1	28	0	0	0	0	0	8	58	0	0	0	53	7	0	537	
05:00:00 PM	6	0	27	0	0	0	0	0	17	64	0	0	0	54	29	0	564	
05:05:00 PM	16	0	35	0	0	0	0	0	18	51	0	0	0	45	16	0	546	
05:10:00 PM	13	1	26	0	0	0	0	0	19	49	0	0	0	24	13	0	523	
05:15:00 PM	10	0	43	0	0	0	0	0	13	53	0	0	0	52	16	0	513	
05:20:00 PM	18	1	28	0	0	0	0	0	13	45	0	0	0	60	20	0	517	
05:25:00 PM	10	0	29	0	0	0	0	0	9	32	0	0	0	59	32	0	543	2099

Bicycles on Road																		
Time	Northbound US 97 NB ramps				Southbound US 97 NB ramps				Eastbound Empire Blvd				Westbound Empire Blvd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
05:00:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	2	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 NB ramps				US 97 NB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	15	0	24	0	0	0	0	0	10	42	0	0	46	13	0			
04:35:00 PM	13	0	24	0	0	0	0	0	15	51	0	0	35	16	0			
04:40:00 PM	13	0	24	0	0	0	0	0	13	44	0	0	50	26	0	474		
04:45:00 PM	13	0	22	0	0	0	0	0	8	45	0	0	53	24	0	489		
04:50:00 PM	21	0	41	0	0	0	0	0	10	59	0	0	56	10	0	532		
04:55:00 PM	13	1	28	0	0	0	0	0	8	57	0	0	53	6	0	528		
05:00:00 PM	6	0	26	0	0	0	0	0	17	58	0	0	54	29	0	553		
05:05:00 PM	16	0	34	0	0	0	0	0	17	47	0	0	43	15	0	528		
05:10:00 PM	13	1	26	0	0	0	0	0	19	46	0	0	23	13	0	503		
05:15:00 PM	10	0	42	0	0	0	0	0	13	49	0	0	51	16	0	494		
05:20:00 PM	17	1	28	0	0	0	0	0	13	44	0	0	60	20	0	505		
05:25:00 PM	10	0	28	0	0	0	0	0	9	32	0	0	58	30	0	531	2036	

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 NB ramps				US 97 NB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0			
04:35:00 PM	1	0	0	0	0	0	0	0	0	4	0	0	3	2	0			
04:40:00 PM	2	0	2	0	0	0	0	0	0	1	0	0	4	0	0	22		
04:45:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	24		
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	16		
04:55:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	9		
05:00:00 PM	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0	11		
05:05:00 PM	0	0	1	0	0	0	0	0	1	4	0	0	2	1	0	18		
05:10:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	20		
05:15:00 PM	0	0	1	0	0	0	0	0	0	4	0	0	1	0	0	19		
05:20:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	12		
05:25:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	12	63	

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	1	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	1	0	0	0	2	
04:55:00 PM	1	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 20
E/W street:	NE Empire Blvd
City, State	Bend OR
Study ID #	
Location	44.091497 - -121.304974
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:40:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
64	354	183	0	492	642	77	0	76	268	52	0	148	180	29	0	601	1211	396	357	842	459	321	943
Percent Heavy Vehicles																							
3.1%	1.7%	2.2%	0.0%	5.5%	4.7%	1.3%	0.0%	0.0%	1.9%	3.8%	0.0%	2.7%	2.8%	0.0%	0.0%	2.0%	4.8%	1.8%	2.5%	4.3%	1.3%	2.5%	3.8%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound			in Crosswalk						
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	0	0	3

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Empire Blvd				NE Empire Blvd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	8	21	9	0	43	53	7	0	5	25	5	0	7	12	2	0		
04:35:00 PM	9	36	12	0	34	54	5	0	2	22	5	0	13	9	2	0		
04:40:00 PM	6	24	12	0	57	56	9	0	4	23	9	0	9	12	1	0	622	
04:45:00 PM	4	34	21	0	26	53	9	0	9	28	2	0	14	18	3	0	646	
04:50:00 PM	5	31	19	0	50	62	6	0	5	17	5	0	11	16	2	0	672	
04:55:00 PM	3	19	12	0	37	55	2	0	4	27	3	0	21	19	4	0	656	
05:00:00 PM	4	33	15	0	42	54	8	0	9	17	4	0	9	9	1	0	640	
05:05:00 PM	7	19	21	0	40	54	6	0	6	28	4	0	15	14	1	0	626	
05:10:00 PM	5	34	27	0	42	60	4	0	11	20	3	0	19	13	4	0	662	
05:15:00 PM	8	31	12	0	42	40	7	0	7	22	4	0	11	24	4	0	669	
05:20:00 PM	3	38	13	0	42	45	6	0	6	24	4	0	9	19	2	0	665	
05:25:00 PM	2	34	10	0	37	56	8	0	8	15	4	0	10	15	3	0	625	2565

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Empire Blvd				NE Empire Blvd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Empire Blvd				NE Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	8	21	9	0	43	51	7	0	5	25	4	0	7	11	2	0		
04:35:00 PM	9	36	12	0	32	54	5	0	2	22	5	0	13	8	2	0		
04:40:00 PM	5	23	12	0	54	54	9	0	4	23	8	0	7	12	1	0	605	
04:45:00 PM	4	34	20	0	22	48	8	0	9	26	2	0	13	16	3	0	617	
04:50:00 PM	5	31	19	0	47	59	6	0	5	17	5	0	11	16	2	0	640	
04:55:00 PM	3	18	12	0	36	52	2	0	4	26	3	0	20	19	4	0	627	
05:00:00 PM	4	33	15	0	39	52	8	0	9	16	4	0	9	9	1	0	621	
05:05:00 PM	7	19	21	0	37	51	6	0	6	27	4	0	15	14	1	0	606	
05:10:00 PM	4	34	24	0	40	59	4	0	11	20	3	0	19	13	4	0	642	
05:15:00 PM	8	28	12	0	38	36	7	0	7	22	4	0	11	24	4	0	644	
05:20:00 PM	3	37	13	0	40	41	6	0	6	24	4	0	9	18	2	0	639	
05:25:00 PM	2	34	10	0	37	55	8	0	8	15	4	0	10	15	3	0	605	2479

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Empire Blvd				NE Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0		
04:35:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0		
04:40:00 PM	1	1	0	0	3	2	0	0	0	0	1	0	2	0	0	0	17	
04:45:00 PM	0	0	1	0	4	5	1	0	0	2	0	0	1	2	0	0	29	
04:50:00 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	32	
04:55:00 PM	0	1	0	0	1	3	0	0	0	1	0	0	1	0	0	0	29	
05:00:00 PM	0	0	0	0	3	2	0	0	0	1	0	0	0	0	0	0	19	
05:05:00 PM	0	0	0	0	3	3	0	0	0	1	0	0	0	0	0	0	20	
05:10:00 PM	1	0	3	0	2	1	0	0	0	0	0	0	0	0	0	0	20	
05:15:00 PM	0	3	0	0	4	4	0	0	0	0	0	0	0	0	0	0	25	
05:20:00 PM	0	1	0	0	2	4	0	0	0	0	0	0	0	1	0	0	26	
05:25:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	20	86

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	1	0	0	0		
04:40:00 PM	0	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	1	0	0	0	1	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	1	0	0	0	1	
05:20:00 PM	0	0	0	0	1	
05:25:00 PM	0	0	0	0	1	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 20
E/W street:	NE Butler Market
City, State	Bend OR
Study ID #	
Location	44.079271 - -121.305022
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.88

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
114	575	113	0	150	1010	60	0	95	154	81	0	309	148	73	0	802	1220	330	530	1400	743	322	417
Percent Heavy Vehicles																							
1.8%	1.7%	0.9%	0.0%	2.0%	2.7%	1.7%	0.0%	1.1%	0.6%	1.2%	0.0%	0.6%	0.7%	1.4%	0.0%	1.6%	2.5%	0.9%	0.8%	2.1%	1.6%	1.2%	1.2%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	10

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Butler Market				NE Butler Market					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	4	44	9	0	13	87	7	0	9	10	1	0	19	5	3	0		
04:35:00 PM	8	51	12	0	11	90	4	0	6	17	3	0	21	13	6	0		
04:40:00 PM	10	49	8	0	9	67	2	0	8	13	5	0	31	11	6	0	672	
04:45:00 PM	12	48	13	0	11	64	7	0	4	8	7	0	32	8	8	0	683	
04:50:00 PM	10	41	7	0	19	89	3	0	8	9	10	0	23	11	5	0	676	
04:55:00 PM	8	38	10	0	13	89	4	0	9	7	7	0	28	11	4	0	685	
05:00:00 PM	6	45	7	0	15	92	7	0	6	13	3	0	27	5	4	0	693	
05:05:00 PM	9	54	10	0	5	88	5	0	3	18	6	0	18	14	8	0	696	
05:10:00 PM	10	59	7	0	17	97	3	0	14	15	11	0	27	16	8	0	752	
05:15:00 PM	14	51	13	0	15	93	4	0	13	12	7	0	31	15	9	0	799	
05:20:00 PM	9	48	9	0	11	76	8	0	9	18	12	0	30	17	8	0	816	
05:25:00 PM	14	47	8	0	11	78	6	0	6	14	9	0	22	22	4	0	773	2882

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Butler Market				NE Butler Market					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Butler Market				NE Butler Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	4	43	9	0	13	86	6	0	9	10	1	0	19	5	3	0		
04:35:00 PM	8	50	11	0	11	89	4	0	6	16	3	0	21	13	5	0		
04:40:00 PM	10	49	8	0	9	67	2	0	8	13	5	0	31	11	6	0	664	
04:45:00 PM	12	48	13	0	10	61	7	0	4	8	7	0	32	8	8	0	674	
04:50:00 PM	10	41	7	0	19	85	3	0	8	9	9	0	23	11	5	0	667	
04:55:00 PM	7	37	10	0	13	85	4	0	9	7	7	0	28	11	4	0	670	
05:00:00 PM	6	45	7	0	14	91	7	0	6	13	3	0	26	5	4	0	679	
05:05:00 PM	8	52	10	0	5	86	5	0	3	18	6	0	18	14	8	0	682	
05:10:00 PM	10	56	7	0	17	94	3	0	14	15	11	0	26	15	8	0	736	
05:15:00 PM	14	51	13	0	15	90	4	0	13	12	7	0	31	15	9	0	783	
05:20:00 PM	9	46	9	0	10	73	8	0	8	18	12	0	30	17	8	0	798	
05:25:00 PM	14	47	8	0	11	76	6	0	6	14	9	0	22	22	4	0	761	2831

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Butler Market				NE Butler Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
04:45:00 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	9	
04:50:00 PM	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	9	
04:55:00 PM	1	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	15	
05:00:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	14	
05:05:00 PM	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	14	
05:10:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	1	1	0	0	16	
05:15:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	16	
05:20:00 PM	0	2	0	0	1	3	0	0	1	0	0	0	0	0	0	0	18	
05:25:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	12	51

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	2	2	0	4	
04:45:00 PM	0	0	0	0	4	
04:50:00 PM	0	0	0	0	4	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	1	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	3	2	0	5	10

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97 SB ramp
E/W street:	NE Butler Market
City, State	Bend OR
Study ID #	
Location	44.078919 - -121.303043
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.91

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	137	0	97	0	0	458	0	0	0	556	0	0	0	234	458	556	0	0	653	595
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	2.1%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	#DIV/0!	1.7%	1.1%	0.7%	#DIV/0!	0.0%	0.9%	1.2%

PHV- Bicycles															PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound			in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Sum	NB	SB	EB	WB	Sum
0				0				0				0			0		1	0	0	1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market					
04:30:00 PM					13	8	0	0	0	32	0	0	47	0	0			
04:35:00 PM					12	8	0	0	0	41	0	0	48	0	0			
04:40:00 PM					8	12	0	0	0	39	0	0	50	0	0	318		
04:45:00 PM					14	8	0	0	0	32	0	0	46	0	0	318		
04:50:00 PM					13	10	0	0	0	43	0	0	37	0	0	312		
04:55:00 PM					6	9	0	0	0	33	0	0	41	0	0	292		
05:00:00 PM					13	5	0	0	0	42	0	0	37	0	0	289		
05:05:00 PM					9	6	0	0	0	38	0	0	52	0	0	291		
05:10:00 PM					13	9	0	0	0	40	0	0	49	0	0	313		
05:15:00 PM					12	8	0	0	0	42	0	0	52	0	0	330		
05:20:00 PM					15	7	0	0	0	44	0	0	50	0	0	341		
05:25:00 PM					9	7	0	0	0	32	0	0	47	0	0	325	1248	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market					
04:30:00 PM					0	0	0	0	0	0	0	0	0	0	0			
04:35:00 PM					0	0	0	0	0	0	0	0	0	0	0			
04:40:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:50:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:55:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:00:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:05:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:10:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:15:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:20:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		



KEY DATA NETWORK

05:25:00 PM		0	0	0	0	0	0	0	0	0	0	0	0
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market				Sum	Sum		
					Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:30:00 PM					13		8	0	0	32		0	46	0	0					
04:35:00 PM					12		8	0	0	39		0	48	0	0					
04:40:00 PM					8		12	0	0	39		0	49	0	0	314				
04:45:00 PM					14		8	0	0	31		0	46	0	0	314				
04:50:00 PM					13		10	0	0	43		0	37	0	0	310				
04:55:00 PM					6		9	0	0	33		0	41	0	0	291				
05:00:00 PM					12		4	0	0	41		0	37	0	0	286				
05:05:00 PM					9		5	0	0	38		0	50	0	0	285				
05:10:00 PM					13		9	0	0	40		0	49	0	0	307				
05:15:00 PM					11		8	0	0	42		0	52	0	0	326				
05:20:00 PM					15		7	0	0	43		0	50	0	0	339				
05:25:00 PM					9		7	0	0	32		0	47	0	0	323	1235			

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market				Sum	Sum		
					Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:30:00 PM					0		0	0	0	0		0	1	0	0					
04:35:00 PM					0		0	0	0	2		0	0	0	0					
04:40:00 PM					0		0	0	0	0		0	1	0	0	4				
04:45:00 PM					0		0	0	0	1		0	0	0	0	4				
04:50:00 PM					0		0	0	0	0		0	0	0	0	2				
04:55:00 PM					0		0	0	0	0		0	0	0	0	1				
05:00:00 PM					1		1	0	0	1		0	0	0	0	3				
05:05:00 PM					0		1	0	0	0		0	2	0	0	6				
05:10:00 PM					0		0	0	0	0		0	0	0	0	6				
05:15:00 PM					1		0	0	0	0		0	0	0	0	4				
05:20:00 PM					0		0	0	0	1		0	0	0	0	2				
05:25:00 PM					0		0	0	0	0		0	0	0	0	2	13			

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min		1 HR	
	NB	SB	EB	WB	Sum	Sum		
04:30:00 PM		0	0	0				
04:35:00 PM		0	0	0				
04:40:00 PM		0	0	0	0			
04:45:00 PM		0	0	0	0			
04:50:00 PM		0	0	0	0			
04:55:00 PM		0	0	0	0			
05:00:00 PM		0	0	0	0			
05:05:00 PM		0	0	0	0			
05:10:00 PM		0	0	0	0			
05:15:00 PM		0	0	0	0			
05:20:00 PM		1	0	0	1			
05:25:00 PM		0	0	0	1	1		



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 NB ramp				Southbound US97 NB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM	0	0	0	0	0	0	0	0	3	40	0	0	0	43	20	0	
04:35:00 PM	0	0	1	0	0	0	0	0	7	46	0	0	1	52	19	0		
04:40:00 PM	0	0	3	0	0	0	0	0	2	43	0	0	1	46	7	0	334	
04:45:00 PM	0	0	0	0	0	0	0	0	4	42	0	0	1	45	11	0	331	
04:50:00 PM	0	0	1	0	0	0	0	0	5	50	1	0	0	39	16	0	317	
04:55:00 PM	0	0	0	0	0	0	0	0	5	35	0	0	1	42	8	0	306	
05:00:00 PM	0	0	1	0	0	0	0	0	9	42	0	0	1	35	21	0	312	
05:05:00 PM	0	2	0	0	0	0	0	0	14	31	3	0	1	54	13	0	318	
05:10:00 PM	1	0	2	0	0	0	0	0	4	50	1	0	0	47	17	0	349	
05:15:00 PM	0	0	2	0	0	0	0	0	5	46	1	0	0	52	17	0	363	
05:20:00 PM	0	0	0	0	0	0	0	0	7	50	0	0	0	50	12	0	364	
05:25:00 PM	0	0	1	0	0	0	0	0	7	34	0	0	1	49	13	0	347	1336

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 NB ramp				Southbound US97 NB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	
04:35:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	
04:45:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:00:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:15:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	5	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0	0	
04:45:00 PM	0	1	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	1	0	0	0	1	2



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound NW Revere Ave				Westbound NE Revere Ave				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	4	13	28	0	14	21	0	0	0	2	0	0	28	2	10	0	
04:40:00 PM	0	9	30	0	13	14	0	0	0	1	0	0	31	1	11	0		
04:45:00 PM	1	14	44	0	15	18	0	0	1	2	0	0	28	2	12	0	369	
04:50:00 PM	0	14	23	0	13	31	0	0	2	1	1	0	41	4	8	0	385	
04:55:00 PM	1	7	23	0	11	17	0	0	0	0	0	0	46	1	18	0	399	
05:00:00 PM	2	16	35	0	12	19	0	0	0	1	1	0	32	0	16	0	396	
05:05:00 PM	1	10	28	0	12	17	1	0	0	1	1	0	30	3	19	0	381	
05:10:00 PM	3	10	27	0	12	23	0	0	0	1	2	0	43	4	25	0	407	
05:15:00 PM	1	7	42	0	10	16	0	0	1	3	0	0	33	1	23	0	410	
05:20:00 PM	8	13	37	0	15	26	0	0	0	1	2	0	47	1	17	0	454	
05:25:00 PM	0	8	35	0	12	15	1	0	1	1	2	0	44	4	23	0	450	
05:30:00 PM	3	11	31	0	11	23	0	0	0	4	0	0	35	2	15	0	448	1623

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound NW Revere Ave				Westbound NE Revere Ave				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:15:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:25:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	
05:30:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	11

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	1	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	2	1	0	3	
05:20:00 PM	0	1	0	0	4	
05:25:00 PM	0	0	0	0	4	
05:30:00 PM	0	1	0	0	2	6

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	NW Lafayette Ave
City, State	Bend OR
Study ID #	
Location	44.061871 - -121.307143
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	2302	0	0	0	2573	83	0	0	0	125	0	0	0	0	0	2302	2656	125	0	2698	2302	83	0
Percent Heavy Vehicles																							
0.0%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.8%	0.0%	0.0%	2.8%	2.9%	0.0%	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	1		0	0	0	0	0	0			0	0				1	0	0	0		0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Lafayette Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	192		0	238	8	0	0	0	5	0							
04:40:00 PM	0	191		0	198	11	0	0	0	4	0							
04:45:00 PM	0	215		0	215	3	0	0	0	6	0					1286		
04:50:00 PM	0	193		0	214	5	0	0	0	14	0					1269		
04:55:00 PM	0	158		0	189	12	0	0	0	14	0					1238		
05:00:00 PM	0	170		0	220	8	0	0	0	16	0					1213		
05:05:00 PM	0	217		0	215	4	0	0	0	19	0					1242		
05:10:00 PM	0	201		0	237	5	0	0	0	8	0					1320		
05:15:00 PM	0	217		0	231	7	0	0	0	13	0					1374		
05:20:00 PM	0	203		0	215	5	0	0	0	12	0					1354		
05:25:00 PM	0	198		0	198	6	0	0	0	7	0					1312		
05:30:00 PM	0	147		0	203	9	0	0	0	7	0					1210	5083	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Lafayette Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	1		0	0	0	0	0	0	0	0	0					1	
05:10:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:15:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:20:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	



Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	NW Hawthorne Ave
City, State	Bend OR
Study ID #	
Location	44.057959 - -121.307182
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	2309	0	0	0	2412	259	0	0	0	223	0	0	0	0	0	2309	2671	223	0	2635	2309	259	0
Percent Heavy Vehicles																							
0.0%	3.1%	0.0%	0.0%	0.0%	2.7%	0.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	2.5%	0.9%	0.0%	2.6%	3.1%	0.8%	0.0%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	1		0	0	0	0	0	0			0	0			0	1	0	0	1		1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Hawthorne Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	206		0	208	18	0	0	0	17	0							
04:40:00 PM	0	196		0	177	20	0	0	0	17	0							
04:45:00 PM	0	209		0	185	25	0	0	0	18	0					1296		
04:50:00 PM	0	183		0	205	28	0	0	0	18	0					1281		
04:55:00 PM	0	157		0	188	21	0	0	0	15	0					1252		
05:00:00 PM	0	184		0	205	24	0	0	0	14	0					1242		
05:05:00 PM	0	212		0	206	25	0	0	0	28	0					1279		
05:10:00 PM	0	207		0	230	19	0	0	0	17	0					1371		
05:15:00 PM	0	210		0	219	18	0	0	0	17	0					1408		
05:20:00 PM	0	192		0	214	18	0	0	0	23	0					1384		
05:25:00 PM	0	198		0	186	23	0	0	0	21	0					1339		
05:30:00 PM	0	155		0	189	20	0	0	0	18	0					1257	5203	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Hawthorne Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	1		0	0	0	0	0	0	0	0	0					1	
05:10:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:15:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:20:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	2
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				NW Colorado Ave				NW Colorado Ave				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	21	27	0	7	0	21	0	0	0	0	0	0	20	5	0		
04:40:00 PM	0	23	31	0	3	0	15	0	0	0	0	0	0	24	1	0		
04:45:00 PM	1	23	25	0	12	0	12	0	0	0	0	0	0	37	0	0	308	
04:50:00 PM	0	19	28	0	3	0	16	0	0	0	0	0	0	28	0	0	301	
04:55:00 PM	0	15	20	0	6	0	13	0	0	0	0	0	0	28	0	0	286	
05:00:00 PM	1	11	27	0	7	0	19	0	0	0	0	0	0	19	2	0	262	
05:05:00 PM	0	21	25	0	9	0	12	0	0	0	0	0	0	36	3	0	274	
05:10:00 PM	3	35	41	0	14	0	14	0	0	0	0	0	0	29	1	0	329	
05:15:00 PM	3	19	28	0	10	0	9	0	0	0	0	0	0	33	4	0	349	
05:20:00 PM	0	27	46	0	7	0	8	0	0	0	0	0	0	34	4	0	369	
05:25:00 PM	0	24	37	0	7	0	20	0	0	0	0	0	0	37	4	0	361	
05:30:00 PM	0	24	38	0	4	0	14	0	0	0	0	0	0	18	6	0	359	1278

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				NW Colorado Ave				NW Colorado Ave				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0		
04:45:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:00:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	
05:10:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:25:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	3	
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13

Pedestrians Crossing

Time					15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	1	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	1	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	1	0	1	0	2	
05:25:00 PM	0	0	0	0	2	
05:30:00 PM	0	0	0	0	2	4

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 NB ramps
E/W street:	NW Colorado Ave
City, State	Bend OR
Study ID #	
Location	44.051578 - -121.306089
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.90

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	17	0	199	0	644	217	0	1	0	180	381	0	0	216	862	561	0	1025	380	234
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.5%	0.0%	0.9%	2.3%	0.0%	0.0%	0.0%	1.1%	1.0%	0.0%	#DIV/0!	0.9%	1.3%	1.1%	#DIV/0!	1.0%	0.8%	2.6%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound			in Crosswalk						
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0				0				0				2	0	0		2		0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 NB ramps				NW Colorado Ave				NW Colorado Ave					
04:35:00 PM					2	9	0		66	14	0		16	29	0			
04:40:00 PM					0	17	0		56	16	0		11	30	0			
04:45:00 PM					0	21	0		60	21	0		14	29	0	411		
04:50:00 PM					0	19	0		42	10	0		10	21	0	377		
04:55:00 PM					1	12	0		53	12	0		14	25	0	364		
05:00:00 PM					1	18	0		51	17	0		13	34	0	353		
05:05:00 PM					2	20	0		46	19	0		12	59	0	409		
05:10:00 PM					5	16	0		44	22	0		17	43	0	439		
05:15:00 PM					1	21	0		70	16	0		14	29	0	456		
05:20:00 PM					3	16	0		64	18	0		23	30	0	452		
05:25:00 PM					2	21	0		53	30	0		22	20	0	453		
05:30:00 PM					0	9	0		39	22	1		14	32	0	419	1639	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 NB ramps				NW Colorado Ave				NW Colorado Ave					
04:35:00 PM					0	0	0		0	0	0		0	0	0			
04:40:00 PM					0	0	0		0	0	0		0	0	0			
04:45:00 PM					0	0	0		0	0	0		0	0	0	0		
04:50:00 PM					0	0	0		0	0	0		0	0	0	0		
04:55:00 PM					0	0	0		0	0	0		0	0	0	0		
05:00:00 PM					0	0	0		0	0	0		1	0	0	1		
05:05:00 PM					0	0	0		0	0	0		0	0	0	1		
05:10:00 PM					0	0	0		0	0	0		0	0	0	1		
05:15:00 PM					0	0	0		0	0	0		0	0	0	0		
05:20:00 PM					0	0	0		0	0	0		0	0	0	0		
05:25:00 PM					0	0	0		0	0	0		0	0	0	0		



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	0	1	0	0	1	2
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 NB ramps				Eastbound NW Colorado Ave				Westbound NW Colorado Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					2		9	0	64	14		0		16	29	0	
04:40:00 PM					0		17	0	55	15		0		11	30	0		
04:45:00 PM					0		21	0	59	20		0		14	29	0	405	
04:50:00 PM					0		19	0	42	10		0		10	20	0	372	
04:55:00 PM					1		12	0	53	12		0		14	24	0	360	
05:00:00 PM					1		18	0	51	17		0		12	34	0	350	
05:05:00 PM					2		20	0	46	19		0		12	58	0	406	
05:10:00 PM					4		16	0	44	22		0		17	43	0	436	
05:15:00 PM					1		20	0	68	16		0		14	29	0	451	
05:20:00 PM					3		16	0	64	18		0		23	30	0	448	
05:25:00 PM					2		21	0	53	28		0		21	19	0	446	
05:30:00 PM					0		9	0	39	21		1		14	32	0	414	1620

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 NB ramps				Eastbound NW Colorado Ave				Westbound NW Colorado Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		0	0	2	0		0		0	0	0	
04:40:00 PM					0		0	0	1	1		0		0	0	0		
04:45:00 PM					0		0	0	1	1		0		0	0	0	6	
04:50:00 PM					0		0	0	0	0		0		0	1	0	5	
04:55:00 PM					0		0	0	0	0		0		0	1	0	4	
05:00:00 PM					0		0	0	0	0		0		1	0	0	3	
05:05:00 PM					0		0	0	0	0		0		0	1	0	3	
05:10:00 PM					1		0	0	0	0		0		0	0	0	3	
05:15:00 PM					0		1	0	2	0		0		0	0	0	5	
05:20:00 PM					0		0	0	0	0		0		0	0	0	4	
05:25:00 PM					0		0	0	0	2		0		1	1	0	7	
05:30:00 PM					0		0	0	0	1		0		0	0	0	5	19

Pedestrians Crossing

Time					15 Min	1 HR
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		0	0	0		
04:45:00 PM		0	0	0	0	
04:50:00 PM		0	0	0	0	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	SW Truman Ave
City, State	Bend OR
Study ID #	
Location	44.044229 - -121.305958
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.90

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	1504	0	0	0	2311	183	0	0	0	80	0	0	0	0	0	1504	2494	80	0	2391	1504	183	0
Percent Heavy Vehicles																							
0.0%	4.1%	0.0%	0.0%	0.0%	2.8%	2.2%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	2.7%	1.3%	0.0%	2.7%	4.1%	2.2%	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				SW Truman Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	131	0	0	200	18	0	0	0	4	0							
04:40:00 PM	0	122	0	0	175	17	0	0	0	4	0							
04:45:00 PM	0	148	0	0	181	16	0	0	0	4	0					1020		
04:50:00 PM	0	125	0	0	157	19	0	0	0	9	0					977		
04:55:00 PM	0	97	0	0	179	15	0	0	0	7	0					957		
05:00:00 PM	0	126	0	0	178	15	0	0	0	10	0					937		
05:05:00 PM	0	142	0	0	208	13	0	0	0	6	0					996		
05:10:00 PM	0	123	0	0	224	12	0	0	0	13	0					1070		
05:15:00 PM	0	144	0	0	222	14	0	0	0	8	0					1129		
05:20:00 PM	0	118	0	0	221	16	0	0	0	5	0					1120		
05:25:00 PM	0	127	0	0	185	15	0	0	0	6	0					1081		
05:30:00 PM	0	101	0	0	181	13	0	0	0	4	0					992	4078	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				SW Truman Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97				SW Truman Ave								Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM	0	126		0	195	18	0	0		4	0									
04:40:00 PM	0	114		0	173	17	0	0		4	0									
04:45:00 PM	0	141		0	175	16	0	0		4	0						987			
04:50:00 PM	0	122		0	156	18	0	0		8	0						948			
04:55:00 PM	0	95		0	174	15	0	0		7	0						931			
05:00:00 PM	0	121		0	168	15	0	0		10	0						909			
05:05:00 PM	0	137		0	202	13	0	0		6	0						963			
05:10:00 PM	0	119		0	218	12	0	0		13	0						1034			
05:15:00 PM	0	136		0	214	14	0	0		8	0						1092			
05:20:00 PM	0	115		0	215	16	0	0		5	0						1085			
05:25:00 PM	0	124		0	181	13	0	0		6	0						1047			
05:30:00 PM	0	93		0	176	12	0	0		4	0						960	3948		

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97				SW Truman Ave								Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM	0	5		0	5	0	0	0		0	0									
04:40:00 PM	0	8		0	2	0	0	0		0	0									
04:45:00 PM	0	7		0	6	0	0	0		0	0						33			
04:50:00 PM	0	3		0	1	1	0	0		1	0						29			
04:55:00 PM	0	2		0	5	0	0	0		0	0						26			
05:00:00 PM	0	5		0	10	0	0	0		0	0						28			
05:05:00 PM	0	5		0	6	0	0	0		0	0						33			
05:10:00 PM	0	4		0	6	0	0	0		0	0						36			
05:15:00 PM	0	8		0	8	0	0	0		0	0						37			
05:20:00 PM	0	3		0	6	0	0	0		0	0						35			
05:25:00 PM	0	3		0	4	2	0	0		0	0						34			
05:30:00 PM	0	8		0	5	1	0	0		0	0						32	130		

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min		1 HR	
	NB	SB	EB	WB	Sum	Sum		
04:35:00 PM	0	0	0					
04:40:00 PM	0	0	0					
04:45:00 PM	0	0	0		0			
04:50:00 PM	0	0	0		0			
04:55:00 PM	0	0	0		0			
05:00:00 PM	0	0	0		0			
05:05:00 PM	0	0	0		0			
05:10:00 PM	0	0	0		0			
05:15:00 PM	0	0	0		0			
05:20:00 PM	0	0	0		0			
05:25:00 PM	0	0	0		0			
05:30:00 PM	0	0	0		0	0		



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound SW Reed Market				Westbound SW Reed Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	0	0	0	51	0	13	0	0	60	6	0	0	34	3	0	
04:40:00 PM	0	0	0	0	62	0	12	0	0	50	4	0	0	36	6	0		
04:45:00 PM	0	0	0	0	39	0	5	0	0	68	4	0	0	27	5	0	485	
04:50:00 PM	0	0	0	0	39	0	4	0	0	71	5	0	0	31	6	0	474	
04:55:00 PM	0	0	0	0	64	0	15	0	0	54	2	0	0	40	7	0	486	
05:00:00 PM	0	0	0	0	41	0	9	0	0	59	3	0	0	40	9	0	499	
05:05:00 PM	0	0	0	0	65	0	17	0	0	53	5	0	0	30	3	0	516	
05:10:00 PM	0	0	0	0	58	0	11	0	0	64	7	0	0	42	8	0	524	
05:15:00 PM	0	0	0	0	76	0	17	0	0	53	6	0	0	37	6	0	558	
05:20:00 PM	0	0	0	0	69	0	12	0	0	57	3	0	0	42	2	0	570	
05:25:00 PM	0	0	0	0	56	0	17	0	0	57	3	0	0	47	5	0	565	
05:30:00 PM	0	0	0	0	48	0	15	0	0	51	3	0	0	43	1	0	531	2073

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound SW Reed Market				Westbound SW Reed Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	0	0	0	2	0	0	0	0	2	0	0	0	1	0	0	
04:40:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0		
04:45:00 PM	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	13	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	10	
04:55:00 PM	0	0	0	0	1	0	2	0	0	1	0	0	0	2	1	0	14	
05:00:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	11	
05:05:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	12	
05:10:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	9	
05:20:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	37

Pedestrians Crossing

Time	Directions				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	1	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	1	0	0	2	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	1	
05:25:00 PM	1	0	0	0	1	
05:30:00 PM	0	0	0	0	1	3



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 NB ramps				US97 NB ramps				SW Reed Market Rd				SW Reed Market Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	2	0	5	0	0	0	2	0	0	103	8	0	0	33	2	0		
04:40:00 PM	5	0	13	0	0	0	1	0	0	106	6	0	0	36	4	0		
04:45:00 PM	1	0	4	0	0	0	1	0	0	97	10	0	0	30	6	0	475	
04:50:00 PM	2	0	14	0	0	0	2	0	0	105	5	0	0	33	2	0	483	
04:55:00 PM	6	0	6	0	0	0	2	0	0	107	11	0	0	39	1	0	484	
05:00:00 PM	2	0	7	0	0	0	4	0	0	95	5	0	0	43	0	0	491	
05:05:00 PM	2	0	3	0	0	0	2	0	0	104	14	0	0	29	0	0	482	
05:10:00 PM	2	0	5	0	0	0	5	0	0	115	7	0	0	43	1	0	488	
05:15:00 PM	4	0	7	0	0	0	4	0	0	118	11	0	0	35	1	0	512	
05:20:00 PM	3	0	4	0	0	0	2	0	0	119	7	0	0	39	4	0	536	
05:25:00 PM	4	0	7	0	0	0	3	0	0	108	5	0	0	45	5	0	535	
05:30:00 PM	2	0	4	0	0	0	7	0	0	91	8	0	0	35	1	0	503	1981

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 NB ramps				US97 NB ramps				SW Reed Market Rd				SW Reed Market Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	11	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	8	
04:55:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	11	
05:00:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	9	
05:05:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	10	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	9	
05:20:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4	33

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	1	0	0	0	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	1	0	0	0	2	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	2

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	Reed Lane
City, State	Bend OR
Study ID #	
Location	44.032436 - -121.313051
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.96

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	1076	55	0	0	1706	0	0	0	0	0	0	0	0	146	0	1131	1706	0	146	1706	1222	0	55
Percent Heavy Vehicles																							
0.0%	5.3%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	5.0%	3.3%	#DIV/0!	1.4%	3.3%	4.8%	#DIV/0!	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0					0	0	0	0	0	1	0	0	0	1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97								Reed Lane					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	87	2	0	0	0	149	0					0	9	0				
04:40:00 PM	105	4	0	0	0	142	0					0	15	0				
04:45:00 PM	81	5	0	0	0	127	0					0	15	0	741			
04:50:00 PM	81	1	0	0	0	138	0					0	13	0	727			
04:55:00 PM	104	2	0	0	0	148	0					0	3	0	718			
05:00:00 PM	93	6	0	0	0	129	0					0	21	0	739			
05:05:00 PM	77	6	0	0	0	147	0					0	12	0	748			
05:10:00 PM	79	3	0	0	0	157	0					0	13	0	743			
05:15:00 PM	92	6	0	0	0	149	0					0	5	0	746			
05:20:00 PM	96	6	0	0	0	152	0					0	17	0	775			
05:25:00 PM	90	5	0	0	0	139	0					0	10	0	767			
05:30:00 PM	91	9	0	0	0	129	0					0	13	0	757	2983		

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97								Reed Lane					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0	0	0	0	0	0	0					0	0	0			
04:40:00 PM	0	0	0	0	0	0	0	0					0	0	0			
04:45:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
04:50:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
04:55:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:00:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:05:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:10:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:15:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:20:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
05:25:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97								Reed Lane				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM		81	2	0	0	141		0					0		9	0				
04:40:00 PM		97	4	0	0	137		0					0		14	0				
04:45:00 PM		79	5	0	0	122		0					0		15	0	706			
04:50:00 PM		79	1	0	0	134		0					0		13	0	700			
04:55:00 PM		98	2	0	0	144		0					0		3	0	695			
05:00:00 PM		88	6	0	0	127		0					0		21	0	716			
05:05:00 PM		72	6	0	0	144		0					0		11	0	722			
05:10:00 PM		78	3	0	0	153		0					0		13	0	722			
05:15:00 PM		86	6	0	0	148		0					0		5	0	725			
05:20:00 PM		91	6	0	0	143		0					0		17	0	749			
05:25:00 PM		84	5	0	0	133		0					0		10	0	734			
05:30:00 PM		86	9	0	0	124		0					0		13	0	721	2868		

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97								Reed Lane				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM		6	0	0	0	8		0					0		0	0				
04:40:00 PM		8	0	0	0	5		0					0		1	0				
04:45:00 PM		2	0	0	0	5		0					0		0	0	35			
04:50:00 PM		2	0	0	0	4		0					0		0	0	27			
04:55:00 PM		6	0	0	0	4		0					0		0	0	23			
05:00:00 PM		5	0	0	0	2		0					0		0	0	23			
05:05:00 PM		5	0	0	0	3		0					0		1	0	26			
05:10:00 PM		1	0	0	0	4		0					0		0	0	21			
05:15:00 PM		6	0	0	0	1		0					0		0	0	21			
05:20:00 PM		5	0	0	0	9		0					0		0	0	26			
05:25:00 PM		6	0	0	0	6		0					0		0	0	33			
05:30:00 PM		5	0	0	0	5		0					0		0	0	36	115		

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min		1 HR	
	NB	SB	EB	WB	Sum	Sum		
04:35:00 PM	0	0		0				
04:40:00 PM	0	0		0				
04:45:00 PM	0	0		0				
04:50:00 PM	0	0		0				
04:55:00 PM	0	0		0				
05:00:00 PM	0	0		0				
05:05:00 PM	0	0		0				
05:10:00 PM	0	0		0				
05:15:00 PM	0	0		0				
05:20:00 PM	0	0		0				
05:25:00 PM	1	0		0	1			
05:30:00 PM	0	0		0	1	1		



KEY DATA NETWORK

05:30:00 PM	0	0	0			0	0	0		0	0	0	0	0
-------------	---	---	---	--	--	---	---	---	--	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 SB ramp				Southbound				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0		26	0					37	1	0		2	43	1			
04:40:00 PM	1		23	0					36	5	0		6	43	0			
04:45:00 PM	0		36	0					41	3	0		1	55	0		360	
04:50:00 PM	0		23	0					38	4	0		4	51	0		370	
04:55:00 PM	1		29	0					41	4	0		2	48	0		381	
05:00:00 PM	0		21	0					53	2	0		0	39	0		360	
05:05:00 PM	0		38	0					32	4	0		3	43	0		360	
05:10:00 PM	0		34	0					33	3	0		5	60	0		370	
05:15:00 PM	0		32	0					31	2	0		1	49	0		370	
05:20:00 PM	0		33	0					38	3	0		0	49	0		373	
05:25:00 PM	0		31	0					35	1	0		2	54	0		361	
05:30:00 PM	0		27	0					40	0	0		1	46	0		360	1450

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 SB ramp				Southbound				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0		1	0					0	0	0		0	0	0			
04:40:00 PM	1		0	0					1	0	0		0	0	0			
04:45:00 PM	0		0	0					0	0	0		0	0	0		3	
04:50:00 PM	0		1	0					0	0	0		0	0	0		3	
04:55:00 PM	0		0	0					0	0	0		0	0	0		1	
05:00:00 PM	0		0	0					0	0	0		0	0	0		1	
05:05:00 PM	0		0	0					0	0	0		0	0	0		0	
05:10:00 PM	0		0	0					0	0	0		0	1	0		1	
05:15:00 PM	0		0	0					0	1	0		0	0	0		2	
05:20:00 PM	0		0	0					1	0	0		0	0	0		3	
05:25:00 PM	0		0	0					0	0	0		0	0	0		2	
05:30:00 PM	0		0	0					0	0	0		0	0	0		1	7

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	1		0	0		
04:40:00 PM	2		0	0		
04:45:00 PM	0		0	0	3	
04:50:00 PM	0		0	0	2	
04:55:00 PM	0		0	0	0	
05:00:00 PM	0		0	0	0	
05:05:00 PM	0		0	0	0	
05:10:00 PM	1		0	0	1	
05:15:00 PM	0		0	0	1	
05:20:00 PM	1		0	0	2	
05:25:00 PM	1		0	0	2	
05:30:00 PM	0		0	0	2	6



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Powers Rd				SW Powers Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	64	2	0	0	110	27	0	0	62	0	0	0	19	0	0		
04:40:00 PM	0	63	1	0	0	107	27	0	0	56	0	0	0	24	0	0		
04:45:00 PM	0	60	3	0	0	91	23	0	0	83	0	0	0	29	0	0	851	
04:50:00 PM	0	77	2	0	0	102	34	0	0	61	0	0	0	22	0	0	865	
04:55:00 PM	0	62	1	0	0	119	20	0	0	56	0	0	0	27	0	0	872	
05:00:00 PM	0	57	3	0	0	94	20	0	0	83	0	0	0	15	0	0	855	
05:05:00 PM	0	63	0	0	0	113	19	0	0	71	0	0	0	26	0	0	849	
05:10:00 PM	0	63	4	0	0	136	30	0	0	62	0	0	0	34	0	0	893	
05:15:00 PM	0	60	1	0	0	119	31	0	0	65	0	0	0	19	0	0	916	
05:20:00 PM	0	57	4	0	0	112	28	0	0	79	0	0	0	20	0	0	924	
05:25:00 PM	0	67	0	0	0	117	24	0	1	64	0	0	0	25	0	0	893	
05:30:00 PM	0	61	0	0	0	108	23	0	0	68	0	0	0	24	0	0	882	3504

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Powers Rd				SW Powers Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	7	0	0	0	6	0	0	0	2	0	0	0	0	0	0		
04:40:00 PM	0	8	0	0	0	5	0	0	0	1	0	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	35	
04:50:00 PM	0	3	0	0	0	5	0	0	0	2	0	0	0	0	0	0	30	
04:55:00 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	24	
05:00:00 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	27	
05:05:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	25	
05:10:00 PM	0	4	0	0	0	4	1	0	0	0	0	0	0	0	0	0	26	
05:15:00 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	22	
05:20:00 PM	0	6	0	0	0	3	0	0	0	1	0	0	0	0	0	0	24	
05:25:00 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	25	
05:30:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	27	111

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	1	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	1	0	0	0	1	
05:25:00 PM	1	0	0	0	2	
05:30:00 PM	0	0	0	0	2	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 NB ramp
E/W street:	SW Powers Rd
City, State	Bend OR
Study ID #	
Location	44.028811 - -121.313896
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	1	0	28	0	193	641	0	0	0	255	138	0	0	29	834	393	0	331	283	642
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	#DIV/0!	0.0%	1.0%	0.5%	#DIV/0!	1.2%	0.0%	0.9%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound			in Crosswalk						
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0				0				0	1			0	0	0		1		1	0	0	1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM					0	1	0		14	50			26	14	0			
04:40:00 PM					0	1	0		17	41			19	9	0			
04:45:00 PM					0	4	0		19	65			20	6	0		306	
04:50:00 PM					0	6	0		12	57			20	9	0		305	
04:55:00 PM					1	4	0		17	40			25	16	0		321	
05:00:00 PM					0	0	0		21	56			9	12	0		305	
05:05:00 PM					0	1	0		10	67			26	10	0		315	
05:10:00 PM					0	2	0		14	51			32	7	0		318	
05:15:00 PM					0	2	0		14	50			18	12	0		316	
05:20:00 PM					0	1	0		16	66			18	15	0		318	
05:25:00 PM					0	2	0		13	46			23	15	0		311	
05:30:00 PM					0	4	0		26	52			19	13	0		329	1256

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM					0	0	0		0	0			0	0	0			
04:40:00 PM					0	0	0		0	0			0	0	0			
04:45:00 PM					0	0	0		0	0			0	0	0		0	
04:50:00 PM					0	0	0		0	0			0	0	0		0	
04:55:00 PM					0	0	0		0	0			0	0	0		0	
05:00:00 PM					0	0	0		0	0			0	0	0		0	
05:05:00 PM					0	0	0		0	0			0	0	0		0	
05:10:00 PM					0	0	0		0	0			0	0	0		0	
05:15:00 PM					0	0	0		0	0			0	0	0		0	
05:20:00 PM					0	0	0		0	0			0	0	0		0	
05:25:00 PM					0	0	0		0	1			0	0	0		1	



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		1	0	14	48		0		26	13	0	
04:40:00 PM					0		1	0	16	41		0		19	9	0		
04:45:00 PM					0		4	0	19	65		0		20	6	0	302	
04:50:00 PM					0		6	0	11	56		0		20	9	0	302	
04:55:00 PM					1		4	0	17	39		0		25	16	0	318	
05:00:00 PM					0		0	0	21	56		0		9	12	0	302	
05:05:00 PM					0		1	0	10	66		0		26	10	0	313	
05:10:00 PM					0		2	0	14	51		0		32	7	0	317	
05:15:00 PM					0		2	0	14	50		0		18	12	0	315	
05:20:00 PM					0		1	0	16	65		0		18	15	0	317	
05:25:00 PM					0		2	0	13	46		0		23	14	0	309	
05:30:00 PM					0		4	0	26	52		0		19	13	0	327	1246

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		0	0	0	2		0		0	1	0	
04:40:00 PM					0		0	0	1	0		0		0	0	0		
04:45:00 PM					0		0	0	0	0		0		0	0	0	4	
04:50:00 PM					0		0	0	1	1		0		0	0	0	3	
04:55:00 PM					0		0	0	0	1		0		0	0	0	3	
05:00:00 PM					0		0	0	0	0		0		0	0	0	3	
05:05:00 PM					0		0	0	0	1		0		0	0	0	2	
05:10:00 PM					0		0	0	0	0		0		0	0	0	1	
05:15:00 PM					0		0	0	0	0		0		0	0	0	1	
05:20:00 PM					0		0	0	0	1		0		0	0	0	1	
05:25:00 PM					0		0	0	0	0		0		0	1	0	2	
05:30:00 PM					0		0	0	0	0		0		0	0	0	2	10

Pedestrians Crossing

Time					15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		1	0	0		
04:45:00 PM		0	0	0	1	
04:50:00 PM		0	0	0	1	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	1



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97				Southbound US97				Eastbound Badger Rd				Westbound Badger Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	55	0	0	0	77	2	0	0	0	1	0	0	0	5	0	
04:40:00 PM	0	69	1	0	0	102	3	0	0	0	0	0	0	0	8	0		
04:45:00 PM	0	59	4	0	0	81	1	0	0	0	0	0	0	0	3	0	471	
04:50:00 PM	0	61	0	0	0	76	2	0	0	0	0	0	0	0	11	0	481	
04:55:00 PM	0	62	1	0	0	93	3	0	0	0	0	0	0	0	4	0	461	
05:00:00 PM	0	52	1	0	0	84	1	0	0	0	0	0	0	0	6	0	457	
05:05:00 PM	0	58	0	0	0	91	1	0	0	0	0	0	0	0	16	0	473	
05:10:00 PM	0	51	0	0	0	91	3	0	0	0	0	0	0	0	10	0	465	
05:15:00 PM	0	58	1	0	0	92	2	0	0	0	1	0	0	0	9	0	484	
05:20:00 PM	0	64	1	0	0	93	0	0	0	0	1	0	0	0	6	0	483	
05:25:00 PM	0	60	0	0	0	87	1	0	0	0	0	0	0	0	4	0	480	
05:30:00 PM	0	54	3	0	0	79	1	0	0	0	1	0	0	0	6	0	461	1873

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97				Southbound US97				Eastbound Badger Rd				Westbound Badger Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	7	0	0	0	4	1	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	0	28	
04:50:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	22	
04:55:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	20	
05:00:00 PM	0	5	0	0	0	1	1	0	0	0	0	0	0	0	1	0	22	
05:05:00 PM	0	1	0	0	0	3	0	0	0	0	1	0	0	0	1	0	22	
05:10:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	21	
05:15:00 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	21	
05:20:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	22	
05:25:00 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	23	
05:30:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	22	93

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR		
	US97				US97				Pinebrook Blvd				Pinebrook Blvd				Sum	Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
04:35:00 PM	0	37	0	0	0	70	5	0	0	0	0	0	0	0	0	17	0		
04:40:00 PM	0	56	0	0	0	87	6	0	0	0	0	0	0	0	0	13	0		
04:45:00 PM	0	54	4	0	0	82	4	0	0	0	0	0	0	0	10	0	445		
04:50:00 PM	0	49	1	0	0	71	4	0	0	0	0	0	0	0	9	0	450		
04:55:00 PM	0	51	2	0	0	83	4	0	0	0	0	0	0	0	14	0	442		
05:00:00 PM	0	44	3	0	0	79	3	0	0	0	0	0	0	0	10	0	427		
05:05:00 PM	0	44	2	0	0	88	3	0	0	0	1	0	0	0	12	0	443		
05:10:00 PM	0	49	3	0	0	83	2	0	0	0	0	0	0	0	5	0	431		
05:15:00 PM	0	50	1	0	0	86	6	0	0	0	1	0	0	0	9	0	445		
05:20:00 PM	0	60	3	0	0	87	5	0	0	0	0	0	0	0	8	0	458		
05:25:00 PM	0	48	3	0	0	74	6	0	0	0	2	0	0	0	9	0	458		
05:30:00 PM	0	48	2	0	0	86	3	0	0	0	1	0	0	0	10	0	455	1772	

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR		
	US97				US97				Pinebrook Blvd				Pinebrook Blvd				Sum	Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
04:35:00 PM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	3	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	25		
04:50:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	1	0	21		
04:55:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	1	0	22		
05:00:00 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	1	0	21		
05:05:00 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	18		
05:10:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	16		
05:15:00 PM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	20		
05:20:00 PM	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	25		
05:25:00 PM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	1	0	26		
05:30:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	22	88	

Pedestrians Crossing

Time	NB	SB	EB	WB	15 Min 1 HR	
					Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	1	1	0	2	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	1	0	0	3	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	3



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Ponderosa St				China Hat Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	42	0	0	0	93	8	0	0	0	2	0	0	0	8	0		
04:40:00 PM	0	77	0	0	0	118	10	0	0	0	0	0	0	0	4	0		
04:45:00 PM	0	62	2	0	0	101	12	0	0	0	4	0	0	0	11	0	554	
04:50:00 PM	0	65	1	0	0	109	9	0	0	0	0	0	0	0	14	0	599	
04:55:00 PM	0	53	0	0	0	106	10	0	0	0	0	0	0	0	5	0	564	
05:00:00 PM	0	53	2	0	0	110	11	0	0	0	1	0	0	0	8	0	557	
05:05:00 PM	0	64	1	0	0	94	10	0	0	0	2	0	0	0	10	0	540	
05:10:00 PM	0	47	1	0	0	113	15	0	0	0	1	0	0	0	10	0	553	
05:15:00 PM	0	73	0	0	0	118	9	0	0	0	4	0	0	0	14	0	586	
05:20:00 PM	0	59	1	0	0	110	12	0	0	0	1	0	0	0	10	0	598	
05:25:00 PM	0	63	2	0	0	102	10	0	0	0	0	0	0	0	9	0	597	
05:30:00 PM	0	53	1	0	0	127	9	0	0	0	2	0	0	0	7	0	578	2275

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Ponderosa St				China Hat Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	7	0	0	0	4	2	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	4	0	0	0	7	0	0	0	0	1	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	8	1	0	0	0	0	0	0	0	0	0	36	
04:50:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	28	
04:55:00 PM	0	7	0	0	0	2	1	0	0	0	0	0	0	0	0	0	26	
05:00:00 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	19	
05:05:00 PM	0	1	0	0	0	5	1	0	0	0	0	0	0	0	0	0	21	
05:10:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	18	
05:15:00 PM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	25	
05:20:00 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	27	
05:25:00 PM	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	28	
05:30:00 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	24	104

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 SB ramps
E/W street:	Baker Rd
City, State	Bend OR
Study ID #	
Location	43.992611 - -121.336303
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	66	0	481	0	52	340	0	0	0	297	178	0	0	547	392	475	0	230	778	406
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	2.1%	0.0%	5.8%	4.4%	0.0%	0.0%	0.0%	3.0%	1.1%	0.0%	#DIV/0!	2.4%	4.6%	2.3%	#DIV/0!	2.2%	2.4%	4.4%

PHV- Bicycles															PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound			in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Sum	NB	SB	EB	WB	Sum
0				0				0				0			0		0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 SB ramps				Baker Rd				Knott Rd					
04:35:00 PM					2		38	0	1		29	0	23		13	0		
04:40:00 PM					10		35	0	6		27	0	22		9	0		
04:45:00 PM					3		51	0	3		26	0	21		15	0	334	
04:50:00 PM					4		40	0	4		27	0	26		9	0	338	
04:55:00 PM					6		33	0	6		22	0	20		12	0	328	
05:00:00 PM					7		37	0	7		26	0	23		13	0	322	
05:05:00 PM					6		37	0	4		40	0	28		16	0	343	
05:10:00 PM					3		52	0	7		28	0	25		8	0	367	
05:15:00 PM					7		40	0	3		32	0	24		12	0	372	
05:20:00 PM					6		48	0	3		27	0	28		23	0	376	
05:25:00 PM					6		32	0	6		23	0	30		28	0	378	
05:30:00 PM					6		38	0	2		33	0	27		20	0	386	1414

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 SB ramps				Baker Rd				Knott Rd					
04:35:00 PM					0		0	0	0		0	0	0		0	0		
04:40:00 PM					0		0	0	0		0	0	0		0	0		
04:45:00 PM					0		0	0	0		0	0	0		0	0	0	
04:50:00 PM					0		0	0	0		0	0	0		0	0	0	
04:55:00 PM					0		0	0	0		0	0	0		0	0	0	
05:00:00 PM					0		0	0	0		0	0	0		0	0	0	
05:05:00 PM					0		0	0	0		0	0	0		0	0	0	
05:10:00 PM					0		0	0	0		0	0	0		0	0	0	
05:15:00 PM					0		0	0	0		0	0	0		0	0	0	
05:20:00 PM					0		0	0	0		0	0	0		0	0	0	
05:25:00 PM					0		0	0	0		0	0	0		0	0	0	



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	0	0	0	0	0	0
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 SB ramps				Eastbound Baker Rd				Westbound Knott Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					1		37	0	1	27		0		23	13	0	
04:40:00 PM					9		35	0	6	26		0		21	9	0		
04:45:00 PM					3		47	0	3	25		0		20	14	0	320	
04:50:00 PM					4		39	0	3	25		0		26	9	0	324	
04:55:00 PM					6		33	0	5	19		0		20	12	0	313	
05:00:00 PM					7		37	0	7	26		0		20	13	0	311	
05:05:00 PM					6		36	0	4	40		0		28	15	0	334	
05:10:00 PM					3		52	0	7	27		0		25	8	0	361	
05:15:00 PM					7		39	0	3	31		0		22	12	0	365	
05:20:00 PM					6		47	0	3	27		0		27	23	0	369	
05:25:00 PM					6		32	0	5	21		0		30	28	0	369	
05:30:00 PM					5		37	0	2	31		0		26	20	0	376	1372

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 SB ramps				Eastbound Baker Rd				Westbound Knott Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					1		1	0	0	2		0		0	0	0	
04:40:00 PM					1		0	0	0	1		0		1	0	0		
04:45:00 PM					0		4	0	0	1		0		1	1	0	14	
04:50:00 PM					0		1	0	1	2		0		0	0	0	14	
04:55:00 PM					0		0	0	1	3		0		0	0	0	15	
05:00:00 PM					0		0	0	0	0		0		3	0	0	11	
05:05:00 PM					0		1	0	0	0		0		0	1	0	9	
05:10:00 PM					0		0	0	0	1		0		0	0	0	6	
05:15:00 PM					0		1	0	0	1		0		2	0	0	7	
05:20:00 PM					0		1	0	0	0		0		1	0	0	7	
05:25:00 PM					0		0	0	1	2		0		0	0	0	9	
05:30:00 PM					1		1	0	0	2		0		1	0	0	10	42

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		0	0	0		
04:45:00 PM		0	0	0	0	
04:50:00 PM		0	0	0	0	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 SB ramps
E/W street:	Knott Rd
City, State	Bend OR
Study ID #	
Location	43.991498 - -121.333495
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.89

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
44	1	95	0	0	0	0	0	247	160	0	0	0	449	17	0	140	0	407	466	0	265	493	255
Percent Heavy Vehicles																							
2.3%	100.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	3.1%	0.0%	0.0%	0.0%	2.4%	5.9%	0.0%	2.9%	0.0%	3.2%	2.6%	#DIV/0!	3.8%	2.4%	2.7%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound Knott Rd				Westbound Knott Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	5	0	4	0	0	0	0	0	20	11	0	0	0	34	2	0		
04:40:00 PM	2	0	12	0	0	0	0	0	21	19	0	0	0	34	2	0		
04:45:00 PM	3	0	7	0	0	0	0	0	16	10	0	0	0	39	1	0	242	
04:50:00 PM	7	0	9	0	0	0	0	0	26	8	0	0	0	30	1	0	247	
04:55:00 PM	1	0	8	0	0	0	0	0	18	9	0	0	0	30	0	0	223	
05:00:00 PM	4	0	8	0	0	0	0	0	19	13	0	0	0	34	2	0	227	
05:05:00 PM	4	1	10	0	0	0	0	0	26	20	0	0	0	40	1	0	248	
05:10:00 PM	5	0	7	0	0	0	0	0	17	15	0	0	0	29	2	0	257	
05:15:00 PM	3	0	7	0	0	0	0	0	23	15	0	0	0	33	2	0	260	
05:20:00 PM	1	0	7	0	0	0	0	0	22	12	0	0	0	50	2	0	252	
05:25:00 PM	3	0	9	0	0	0	0	0	19	12	0	0	0	55	1	0	276	
05:30:00 PM	6	0	7	0	0	0	0	0	20	16	0	0	0	41	1	0	284	1013

Bicycles on Road																		
Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound Knott Rd				Westbound Knott Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				Knott Rd				Knott Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	5	0	4	0	0	0	0	0	19	11	0	0	0	34	2	0		
04:40:00 PM	2	0	12	0	0	0	0	0	20	18	0	0	0	32	2	0		
04:45:00 PM	3	0	7	0	0	0	0	0	16	10	0	0	0	37	1	0	235	
04:50:00 PM	7	0	8	0	0	0	0	0	24	8	0	0	0	30	1	0	238	
04:55:00 PM	1	0	7	0	0	0	0	0	17	9	0	0	0	30	0	0	216	
05:00:00 PM	3	0	8	0	0	0	0	0	19	13	0	0	0	33	2	0	220	
05:05:00 PM	4	0	10	0	0	0	0	0	25	20	0	0	0	39	1	0	241	
05:10:00 PM	5	0	7	0	0	0	0	0	17	14	0	0	0	29	2	0	251	
05:15:00 PM	3	0	7	0	0	0	0	0	23	15	0	0	0	31	2	0	254	
05:20:00 PM	1	0	7	0	0	0	0	0	22	12	0	0	0	48	1	0	246	
05:25:00 PM	3	0	9	0	0	0	0	0	18	11	0	0	0	55	1	0	269	
05:30:00 PM	6	0	7	0	0	0	0	0	19	14	0	0	0	40	1	0	275	984

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				Knott Rd				Knott Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	7	
04:50:00 PM	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	9	
04:55:00 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	7	
05:00:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	
05:05:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	7	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	6	
05:25:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0	9	29

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0

Study Name 101 and 105
 Start Date 4/11/2017
 Start Time 4:00 PM
 Site Code

Location 44.096664 -121.303

Lights			Other Vehicles			Bicycles on Road		
	101	105						
Start Time	SB	SB	Start Time	SB	SB	Start Time	SB	SB
4:00 PM	73	39	4:00 PM	4	7	4:00 PM	0	0
4:05 PM	50	34	4:05 PM	1	2	4:05 PM	0	0
4:10 PM	61	34	4:10 PM	4	1	4:10 PM	0	0
4:15 PM	74	28	4:15 PM	3	2	4:15 PM	0	0
4:20 PM	65	31	4:20 PM	4	5	4:20 PM	0	0
4:25 PM	47	44	4:25 PM	0	2	4:25 PM	0	0
4:30 PM	67	44	4:30 PM	3	2	4:30 PM	0	0
4:35 PM	63	39	4:35 PM	2	0	4:35 PM	0	0
4:40 PM	69	41	4:40 PM	2	3	4:40 PM	0	0
4:45 PM	80	35	4:45 PM	3	3	4:45 PM	0	0
4:50 PM	52	36	4:50 PM	5	1	4:50 PM	0	0
4:55 PM	79	35	4:55 PM	3	1	4:55 PM	0	0
5:00 PM	58	38	5:00 PM	1	2	5:00 PM	0	0
5:05 PM	86	32	5:05 PM	4	2	5:05 PM	0	0
5:10 PM	58	29	5:10 PM	5	1	5:10 PM	0	0
5:15 PM	57	28	5:15 PM	2	4	5:15 PM	0	0
5:20 PM	64	31	5:20 PM	3	1	5:20 PM	0	0
5:25 PM	79	26	5:25 PM	1	1	5:25 PM	0	0
5:30 PM	64	31	5:30 PM	3	2	5:30 PM	0	0
5:35 PM	64	32	5:35 PM	1	4	5:35 PM	0	0
5:40 PM	63	33	5:40 PM	1	0	5:40 PM	0	0
5:45 PM	65	31	5:45 PM	0	3	5:45 PM	0	0
5:50 PM	47	35	5:50 PM	2	0	5:50 PM	0	0
5:55 PM	38	30	5:55 PM	2	1	5:55 PM	0	0

Study Name 102 and 103
 Start Date 4/11/2017
 Start Time 4:00 PM
 Site Code

Location 44.094069 -121.303

Lights	102		103	Other Vehicles	102		103	Bicycles on Road	102		103
	NB	SB	U-Turn		NB	SB	U-Turn		NB	SB	U-Turn
Start Time				Start Time				Start Time			
4:00 PM	49		0	4:00 PM	1		0	4:00 PM	0		0
4:05 PM	38		0	4:05 PM	1		0	4:05 PM	0		0
4:10 PM	33		1	4:10 PM	0		0	4:10 PM	0		0
4:15 PM	38		0	4:15 PM	3		0	4:15 PM	0		0
4:20 PM	34		1	4:20 PM	0		0	4:20 PM	0		0
4:25 PM	49		0	4:25 PM	0		0	4:25 PM	0		0
4:30 PM	30		0	4:30 PM	0		0	4:30 PM	0		0
4:35 PM	38		0	4:35 PM	0		0	4:35 PM	0		0
4:40 PM	27		1	4:40 PM	0		0	4:40 PM	0		0
4:45 PM	46		1	4:45 PM	2		0	4:45 PM	1		0
4:50 PM	30		0	4:50 PM	0		0	4:50 PM	0		0
4:55 PM	36		0	4:55 PM	1		0	4:55 PM	0		0
5:00 PM	43		0	5:00 PM	0		0	5:00 PM	0		0
5:05 PM	31		1	5:05 PM	2		0	5:05 PM	0		0
5:10 PM	43		0	5:10 PM	0		0	5:10 PM	0		0
5:15 PM	45		0	5:15 PM	3		0	5:15 PM	0		0
5:20 PM	46		0	5:20 PM	1		0	5:20 PM	0		0
5:25 PM	36		0	5:25 PM	0		0	5:25 PM	0		0
5:30 PM	51		1	5:30 PM	2		0	5:30 PM	1		0
5:35 PM	51		0	5:35 PM	0		0	5:35 PM	0		0
5:40 PM	28		0	5:40 PM	1		0	5:40 PM	0		0
5:45 PM	27		1	5:45 PM	0		0	5:45 PM	1		0
5:50 PM	24		0	5:50 PM	0		0	5:50 PM	0		0
5:55 PM	40		0	5:55 PM	0		0	5:55 PM	0		0

Study Name 104
Start Date 04/11/2017
Start Time 4:00 PM
Site Code

Location 44.098369

-121.301548

Light		Other Vehicles		Bicycles on Road	
Channel	Direction	Channel	Direction	Channel	Direction
Direction	Northbound	Direction	Northbound	Direction	Northbound
4:00 PM		47 4:00 PM		3 4:00 PM	0
4:05 PM		64 4:05 PM		1 4:05 PM	0
4:10 PM		79 4:10 PM		3 4:10 PM	0
4:15 PM		74 4:15 PM		0 4:15 PM	0
4:20 PM		60 4:20 PM		3 4:20 PM	0
4:25 PM		48 4:25 PM		1 4:25 PM	0
4:30 PM		40 4:30 PM		1 4:30 PM	0
4:35 PM		66 4:35 PM		3 4:35 PM	0
4:40 PM		72 4:40 PM		0 4:40 PM	0
4:45 PM		52 4:45 PM		0 4:45 PM	0
4:50 PM		47 4:50 PM		0 4:50 PM	0
4:55 PM		46 4:55 PM		0 4:55 PM	0
5:00 PM		45 5:00 PM		1 5:00 PM	0
5:05 PM		55 5:05 PM		1 5:05 PM	0
5:10 PM		67 5:10 PM		0 5:10 PM	0
5:15 PM		64 5:15 PM		3 5:15 PM	0
5:20 PM		83 5:20 PM		1 5:20 PM	0
5:25 PM		67 5:25 PM		1 5:25 PM	0
5:30 PM		57 5:30 PM		3 5:30 PM	0
5:35 PM		66 5:35 PM		0 5:35 PM	0
5:40 PM		48 5:40 PM		0 5:40 PM	0
5:45 PM		46 5:45 PM		1 5:45 PM	0
5:50 PM		44 5:50 PM		1 5:50 PM	0
5:55 PM		44 5:55 PM		0 5:55 PM	0

Study Name 106 US97 at 3rd St NB On Ramp
Start Date 04/11/2017
Start Time 4:00 PM
Site Code

Location 44.078603

-121.302256

Channel Direction	Lights			Channel Direction
	SB Thru	NB On Ramp	NB Thru	
	Southbound	Northbound	Northbound	
4:00 PM	147	34	145 4:00 PM	
4:05 PM	141	50	147 4:05 PM	
4:10 PM	166	42	140 4:10 PM	
4:15 PM	160	42	149 4:15 PM	
4:20 PM	143	46	139 4:20 PM	
4:25 PM	150	41	162 4:25 PM	
4:30 PM	161	38	140 4:30 PM	
4:35 PM	139	53	171 4:35 PM	
4:40 PM	137	44	165 4:40 PM	
4:45 PM	159	44	180 4:45 PM	
4:50 PM	128	42	156 4:50 PM	
4:55 PM	157	43	151 4:55 PM	
5:00 PM	168	45	139 5:00 PM	
5:05 PM	172	58	194 5:05 PM	
5:10 PM	161	53	178 5:10 PM	
5:15 PM	159	36	183 5:15 PM	
5:20 PM	175	58	174 5:20 PM	
5:25 PM	172	56	143 5:25 PM	
5:30 PM	134	43	144 5:30 PM	
5:35 PM	174	43	169 5:35 PM	
5:40 PM	154	47	153 5:40 PM	
5:45 PM	139	47	151 5:45 PM	
5:50 PM	135	42	126 5:50 PM	
5:55 PM	121	45	124 5:55 PM	
4:00 PM	172	41	115 4:00 PM	
4:05 PM	144	39	166 4:05 PM	
4:10 PM	177	45	147 4:10 PM	
4:15 PM	153	43	175 4:15 PM	
4:20 PM	144	42	159 4:20 PM	
4:25 PM	112	49	147 4:25 PM	
4:30 PM	179	54	142 4:30 PM	
4:35 PM	143	42	157 4:35 PM	
4:40 PM	162	37	151 4:40 PM	
4:45 PM	156	36	164 4:45 PM	
4:50 PM	161	60	143 4:50 PM	
4:55 PM	147	30	141 4:55 PM	
5:00 PM	159	54	153 5:00 PM	
5:05 PM	167	45	202 5:05 PM	
5:10 PM	175	45	182 5:10 PM	
5:15 PM	159	46	183 5:15 PM	
5:20 PM	168	41	176 5:20 PM	
5:25 PM	149	60	175 5:25 PM	
5:30 PM	165	48	121 5:30 PM	
5:35 PM	154	40	143 5:35 PM	
5:40 PM	133	53	135 5:40 PM	
5:45 PM	150	38	136 5:45 PM	
5:50 PM	116	31	120 5:50 PM	
5:55 PM	114	40	122 5:55 PM	

Other Vehicles		
SB Thru	NB On Ramp	NB Thru
Southbound	Northbound	Northbound
7	2	11
6	1	12
6	5	10
9	1	10
12	1	2
5	0	3
3	0	4
8	2	5
9	3	6
11	3	3
8	1	4
6	0	6
9	1	5
2	1	7
5	0	4
3	0	9
6	1	3
10	0	8
9	1	3
6	0	9
8	2	5
8	1	2
2	0	6
9	0	3
3	3	12
11	4	9
3	3	10
6	0	10
9	3	10
6	1	8
1	1	12
8	0	6
4	2	7
5	0	13
3	1	3
6	1	6
4	0	1
8	0	6
4	0	4
3	1	5
5	2	6
7	0	7
11	0	1
2	0	5
5	1	1
3	1	4
3	2	5
6	0	8

Study Name 107 US97 NB at Division St NB On-Ramp
Start Date 04/11/2017
Start Time 4:00 PM
Site Code

Location 44.040697

-121.306172

Channel Direction	Lights			Channel Direction
	SB Thru	NB Ramp	NB Thru	
	Southbound	Northbound	Northbound	
4:00 PM	152	34	96 4:00 PM	
4:05 PM	161	23	97 4:05 PM	
4:10 PM	180	27	86 4:10 PM	
4:15 PM	181	26	80 4:15 PM	
4:20 PM	185	29	93 4:20 PM	
4:25 PM	132	14	96 4:25 PM	
4:30 PM	142	32	85 4:30 PM	
4:35 PM	173	36	107 4:35 PM	
4:40 PM	164	33	99 4:40 PM	
4:45 PM	131	36	102 4:45 PM	
4:50 PM	161	32	79 4:50 PM	
4:55 PM	174	36	97 4:55 PM	
5:00 PM	180	30	77 5:00 PM	
5:05 PM	238	37	102 5:05 PM	
5:10 PM	230	33	83 5:10 PM	
5:15 PM	239	37	109 5:15 PM	
5:20 PM	222	30	97 5:20 PM	
5:25 PM	206	27	81 5:25 PM	
5:30 PM	173	25	84 5:30 PM	
5:35 PM	216	30	84 5:35 PM	
5:40 PM	189	27	87 5:40 PM	
5:45 PM	176	22	79 5:45 PM	
5:50 PM	151	28	61 5:50 PM	
5:55 PM	141	17	72 5:55 PM	
4:00 PM	169	25	93 4:00 PM	
4:05 PM	158	28	101 4:05 PM	
4:10 PM	176	39	98 4:10 PM	
4:15 PM	202	22	99 4:15 PM	
4:20 PM	162	34	93 4:20 PM	
4:25 PM	156	21	99 4:25 PM	
4:30 PM	163	28	70 4:30 PM	
4:35 PM	207	33	92 4:35 PM	
4:40 PM	187	30	95 4:40 PM	
4:45 PM	179	36	92 4:45 PM	
4:50 PM	175	33	95 4:50 PM	
4:55 PM	195	22	73 4:55 PM	
5:00 PM	174	32	82 5:00 PM	
5:05 PM	210	31	104 5:05 PM	
5:10 PM	230	30	100 5:10 PM	
5:15 PM	230	26	110 5:15 PM	
5:20 PM	230	28	85 5:20 PM	
5:25 PM	201	32	89 5:25 PM	
5:30 PM	186	19	71 5:30 PM	
5:35 PM	185	18	77 5:35 PM	
5:40 PM	141	33	88 5:40 PM	
5:45 PM	154	27	72 5:45 PM	
5:50 PM	141	32	81 5:50 PM	
5:55 PM	122	16	65 5:55 PM	

Other Vehicles		
SB Thru	NB Ramp	NB Thru
Southbound	Northbound	Northbound
8	1	6
4	1	8
4	0	12
10	2	6
8	1	5
6	0	6
2	0	4
4	1	8
3	0	0
7	0	5
4	1	2
3	0	6
5	1	5
6	0	2
0	0	8
2	0	4
0	0	6
2	0	4
12	0	8
8	1	4
7	0	3
7	2	2
7	0	6
0	1	3
6	2	6
3	0	3
7	1	2
2	0	5
8	1	5
8	2	9
3	0	2
3	1	3
4	2	7
7	0	7
1	1	2
5	0	2
9	1	5
4	1	3
7	2	1
9	0	7
6	1	5
3	0	2
5	2	5
12	0	1
4	0	2
4	2	6
4	1	4
3	0	6

Study Name 108 US97 SB at Murphy Rd On-Ramp
Start Date 04/13/2017
Start Time 4:00 PM
Site Code

Location 44.013615

-121.320291

Channel Direction	Lights		Channel Direction	Other Vehicles	
	SB On Ramp	SB Thru		SB On Ramp	SB Thru
	Southbound	Southbound		Southbound	Southbound
4:00 PM	42	53	4:00 PM	0	3
4:05 PM	34	45	4:05 PM	0	2
4:10 PM	42	44	4:10 PM	0	7
4:15 PM	40	61	4:15 PM	0	6
4:20 PM	38	60	4:20 PM	1	1
4:25 PM	32	68	4:25 PM	0	8
4:30 PM	32	69	4:30 PM	1	5
4:35 PM	29	81	4:35 PM	1	5
4:40 PM	38	81	4:40 PM	0	5
4:45 PM	45	71	4:45 PM	4	4
4:50 PM	37	78	4:50 PM	0	3
4:55 PM	29	85	4:55 PM	0	2
5:00 PM	43	81	5:00 PM	0	1
5:05 PM	36	80	5:05 PM	1	4
5:10 PM	44	101	5:10 PM	0	2
5:15 PM	36	79	5:15 PM	0	1
5:20 PM	33	84	5:20 PM	3	1
5:25 PM	39	79	5:25 PM	2	6
5:30 PM	45	101	5:30 PM	1	2
5:35 PM	43	70	5:35 PM	1	4
5:40 PM	40	65	5:40 PM	1	8
5:45 PM	38	54	5:45 PM	0	2
5:50 PM	34	62	5:50 PM	0	3
5:55 PM	28	50	5:55 PM	0	4



Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97
E/W street:	Cooley Rd
City, State	Bend OR
Study ID #	
Location	44.109312 - -121.295092
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:55:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
40	1411	77	1	110	1229	44	0	185	143	15	0	185	69	58	0	1529	1383	343	312	1430	1654	153	330
Percent Heavy Vehicles																							
5.0%	4.4%	0.0%	0.0%	5.5%	7.5%	4.5%	0.0%	1.1%	0.0%	0.0%	0.0%	1.1%	5.8%	0.0%	0.0%	4.2%	7.2%	0.6%	1.9%	6.6%	3.9%	5.2%	1.8%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	1	0	1	0	2

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Cooley Rd				Cooley Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	1	132	5	0	10	128	7	0	13	13	2	0	4	4	5	0		
04:35:00 PM	3	113	8	1	7	76	3	0	23	13	2	0	16	3	3	0		
04:40:00 PM	3	138	5	0	1	100	4	0	15	11	1	0	18	3	7	0	901	
04:45:00 PM	2	116	4	0	11	107	7	0	18	11	2	0	12	6	1	0	874	
04:50:00 PM	6	100	3	0	16	87	2	0	18	10	1	0	18	5	5	0	874	
04:55:00 PM	1	136	11	0	7	119	5	0	11	5	1	0	5	4	9	0	882	
05:00:00 PM	5	128	5	0	6	102	2	0	17	14	1	0	11	11	2	0	889	
05:05:00 PM	7	127	10	0	13	103	1	0	12	11	1	0	26	5	6	0	940	
05:10:00 PM	2	93	9	0	7	107	3	0	13	8	2	0	26	10	8	0	914	
05:15:00 PM	2	115	5	0	9	95	2	0	14	16	1	0	22	8	9	0	908	
05:20:00 PM	4	108	9	0	9	106	4	0	16	16	0	0	10	7	3	0	878	
05:25:00 PM	4	105	3	0	14	99	4	0	15	15	1	0	17	3	0	0	870	3567

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Cooley Rd				Cooley Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97
E/W street:	Robal Rd
City, State	Bend OR
Study ID #	
Location	44.10277 - -121.299136
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:00:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
229	1448	14	1	21	1508	33	2	97	12	41	0	107	35	19	0	1692	1564	150	161	1657	1566	297	47
Percent Heavy Vehicles																							
0.4%	3.2%	7.1%	0.0%	9.5%	5.6%	0.0%	0.0%	2.1%	0.0%	0.0%	0.0%	0.9%	8.6%	10.5%	0.0%	2.9%	5.6%	1.3%	3.7%	5.2%	3.3%	1.3%	6.4%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	4	0	5

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Robal Rd				Robal Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	15	108	0	0	4	110	0	0	10	3	4	0	6	3	3	0		
04:35:00 PM	19	97	2	0	3	111	6	0	9	0	3	0	16	5	7	0		
04:40:00 PM	23	127	1	0	1	126	2	0	6	2	0	0	4	3	0	0	839	
04:45:00 PM	21	120	3	0	3	118	2	0	6	1	1	0	15	2	3	0	868	
04:50:00 PM	21	115	1	0	0	115	7	0	10	0	4	0	5	1	0	0	869	
04:55:00 PM	17	111	2	0	3	134	2	0	5	1	3	0	11	4	4	0	871	
05:00:00 PM	24	130	2	0	1	124	0	0	9	3	3	0	10	3	1	0	886	
05:05:00 PM	23	140	2	1	0	135	4	1	9	1	8	0	9	1	0	0	941	
05:10:00 PM	15	146	0	0	2	134	2	0	9	0	7	0	9	1	0	0	969	
05:15:00 PM	24	113	1	0	1	135	4	1	9	1	0	0	7	5	1	0	961	
05:20:00 PM	6	116	0	0	2	149	4	0	9	0	5	0	4	1	0	0	923	
05:25:00 PM	21	125	0	0	1	117	0	0	6	0	3	0	11	6	0	0	888	3567

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 97				US 97				Robal Rd				Robal Rd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Robal Rd				Robal Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	15	106	0	0	3	103	0	0	10	3	4	0	6	3	3	0		
04:35:00 PM	19	94	2	0	3	109	6	0	9	0	3	0	16	5	6	0		
04:40:00 PM	23	123	0	0	1	113	2	0	6	2	0	0	4	3	0	0	805	
04:45:00 PM	20	116	3	0	3	111	2	0	6	1	1	0	15	1	2	0	830	
04:50:00 PM	21	113	1	0	0	110	7	0	10	0	4	0	5	1	0	0	830	
04:55:00 PM	17	105	2	0	3	128	2	0	5	1	3	0	10	4	4	0	837	
05:00:00 PM	24	125	2	0	1	116	0	0	9	3	3	0	10	3	1	0	853	
05:05:00 PM	23	136	2	1	0	131	4	1	9	1	8	0	9	1	0	0	907	
05:10:00 PM	15	140	0	0	1	128	2	0	9	0	7	0	9	1	0	0	935	
05:15:00 PM	24	109	1	0	1	129	4	1	8	1	0	0	7	4	1	0	928	
05:20:00 PM	6	111	0	0	2	143	4	0	8	0	5	0	4	0	0	0	885	
05:25:00 PM	21	123	0	0	1	102	0	0	6	0	3	0	11	6	0	0	846	3423

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97				US 97				Robal Rd				Robal Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	2	0	0	1	7	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	1	0		
04:40:00 PM	0	4	1	0	0	13	0	0	0	0	0	0	0	0	0	0	34	
04:45:00 PM	1	4	0	0	0	7	0	0	0	0	0	0	0	1	1	0	38	
04:50:00 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	39	
04:55:00 PM	0	6	0	0	0	6	0	0	0	0	0	0	1	0	0	0	34	
05:00:00 PM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	33	
05:05:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	34	
05:10:00 PM	0	6	0	0	1	6	0	0	0	0	0	0	0	0	0	0	34	
05:15:00 PM	0	4	0	0	0	6	0	0	1	0	0	0	0	1	0	0	33	
05:20:00 PM	0	5	0	0	0	6	0	0	1	0	0	0	0	1	0	0	38	
05:25:00 PM	0	2	0	0	0	15	0	0	0	0	0	0	0	0	0	0	42	144

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	2	0	2	
04:45:00 PM	0	0	0	0	2	
04:50:00 PM	0	0	2	0	4	
04:55:00 PM	0	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	1	0	0	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	5



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 SB ramps				US 97 SB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	1	0	2	0	0	53	35	0	32	22	2	0		
04:35:00 PM	0	0	0	0	0	0	1	0	2	62	32	0	27	27	1	0		
04:40:00 PM	0	0	0	0	1	0	3	0	0	56	36	0	27	32	2	0	456	
04:45:00 PM	0	0	0	0	1	0	0	0	0	55	26	0	36	24	0	0	451	
04:50:00 PM	0	0	0	0	0	0	1	0	0	70	19	0	30	50	1	0	470	
04:55:00 PM	0	0	0	0	0	1	1	0	0	66	24	0	31	37	0	0	473	
05:00:00 PM	0	0	0	0	0	0	2	0	0	71	34	0	24	26	0	0	488	
05:05:00 PM	0	0	0	0	1	1	5	0	0	50	44	0	20	41	0	0	479	
05:10:00 PM	0	0	0	0	0	0	0	0	1	68	44	0	11	24	0	0	467	
05:15:00 PM	0	0	0	0	0	0	0	0	1	65	40	0	18	33	0	0	467	
05:20:00 PM	0	0	0	0	0	0	0	0	0	47	46	0	39	40	0	0	477	
05:25:00 PM	0	0	0	0	0	0	0	0	0	42	27	0	32	39	0	0	469	1865

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 SB ramps				US 97 SB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	2	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	2	3	0	0	7	0	0	20	
04:45:00 PM	0	0	0	0	0	0	0	0	0	4	3	0	0	0	0	0	25	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	21	
04:55:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	10	
05:00:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	7	
05:05:00 PM	0	0	0	0	1	0	2	0	0	5	0	0	0	1	0	0	14	
05:10:00 PM	0	0	0	0	0	0	0	0	0	4	1	0	0	0	0	0	18	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	0	19	
05:20:00 PM	0	0	0	0	0	0	0	0	0	3	1	0	0	1	0	0	15	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	58

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	1	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	2	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	0	0	0	0	2	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	3



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 NB ramps				US 97 NB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	15	0	24	0	0	0	0	0	10	42	0	0	46	13	0			
04:35:00 PM	13	0	24	0	0	0	0	0	15	51	0	0	35	16	0			
04:40:00 PM	13	0	24	0	0	0	0	0	13	44	0	0	50	26	0	474		
04:45:00 PM	13	0	22	0	0	0	0	0	8	45	0	0	53	24	0	489		
04:50:00 PM	21	0	41	0	0	0	0	0	10	59	0	0	56	10	0	532		
04:55:00 PM	13	1	28	0	0	0	0	0	8	57	0	0	53	6	0	528		
05:00:00 PM	6	0	26	0	0	0	0	0	17	58	0	0	54	29	0	553		
05:05:00 PM	16	0	34	0	0	0	0	0	17	47	0	0	43	15	0	528		
05:10:00 PM	13	1	26	0	0	0	0	0	19	46	0	0	23	13	0	503		
05:15:00 PM	10	0	42	0	0	0	0	0	13	49	0	0	51	16	0	494		
05:20:00 PM	17	1	28	0	0	0	0	0	13	44	0	0	60	20	0	505		
05:25:00 PM	10	0	28	0	0	0	0	0	9	32	0	0	58	30	0	531	2036	

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 97 NB ramps				US 97 NB ramps				Empire Blvd				Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0			
04:35:00 PM	1	0	0	0	0	0	0	0	0	4	0	0	3	2	0			
04:40:00 PM	2	0	2	0	0	0	0	0	0	1	0	0	4	0	0	22		
04:45:00 PM	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	24		
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	16		
04:55:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	9		
05:00:00 PM	0	0	1	0	0	0	0	0	0	6	0	0	0	0	0	11		
05:05:00 PM	0	0	1	0	0	0	0	0	1	4	0	0	2	1	0	18		
05:10:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	1	0	0	20		
05:15:00 PM	0	0	1	0	0	0	0	0	0	4	0	0	1	0	0	19		
05:20:00 PM	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	12		
05:25:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	2	0	12	63	

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	1	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	1	0	0	0	2	
04:55:00 PM	1	0	0	0	2	
05:00:00 PM	0	0	0	0	2	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 20
E/W street:	NE Empire Blvd
City, State	Bend OR
Study ID #	
Location	44.091497 - -121.304974
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	04:40:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
64	354	183	0	492	642	77	0	76	268	52	0	148	180	29	0	601	1211	396	357	842	459	321	943
Percent Heavy Vehicles																							
3.1%	1.7%	2.2%	0.0%	5.5%	4.7%	1.3%	0.0%	0.0%	1.9%	3.8%	0.0%	2.7%	2.8%	0.0%	0.0%	2.0%	4.8%	1.8%	2.5%	4.3%	1.3%	2.5%	3.8%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound			in Crosswalk						
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Sum	NB	SB	EB	WB	Sum	
0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	3	0	0	0	3

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Empire Blvd				NE Empire Blvd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	8	21	9	0	43	53	7	0	5	25	5	0	7	12	2	0		
04:35:00 PM	9	36	12	0	34	54	5	0	2	22	5	0	13	9	2	0		
04:40:00 PM	6	24	12	0	57	56	9	0	4	23	9	0	9	12	1	0	622	
04:45:00 PM	4	34	21	0	26	53	9	0	9	28	2	0	14	18	3	0	646	
04:50:00 PM	5	31	19	0	50	62	6	0	5	17	5	0	11	16	2	0	672	
04:55:00 PM	3	19	12	0	37	55	2	0	4	27	3	0	21	19	4	0	656	
05:00:00 PM	4	33	15	0	42	54	8	0	9	17	4	0	9	9	1	0	640	
05:05:00 PM	7	19	21	0	40	54	6	0	6	28	4	0	15	14	1	0	626	
05:10:00 PM	5	34	27	0	42	60	4	0	11	20	3	0	19	13	4	0	662	
05:15:00 PM	8	31	12	0	42	40	7	0	7	22	4	0	11	24	4	0	669	
05:20:00 PM	3	38	13	0	42	45	6	0	6	24	4	0	9	19	2	0	665	
05:25:00 PM	2	34	10	0	37	56	8	0	8	15	4	0	10	15	3	0	625	2565

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Empire Blvd				NE Empire Blvd					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Empire Blvd				NE Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	8	21	9	0	43	51	7	0	5	25	4	0	7	11	2	0		
04:35:00 PM	9	36	12	0	32	54	5	0	2	22	5	0	13	8	2	0		
04:40:00 PM	5	23	12	0	54	54	9	0	4	23	8	0	7	12	1	0	605	
04:45:00 PM	4	34	20	0	22	48	8	0	9	26	2	0	13	16	3	0	617	
04:50:00 PM	5	31	19	0	47	59	6	0	5	17	5	0	11	16	2	0	640	
04:55:00 PM	3	18	12	0	36	52	2	0	4	26	3	0	20	19	4	0	627	
05:00:00 PM	4	33	15	0	39	52	8	0	9	16	4	0	9	9	1	0	621	
05:05:00 PM	7	19	21	0	37	51	6	0	6	27	4	0	15	14	1	0	606	
05:10:00 PM	4	34	24	0	40	59	4	0	11	20	3	0	19	13	4	0	642	
05:15:00 PM	8	28	12	0	38	36	7	0	7	22	4	0	11	24	4	0	644	
05:20:00 PM	3	37	13	0	40	41	6	0	6	24	4	0	9	18	2	0	639	
05:25:00 PM	2	34	10	0	37	55	8	0	8	15	4	0	10	15	3	0	605	2479

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Empire Blvd				NE Empire Blvd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	0	0	0	0	2	0	0	0	0	1	0	0	1	0	0		
04:35:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0		
04:40:00 PM	1	1	0	0	3	2	0	0	0	0	1	0	2	0	0	0	17	
04:45:00 PM	0	0	1	0	4	5	1	0	0	2	0	0	1	2	0	0	29	
04:50:00 PM	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	32	
04:55:00 PM	0	1	0	0	1	3	0	0	0	1	0	0	1	0	0	0	29	
05:00:00 PM	0	0	0	0	3	2	0	0	0	1	0	0	0	0	0	0	19	
05:05:00 PM	0	0	0	0	3	3	0	0	0	1	0	0	0	0	0	0	20	
05:10:00 PM	1	0	3	0	2	1	0	0	0	0	0	0	0	0	0	0	20	
05:15:00 PM	0	3	0	0	4	4	0	0	0	0	0	0	0	0	0	0	25	
05:20:00 PM	0	1	0	0	2	4	0	0	0	0	0	0	0	1	0	0	26	
05:25:00 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	20	86

Pedestrians Crossing

Time	NB	SB	EB	WB	15 Min 1 HR	
					Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	1	0	0	0		
04:40:00 PM	0	0	0	0	1	
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	1	0	0	0	1	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	1	0	0	0	1	
05:20:00 PM	0	0	0	0	1	
05:25:00 PM	0	0	0	0	1	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 20
E/W street:	NE Butler Market
City, State	Bend OR
Study ID #	
Location	44.079271 - -121.305022
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.88

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
114	575	113	0	150	1010	60	0	95	154	81	0	309	148	73	0	802	1220	330	530	1400	743	322	417
Percent Heavy Vehicles																							
1.8%	1.7%	0.9%	0.0%	2.0%	2.7%	1.7%	0.0%	1.1%	0.6%	1.2%	0.0%	0.6%	0.7%	1.4%	0.0%	1.6%	2.5%	0.9%	0.8%	2.1%	1.6%	1.2%	1.2%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5	0	10

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Butler Market				NE Butler Market					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	4	44	9	0	13	87	7	0	9	10	1	0	19	5	3	0		
04:35:00 PM	8	51	12	0	11	90	4	0	6	17	3	0	21	13	6	0		
04:40:00 PM	10	49	8	0	9	67	2	0	8	13	5	0	31	11	6	0	672	
04:45:00 PM	12	48	13	0	11	64	7	0	4	8	7	0	32	8	8	0	683	
04:50:00 PM	10	41	7	0	19	89	3	0	8	9	10	0	23	11	5	0	676	
04:55:00 PM	8	38	10	0	13	89	4	0	9	7	7	0	28	11	4	0	685	
05:00:00 PM	6	45	7	0	15	92	7	0	6	13	3	0	27	5	4	0	693	
05:05:00 PM	9	54	10	0	5	88	5	0	3	18	6	0	18	14	8	0	696	
05:10:00 PM	10	59	7	0	17	97	3	0	14	15	11	0	27	16	8	0	752	
05:15:00 PM	14	51	13	0	15	93	4	0	13	12	7	0	31	15	9	0	799	
05:20:00 PM	9	48	9	0	11	76	8	0	9	18	12	0	30	17	8	0	816	
05:25:00 PM	14	47	8	0	11	78	6	0	6	14	9	0	22	22	4	0	773	2882

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US 20				US 20				NE Butler Market				NE Butler Market					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Butler Market				NE Butler Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	4	43	9	0	13	86	6	0	9	10	1	0	19	5	3	0		
04:35:00 PM	8	50	11	0	11	89	4	0	6	16	3	0	21	13	5	0		
04:40:00 PM	10	49	8	0	9	67	2	0	8	13	5	0	31	11	6	0	664	
04:45:00 PM	12	48	13	0	10	61	7	0	4	8	7	0	32	8	8	0	674	
04:50:00 PM	10	41	7	0	19	85	3	0	8	9	9	0	23	11	5	0	667	
04:55:00 PM	7	37	10	0	13	85	4	0	9	7	7	0	28	11	4	0	670	
05:00:00 PM	6	45	7	0	14	91	7	0	6	13	3	0	26	5	4	0	679	
05:05:00 PM	8	52	10	0	5	86	5	0	3	18	6	0	18	14	8	0	682	
05:10:00 PM	10	56	7	0	17	94	3	0	14	15	11	0	26	15	8	0	736	
05:15:00 PM	14	51	13	0	15	90	4	0	13	12	7	0	31	15	9	0	783	
05:20:00 PM	9	46	9	0	10	73	8	0	8	18	12	0	30	17	8	0	798	
05:25:00 PM	14	47	8	0	11	76	6	0	6	14	9	0	22	22	4	0	761	2831

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US 20				US 20				NE Butler Market				NE Butler Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:30:00 PM	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0		
04:35:00 PM	0	1	1	0	0	1	0	0	0	1	0	0	0	0	1	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
04:45:00 PM	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0	0	9	
04:50:00 PM	0	0	0	0	0	4	0	0	0	0	1	0	0	0	0	0	9	
04:55:00 PM	1	1	0	0	0	4	0	0	0	0	0	0	0	0	0	0	15	
05:00:00 PM	0	0	0	0	1	1	0	0	0	0	0	0	1	0	0	0	14	
05:05:00 PM	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	14	
05:10:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	1	1	0	0	16	
05:15:00 PM	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	16	
05:20:00 PM	0	2	0	0	1	3	0	0	1	0	0	0	0	0	0	0	18	
05:25:00 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	12	51

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	2	2	0	4	
04:45:00 PM	0	0	0	0	4	
04:50:00 PM	0	0	0	0	4	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	1	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	3	2	0	5	10

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US 97 SB ramp
E/W street:	NE Butler Market
City, State	Bend OR
Study ID #	
Location	44.078919 - -121.303043
Start Date	Tuesday, April 11, 2017
Start Time	04:30:00 PM
Peak Hour Start	04:30:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.91

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	137	0	97	0	0	458	0	0	0	556	0	0	0	234	458	556	0	0	653	595
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	1.5%	0.0%	2.1%	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	#DIV/0!	1.7%	1.1%	0.7%	#DIV/0!	0.0%	0.9%	1.2%

PHV- Bicycles																PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum	
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB		
0				0				0				0				0		1	0	0		1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market					
04:30:00 PM					13	8	0	0	0	32	0	0	47	0	0			
04:35:00 PM					12	8	0	0	0	41	0	0	48	0	0			
04:40:00 PM					8	12	0	0	0	39	0	0	50	0	0	318		
04:45:00 PM					14	8	0	0	0	32	0	0	46	0	0	318		
04:50:00 PM					13	10	0	0	0	43	0	0	37	0	0	312		
04:55:00 PM					6	9	0	0	0	33	0	0	41	0	0	292		
05:00:00 PM					13	5	0	0	0	42	0	0	37	0	0	289		
05:05:00 PM					9	6	0	0	0	38	0	0	52	0	0	291		
05:10:00 PM					13	9	0	0	0	40	0	0	49	0	0	313		
05:15:00 PM					12	8	0	0	0	42	0	0	52	0	0	330		
05:20:00 PM					15	7	0	0	0	44	0	0	50	0	0	341		
05:25:00 PM					9	7	0	0	0	32	0	0	47	0	0	325	1248	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US 97 SB ramp				NE Butler Market				NE Butler Market					
04:30:00 PM					0	0	0	0	0	0	0	0	0	0	0			
04:35:00 PM					0	0	0	0	0	0	0	0	0	0	0			
04:40:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:50:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
04:55:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:00:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:05:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:10:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:15:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		
05:20:00 PM					0	0	0	0	0	0	0	0	0	0	0	0		



KEY DATA NETWORK

05:25:00 PM		0	0	0	0	0	0	0	0	0	0	0
-------------	--	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US 97 SB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM					13		8	0	0	32		0		46	0	0	
04:35:00 PM					12		8	0	0	39		0		48	0	0		
04:40:00 PM					8		12	0	0	39		0		49	0	0	314	
04:45:00 PM					14		8	0	0	31		0		46	0	0	314	
04:50:00 PM					13		10	0	0	43		0		37	0	0	310	
04:55:00 PM					6		9	0	0	33		0		41	0	0	291	
05:00:00 PM					12		4	0	0	41		0		37	0	0	286	
05:05:00 PM					9		5	0	0	38		0		50	0	0	285	
05:10:00 PM					13		9	0	0	40		0		49	0	0	307	
05:15:00 PM					11		8	0	0	42		0		52	0	0	326	
05:20:00 PM					15		7	0	0	43		0		50	0	0	339	
05:25:00 PM					9		7	0	0	32		0		47	0	0	323	1235

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US 97 SB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM					0		0	0	0	0		0		1	0	0	
04:35:00 PM					0		0	0	0	2		0		0	0	0		
04:40:00 PM					0		0	0	0	0		0		1	0	0	4	
04:45:00 PM					0		0	0	0	1		0		0	0	0	4	
04:50:00 PM					0		0	0	0	0		0		0	0	0	2	
04:55:00 PM					0		0	0	0	0		0		0	0	0	1	
05:00:00 PM					1		1	0	0	1		0		0	0	0	3	
05:05:00 PM					0		1	0	0	0		0		2	0	0	6	
05:10:00 PM					0		0	0	0	0		0		0	0	0	6	
05:15:00 PM					1		0	0	0	0		0		0	0	0	4	
05:20:00 PM					0		0	0	0	1		0		0	0	0	2	
05:25:00 PM					0		0	0	0	0		0		0	0	0	2	13

Pedestrians Crossing

Time					15 Min	1 HR
	NB	SB	EB	WB	Sum	Sum
04:30:00 PM		0	0	0		
04:35:00 PM		0	0	0		
04:40:00 PM		0	0	0	0	
04:45:00 PM		0	0	0	0	
04:50:00 PM		0	0	0	0	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		1	0	0	1	
05:25:00 PM		0	0	0	1	1



KEY DATA NETWORK

05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 NB ramp				Southbound US97 NB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM	0	0	0	0	0	0	0	0	3	40	0	0	0	43	20	0	
04:35:00 PM	0	0	1	0	0	0	0	0	7	46	0	0	1	52	19	0		
04:40:00 PM	0	0	3	0	0	0	0	0	2	43	0	0	1	46	7	0	334	
04:45:00 PM	0	0	0	0	0	0	0	0	4	42	0	0	1	45	11	0	331	
04:50:00 PM	0	0	1	0	0	0	0	0	5	50	1	0	0	39	16	0	317	
04:55:00 PM	0	0	0	0	0	0	0	0	5	35	0	0	1	42	8	0	306	
05:00:00 PM	0	0	1	0	0	0	0	0	9	42	0	0	1	35	21	0	312	
05:05:00 PM	0	2	0	0	0	0	0	0	14	31	3	0	1	54	13	0	318	
05:10:00 PM	1	0	2	0	0	0	0	0	4	50	1	0	0	47	17	0	349	
05:15:00 PM	0	0	2	0	0	0	0	0	5	46	1	0	0	52	17	0	363	
05:20:00 PM	0	0	0	0	0	0	0	0	7	50	0	0	0	50	12	0	364	
05:25:00 PM	0	0	1	0	0	0	0	0	7	34	0	0	1	49	13	0	347	1336

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 NB ramp				Southbound US97 NB ramp				Eastbound NE Butler Market				Westbound NE Butler Market				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	
04:35:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	1	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	6	
04:45:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:00:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	2	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	3	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:15:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	5	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	15

Pedestrians Crossing

15 Min 1 HR

Time	NB	SB	EB	WB	Sum	Sum
04:30:00 PM	0	0	0	0		
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0	0	
04:45:00 PM	0	1	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	1	0	0	0	1	2



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	3
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound NW Revere Ave				Westbound NE Revere Ave				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	4	13	28	0	14	21	0	0	0	2	0	0	28	2	10	0	
04:40:00 PM	0	9	30	0	13	14	0	0	0	1	0	0	31	1	11	0		
04:45:00 PM	1	14	44	0	15	18	0	0	1	2	0	0	28	2	12	0	369	
04:50:00 PM	0	14	23	0	13	31	0	0	2	1	1	0	41	4	8	0	385	
04:55:00 PM	1	7	23	0	11	17	0	0	0	0	0	0	46	1	18	0	399	
05:00:00 PM	2	16	35	0	12	19	0	0	0	1	1	0	32	0	16	0	396	
05:05:00 PM	1	10	28	0	12	17	1	0	0	1	1	0	30	3	19	0	381	
05:10:00 PM	3	10	27	0	12	23	0	0	0	1	2	0	43	4	25	0	407	
05:15:00 PM	1	7	42	0	10	16	0	0	1	3	0	0	33	1	23	0	410	
05:20:00 PM	8	13	37	0	15	26	0	0	0	1	2	0	47	1	17	0	454	
05:25:00 PM	0	8	35	0	12	15	1	0	1	1	2	0	44	4	23	0	450	
05:30:00 PM	3	11	31	0	11	23	0	0	0	4	0	0	35	2	15	0	448	1623

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound NW Revere Ave				Westbound NE Revere Ave				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	2	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:15:00 PM	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:25:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	3	
05:30:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	11

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	1	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	2	1	0	3	
05:20:00 PM	0	1	0	0	4	
05:25:00 PM	0	0	0	0	4	
05:30:00 PM	0	1	0	0	2	6

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	NW Lafayette Ave
City, State	Bend OR
Study ID #	
Location	44.061871 - -121.307143
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	2302	0	0	0	2573	83	0	0	0	125	0	0	0	0	0	2302	2656	125	0	2698	2302	83	0
Percent Heavy Vehicles																							
0.0%	2.9%	0.0%	0.0%	0.0%	2.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.9%	2.8%	0.0%	0.0%	2.8%	2.9%	0.0%	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	1		0	0	0	0	0	0			0	0				1	0	0	0		0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Lafayette Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	192		0	238	8	0	0	0	5	0							
04:40:00 PM	0	191		0	198	11	0	0	0	4	0							
04:45:00 PM	0	215		0	215	3	0	0	0	6	0					1286		
04:50:00 PM	0	193		0	214	5	0	0	0	14	0					1269		
04:55:00 PM	0	158		0	189	12	0	0	0	14	0					1238		
05:00:00 PM	0	170		0	220	8	0	0	0	16	0					1213		
05:05:00 PM	0	217		0	215	4	0	0	0	19	0					1242		
05:10:00 PM	0	201		0	237	5	0	0	0	8	0					1320		
05:15:00 PM	0	217		0	231	7	0	0	0	13	0					1374		
05:20:00 PM	0	203		0	215	5	0	0	0	12	0					1354		
05:25:00 PM	0	198		0	198	6	0	0	0	7	0					1312		
05:30:00 PM	0	147		0	203	9	0	0	0	7	0					1210	5083	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Lafayette Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	1		0	0	0	0	0	0	0	0	0					1	
05:10:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:15:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:20:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	



Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	NW Hawthorne Ave
City, State	Bend OR
Study ID #	
Location	44.057959 - -121.307182
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	2309	0	0	0	2412	259	0	0	0	223	0	0	0	0	0	2309	2671	223	0	2635	2309	259	0
Percent Heavy Vehicles																							
0.0%	3.1%	0.0%	0.0%	0.0%	2.7%	0.8%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	3.1%	2.5%	0.9%	0.0%	2.6%	3.1%	0.8%	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				Sum	in Crosswalk				Sum
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		NB	SB	EB	WB	
0	1		0	0	0	0	0	0			0	0			0	1	0	0	1		1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Hawthorne Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	206		0	208	18	0	0	0	17	0							
04:40:00 PM	0	196		0	177	20	0	0	0	17	0							
04:45:00 PM	0	209		0	185	25	0	0	0	18	0					1296		
04:50:00 PM	0	183		0	205	28	0	0	0	18	0					1281		
04:55:00 PM	0	157		0	188	21	0	0	0	15	0					1252		
05:00:00 PM	0	184		0	205	24	0	0	0	14	0					1242		
05:05:00 PM	0	212		0	206	25	0	0	0	28	0					1279		
05:10:00 PM	0	207		0	230	19	0	0	0	17	0					1371		
05:15:00 PM	0	210		0	219	18	0	0	0	17	0					1408		
05:20:00 PM	0	192		0	214	18	0	0	0	23	0					1384		
05:25:00 PM	0	198		0	186	23	0	0	0	21	0					1339		
05:30:00 PM	0	155		0	189	20	0	0	0	18	0					1257	5203	

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				NW Hawthorne Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0		0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	1		0	0	0	0	0	0	0	0	0					1	
05:10:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:15:00 PM	0	0		0	0	0	0	0	0	0	0	0					1	
05:20:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0		0	0	0	0	0	0	0	0	0					0	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				NW Colorado Ave				NW Colorado Ave				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	21	27	0	7	0	21	0	0	0	0	0	0	20	5	0		
04:40:00 PM	0	23	31	0	3	0	15	0	0	0	0	0	0	24	1	0		
04:45:00 PM	1	23	25	0	12	0	12	0	0	0	0	0	0	37	0	0	308	
04:50:00 PM	0	19	28	0	3	0	16	0	0	0	0	0	0	28	0	0	301	
04:55:00 PM	0	15	20	0	6	0	13	0	0	0	0	0	0	28	0	0	286	
05:00:00 PM	1	11	27	0	7	0	19	0	0	0	0	0	0	19	2	0	262	
05:05:00 PM	0	21	25	0	9	0	12	0	0	0	0	0	0	36	3	0	274	
05:10:00 PM	3	35	41	0	14	0	14	0	0	0	0	0	0	29	1	0	329	
05:15:00 PM	3	19	28	0	10	0	9	0	0	0	0	0	0	33	4	0	349	
05:20:00 PM	0	27	46	0	7	0	8	0	0	0	0	0	0	34	4	0	369	
05:25:00 PM	0	24	37	0	7	0	20	0	0	0	0	0	0	37	4	0	361	
05:30:00 PM	0	24	38	0	4	0	14	0	0	0	0	0	0	18	6	0	359	1278

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				NW Colorado Ave				NW Colorado Ave				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0		
04:45:00 PM	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
05:00:00 PM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	
05:10:00 PM	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	4	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
05:25:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	3	
05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	13

Pedestrians Crossing

15 Min 1 HR

Time	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	1	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	1	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	1	0	1	0	2	
05:25:00 PM	0	0	0	0	2	
05:30:00 PM	0	0	0	0	2	4

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 NB ramps
E/W street:	NW Colorado Ave
City, State	Bend OR
Study ID #	
Location	44.051578 - -121.306089
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.90

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	17	0	199	0	644	217	0	1	0	180	381	0	0	216	862	561	0	1025	380	234
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	5.9%	0.0%	0.5%	0.0%	0.9%	2.3%	0.0%	0.0%	0.0%	1.1%	1.0%	0.0%	#DIV/0!	0.9%	1.3%	1.1%	#DIV/0!	1.0%	0.8%	2.6%

PHV- Bicycles															PHV - Pedestrians						
Northbound				Southbound				Eastbound				Westbound			in Crosswalk						
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0				0				0				2	0	0		2		0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 NB ramps				NW Colorado Ave				NW Colorado Ave					
04:35:00 PM					2		9	0	66	14		0	16	29		0		
04:40:00 PM					0		17	0	56	16		0	11	30		0		
04:45:00 PM					0		21	0	60	21		0	14	29		0	411	
04:50:00 PM					0		19	0	42	10		0	10	21		0	377	
04:55:00 PM					1		12	0	53	12		0	14	25		0	364	
05:00:00 PM					1		18	0	51	17		0	13	34		0	353	
05:05:00 PM					2		20	0	46	19		0	12	59		0	409	
05:10:00 PM					5		16	0	44	22		0	17	43		0	439	
05:15:00 PM					1		21	0	70	16		0	14	29		0	456	
05:20:00 PM					3		16	0	64	18		0	23	30		0	452	
05:25:00 PM					2		21	0	53	30		0	22	20		0	453	
05:30:00 PM					0		9	0	39	22		1	14	32		0	419	1639

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 NB ramps				NW Colorado Ave				NW Colorado Ave					
04:35:00 PM					0		0	0	0	0		0	0	0		0		
04:40:00 PM					0		0	0	0	0		0	0	0		0		
04:45:00 PM					0		0	0	0	0		0	0	0		0	0	
04:50:00 PM					0		0	0	0	0		0	0	0		0	0	
04:55:00 PM					0		0	0	0	0		0	0	0		0	0	
05:00:00 PM					0		0	0	0	0		0	1	0		0	1	
05:05:00 PM					0		0	0	0	0		0	0	0		0	1	
05:10:00 PM					0		0	0	0	0		0	0	0		0	1	
05:15:00 PM					0		0	0	0	0		0	0	0		0	0	
05:20:00 PM					0		0	0	0	0		0	0	0		0	0	
05:25:00 PM					0		0	0	0	0		0	0	0		0	0	



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	1	0	0	1	2
-------------	--	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 NB ramps				Eastbound NW Colorado Ave				Westbound NW Colorado Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					2		9	0	64	14		0		16	29	0	
04:40:00 PM					0		17	0	55	15		0		11	30	0		
04:45:00 PM					0		21	0	59	20		0		14	29	0	405	
04:50:00 PM					0		19	0	42	10		0		10	20	0	372	
04:55:00 PM					1		12	0	53	12		0		14	24	0	360	
05:00:00 PM					1		18	0	51	17		0		12	34	0	350	
05:05:00 PM					2		20	0	46	19		0		12	58	0	406	
05:10:00 PM					4		16	0	44	22		0		17	43	0	436	
05:15:00 PM					1		20	0	68	16		0		14	29	0	451	
05:20:00 PM					3		16	0	64	18		0		23	30	0	448	
05:25:00 PM					2		21	0	53	28		0		21	19	0	446	
05:30:00 PM					0		9	0	39	21		1		14	32	0	414	1620

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 NB ramps				Eastbound NW Colorado Ave				Westbound NW Colorado Ave				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		0	0	2	0		0		0	0	0	
04:40:00 PM					0		0	0	1	1		0		0	0	0		
04:45:00 PM					0		0	0	1	1		0		0	0	0	6	
04:50:00 PM					0		0	0	0	0		0		0	1	0	5	
04:55:00 PM					0		0	0	0	0		0		0	1	0	4	
05:00:00 PM					0		0	0	0	0		0		1	0	0	3	
05:05:00 PM					0		0	0	0	0		0		0	1	0	3	
05:10:00 PM					1		0	0	0	0		0		0	0	0	3	
05:15:00 PM					0		1	0	2	0		0		0	0	0	5	
05:20:00 PM					0		0	0	0	0		0		0	0	0	4	
05:25:00 PM					0		0	0	0	2		0		1	1	0	7	
05:30:00 PM					0		0	0	0	1		0		0	0	0	5	19

Pedestrians Crossing

Time					15 Min	1 HR
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		0	0	0		
04:45:00 PM		0	0	0	0	
04:50:00 PM		0	0	0	0	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	SW Truman Ave
City, State	Bend OR
Study ID #	
Location	44.044229 - -121.305958
Start Date	Wednesday, April 12, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:05:00 PM
PHF (15-Min Int)	0.90

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	1504	0	0	0	2311	183	0	0	0	80	0	0	0	0	0	1504	2494	80	0	2391	1504	183	0
Percent Heavy Vehicles																							
0.0%	4.1%	0.0%	0.0%	0.0%	2.8%	2.2%	0.0%	0.0%	0.0%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	4.1%	2.7%	1.3%	0.0%	2.7%	4.1%	2.2%	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				SW Truman Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	131	0	0	200	18	0	0	0	4	0	0						
04:40:00 PM	0	122	0	0	175	17	0	0	0	4	0	0						
04:45:00 PM	0	148	0	0	181	16	0	0	0	4	0	0					1020	
04:50:00 PM	0	125	0	0	157	19	0	0	0	9	0	0					977	
04:55:00 PM	0	97	0	0	179	15	0	0	0	7	0	0					957	
05:00:00 PM	0	126	0	0	178	15	0	0	0	10	0	0					937	
05:05:00 PM	0	142	0	0	208	13	0	0	0	6	0	0					996	
05:10:00 PM	0	123	0	0	224	12	0	0	0	13	0	0					1070	
05:15:00 PM	0	144	0	0	222	14	0	0	0	8	0	0					1129	
05:20:00 PM	0	118	0	0	221	16	0	0	0	5	0	0					1120	
05:25:00 PM	0	127	0	0	185	15	0	0	0	6	0	0					1081	
05:30:00 PM	0	101	0	0	181	13	0	0	0	4	0	0					992	4078

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97				SW Truman Ave									
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0						
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0						
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0					0	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Truman Ave								Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	126		0	195	18	0		0		4	0						
04:40:00 PM	0	114		0	173	17	0		0		4	0						
04:45:00 PM	0	141		0	175	16	0		0		4	0						987
04:50:00 PM	0	122		0	156	18	0		0		8	0						948
04:55:00 PM	0	95		0	174	15	0		0		7	0						931
05:00:00 PM	0	121		0	168	15	0		0		10	0						909
05:05:00 PM	0	137		0	202	13	0		0		6	0						963
05:10:00 PM	0	119		0	218	12	0		0		13	0						1034
05:15:00 PM	0	136		0	214	14	0		0		8	0						1092
05:20:00 PM	0	115		0	215	16	0		0		5	0						1085
05:25:00 PM	0	124		0	181	13	0		0		6	0						1047
05:30:00 PM	0	93		0	176	12	0		0		4	0						960 3948

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Truman Ave								Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	5		0	5	0	0		0		0	0						
04:40:00 PM	0	8		0	2	0	0		0		0	0						
04:45:00 PM	0	7		0	6	0	0		0		0	0						33
04:50:00 PM	0	3		0	1	1	0		0		1	0						29
04:55:00 PM	0	2		0	5	0	0		0		0	0						26
05:00:00 PM	0	5		0	10	0	0		0		0	0						28
05:05:00 PM	0	5		0	6	0	0		0		0	0						33
05:10:00 PM	0	4		0	6	0	0		0		0	0						36
05:15:00 PM	0	8		0	8	0	0		0		0	0						37
05:20:00 PM	0	3		0	6	0	0		0		0	0						35
05:25:00 PM	0	3		0	4	2	0		0		0	0						34
05:30:00 PM	0	8		0	5	1	0		0		0	0						32 130

Pedestrians Crossing

Time					15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0			
04:40:00 PM	0	0	0			
04:45:00 PM	0	0	0		0	
04:50:00 PM	0	0	0		0	
04:55:00 PM	0	0	0		0	
05:00:00 PM	0	0	0		0	
05:05:00 PM	0	0	0		0	
05:10:00 PM	0	0	0		0	
05:15:00 PM	0	0	0		0	
05:20:00 PM	0	0	0		0	
05:25:00 PM	0	0	0		0	
05:30:00 PM	0	0	0		0	0



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				SW Reed Market				SW Reed Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	51	0	13	0	0	60	6	0	0	34	3	0		
04:40:00 PM	0	0	0	0	62	0	12	0	0	50	4	0	0	36	6	0		
04:45:00 PM	0	0	0	0	39	0	5	0	0	68	4	0	0	27	5	0	485	
04:50:00 PM	0	0	0	0	39	0	4	0	0	71	5	0	0	31	6	0	474	
04:55:00 PM	0	0	0	0	64	0	15	0	0	54	2	0	0	40	7	0	486	
05:00:00 PM	0	0	0	0	41	0	9	0	0	59	3	0	0	40	9	0	499	
05:05:00 PM	0	0	0	0	65	0	17	0	0	53	5	0	0	30	3	0	516	
05:10:00 PM	0	0	0	0	58	0	11	0	0	64	7	0	0	42	8	0	524	
05:15:00 PM	0	0	0	0	76	0	17	0	0	53	6	0	0	37	6	0	558	
05:20:00 PM	0	0	0	0	69	0	12	0	0	57	3	0	0	42	2	0	570	
05:25:00 PM	0	0	0	0	56	0	17	0	0	57	3	0	0	47	5	0	565	
05:30:00 PM	0	0	0	0	48	0	15	0	0	51	3	0	0	43	1	0	531	2073

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				SW Reed Market				SW Reed Market				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	2	0	0	0	0	2	0	0	0	1	0	0		
04:40:00 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	1	0	0		
04:45:00 PM	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	13	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	10	
04:55:00 PM	0	0	0	0	1	0	2	0	0	1	0	0	0	2	1	0	14	
05:00:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	11	
05:05:00 PM	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	12	
05:10:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	9	
05:20:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	4	37

Pedestrians Crossing

Time					15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	1	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	1	0	0	2	
05:15:00 PM	0	0	0	0	1	
05:20:00 PM	0	0	0	0	1	
05:25:00 PM	1	0	0	0	1	
05:30:00 PM	0	0	0	0	1	3



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 NB ramps				US97 NB ramps				SW Reed Market Rd				SW Reed Market Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	2	0	5	0	0	0	2	0	0	103	8	0	0	33	2	0		
04:40:00 PM	5	0	13	0	0	0	1	0	0	106	6	0	0	36	4	0		
04:45:00 PM	1	0	4	0	0	0	1	0	0	97	10	0	0	30	6	0	475	
04:50:00 PM	2	0	14	0	0	0	2	0	0	105	5	0	0	33	2	0	483	
04:55:00 PM	6	0	6	0	0	0	2	0	0	107	11	0	0	39	1	0	484	
05:00:00 PM	2	0	7	0	0	0	4	0	0	95	5	0	0	43	0	0	491	
05:05:00 PM	2	0	3	0	0	0	2	0	0	104	14	0	0	29	0	0	482	
05:10:00 PM	2	0	5	0	0	0	5	0	0	115	7	0	0	43	1	0	488	
05:15:00 PM	4	0	7	0	0	0	4	0	0	118	11	0	0	35	1	0	512	
05:20:00 PM	3	0	4	0	0	0	2	0	0	119	7	0	0	39	4	0	536	
05:25:00 PM	4	0	7	0	0	0	3	0	0	108	5	0	0	45	5	0	535	
05:30:00 PM	2	0	4	0	0	0	7	0	0	91	8	0	0	35	1	0	503	1981

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 NB ramps				US97 NB ramps				SW Reed Market Rd				SW Reed Market Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	1	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	11	
04:50:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	8	
04:55:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	3	0	0	11	
05:00:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	9	
05:05:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	10	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	3	0	0	0	2	0	0	9	
05:20:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	8	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	4	33

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	1	0	0	0	1	
04:55:00 PM	0	0	0	0	1	
05:00:00 PM	1	0	0	0	2	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	1	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	2

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97
E/W street:	Reed Lane
City, State	Bend OR
Study ID #	
Location	44.032436 - -121.313051
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:10:00 PM
PHF (15-Min Int)	0.96

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	1076	55	0	0	1706	0	0	0	0	0	0	0	0	146	0	1131	1706	0	146	1706	1222	0	55
Percent Heavy Vehicles																							
0.0%	5.3%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	5.0%	3.3%	#DIV/0!	1.4%	3.3%	4.8%	#DIV/0!	0.0%

PHV- Bicycles														PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0					0	0	0	0	0	1	0	0	0	1

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97								Reed Lane					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	87	2	0	0	0	149	0	0					0	9	0	0		
04:40:00 PM	105	4	0	0	0	142	0	0					0	15	0	0		
04:45:00 PM	81	5	0	0	0	127	0	0					0	15	0	0	741	
04:50:00 PM	81	1	0	0	0	138	0	0					0	13	0	0	727	
04:55:00 PM	104	2	0	0	0	148	0	0					0	3	0	0	718	
05:00:00 PM	93	6	0	0	0	129	0	0					0	21	0	0	739	
05:05:00 PM	77	6	0	0	0	147	0	0					0	12	0	0	748	
05:10:00 PM	79	3	0	0	0	157	0	0					0	13	0	0	743	
05:15:00 PM	92	6	0	0	0	149	0	0					0	5	0	0	746	
05:20:00 PM	96	6	0	0	0	152	0	0					0	17	0	0	775	
05:25:00 PM	90	5	0	0	0	139	0	0					0	10	0	0	767	
05:30:00 PM	91	9	0	0	0	129	0	0					0	13	0	0	757	2983

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	US97				US97								Reed Lane					
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0					0	0	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	0	0	0					0	0	0	0	0	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97								Reed Lane				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM		81	2	0	0	141		0					0		9	0				
04:40:00 PM		97	4	0	0	137		0					0		14	0				
04:45:00 PM		79	5	0	0	122		0					0		15	0	706			
04:50:00 PM		79	1	0	0	134		0					0		13	0	700			
04:55:00 PM		98	2	0	0	144		0					0		3	0	695			
05:00:00 PM		88	6	0	0	127		0					0		21	0	716			
05:05:00 PM		72	6	0	0	144		0					0		11	0	722			
05:10:00 PM		78	3	0	0	153		0					0		13	0	722			
05:15:00 PM		86	6	0	0	148		0					0		5	0	725			
05:20:00 PM		91	6	0	0	143		0					0		17	0	749			
05:25:00 PM		84	5	0	0	133		0					0		10	0	734			
05:30:00 PM		86	9	0	0	124		0					0		13	0	721	2868		

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min		1 HR	
	US97				US97								Reed Lane				Sum	Sum		
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn				
04:35:00 PM		6	0	0	0	8		0					0		0	0				
04:40:00 PM		8	0	0	0	5		0					0		1	0				
04:45:00 PM		2	0	0	0	5		0					0		0	0	35			
04:50:00 PM		2	0	0	0	4		0					0		0	0	27			
04:55:00 PM		6	0	0	0	4		0					0		0	0	23			
05:00:00 PM		5	0	0	0	2		0					0		0	0	23			
05:05:00 PM		5	0	0	0	3		0					0		1	0	26			
05:10:00 PM		1	0	0	0	4		0					0		0	0	21			
05:15:00 PM		6	0	0	0	1		0					0		0	0	21			
05:20:00 PM		5	0	0	0	9		0					0		0	0	26			
05:25:00 PM		6	0	0	0	6		0					0		0	0	33			
05:30:00 PM		5	0	0	0	5		0					0		0	0	36	115		

Pedestrians Crossing

Time					15 Min		1 HR	
	NB	SB	EB	WB	Sum	Sum		
04:35:00 PM	0	0		0				
04:40:00 PM	0	0		0				
04:45:00 PM	0	0		0	0			
04:50:00 PM	0	0		0	0			
04:55:00 PM	0	0		0	0			
05:00:00 PM	0	0		0	0			
05:05:00 PM	0	0		0	0			
05:10:00 PM	0	0		0	0			
05:15:00 PM	0	0		0	0			
05:20:00 PM	0	0		0	0			
05:25:00 PM	1	0		0	1			
05:30:00 PM	0	0		0	1	1		



KEY DATA NETWORK

05:30:00 PM	0	0	0		0	0	0	0	0	0	0
-------------	---	---	---	--	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97 SB ramp				Southbound				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0		26	0					37	1	0		2	43		1		
04:40:00 PM	1		23	0					36	5	0		6	43		0		
04:45:00 PM	0		36	0					41	3	0		1	55		0	360	
04:50:00 PM	0		23	0					38	4	0		4	51		0	370	
04:55:00 PM	1		29	0					41	4	0		2	48		0	381	
05:00:00 PM	0		21	0					53	2	0		0	39		0	360	
05:05:00 PM	0		38	0					32	4	0		3	43		0	360	
05:10:00 PM	0		34	0					33	3	0		5	60		0	370	
05:15:00 PM	0		32	0					31	2	0		1	49		0	370	
05:20:00 PM	0		33	0					38	3	0		0	49		0	373	
05:25:00 PM	0		31	0					35	1	0		2	54		0	361	
05:30:00 PM	0		27	0					40	0	0		1	46		0	360	1450

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97 SB ramp				Southbound				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
04:35:00 PM	0		1	0					0	0	0		0	0		0		
04:40:00 PM	1		0	0					1	0	0		0	0		0		
04:45:00 PM	0		0	0					0	0	0		0	0		0	3	
04:50:00 PM	0		1	0					0	0	0		0	0		0	3	
04:55:00 PM	0		0	0					0	0	0		0	0		0	1	
05:00:00 PM	0		0	0					0	0	0		0	0		0	1	
05:05:00 PM	0		0	0					0	0	0		0	0		0	0	
05:10:00 PM	0		0	0					0	0	0		0	1		0	1	
05:15:00 PM	0		0	0					0	1	0		0	0		0	2	
05:20:00 PM	0		0	0					1	0	0		0	0		0	3	
05:25:00 PM	0		0	0					0	0	0		0	0		0	2	
05:30:00 PM	0		0	0					0	0	0		0	0		0	1	7

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	1		0	0		
04:40:00 PM	2		0	0		
04:45:00 PM	0		0	0	3	
04:50:00 PM	0		0	0	2	
04:55:00 PM	0		0	0	0	
05:00:00 PM	0		0	0	0	
05:05:00 PM	0		0	0	0	
05:10:00 PM	1		0	0	1	
05:15:00 PM	0		0	0	1	
05:20:00 PM	1		0	0	2	
05:25:00 PM	1		0	0	2	
05:30:00 PM	0		0	0	2	6



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Powers Rd				SW Powers Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	64	2	0	0	110	27	0	0	62	0	0	0	19	0	0		
04:40:00 PM	0	63	1	0	0	107	27	0	0	56	0	0	0	24	0	0		
04:45:00 PM	0	60	3	0	0	91	23	0	0	83	0	0	0	29	0	0	851	
04:50:00 PM	0	77	2	0	0	102	34	0	0	61	0	0	0	22	0	0	865	
04:55:00 PM	0	62	1	0	0	119	20	0	0	56	0	0	0	27	0	0	872	
05:00:00 PM	0	57	3	0	0	94	20	0	0	83	0	0	0	15	0	0	855	
05:05:00 PM	0	63	0	0	0	113	19	0	0	71	0	0	0	26	0	0	849	
05:10:00 PM	0	63	4	0	0	136	30	0	0	62	0	0	0	34	0	0	893	
05:15:00 PM	0	60	1	0	0	119	31	0	0	65	0	0	0	19	0	0	916	
05:20:00 PM	0	57	4	0	0	112	28	0	0	79	0	0	0	20	0	0	924	
05:25:00 PM	0	67	0	0	0	117	24	0	1	64	0	0	0	25	0	0	893	
05:30:00 PM	0	61	0	0	0	108	23	0	0	68	0	0	0	24	0	0	882	3504

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				SW Powers Rd				SW Powers Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	7	0	0	0	6	0	0	0	2	0	0	0	0	0	0		
04:40:00 PM	0	8	0	0	0	5	0	0	0	1	0	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	35	
04:50:00 PM	0	3	0	0	0	5	0	0	0	2	0	0	0	0	0	0	30	
04:55:00 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	24	
05:00:00 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	27	
05:05:00 PM	0	4	0	0	0	4	0	0	0	0	0	0	0	0	0	0	25	
05:10:00 PM	0	4	0	0	0	4	1	0	0	0	0	0	0	0	0	0	26	
05:15:00 PM	0	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	22	
05:20:00 PM	0	6	0	0	0	3	0	0	0	1	0	0	0	0	0	0	24	
05:25:00 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	25	
05:30:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	27	111

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	1	0	0		
04:45:00 PM	0	0	0	0	1	
04:50:00 PM	0	0	0	0	1	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	1	0	0	0	1	
05:25:00 PM	1	0	0	0	2	
05:30:00 PM	0	0	0	0	2	3

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 NB ramp
E/W street:	SW Powers Rd
City, State	Bend OR
Study ID #	
Location	44.028811 - -121.313896
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.95

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	1	0	28	0	193	641	0	0	0	255	138	0	0	29	834	393	0	331	283	642
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.9%	0.0%	0.0%	0.0%	0.0%	1.4%	0.0%	#DIV/0!	0.0%	1.0%	0.5%	#DIV/0!	1.2%	0.0%	0.9%

PHV- Bicycles															PHV - Pedestrians							
Northbound				Southbound				Eastbound				Westbound			Sum	in Crosswalk				Sum		
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right		NB	SB	EB	WB			
0				0				0	1			0	0	0	1				1	0	0	1

All Vehicle Volumes																		
Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM					0	1	0		14	50	0		26	14	0			
04:40:00 PM					0	1	0		17	41	0		19	9	0			
04:45:00 PM					0	4	0		19	65	0		20	6	0	306		
04:50:00 PM					0	6	0		12	57	0		20	9	0	305		
04:55:00 PM					1	4	0		17	40	0		25	16	0	321		
05:00:00 PM					0	0	0		21	56	0		9	12	0	305		
05:05:00 PM					0	1	0		10	67	0		26	10	0	315		
05:10:00 PM					0	2	0		14	51	0		32	7	0	318		
05:15:00 PM					0	2	0		14	50	0		18	12	0	316		
05:20:00 PM					0	1	0		16	66	0		18	15	0	318		
05:25:00 PM					0	2	0		13	46	0		23	15	0	311		
05:30:00 PM					0	4	0		26	52	0		19	13	0	329	1256	

Bicycles on Road																		
Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM					0	0	0		0	0	0		0	0	0			
04:40:00 PM					0	0	0		0	0	0		0	0	0			
04:45:00 PM					0	0	0		0	0	0		0	0	0	0		
04:50:00 PM					0	0	0		0	0	0		0	0	0	0		
04:55:00 PM					0	0	0		0	0	0		0	0	0	0		
05:00:00 PM					0	0	0		0	0	0		0	0	0	0		
05:05:00 PM					0	0	0		0	0	0		0	0	0	0		
05:10:00 PM					0	0	0		0	0	0		0	0	0	0		
05:15:00 PM					0	0	0		0	0	0		0	0	0	0		
05:20:00 PM					0	0	0		0	0	0		0	0	0	0		
05:25:00 PM					0	0	0		0	1	0		0	0	0	1		



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		1	0	14	48		0		26	13	0	
04:40:00 PM					0		1	0	16	41		0		19	9	0		
04:45:00 PM					0		4	0	19	65		0		20	6	0	302	
04:50:00 PM					0		6	0	11	56		0		20	9	0	302	
04:55:00 PM					1		4	0	17	39		0		25	16	0	318	
05:00:00 PM					0		0	0	21	56		0		9	12	0	302	
05:05:00 PM					0		1	0	10	66		0		26	10	0	313	
05:10:00 PM					0		2	0	14	51		0		32	7	0	317	
05:15:00 PM					0		2	0	14	50		0		18	12	0	315	
05:20:00 PM					0		1	0	16	65		0		18	15	0	317	
05:25:00 PM					0		2	0	13	46		0		23	14	0	309	
05:30:00 PM					0		4	0	26	52		0		19	13	0	327	1246

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 NB ramp				Eastbound SW Powers Rd				Westbound SW Powers Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					0		0	0	0	2		0		0	1	0	
04:40:00 PM					0		0	0	1	0		0		0	0	0		
04:45:00 PM					0		0	0	0	0		0		0	0	0	4	
04:50:00 PM					0		0	0	1	1		0		0	0	0	3	
04:55:00 PM					0		0	0	0	1		0		0	0	0	3	
05:00:00 PM					0		0	0	0	0		0		0	0	0	3	
05:05:00 PM					0		0	0	0	1		0		0	0	0	2	
05:10:00 PM					0		0	0	0	0		0		0	0	0	1	
05:15:00 PM					0		0	0	0	0		0		0	0	0	1	
05:20:00 PM					0		0	0	0	1		0		0	0	0	1	
05:25:00 PM					0		0	0	0	0		0		0	1	0	2	
05:30:00 PM					0		0	0	0	0		0		0	0	0	2	10

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		1	0	0		
04:45:00 PM		0	0	0	1	
04:50:00 PM		0	0	0	1	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	1



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound US97				Southbound US97				Eastbound Badger Rd				Westbound Badger Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	55	0	0	0	77	2	0	0	0	1	0	0	0	5	0	
04:40:00 PM	0	69	1	0	0	102	3	0	0	0	0	0	0	0	8	0		
04:45:00 PM	0	59	4	0	0	81	1	0	0	0	0	0	0	0	3	0	471	
04:50:00 PM	0	61	0	0	0	76	2	0	0	0	0	0	0	0	11	0	481	
04:55:00 PM	0	62	1	0	0	93	3	0	0	0	0	0	0	0	4	0	461	
05:00:00 PM	0	52	1	0	0	84	1	0	0	0	0	0	0	0	6	0	457	
05:05:00 PM	0	58	0	0	0	91	1	0	0	0	0	0	0	0	16	0	473	
05:10:00 PM	0	51	0	0	0	91	3	0	0	0	0	0	0	0	10	0	465	
05:15:00 PM	0	58	1	0	0	92	2	0	0	0	1	0	0	0	9	0	484	
05:20:00 PM	0	64	1	0	0	93	0	0	0	0	1	0	0	0	6	0	483	
05:25:00 PM	0	60	0	0	0	87	1	0	0	0	0	0	0	0	4	0	480	
05:30:00 PM	0	54	3	0	0	79	1	0	0	0	1	0	0	0	6	0	461	1873

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound US97				Southbound US97				Eastbound Badger Rd				Westbound Badger Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM	0	7	0	0	0	4	1	0	0	0	0	0	0	0	0	0	
04:40:00 PM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	3	1	0	0	0	0	0	0	0	0	0	28	
04:50:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	0	0	22	
04:55:00 PM	0	5	0	0	0	3	0	0	0	0	0	0	0	0	0	0	20	
05:00:00 PM	0	5	0	0	0	1	1	0	0	0	0	0	0	0	1	0	22	
05:05:00 PM	0	1	0	0	0	3	0	0	0	0	1	0	0	0	1	0	22	
05:10:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	21	
05:15:00 PM	0	6	0	0	0	2	0	0	0	0	0	0	0	0	0	0	21	
05:20:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	22	
05:25:00 PM	0	3	0	0	0	5	0	0	0	0	0	0	0	0	0	0	23	
05:30:00 PM	0	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	22	93

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR		
	US97				US97				Pinebrook Blvd				Pinebrook Blvd				Sum	Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
04:35:00 PM	0	37	0	0	0	70	5	0	0	0	0	0	0	0	0	17	0		
04:40:00 PM	0	56	0	0	0	87	6	0	0	0	0	0	0	0	0	13	0		
04:45:00 PM	0	54	4	0	0	82	4	0	0	0	0	0	0	0	10	0	445		
04:50:00 PM	0	49	1	0	0	71	4	0	0	0	0	0	0	0	9	0	450		
04:55:00 PM	0	51	2	0	0	83	4	0	0	0	0	0	0	0	14	0	442		
05:00:00 PM	0	44	3	0	0	79	3	0	0	0	0	0	0	0	10	0	427		
05:05:00 PM	0	44	2	0	0	88	3	0	0	0	1	0	0	0	12	0	443		
05:10:00 PM	0	49	3	0	0	83	2	0	0	0	0	0	0	0	5	0	431		
05:15:00 PM	0	50	1	0	0	86	6	0	0	0	1	0	0	0	9	0	445		
05:20:00 PM	0	60	3	0	0	87	5	0	0	0	0	0	0	0	8	0	458		
05:25:00 PM	0	48	3	0	0	74	6	0	0	0	2	0	0	0	9	0	458		
05:30:00 PM	0	48	2	0	0	86	3	0	0	0	1	0	0	0	10	0	455	1772	

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR		
	US97				US97				Pinebrook Blvd				Pinebrook Blvd				Sum	Sum	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn			
04:35:00 PM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	3	1	0	0	3	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	25		
04:50:00 PM	0	2	0	0	0	4	0	0	0	0	0	0	0	0	1	0	21		
04:55:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	1	0	22		
05:00:00 PM	0	2	0	0	0	3	0	0	0	0	0	0	0	0	1	0	21		
05:05:00 PM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	18		
05:10:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	16		
05:15:00 PM	0	6	0	0	0	4	0	0	0	0	0	0	0	0	0	0	20		
05:20:00 PM	0	7	0	0	0	2	0	0	0	0	0	0	0	0	0	0	25		
05:25:00 PM	0	1	0	0	0	5	0	0	0	0	0	0	0	0	1	0	26		
05:30:00 PM	0	3	0	0	0	3	0	0	0	0	0	0	0	0	0	0	22	88	

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	1	1	0	2	
04:50:00 PM	0	0	0	0	2	
04:55:00 PM	0	1	0	0	3	
05:00:00 PM	0	0	0	0	1	
05:05:00 PM	0	0	0	0	1	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	3



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Ponderosa St				China Hat Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	42	0	0	0	93	8	0	0	0	2	0	0	0	8	0		
04:40:00 PM	0	77	0	0	0	118	10	0	0	0	0	0	0	0	4	0		
04:45:00 PM	0	62	2	0	0	101	12	0	0	0	4	0	0	0	11	0	554	
04:50:00 PM	0	65	1	0	0	109	9	0	0	0	0	0	0	0	14	0	599	
04:55:00 PM	0	53	0	0	0	106	10	0	0	0	0	0	0	0	5	0	564	
05:00:00 PM	0	53	2	0	0	110	11	0	0	0	1	0	0	0	8	0	557	
05:05:00 PM	0	64	1	0	0	94	10	0	0	0	2	0	0	0	10	0	540	
05:10:00 PM	0	47	1	0	0	113	15	0	0	0	1	0	0	0	10	0	553	
05:15:00 PM	0	73	0	0	0	118	9	0	0	0	4	0	0	0	14	0	586	
05:20:00 PM	0	59	1	0	0	110	12	0	0	0	1	0	0	0	10	0	598	
05:25:00 PM	0	63	2	0	0	102	10	0	0	0	0	0	0	0	9	0	597	
05:30:00 PM	0	53	1	0	0	127	9	0	0	0	2	0	0	0	7	0	578	2275

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97				US97				Ponderosa St				China Hat Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	7	0	0	0	4	2	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	4	0	0	0	7	0	0	0	0	1	0	0	0	0	0		
04:45:00 PM	0	2	0	0	0	8	1	0	0	0	0	0	0	0	0	0	36	
04:50:00 PM	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	28	
04:55:00 PM	0	7	0	0	0	2	1	0	0	0	0	0	0	0	0	0	26	
05:00:00 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	19	
05:05:00 PM	0	1	0	0	0	5	1	0	0	0	0	0	0	0	0	0	21	
05:10:00 PM	0	5	0	0	0	2	0	0	0	0	0	0	0	0	0	0	18	
05:15:00 PM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	25	
05:20:00 PM	0	5	0	0	0	4	0	0	0	0	0	0	0	0	0	0	27	
05:25:00 PM	0	2	0	0	0	6	0	0	0	0	0	0	0	0	0	0	28	
05:30:00 PM	0	2	0	0	0	5	0	0	0	0	0	0	0	0	0	0	24	104

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 SB ramps
E/W street:	Baker Rd
City, State	Bend OR
Study ID #	
Location	43.992611 - -121.336303
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.92

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
0	0	0	0	66	0	481	0	52	340	0	0	0	297	178	0	0	547	392	475	0	230	778	406
Percent Heavy Vehicles																							
0.0%	0.0%	0.0%	0.0%	4.5%	0.0%	2.1%	0.0%	5.8%	4.4%	0.0%	0.0%	0.0%	3.0%	1.1%	0.0%	#DIV/0!	2.4%	4.6%	2.3%	#DIV/0!	2.2%	2.4%	4.4%

PHV- Bicycles															PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound			in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Sum	NB	SB	EB	WB	Sum
0				0				0				0			0	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 SB ramps				Baker Rd				Knott Rd					
04:35:00 PM					2		38	0	1		29	0	23		13	0		
04:40:00 PM					10		35	0	6		27	0	22		9	0		
04:45:00 PM					3		51	0	3		26	0	21		15	0	334	
04:50:00 PM					4		40	0	4		27	0	26		9	0	338	
04:55:00 PM					6		33	0	6		22	0	20		12	0	328	
05:00:00 PM					7		37	0	7		26	0	23		13	0	322	
05:05:00 PM					6		37	0	4		40	0	28		16	0	343	
05:10:00 PM					3		52	0	7		28	0	25		8	0	367	
05:15:00 PM					7		40	0	3		32	0	24		12	0	372	
05:20:00 PM					6		48	0	3		27	0	28		23	0	376	
05:25:00 PM					6		32	0	6		23	0	30		28	0	378	
05:30:00 PM					6		38	0	2		33	0	27		20	0	386	1414

Bicycles on Road																		
Time	Northbound				Southbound				Eastbound				Westbound				15 Min	1 HR
	Left	Thru	Right	Uturn	US97 SB ramps				Baker Rd				Knott Rd					
04:35:00 PM					0		0	0	0		0	0	0		0	0		
04:40:00 PM					0		0	0	0		0	0	0		0	0		
04:45:00 PM					0		0	0	0		0	0	0		0	0	0	
04:50:00 PM					0		0	0	0		0	0	0		0	0	0	
04:55:00 PM					0		0	0	0		0	0	0		0	0	0	
05:00:00 PM					0		0	0	0		0	0	0		0	0	0	
05:05:00 PM					0		0	0	0		0	0	0		0	0	0	
05:10:00 PM					0		0	0	0		0	0	0		0	0	0	
05:15:00 PM					0		0	0	0		0	0	0		0	0	0	
05:20:00 PM					0		0	0	0		0	0	0		0	0	0	
05:25:00 PM					0		0	0	0		0	0	0		0	0	0	



KEY DATA NETWORK

05:30:00 PM		0	0	0	0	0	0	0	0	0	0	0	0
-------------	--	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound US97 SB ramps				Eastbound Baker Rd				Westbound Knott Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					1		37	0	1	27		0		23	13	0	
04:40:00 PM					9		35	0	6	26		0		21	9	0		
04:45:00 PM					3		47	0	3	25		0		20	14	0	320	
04:50:00 PM					4		39	0	3	25		0		26	9	0	324	
04:55:00 PM					6		33	0	5	19		0		20	12	0	313	
05:00:00 PM					7		37	0	7	26		0		20	13	0	311	
05:05:00 PM					6		36	0	4	40		0		28	15	0	334	
05:10:00 PM					3		52	0	7	27		0		25	8	0	361	
05:15:00 PM					7		39	0	3	31		0		22	12	0	365	
05:20:00 PM					6		47	0	3	27		0		27	23	0	369	
05:25:00 PM					6		32	0	5	21		0		30	28	0	369	
05:30:00 PM					5		37	0	2	31		0		26	20	0	376	1372

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound US97 SB ramps				Eastbound Baker Rd				Westbound Knott Rd				15 Min 1 HR	
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	Sum
	04:35:00 PM					1		1	0	0	2		0		0	0	0	
04:40:00 PM					1		0	0	0	1		0		1	0	0		
04:45:00 PM					0		4	0	0	1		0		1	1	0	14	
04:50:00 PM					0		1	0	1	2		0		0	0	0	14	
04:55:00 PM					0		0	0	1	3		0		0	0	0	15	
05:00:00 PM					0		0	0	0	0		0		3	0	0	11	
05:05:00 PM					0		1	0	0	0		0		0	1	0	9	
05:10:00 PM					0		0	0	0	1		0		0	0	0	6	
05:15:00 PM					0		1	0	0	1		0		2	0	0	7	
05:20:00 PM					0		1	0	0	0		0		1	0	0	7	
05:25:00 PM					0		0	0	1	2		0		0	0	0	9	
05:30:00 PM					1		1	0	0	2		0		1	0	0	10	42

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM		0	0	0		
04:40:00 PM		0	0	0		
04:45:00 PM		0	0	0	0	
04:50:00 PM		0	0	0	0	
04:55:00 PM		0	0	0	0	
05:00:00 PM		0	0	0	0	
05:05:00 PM		0	0	0	0	
05:10:00 PM		0	0	0	0	
05:15:00 PM		0	0	0	0	
05:20:00 PM		0	0	0	0	
05:25:00 PM		0	0	0	0	
05:30:00 PM		0	0	0	0	0

K-D-N

KEY DATA NETWORK

Data Provided by K-D-N.com 503-594-4224	
N/S street:	US97 SB ramps
E/W street:	Knott Rd
City, State	Bend OR
Study ID #	
Location	43.991498 - -121.333495
Start Date	Thursday, April 13, 2017
Start Time	04:35:00 PM
Peak Hour Start	04:35:00 PM
Peak 15 Min Start	05:20:00 PM
PHF (15-Min Int)	0.89

Peak-Hour Volumes (PHV)																							
Northbound				Southbound				Eastbound				Westbound				Entering				Leaving			
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	NB	SB	EB	WB	NB	SB	EB	WB
44	1	95	0	0	0	0	0	247	160	0	0	0	449	17	0	140	0	407	466	0	265	493	255
Percent Heavy Vehicles																							
2.3%	100.0%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	3.2%	3.1%	0.0%	0.0%	0.0%	2.4%	5.9%	0.0%	2.9%	0.0%	3.2%	2.6%	#DIV/0!	3.8%	2.4%	2.7%

PHV- Bicycles																PHV - Pedestrians					
Northbound				Southbound				Eastbound				Westbound				in Crosswalk					
Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Sum	NB	SB	EB	WB	Sum
0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	0	0	0	0	0

All Vehicle Volumes																		
Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound Knott Rd				Westbound Knott Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	5	0	4	0	0	0	0	0	20	11	0	0	0	34	2	0		
04:40:00 PM	2	0	12	0	0	0	0	0	21	19	0	0	0	34	2	0		
04:45:00 PM	3	0	7	0	0	0	0	0	16	10	0	0	0	39	1	0	242	
04:50:00 PM	7	0	9	0	0	0	0	0	26	8	0	0	0	30	1	0	247	
04:55:00 PM	1	0	8	0	0	0	0	0	18	9	0	0	0	30	0	0	223	
05:00:00 PM	4	0	8	0	0	0	0	0	19	13	0	0	0	34	2	0	227	
05:05:00 PM	4	1	10	0	0	0	0	0	26	20	0	0	0	40	1	0	248	
05:10:00 PM	5	0	7	0	0	0	0	0	17	15	0	0	0	29	2	0	257	
05:15:00 PM	3	0	7	0	0	0	0	0	23	15	0	0	0	33	2	0	260	
05:20:00 PM	1	0	7	0	0	0	0	0	22	12	0	0	0	50	2	0	252	
05:25:00 PM	3	0	9	0	0	0	0	0	19	12	0	0	0	55	1	0	276	
05:30:00 PM	6	0	7	0	0	0	0	0	20	16	0	0	0	41	1	0	284 1013	

Bicycles on Road																		
Time	Northbound US97 SB ramps				Southbound US97 SB ramps				Eastbound Knott Rd				Westbound Knott Rd				15 Min	1 HR
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	3	



KEY DATA NETWORK

05:30:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
-------------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Passenger vehicles and light trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				Knott Rd				Knott Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	5	0	4	0	0	0	0	0	19	11	0	0	0	34	2	0		
04:40:00 PM	2	0	12	0	0	0	0	0	20	18	0	0	0	32	2	0		
04:45:00 PM	3	0	7	0	0	0	0	0	16	10	0	0	0	37	1	0	235	
04:50:00 PM	7	0	8	0	0	0	0	0	24	8	0	0	0	30	1	0	238	
04:55:00 PM	1	0	7	0	0	0	0	0	17	9	0	0	0	30	0	0	216	
05:00:00 PM	3	0	8	0	0	0	0	0	19	13	0	0	0	33	2	0	220	
05:05:00 PM	4	0	10	0	0	0	0	0	25	20	0	0	0	39	1	0	241	
05:10:00 PM	5	0	7	0	0	0	0	0	17	14	0	0	0	29	2	0	251	
05:15:00 PM	3	0	7	0	0	0	0	0	23	15	0	0	0	31	2	0	254	
05:20:00 PM	1	0	7	0	0	0	0	0	22	12	0	0	0	48	1	0	246	
05:25:00 PM	3	0	9	0	0	0	0	0	18	11	0	0	0	55	1	0	269	
05:30:00 PM	6	0	7	0	0	0	0	0	19	14	0	0	0	40	1	0	275	984

FHWA 4-13 -Truck/Multi-Unit/Heavy Trucks

Time	Northbound				Southbound				Eastbound				Westbound				15 Min 1 HR	
	US97 SB ramps				US97 SB ramps				Knott Rd				Knott Rd				Sum	Sum
	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn	Left	Thru	Right	Uturn		
04:35:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0		
04:40:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	2	0	0		
04:45:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	7	
04:50:00 PM	0	0	1	0	0	0	0	0	2	0	0	0	0	0	0	0	9	
04:55:00 PM	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	7	
05:00:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	7	
05:05:00 PM	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	7	
05:10:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	6	
05:15:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	6	
05:20:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	6	
05:25:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	7	
05:30:00 PM	0	0	0	0	0	0	0	0	1	2	0	0	0	1	0	0	9	29

Pedestrians Crossing

Time	Pedestrians Crossing				15 Min 1 HR	
	NB	SB	EB	WB	Sum	Sum
04:35:00 PM	0	0	0	0		
04:40:00 PM	0	0	0	0		
04:45:00 PM	0	0	0	0	0	
04:50:00 PM	0	0	0	0	0	
04:55:00 PM	0	0	0	0	0	
05:00:00 PM	0	0	0	0	0	
05:05:00 PM	0	0	0	0	0	
05:10:00 PM	0	0	0	0	0	
05:15:00 PM	0	0	0	0	0	
05:20:00 PM	0	0	0	0	0	
05:25:00 PM	0	0	0	0	0	
05:30:00 PM	0	0	0	0	0	0

Intersection Traffic Operations

HCM Signalized Intersection Capacity Analysis

4: Robal Rd & US20

05/02/2018



Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	195	145	1360	345	90	980
Future Volume (vph)	195	145	1360	345	90	980
Ideal Flow (vphpl)	1800	1800	1800	1800	1800	1800
Total Lost time (s)	4.0	4.0	4.0		4.0	4.0
Lane Util. Factor	1.00	1.00	0.95		1.00	1.00
Frpb, ped/bikes	1.00	0.99	1.00		1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00		1.00	1.00
Frt	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1693	1359	3226		1693	1714
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1693	1359	3226		1693	1714
Peak-hour factor, PHF	0.89	0.89	0.89	0.89	0.89	0.89
Adj. Flow (vph)	219	163	1528	388	101	1101
RTOR Reduction (vph)	0	108	17	0	0	0
Lane Group Flow (vph)	219	55	1899	0	101	1101
Confl. Bikes (#/hr)		1				
Heavy Vehicles (%)	1%	0%	3%	2%	1%	5%
Parking (#/hr)		0				
Turn Type	Prot	Perm	NA		Prot	NA
Protected Phases	4		6		5	2
Permitted Phases		4				
Actuated Green, G (s)	17.5	17.5	71.9		8.2	84.6
Effective Green, g (s)	18.0	18.0	73.9		8.7	86.6
Actuated g/C Ratio	0.16	0.16	0.66		0.08	0.77
Clearance Time (s)	4.5	4.5	6.0		4.5	6.0
Vehicle Extension (s)	2.2	2.2	5.4		2.2	5.4
Lane Grp Cap (vph)	270	217	2117		130	1318
v/s Ratio Prot	c0.13		c0.59		0.06	c0.64
v/s Ratio Perm		0.04				
v/c Ratio	0.81	0.25	0.90		0.78	0.84
Uniform Delay, d1	45.7	41.4	16.2		51.0	8.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	16.0	0.3	5.9		23.2	5.4
Delay (s)	61.7	41.7	22.1		74.2	13.8
Level of Service	E	D	C		E	B
Approach Delay (s)	53.2		22.1			18.8
Approach LOS	D		C			B
Intersection Summary						
HCM 2000 Control Delay			24.4		HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.90			
Actuated Cycle Length (s)			112.6		Sum of lost time (s)	12.0
Intersection Capacity Utilization			78.0%		ICU Level of Service	D
Analysis Period (min)			15			
c Critical Lane Group						

HCM Signalized Intersection Capacity Analysis

8: NE 27th Street & NE Butler Market Road

05/02/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑	↑	↑	↑	↑	↑
Traffic Volume (vph)	450	270	215	285	335	400
Future Volume (vph)	450	270	215	285	335	400
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	1733	1488	1646	1683	1646	1473
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	1733	1488	1646	1683	1646	1473
Peak-hour factor, PHF	0.86	0.86	0.86	0.86	0.86	0.86
Adj. Flow (vph)	523	314	250	331	390	465
RTOR Reduction (vph)	0	78	0	0	0	328
Lane Group Flow (vph)	523	236	250	331	390	137
Heavy Vehicles (%)	1%	0%	1%	4%	1%	1%
Turn Type	NA	Perm	Prot	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases		2				8
Actuated Green, G (s)	23.2	23.2	15.1	43.3	20.8	20.8
Effective Green, g (s)	24.2	24.2	16.1	44.3	21.8	21.8
Actuated g/C Ratio	0.33	0.33	0.22	0.60	0.29	0.29
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0
Lane Grp Cap (vph)	565	485	357	1006	484	433
v/s Ratio Prot	c0.30		c0.15	0.20	c0.24	
v/s Ratio Perm		0.16				0.09
v/c Ratio	0.93	0.49	0.70	0.33	0.81	0.32
Uniform Delay, d1	24.1	20.0	26.8	7.5	24.2	20.3
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	21.2	0.8	6.1	0.2	9.5	0.4
Delay (s)	45.3	20.7	32.9	7.7	33.7	20.8
Level of Service	D	C	C	A	C	C
Approach Delay (s)	36.1			18.5	26.6	
Approach LOS	D			B	C	

Intersection Summary

HCM 2000 Control Delay	28.0	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.82		
Actuated Cycle Length (s)	74.1	Sum of lost time (s)	12.0
Intersection Capacity Utilization	68.8%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

10: NE Boyd Acres Rs/NE Boyd Acres Rd & NE Butler Market Rd/NE Butler Market Road 05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	545	5	10	460	130	10	10	5	155	10	305
Future Volume (vph)	225	545	5	10	460	130	10	10	5	155	10	305
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0	4.0		4.0			4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00			1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Frt	1.00	1.00		1.00	1.00	0.85		0.97			1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00	1.00		0.98			0.96	1.00
Satd. Flow (prot)	1630	1730		1662	1733	1430		1664			1626	1434
Flt Permitted	0.95	1.00		0.95	1.00	1.00		0.79			0.42	1.00
Satd. Flow (perm)	1630	1730		1662	1733	1430		1337			720	1434
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	245	592	5	11	500	141	11	11	5	168	11	332
RTOR Reduction (vph)	0	0	0	0	0	91	0	5	0	0	0	188
Lane Group Flow (vph)	245	597	0	11	500	50	0	22	0	0	179	144
Confl. Peds. (#/hr)			8	8			1		1	1		1
Confl. Bikes (#/hr)			5									6
Heavy Vehicles (%)	2%	1%	0%	0%	1%	4%	0%	0%	0%	3%	0%	2%
Turn Type	Prot	NA		Prot	NA	Perm	Perm	NA		Perm	NA	pm+ov
Protected Phases	5	2		1	6			8			4	5
Permitted Phases						6	8			4		4
Actuated Green, G (s)	16.1	49.4		0.9	34.2	34.2		4.4			25.1	41.2
Effective Green, g (s)	17.1	50.4		1.9	35.2	35.2		5.4			26.1	43.2
Actuated g/C Ratio	0.17	0.51		0.02	0.35	0.35		0.05			0.26	0.43
Clearance Time (s)	5.0	5.0		5.0	5.0	5.0		5.0			5.0	5.0
Vehicle Extension (s)	2.5	3.5		2.5	3.5	3.5		2.8			2.8	2.5
Lane Grp Cap (vph)	279	873		31	611	504		72			188	620
v/s Ratio Prot	c0.15	0.35		0.01	c0.29							0.04
v/s Ratio Perm						0.03		c0.02			c0.25	0.06
v/c Ratio	0.88	0.68		0.35	0.82	0.10		0.31			0.95	0.23
Uniform Delay, d1	40.3	18.7		48.3	29.4	21.7		45.4			36.2	17.8
Progression Factor	1.00	1.00		1.00	1.00	1.00		1.00			1.00	1.00
Incremental Delay, d2	25.1	2.3		5.0	8.6	0.1		2.2			51.6	0.1
Delay (s)	65.4	21.0		53.4	38.0	21.8		47.6			87.8	18.0
Level of Service	E	C		D	D	C		D			F	B
Approach Delay (s)		33.9			34.7			47.6			42.4	
Approach LOS		C			C			D			D	

Intersection Summary

HCM 2000 Control Delay	36.5	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	99.8	Sum of lost time (s)	16.0
Intersection Capacity Utilization	66.4%	ICU Level of Service	C
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

12: NE 27th St & NE Neff Rd

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (vph)	240	250	125	190	145	40	90	555	225	60	545	100
Future Volume (vph)	240	250	125	190	145	40	90	555	225	60	545	100
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	0.99		1.00	0.99		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.95		1.00	0.97		1.00	0.96		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	1616		1630	1684		1583	3095		1662	3172	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1630	1616		1630	1684		1583	3095		1662	3172	
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	264	275	137	209	159	44	99	610	247	66	599	110
RTOR Reduction (vph)	0	16	0	0	9	0	0	38	0	0	13	0
Lane Group Flow (vph)	264	396	0	209	194	0	99	819	0	66	696	0
Confl. Peds. (#/hr)	2		8	8		2	2					2
Confl. Bikes (#/hr)			4			1			2			1
Heavy Vehicles (%)	2%	2%	2%	2%	0%	0%	5%	3%	0%	0%	2%	2%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Actuated Green, G (s)	18.7	30.5		16.9	28.7		12.2	35.1		8.6	31.5	
Effective Green, g (s)	19.2	31.9		17.4	30.1		12.7	35.6		9.1	32.0	
Actuated g/C Ratio	0.17	0.29		0.16	0.27		0.12	0.32		0.08	0.29	
Clearance Time (s)	4.5	5.4		4.5	5.4		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	3.0	5.0		3.0	5.0		3.0	3.0		3.0	3.0	
Lane Grp Cap (vph)	284	468		257	460		182	1001		137	922	
v/s Ratio Prot	c0.16	c0.24		0.13	0.11		c0.06	c0.26		0.04	0.22	
v/s Ratio Perm												
v/c Ratio	0.93	0.85		0.81	0.42		0.54	0.82		0.48	0.75	
Uniform Delay, d1	44.7	36.7		44.7	32.8		45.9	34.2		48.2	35.4	
Progression Factor	1.00	1.00		1.00	1.00		0.92	0.79		1.00	1.00	
Incremental Delay, d2	34.8	16.9		17.6	2.8		2.2	3.6		2.7	3.5	
Delay (s)	79.5	53.7		62.3	35.6		44.3	30.8		50.9	39.0	
Level of Service	E	D		E	D		D	C		D	D	
Approach Delay (s)		63.8			49.1			32.2			40.0	
Approach LOS		E			D			C			D	

Intersection Summary

HCM 2000 Control Delay	44.4	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	76.2%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

13: US 20 & NE Olney Avenue

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (vph)	135	235	75	90	270	65	90	950	65	95	830	40
Future Volume (vph)	135	235	75	90	270	65	90	950	65	95	830	40
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.96		1.00	0.97		1.00	0.99		1.00	0.99	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1645	1677		1660	1693		1662	3194		1662	3201	
Flt Permitted	0.37	1.00		0.42	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	647	1677		726	1693		1662	3194		1662	3201	
Peak-hour factor, PHF	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	138	240	77	92	276	66	92	969	66	97	847	41
RTOR Reduction (vph)	0	7	0	0	6	0	0	3	0	0	2	0
Lane Group Flow (vph)	138	310	0	92	336	0	92	1032	0	97	886	0
Confl. Peds. (#/hr)	3		5	5		3	4		1	1		4
Confl. Bikes (#/hr)			2			4						2
Heavy Vehicles (%)	1%	0%	0%	0%	0%	0%	0%	3%	2%	0%	3%	3%
Turn Type	pm+pt	NA		pm+pt	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases	4			8								
Actuated Green, G (s)	65.7	56.1		64.3	55.4		9.7	55.2		9.8	55.3	
Effective Green, g (s)	67.7	57.1		66.3	56.4		10.7	56.2		10.8	56.3	
Actuated g/C Ratio	0.45	0.38		0.44	0.38		0.07	0.37		0.07	0.38	
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	4.8		2.5	4.8		2.5	4.8		2.5	4.8	
Lane Grp Cap (vph)	362	638		382	636		118	1196		119	1201	
v/s Ratio Prot	c0.03	0.18		0.02	c0.20		0.06	c0.32		c0.06	0.28	
v/s Ratio Perm	0.14			0.09								
v/c Ratio	0.38	0.49		0.24	0.53		0.78	0.86		0.82	0.74	
Uniform Delay, d1	26.0	35.3		25.6	36.5		68.5	43.3		68.6	40.5	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.5	2.6		0.2	3.1		26.1	8.3		32.5	4.1	
Delay (s)	26.5	37.9		25.8	39.6		94.6	51.7		101.1	44.5	
Level of Service	C	D		C	D		F	D		F	D	
Approach Delay (s)		34.4			36.7			55.2			50.1	
Approach LOS		C			D			E			D	























Intersection Summary

HCM 2000 Control Delay	47.7	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.68		
Actuated Cycle Length (s)	150.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	77.7%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis

15: NE 8th St & US 20

05/02/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations		 			 								
Traffic Volume (vph)	145	935	60	170	820	125	90	290	110	250	415	55	
Future Volume (vph)	145	935	60	170	820	125	90	290	110	250	415	55	
Ideal Flow (vphp)	1750	1850	1850	1750	1800	1800	1750	1750	1750	1850	1750	1750	
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00		
Frpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Frt	1.00	0.99		1.00	0.98		1.00	0.96		1.00	0.98		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1646	3376		1646	3279		1646	1659		1706	1670		
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1646	3376		1646	3279		1646	1659		1706	1670		
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	154	995	64	181	872	133	96	309	117	266	441	59	
RTOR Reduction (vph)	0	4	0	0	10	0	0	12	0	0	4	0	
Lane Group Flow (vph)	154	1055	0	181	995	0	96	414	0	266	496	0	
Confl. Peds. (#/hr)	2		5	5		2	7		2	2		7	
Confl. Bikes (#/hr)						1			1			3	
Heavy Vehicles (%)	1%	3%	2%	1%	2%	1%	1%	1%	0%	3%	3%	0%	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA		
Protected Phases	5	2		1	6		3	8		7	4		
Permitted Phases													
Actuated Green, G (s)	10.0	38.0		12.0	40.0		6.0	28.0		17.0	39.0		
Effective Green, g (s)	11.0	39.0		13.0	41.0		7.0	29.0		18.0	40.0		
Actuated g/C Ratio	0.10	0.34		0.11	0.36		0.06	0.25		0.16	0.35		
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		
Vehicle Extension (s)	2.5	4.7		2.4	4.7		2.5	2.5		2.5	2.5		
Lane Grp Cap (vph)	157	1144		186	1169		100	418		267	580		
v/s Ratio Prot	0.09	c0.31		c0.11	0.30		0.06	c0.25		c0.16	0.30		
v/s Ratio Perm													
v/c Ratio	0.98	0.92		0.97	0.85		0.96	0.99		1.00	0.86		
Uniform Delay, d1	51.9	36.5		50.8	34.2		53.9	42.9		48.5	34.8		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	65.8	12.5		57.7	6.6		76.1	41.4		53.7	11.7		
Delay (s)	117.7	49.1		108.5	40.8		129.9	84.2		102.2	46.5		
Level of Service	F	D		F	D		F	F		F	D		
Approach Delay (s)		57.8			51.1			92.6			65.8		
Approach LOS		E			D			F			E		
Intersection Summary													
HCM 2000 Control Delay			62.2									HCM 2000 Level of Service	E
HCM 2000 Volume to Capacity ratio			0.96										
Actuated Cycle Length (s)			115.0									Sum of lost time (s)	16.0
Intersection Capacity Utilization			90.2%									ICU Level of Service	E
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

16: NE 3rd St & US 20

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗		
Traffic Volume (vph)	205	685	155	240	495	225	150	645	195	290	620	85	
Future Volume (vph)	205	685	155	240	495	225	150	645	195	290	620	85	
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0		
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95		
Frpb, ped/bikes	1.00	1.00		1.00	0.99		1.00	0.99		1.00	1.00		
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Frt	1.00	0.97		1.00	0.95		1.00	0.97		1.00	0.98		
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (prot)	1599	3192		1646	3092		1646	3157		1583	3222		
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00		
Satd. Flow (perm)	1599	3192		1646	3092		1646	3157		1583	3222		
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	
Adj. Flow (vph)	214	714	161	250	516	234	156	672	203	302	646	89	
RTOR Reduction (vph)	0	12	0	0	32	0	0	17	0	0	6	0	
Lane Group Flow (vph)	214	863	0	250	718	0	156	858	0	302	729	0	
Confl. Peds. (#/hr)	2		1	1		2	6		7	7		6	
Confl. Bikes (#/hr)			2			1							
Heavy Vehicles (%)	4%	1%	1%	1%	1%	4%	1%	1%	1%	5%	1%	1%	
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA		
Protected Phases	7	4		3	8		1	6		5	2		
Permitted Phases													
Actuated Green, G (s)	24.2	40.0		24.6	40.4		19.4	43.0		31.1	54.7		
Effective Green, g (s)	25.2	41.0		25.6	41.4		20.4	44.0		32.1	55.7		
Actuated g/C Ratio	0.16	0.26		0.16	0.26		0.13	0.28		0.20	0.35		
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0		
Vehicle Extension (s)	2.5	4.3		2.5	4.3		2.5	4.3		2.5	4.3		
Lane Grp Cap (vph)	253	824		265	806		211	875		320	1130		
v/s Ratio Prot	0.13	c0.27		c0.15	0.23		0.09	c0.27		c0.19	0.23		
v/s Ratio Perm													
v/c Ratio	0.85	1.05		0.94	0.89		0.74	0.98		0.94	0.64		
Uniform Delay, d1	64.9	58.8		65.8	56.5		66.6	56.9		62.4	43.2		
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00		
Incremental Delay, d2	21.8	44.5		39.9	12.5		12.0	25.6		35.5	1.5		
Delay (s)	86.6	103.4		105.7	69.0		78.6	82.5		97.9	44.7		
Level of Service	F	F		F	E		E	F		F	D		
Approach Delay (s)		100.1			78.2			81.9			60.2		
Approach LOS		F			E			F			E		
Intersection Summary													
HCM 2000 Control Delay			80.4									HCM 2000 Level of Service	F
HCM 2000 Volume to Capacity ratio			0.98										
Actuated Cycle Length (s)			158.7									Sum of lost time (s)	16.0
Intersection Capacity Utilization			97.5%									ICU Level of Service	F
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

17: NW Wall St & NW Franklin Ave

05/02/2018





















Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↗		↖	↑						↙	↘
Traffic Volume (vph)	0	370	20	125	370	0	0	0	0	110	320	205
Future Volume (vph)	0	370	20	125	370	0	0	0	0	110	320	205
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0		4.0	4.0						4.0	4.0
Lane Util. Factor		1.00		1.00	1.00						0.95	1.00
Frt		0.99		1.00	1.00						1.00	0.85
Flt Protected		1.00		0.95	1.00						0.99	1.00
Satd. Flow (prot)		1738		1662	1750						3283	1488
Flt Permitted		1.00		0.23	1.00						0.99	1.00
Satd. Flow (perm)		1738		407	1750						3283	1488
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	0	425	23	144	425	0	0	0	0	126	368	236
RTOR Reduction (vph)	0	3	0	0	0	0	0	0	0	0	0	126
Lane Group Flow (vph)	0	445	0	144	425	0	0	0	0	0	494	110
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Turn Type		NA		pm+pt	NA					Perm	NA	Perm
Protected Phases		8		7	4						2	
Permitted Phases				4						2		2
Actuated Green, G (s)		22.4		37.4	37.4						32.6	32.6
Effective Green, g (s)		23.4		38.4	38.4						33.6	33.6
Actuated g/C Ratio		0.29		0.48	0.48						0.42	0.42
Clearance Time (s)		5.0		5.0	5.0						5.0	5.0
Vehicle Extension (s)		0.2		0.2	0.2						0.2	0.2
Lane Grp Cap (vph)		508		367	840						1378	624
v/s Ratio Prot		c0.26		0.05	c0.24							
v/s Ratio Perm				0.13							0.15	0.07
v/c Ratio		0.88		0.39	0.51						0.36	0.18
Uniform Delay, d1		26.9		23.7	14.3						15.8	14.5
Progression Factor		1.00		0.22	0.18						1.00	1.00
Incremental Delay, d2		15.1		0.1	0.1						0.7	0.6
Delay (s)		42.0		5.3	2.6						16.6	15.1
Level of Service		D		A	A						B	B
Approach Delay (s)		42.0			3.3			0.0			16.1	
Approach LOS		D			A			A			B	
Intersection Summary												
HCM 2000 Control Delay			18.6			HCM 2000 Level of Service				B		
HCM 2000 Volume to Capacity ratio			0.58									
Actuated Cycle Length (s)			80.0			Sum of lost time (s)			12.0			
Intersection Capacity Utilization			67.4%			ICU Level of Service				C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

18: NW Franklin Ave

05/02/2018

													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations													
Traffic Volume (vph)	195	360	0	0	465	100	80	450	200	0	0	0	
Future Volume (vph)	195	360	0	0	465	100	80	450	200	0	0	0	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)	4.0	4.0			4.0	4.0		4.0	4.0				
Lane Util. Factor	1.00	1.00			1.00	1.00		0.95	1.00				
Frbp, ped/bikes	1.00	1.00			1.00	0.96		1.00	0.93				
Flpb, ped/bikes	1.00	1.00			1.00	1.00		0.97	1.00				
Frt	1.00	1.00			1.00	0.85		1.00	0.85				
Flt Protected	0.95	1.00			1.00	1.00		0.99	1.00				
Satd. Flow (prot)	1661	1716			1733	1433		3202	1364				
Flt Permitted	0.20	1.00			1.00	1.00		0.99	1.00				
Satd. Flow (perm)	341	1716			1733	1433		3202	1364				
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	212	391	0	0	505	109	87	489	217	0	0	0	
RTOR Reduction (vph)	0	0	0	0	0	75	0	0	130	0	0	0	
Lane Group Flow (vph)	212	391	0	0	505	34	0	576	87	0	0	0	
Confl. Peds. (#/hr)	23		47	47		23	103		27	27		103	
Confl. Bikes (#/hr)			3			7			4				
Heavy Vehicles (%)	0%	2%	0%	0%	1%	0%	0%	0%	1%	0%	0%	0%	
Turn Type	pm+pt	NA			NA	Perm	Perm	NA	Perm				
Protected Phases	3	8			4			6					
Permitted Phases	8					4	6		6				
Actuated Green, G (s)	39.0	39.0			24.3	24.3		31.0	31.0				
Effective Green, g (s)	40.0	40.0			25.3	25.3		32.0	32.0				
Actuated g/C Ratio	0.50	0.50			0.32	0.32		0.40	0.40				
Clearance Time (s)	5.0	5.0			5.0	5.0		5.0	5.0				
Vehicle Extension (s)	0.2	0.2			0.2	0.2		0.2	0.2				
Lane Grp Cap (vph)	347	858			548	453		1280	545				
v/s Ratio Prot	c0.08	0.23			c0.29								
v/s Ratio Perm	0.22					0.02		0.18	0.06				
v/c Ratio	0.61	0.46			0.92	0.08		0.45	0.16				
Uniform Delay, d1	25.4	13.0			26.4	19.2		17.6	15.4				
Progression Factor	0.69	0.46			1.00	1.00		1.00	1.00				
Incremental Delay, d2	1.8	0.1			20.8	0.0		1.1	0.6				
Delay (s)	19.4	6.1			47.2	19.2		18.7	16.0				
Level of Service	B	A			D	B		B	B				
Approach Delay (s)		10.8			42.2			18.0			0.0		
Approach LOS		B			D			B			A		
Intersection Summary													
HCM 2000 Control Delay			23.2									HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio			0.66										
Actuated Cycle Length (s)			80.0									Sum of lost time (s)	12.0
Intersection Capacity Utilization			67.4%									ICU Level of Service	C
Analysis Period (min)			15										
c	Critical Lane Group												

HCM Signalized Intersection Capacity Analysis
 19: SE 15th St & US 20

05/02/2018



Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↵	↑↑	↵	↑
Traffic Volume (vph)	1250	175	230	1035	200	225
Future Volume (vph)	1250	175	230	1035	200	225
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (prot)	3260	1458	1662	3260	1646	1488
Flt Permitted	1.00	1.00	0.95	1.00	0.95	1.00
Satd. Flow (perm)	3260	1458	1662	3260	1646	1488
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1359	190	250	1125	217	245
RTOR Reduction (vph)	0	99	0	0	0	208
Lane Group Flow (vph)	1359	91	250	1125	217	37
Confl. Peds. (#/hr)					1	2
Heavy Vehicles (%)	2%	2%	0%	2%	1%	0%
Turn Type	NA	Perm	Prot	NA	Prot	Over
Protected Phases	2		1	6	8	1
Permitted Phases		2				
Actuated Green, G (s)	34.1	34.1	10.0	49.1	14.4	10.0
Effective Green, g (s)	35.1	35.1	11.0	50.1	15.4	11.0
Actuated g/C Ratio	0.48	0.48	0.15	0.68	0.21	0.15
Clearance Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Extension (s)	5.0	5.0	2.6	5.0	2.6	2.6
Lane Grp Cap (vph)	1556	696	248	2222	344	222
v/s Ratio Prot	c0.42		c0.15	0.35	c0.13	0.02
v/s Ratio Perm		0.06				
v/c Ratio	0.87	0.13	1.01	0.51	0.63	0.17
Uniform Delay, d1	17.2	10.7	31.2	5.7	26.5	27.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	6.2	0.2	59.2	0.4	3.4	0.3
Delay (s)	23.4	10.9	90.5	6.1	29.8	27.5
Level of Service	C	B	F	A	C	C
Approach Delay (s)	21.9			21.4	28.6	
Approach LOS	C			C	C	























Intersection Summary			
HCM 2000 Control Delay	22.6	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.84		
Actuated Cycle Length (s)	73.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	74.3%	ICU Level of Service	D
Analysis Period (min)	15		

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

21: NE 3rd St & NE Franklin Avenue

05/02/2018

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	225	415	135	210	410	70	150	640	150	95	735	105
Future Volume (vph)	225	415	135	210	410	70	150	640	150	95	735	105
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95		1.00	0.95		1.00	0.95	
Frpb, ped/bikes	1.00	1.00	0.96	1.00	1.00		1.00	0.99		1.00	1.00	
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	1.00	0.85	1.00	0.98		1.00	0.97		1.00	0.98	
Flt Protected	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1630	1733	1405	1614	3174		1646	3139		1630	3225	
Flt Permitted	0.95	1.00	1.00	0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1630	1733	1405	1614	3174		1646	3139		1630	3225	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	239	441	144	223	436	74	160	681	160	101	782	112
RTOR Reduction (vph)	0	0	109	0	11	0	0	17	0	0	9	0
Lane Group Flow (vph)	239	441	35	223	499	0	160	824	0	101	885	0
Confl. Peds. (#/hr)	7		13	13		7	8		14	14		8
Confl. Bikes (#/hr)			5			1			1			
Heavy Vehicles (%)	2%	1%	2%	3%	2%	3%	1%	2%	1%	2%	1%	0%
Turn Type	Prot	NA	Perm	Prot	NA		Prot	NA		Prot	NA	
Protected Phases	7	4		3	8		1	6		5	2	
Permitted Phases			4									
Actuated Green, G (s)	17.5	23.6	23.6	17.4	23.5		12.5	53.5		7.5	48.5	
Effective Green, g (s)	18.0	24.1	24.1	17.9	24.0		13.0	54.0		8.0	49.0	
Actuated g/C Ratio	0.15	0.20	0.20	0.15	0.20		0.11	0.45		0.07	0.41	
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5		4.5	4.5		4.5	4.5	
Vehicle Extension (s)	2.5	2.5	2.5	2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	244	348	282	240	634		178	1412		108	1316	
v/s Ratio Prot	c0.15	c0.25		0.14	0.16		c0.10	0.26		0.06	c0.27	
v/s Ratio Perm			0.03									
v/c Ratio	0.98	1.27	0.13	0.93	0.79		0.90	0.58		0.94	0.67	
Uniform Delay, d1	50.8	48.0	39.3	50.4	45.6		52.9	24.6		55.7	28.9	
Progression Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	51.2	141.2	0.1	38.7	6.2		39.5	1.8		65.7	2.8	
Delay (s)	102.0	189.1	39.5	89.2	51.8		92.4	26.4		121.4	31.7	
Level of Service	F	F	D	F	D		F	C		F	C	
Approach Delay (s)		137.7			63.1			36.9			40.8	
Approach LOS		F			E			D			D	
Intersection Summary												
HCM 2000 Control Delay			66.8				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			0.89									
Actuated Cycle Length (s)			120.0				Sum of lost time (s)			16.0		
Intersection Capacity Utilization			84.5%				ICU Level of Service			E		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

22: SE 27th St/NE 27th St & US 20

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	280	595	130	220	445	50	175	485	225	175	785	295
Future Volume (vph)	280	595	130	220	445	50	175	485	225	175	785	295
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	0.95		1.00	0.95	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	0.99
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.97		1.00	0.98		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1630	3142		1646	3175		1646	3117		1662	3292	1467
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1630	3142		1646	3175		1646	3117		1662	3292	1467
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	292	620	135	229	464	52	182	505	234	182	818	307
RTOR Reduction (vph)	0	18	0	0	8	0	0	47	0	0	0	0
Lane Group Flow (vph)	292	737	0	229	508	0	182	692	0	182	818	307
Confl. Peds. (#/hr)	8		5	5		8	7		5	5		7
Heavy Vehicles (%)	2%	3%	1%	1%	3%	2%	1%	1%	1%	0%	1%	0%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Free
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												Free
Actuated Green, G (s)	19.0	30.4		13.0	24.4		14.4	31.9		14.7	32.2	110.0
Effective Green, g (s)	20.0	31.4		14.0	25.4		15.4	32.9		15.7	33.2	110.0
Actuated g/C Ratio	0.18	0.29		0.13	0.23		0.14	0.30		0.14	0.30	1.00
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Vehicle Extension (s)	2.5	5.2		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	296	896		209	733		230	932		237	993	1467
v/s Ratio Prot	c0.18	c0.23		c0.14	0.16		c0.11	0.22		0.11	c0.25	
v/s Ratio Perm												c0.21
v/c Ratio	0.99	0.82		1.10	0.69		0.79	0.74		0.77	0.82	0.21
Uniform Delay, d1	44.9	36.7		48.0	38.7		45.7	34.7		45.4	35.7	0.0
Progression Factor	1.37	1.06		1.00	1.00		1.00	1.00		1.32	0.79	1.00
Incremental Delay, d2	35.3	4.0		90.2	2.6		16.3	5.3		11.4	6.6	0.3
Delay (s)	96.8	43.0		138.2	41.3		62.0	40.1		71.3	34.9	0.3
Level of Service	F	D		F	D		E	D		E	C	A
Approach Delay (s)		58.0			71.1			44.4			31.8	
Approach LOS		E			E			D			C	
Intersection Summary												
HCM 2000 Control Delay			48.8				HCM 2000 Level of Service				D	
HCM 2000 Volume to Capacity ratio			0.87									
Actuated Cycle Length (s)			110.0			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			83.1%			ICU Level of Service			E			
Analysis Period (min)			15									

c Critical Lane Group

HCM Signalized Intersection Capacity Analysis

23: Purcell Blvd & US 20

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↗		↖	↗	↖
Traffic Volume (vph)	275	995	100	95	885	55	110	170	75	95	265	250
Future Volume (vph)	275	995	100	95	885	55	110	170	75	95	265	250
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	0.95		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	0.99		1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.99		1.00	0.99		1.00	0.95		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1662	3166		1662	3229		1614	1642		1662	1716	1447
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1662	3166		1662	3229		1614	1642		1662	1716	1447
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	302	1093	110	104	973	60	121	187	82	104	291	275
RTOR Reduction (vph)	0	7	0	0	4	0	0	15	0	0	0	218
Lane Group Flow (vph)	302	1196	0	104	1029	0	121	254	0	104	291	57
Confl. Peds. (#/hr)	5		11	11		5	3		6	6		3
Confl. Bikes (#/hr)									3			1
Heavy Vehicles (%)	0%	3%	4%	0%	2%	0%	3%	1%	1%	0%	2%	1%
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	Perm
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												4
Actuated Green, G (s)	22.8	48.7		9.7	35.6		9.7	22.2		9.4	21.9	21.9
Effective Green, g (s)	23.8	49.7		10.7	36.6		10.7	23.2		10.4	22.9	22.9
Actuated g/C Ratio	0.22	0.45		0.10	0.33		0.10	0.21		0.09	0.21	0.21
Clearance Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Vehicle Extension (s)	2.5	5.2		2.5	5.2		2.5	2.5		2.5	2.5	2.5
Lane Grp Cap (vph)	359	1430		161	1074		156	346		157	357	301
v/s Ratio Prot	c0.18	0.38		0.06	c0.32		c0.07	0.15		0.06	c0.17	
v/s Ratio Perm												0.04
v/c Ratio	0.84	0.84		0.65	0.96		0.78	0.73		0.66	0.82	0.19
Uniform Delay, d1	41.3	26.6		47.8	35.9		48.5	40.5		48.1	41.5	35.9
Progression Factor	1.00	1.00		0.89	1.49		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	15.9	6.0		7.1	18.1		20.3	7.4		9.1	13.0	0.2
Delay (s)	57.2	32.5		49.7	71.5		68.8	47.9		57.2	54.6	36.1
Level of Service	E	C		D	E		E	D		E	D	D
Approach Delay (s)		37.5			69.5			54.4			47.4	
Approach LOS		D			E			D			D	

Intersection Summary

HCM 2000 Control Delay	50.9	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	0.87		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	16.0
Intersection Capacity Utilization	80.4%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			

HCM Signalized Intersection Capacity Analysis
 26: NW Wall St & Colorado Avenue WB

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	
Lane Configurations					↕↕						↕	↗	
Traffic Volume (vph)	0	0	0	130	620	0	0	0	0	0	440	130	
Future Volume (vph)	0	0	0	130	620	0	0	0	0	0	440	130	
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	
Total Lost time (s)					4.0						4.0	4.0	
Lane Util. Factor					0.95						1.00	1.00	
Frbp, ped/bikes					1.00						1.00	0.98	
Flpb, ped/bikes					1.00						1.00	1.00	
Frt					1.00						1.00	0.85	
Flt Protected					0.99						1.00	1.00	
Satd. Flow (prot)					3268						1750	1450	
Flt Permitted					0.99						1.00	1.00	
Satd. Flow (perm)					3268						1750	1450	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	
Adj. Flow (vph)	0	0	0	138	660	0	0	0	0	0	468	138	
RTOR Reduction (vph)	0	0	0	0	27	0	0	0	0	0	0	91	
Lane Group Flow (vph)	0	0	0	0	771	0	0	0	0	0	468	47	
Confl. Peds. (#/hr)	3		2	2		3	2		11	11		2	
Confl. Bikes (#/hr)						1						3	
Heavy Vehicles (%)	0%	0%	0%	0%	1%	0%	0%	0%	0%	0%	0%	1%	
Turn Type				Perm	NA						NA	Perm	
Protected Phases					6						4		
Permitted Phases				6								4	
Actuated Green, G (s)					28.5						18.5	18.5	
Effective Green, g (s)					29.0						19.0	19.0	
Actuated g/C Ratio					0.52						0.34	0.34	
Clearance Time (s)					4.5						4.5	4.5	
Vehicle Extension (s)					2.6						2.0	2.0	
Lane Grp Cap (vph)					1692						593	491	
v/s Ratio Prot											c0.27		
v/s Ratio Perm					0.24							0.03	
v/c Ratio					0.46						0.79	0.10	
Uniform Delay, d1					8.5						16.7	12.6	
Progression Factor					1.00						1.00	1.00	
Incremental Delay, d2					0.9						6.4	0.0	
Delay (s)					9.4						23.1	12.7	
Level of Service					A						C	B	
Approach Delay (s)		0.0			9.4			0.0			20.7		
Approach LOS		A			A			A			C		
Intersection Summary													
HCM 2000 Control Delay			14.3		HCM 2000 Level of Service						B		
HCM 2000 Volume to Capacity ratio			0.59										
Actuated Cycle Length (s)			56.0		Sum of lost time (s)					8.0			
Intersection Capacity Utilization			57.8%		ICU Level of Service					B			
Analysis Period (min)			15										
c Critical Lane Group													

HCM Signalized Intersection Capacity Analysis

27: SW Bond St & Colorado Avenue EB

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔↔						↔↔				
Traffic Volume (vph)	235	900	0	0	0	0	0	340	175	0	0	0
Future Volume (vph)	235	900	0	0	0	0	0	340	175	0	0	0
Ideal Flow (vphpl)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)		4.0						4.0				
Lane Util. Factor		0.95						0.95				
Frbp, ped/bikes		1.00						0.99				
Flpb, ped/bikes		1.00						1.00				
Frt		1.00						0.95				
Flt Protected		0.99						1.00				
Satd. Flow (prot)		3230						3107				
Flt Permitted		0.99						1.00				
Satd. Flow (perm)		3230						3107				
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	270	1034	0	0	0	0	0	391	201	0	0	0
RTOR Reduction (vph)	0	33	0	0	0	0	0	43	0	0	0	0
Lane Group Flow (vph)	0	1271	0	0	0	0	0	549	0	0	0	0
Confl. Peds. (#/hr)	5		7	7			5	10		4	4	10
Confl. Bikes (#/hr)			3							1		
Heavy Vehicles (%)	1%	2%	0%	0%	0%	0%	0%	1%	1%	0%	0%	0%
Turn Type	Perm	NA						NA				
Protected Phases		2						8				
Permitted Phases	2											
Actuated Green, G (s)		32.7						14.3				
Effective Green, g (s)		33.2						14.8				
Actuated g/C Ratio		0.59						0.26				
Clearance Time (s)		4.5						4.5				
Vehicle Extension (s)		2.6						2.0				
Lane Grp Cap (vph)		1914						821				
v/s Ratio Prot								c0.18				
v/s Ratio Perm		0.39										
v/c Ratio		0.66						0.67				
Uniform Delay, d1		7.7						18.4				
Progression Factor		1.00						1.00				
Incremental Delay, d2		1.8						1.6				
Delay (s)		9.5						20.0				
Level of Service		A						C				
Approach Delay (s)		9.5			0.0			20.0			0.0	
Approach LOS		A			A			C			A	
Intersection Summary												
HCM 2000 Control Delay			12.8					HCM 2000 Level of Service		B		
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			56.0					Sum of lost time (s)		8.0		
Intersection Capacity Utilization			60.8%					ICU Level of Service		B		
Analysis Period (min)			15									
c	Critical Lane Group											

HCM Signalized Intersection Capacity Analysis
 31: SE 3rd St & SE Wilson Avenue/SW Wilson Avenue

05/02/2018



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗		↖	↕		↖	↗	
Traffic Volume (vph)	175	260	50	110	265	50	120	545	55	145	735	115
Future Volume (vph)	175	260	50	110	265	50	120	545	55	145	735	115
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	
Lane Util. Factor	1.00	1.00		1.00	1.00		1.00	0.95		1.00	0.95	
Frbp, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	0.99	
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Frt	1.00	0.98		1.00	0.98		1.00	0.99		1.00	0.98	
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (prot)	1646	1656		1614	1676		1646	3231		1630	3204	
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	
Satd. Flow (perm)	1646	1656		1614	1676		1646	3231		1630	3204	
Peak-hour factor, PHF	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Adj. Flow (vph)	201	299	57	126	305	57	138	626	63	167	845	132
RTOR Reduction (vph)	0	5	0	0	6	0	0	6	0	0	9	0
Lane Group Flow (vph)	201	351	0	126	356	0	138	683	0	167	968	0
Confl. Peds. (#/hr)	3		1	1		3	10		1	1		10
Confl. Bikes (#/hr)			3									1
Heavy Vehicles (%)	1%	3%	2%	3%	2%	0%	1%	1%	4%	2%	1%	1%
Turn Type	Split	NA		Split	NA		Prot	NA		Prot	NA	
Protected Phases	4	4		8	8		1	6		5	2	
Permitted Phases												
Actuated Green, G (s)	28.0	28.0		25.1	25.1		14.8	34.0		16.3	35.5	
Effective Green, g (s)	29.0	29.0		26.1	26.1		15.3	35.0		16.8	36.5	
Actuated g/C Ratio	0.24	0.24		0.21	0.21		0.12	0.28		0.14	0.30	
Clearance Time (s)	5.0	5.0		5.0	5.0		4.5	5.0		4.5	5.0	
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	2.5		2.5	2.5	
Lane Grp Cap (vph)	388	390		342	355		204	920		222	951	
v/s Ratio Prot	0.12	c0.21		0.08	c0.21		0.08	0.21		c0.10	c0.30	
v/s Ratio Perm												
v/c Ratio	0.52	0.90		0.37	1.00		0.68	0.74		0.75	1.02	
Uniform Delay, d1	40.9	45.5		41.4	48.4		51.4	39.9		51.0	43.2	
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	
Incremental Delay, d2	0.9	22.6		0.5	48.8		7.8	3.1		12.8	33.7	
Delay (s)	41.7	68.1		41.8	97.2		59.2	43.0		63.9	76.9	
Level of Service	D	E		D	F		E	D		E	E	
Approach Delay (s)		58.6			82.9			45.7			75.0	
Approach LOS		E			F			D			E	
Intersection Summary												
HCM 2000 Control Delay			65.2				HCM 2000 Level of Service			E		
HCM 2000 Volume to Capacity ratio			0.95									
Actuated Cycle Length (s)			122.9			Sum of lost time (s)			16.0			
Intersection Capacity Utilization			75.9%			ICU Level of Service			D			
Analysis Period (min)			15									
c Critical Lane Group												

HCM Signalized Intersection Capacity Analysis

34: SE 27th St & SE Reed Market Rd

05/02/2018



Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	310	130	110	270	480	335
Future Volume (vph)	310	130	110	270	480	335
Ideal Flow (vphp)	1750	1750	1750	1750	1750	1750
Total Lost time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	0.98
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	1630	1473	1646	1716	1733	1439
Flt Permitted	0.95	1.00	0.24	1.00	1.00	1.00
Satd. Flow (perm)	1630	1473	418	1716	1733	1439
Peak-hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	337	141	120	293	522	364
RTOR Reduction (vph)	0	101	0	0	0	213
Lane Group Flow (vph)	337	40	120	293	522	151
Confl. Bikes (#/hr)						3
Heavy Vehicles (%)	2%	1%	1%	2%	1%	1%
Turn Type	Prot	Prot	pm+pt	NA	NA	Perm
Protected Phases	7	4	5	2	6	
Permitted Phases			2			6
Actuated Green, G (s)	14.4	14.4	29.6	29.6	21.5	21.5
Effective Green, g (s)	14.9	14.9	30.1	30.1	22.0	22.0
Actuated g/C Ratio	0.28	0.28	0.57	0.57	0.42	0.42
Clearance Time (s)	4.5	4.5	4.5	4.5	4.5	4.5
Vehicle Extension (s)	2.5	3.0	3.8	3.8	3.8	3.8
Lane Grp Cap (vph)	458	414	332	974	719	597
v/s Ratio Prot	c0.21	0.03	0.03	c0.17	c0.30	
v/s Ratio Perm			0.18			0.10
v/c Ratio	0.74	0.10	0.36	0.30	0.73	0.25
Uniform Delay, d1	17.3	14.1	7.1	6.0	13.0	10.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	5.7	0.1	0.9	0.2	3.9	0.3
Delay (s)	23.0	14.2	8.0	6.2	16.8	10.4
Level of Service	C	B	A	A	B	B
Approach Delay (s)	20.4			6.7	14.2	
Approach LOS	C			A	B	

Intersection Summary			
HCM 2000 Control Delay	14.1	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.70		
Actuated Cycle Length (s)	53.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	62.7%	ICU Level of Service	B
Analysis Period (min)	15		

c Critical Lane Group

HCM 6th TWSC
1: US 20 & O. B. Riley Rd

05/01/2018

Intersection												
Int Delay, s/veh	36											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗	↖	↕	↗
Traffic Vol, veh/h	30	55	30	70	20	30	35	695	240	50	890	50
Future Vol, veh/h	30	55	30	70	20	30	35	695	240	50	890	50
Conflicting Peds, #/hr	2	0	0	0	0	2	2	0	0	0	0	2
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	130	-	0	-	-	0	115	-	150	100	-	100
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	4	12	2	6	4	26	3	1	2	4	5
Mvmt Flow	32	58	32	74	21	32	37	732	253	53	937	53

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2006	2104	939	1921	1904	734	992	0	0	985	0	0
Stage 1	1045	1045	-	806	806	-	-	-	-	-	-	-
Stage 2	961	1059	-	1115	1098	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.54	6.32	7.12	6.56	6.24	4.36	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.54	-	6.12	5.56	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.54	-	6.12	5.56	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.036	3.408	3.518	4.054	3.336	2.434	-	-	2.218	-	-
Pot Cap-1 Maneuver	45	~ 51	307	~ 51	67	417	611	-	-	701	-	-
Stage 1	279	303	-	376	389	-	-	-	-	-	-	-
Stage 2	311	299	-	252	284	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	~ 27	~ 44	306	-	58	416	610	-	-	701	-	-
Mov Cap-2 Maneuver	~ 27	~ 44	-	-	58	-	-	-	-	-	-	-
Stage 1	262	279	-	353	365	-	-	-	-	-	-	-
Stage 2	254	281	-	166	262	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s\$	678.8		0.4	0.5
HCM LOS	F	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	610	-	-	36	306	-	416	701	-	-
HCM Lane V/C Ratio	0.06	-	-	2.485	0.103	-	0.076	0.075	-	-
HCM Control Delay (s)	11.3	-	-	\$ 912	18.1	-	14.4	10.6	-	-
HCM Lane LOS	B	-	-	F	C	-	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	10	0.3	-	0.2	0.2	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
2: US20 & Old Bend-Redmond Hwy

05/01/2018

Intersection												
Int Delay, s/veh	100.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗		↕	↗	↖	↕	↗	↖	↕	↗
Traffic Vol, veh/h	5	15	30	100	15	15	40	1090	330	10	980	5
Future Vol, veh/h	5	15	30	100	15	15	40	1090	330	10	980	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	2	2	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	50	300	-	300	200	-	300
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	0	0	0	1	0	0	3	3	2	0	4	25
Mvmt Flow	5	16	31	104	16	16	42	1135	344	10	1021	5

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	1701	2606	511	1760	2267	570	1026	0	0	1481	0	0
Stage 1	1041	1041	-	1221	1221	-	-	-	-	-	-	-
Stage 2	660	1565	-	539	1046	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.52	6.5	6.9	4.16	-	-	4.1	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.52	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.52	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.51	4	3.3	2.23	-	-	2.2	-	-
Pot Cap-1 Maneuver	61	25	513	~ 54	41	470	667	-	-	460	-	-
Stage 1	250	310	-	192	255	-	-	-	-	-	-	-
Stage 2	423	174	-	497	308	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	38	23	513	~ 22	38	469	667	-	-	459	-	-
Mov Cap-2 Maneuver	38	23	-	~ 22	38	-	-	-	-	-	-	-
Stage 1	234	303	-	180	238	-	-	-	-	-	-	-
Stage 2	358	163	-	433	301	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB		
HCM Control Delay, s	138.1		\$ 1976.3		0.3			0.1		
HCM LOS	F		F							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	667	-	-	26	513	23	469	459	-	-
HCM Lane V/C Ratio	0.062	-	-	0.801	0.061	5.208	0.033	0.023	-	-
HCM Control Delay (s)	10.8	-	-	\$ 326.6	12.5	\$ 2232.4	12.9	13	-	-
HCM Lane LOS	B	-	-	F	B	F	B	B	-	-
HCM 95th %tile Q(veh)	0.2	-	-	2.5	0.2	15.1	0.1	0.1	-	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
3: US20 & Cooley Rd

05/01/2018

Intersection												
Int Delay, s/veh	0.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↗	↖	↗	↖	↗	↖	↗
Traffic Vol, veh/h	5	15	10	5	15	110	15	1425	70	65	1075	5
Future Vol, veh/h	5	15	10	5	15	110	15	1425	70	65	1075	5
Conflicting Peds, #/hr	1	0	1	1	0	1	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	100	-	0	170	-	100	200	-	50
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	0	0	0	0	0	3	0	3	5	2	3	0
Mvmt Flow	5	16	11	5	16	121	16	1566	77	71	1181	5

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	2147	2998	1182	2938	2926	784	1186	0	0	1643	0	0
Stage 1	1323	1323	-	1598	1598	-	-	-	-	-	-	-
Stage 2	824	1675	-	1340	1328	-	-	-	-	-	-	-
Critical Hdwy	7.3	6.5	6.2	7.3	6.5	6.945	4.1	-	-	4.13	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.3	3.285	2.2	-	-	2.219	-	-
Pot Cap-1 Maneuver	32	~ 14	233	8	~ 15	335	596	-	-	392	-	-
Stage 1	194	228	-	113	167	-	-	-	-	-	-	-
Stage 2	338	153	-	190	226	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	-	~ 11	233	-	~ 12	335	596	-	-	392	-	-
Mov Cap-2 Maneuver	-	~ 11	-	-	~ 12	-	-	-	-	-	-	-
Stage 1	189	187	-	110	162	-	-	-	-	-	-	-
Stage 2	189	149	-	135	185	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s			0.1	0.9
HCM LOS	-	-		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	WBLn2	SBL	SBT	SBR
Capacity (veh/h)	596	-	-	-	-	-	335	392	-
HCM Lane V/C Ratio	0.028	-	-	-	-	-	0.361	0.182	-
HCM Control Delay (s)	11.2	-	-	-	-	-	21.7	16.2	-
HCM Lane LOS	B	-	-	-	-	-	C	C	-
HCM 95th %tile Q(veh)	0.1	-	-	-	-	-	1.6	0.7	-

Notes
 -: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM 6th TWSC
6: O. B. Riley Rd & Archie Briggs Rd

05/01/2018

Intersection						
Int Delay, s/veh	5.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	T		T		T	
Traffic Vol, veh/h	145	45	45	125	205	45
Future Vol, veh/h	145	45	45	125	205	45
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	1	0	0	0	2	0
Mvmt Flow	163	51	51	140	230	51

Major/Minor	Minor2	Major1		Major2	
Conflicting Flow All	498	256	281	0	0
Stage 1	256	-	-	-	-
Stage 2	242	-	-	-	-
Critical Hdwy	6.41	6.2	4.1	-	-
Critical Hdwy Stg 1	5.41	-	-	-	-
Critical Hdwy Stg 2	5.41	-	-	-	-
Follow-up Hdwy	3.509	3.3	2.2	-	-
Pot Cap-1 Maneuver	534	788	1293	-	-
Stage 1	789	-	-	-	-
Stage 2	801	-	-	-	-
Platoon blocked, %				-	-
Mov Cap-1 Maneuver	511	788	1293	-	-
Mov Cap-2 Maneuver	511	-	-	-	-
Stage 1	755	-	-	-	-
Stage 2	801	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	15.4	2.1	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1293	-	557	-	-
HCM Lane V/C Ratio	0.039	-	0.383	-	-
HCM Control Delay (s)	7.9	0	15.4	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.1	-	1.8	-	-

Intersection						
Int Delay, s/veh	24.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	435	340	235	75	40	265
Future Vol, veh/h	435	340	235	75	40	265
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	90	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	1	1	2	4	3	2
Mvmt Flow	478	374	258	82	44	291

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	340	0	-	0	1629 301
Stage 1	-	-	-	-	299 -
Stage 2	-	-	-	-	1330 -
Critical Hdwy	4.11	-	-	-	6.43 6.22
Critical Hdwy Stg 1	-	-	-	-	5.43 -
Critical Hdwy Stg 2	-	-	-	-	5.43 -
Follow-up Hdwy	2.209	-	-	-	3.527 3.318
Pot Cap-1 Maneuver	1225	-	-	-	111 739
Stage 1	-	-	-	-	750 -
Stage 2	-	-	-	-	246 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1225	-	-	-	68 738
Mov Cap-2 Maneuver	-	-	-	-	68 -
Stage 1	-	-	-	-	458 -
Stage 2	-	-	-	-	246 -

Approach	EB	WB	SB
HCM Control Delay, s	5.5	0	98.3
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1225	-	-	-	322
HCM Lane V/C Ratio	0.39	-	-	-	1.041
HCM Control Delay (s)	9.8	-	-	-	98.3
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	1.9	-	-	-	12.1

HCM 6th TWSC
 9: NE 27th St/NE 27th Street & Well Acres Rd

05/01/2018

Intersection												
Int Delay, s/veh	9.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↕		↕		↕	↕		↕	↕	
Traffic Vol, veh/h	15	15	175	10	10	25	140	785	30	40	495	30
Future Vol, veh/h	15	15	175	10	10	25	140	785	30	40	495	30
Conflicting Peds, #/hr	0	0	0	0	0	0	1	0	0	0	0	1
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	25	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	7	0	1	0	0	5	1	1	4	0	1	0
Mvmt Flow	16	16	192	11	11	27	154	863	33	44	544	33

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1857	1854	562	1941	1854	880	578	0	0	896	0	0
Stage 1	650	650	-	1188	1188	-	-	-	-	-	-	-
Stage 2	1207	1204	-	753	666	-	-	-	-	-	-	-
Critical Hdwy	7.17	6.5	6.21	7.1	6.5	6.25	4.11	-	-	4.1	-	-
Critical Hdwy Stg 1	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.17	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.563	4	3.309	3.5	4	3.345	2.209	-	-	2.2	-	-
Pot Cap-1 Maneuver	55	75	528	50	75	342	1001	-	-	766	-	-
Stage 1	450	468	-	232	264	-	-	-	-	-	-	-
Stage 2	219	259	-	405	460	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	37	60	528	21	60	342	1000	-	-	766	-	-
Mov Cap-2 Maneuver	37	60	-	21	60	-	-	-	-	-	-	-
Stage 1	380	441	-	196	223	-	-	-	-	-	-	-
Stage 2	162	219	-	234	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	41.3		163.8		1.4		0.7	
HCM LOS	E		F					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	EBLn2	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1000	-	-	46	528	63	766	-	-
HCM Lane V/C Ratio	0.154	-	-	0.717	0.364	0.785	0.057	-	-
HCM Control Delay (s)	9.3	-	-	190.7	15.7	163.8	10	-	-
HCM Lane LOS	A	-	-	F	C	F	A	-	-
HCM 95th %tile Q(veh)	0.5	-	-	2.8	1.7	3.5	0.2	-	-

HCM 6th TWSC
20: Hamby Rd & US 20

05/01/2018

Intersection												
Int Delay, s/veh	37.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↗			↕			↕	
Traffic Vol, veh/h	130	480	60	85	475	45	15	60	40	15	65	80
Future Vol, veh/h	130	480	60	85	475	45	15	60	40	15	65	80
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Free	-	-	None	-	-	None	-	-	None
Storage Length	100	-	75	80	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	0	5	2	3	4	10	0	0	3	9	3	0
Mvmt Flow	134	495	62	88	490	46	15	62	41	15	67	82

Major/Minor	Major1		Major2		Minor1			Minor2				
Conflicting Flow All	536	0	-	495	0	0	1527	1475	495	1504	1452	513
Stage 1	-	-	-	-	-	-	763	763	-	689	689	-
Stage 2	-	-	-	-	-	-	764	712	-	815	763	-
Critical Hdwy	4.1	-	-	4.13	-	-	7.1	6.5	6.23	7.19	6.53	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.19	5.53	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.19	5.53	-
Follow-up Hdwy	2.2	-	-	2.227	-	-	3.5	4	3.327	3.581	4.027	3.3
Pot Cap-1 Maneuver	1042	-	0	1064	-	-	97	128	573	96	130	565
Stage 1	-	-	0	-	-	-	400	416	-	425	445	-
Stage 2	-	-	0	-	-	-	399	439	-	361	412	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1042	-	-	1064	-	-	35	102	573	40	104	565
Mov Cap-2 Maneuver	-	-	-	-	-	-	35	102	-	40	104	-
Stage 1	-	-	-	-	-	-	348	362	-	370	408	-
Stage 2	-	-	-	-	-	-	261	403	-	242	359	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	1.9		1.2		199		194.3	
HCM LOS					F		F	

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	106	1042	-	1064	-	-	140
HCM Lane V/C Ratio	1.118	0.129	-	0.082	-	-	1.178
HCM Control Delay (s)	199	9	-	8.7	-	-	194.3
HCM Lane LOS	F	A	-	A	-	-	F
HCM 95th %tile Q(veh)	7.5	0.4	-	0.3	-	-	9.6

HCM 6th TWSC
 36: SE Reed Market Rd & 9th Street

05/01/2018

Intersection						
Int Delay, s/veh	6.4					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑↑	↗		↘	↗
Traffic Vol, veh/h	140	985	805	40	20	245
Future Vol, veh/h	140	985	805	40	20	245
Conflicting Peds, #/hr	0	0	0	0	0	2
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	-	110	0
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	3	0	1	5	0	0
Mvmt Flow	152	1071	875	43	22	266

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	918	0	-	0	1737 899
Stage 1	-	-	-	-	897 -
Stage 2	-	-	-	-	840 -
Critical Hdwy	4.145	-	-	-	6.6 6.2
Critical Hdwy Stg 1	-	-	-	-	5.4 -
Critical Hdwy Stg 2	-	-	-	-	5.8 -
Follow-up Hdwy	2.2285	-	-	-	3.5 3.3
Pot Cap-1 Maneuver	736	-	-	-	88 340
Stage 1	-	-	-	-	401 -
Stage 2	-	-	-	-	389 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	736	-	-	-	70 339
Mov Cap-2 Maneuver	-	-	-	-	70 -
Stage 1	-	-	-	-	318 -
Stage 2	-	-	-	-	389 -

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	47.9
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	736	-	-	-	70	339
HCM Lane V/C Ratio	0.207	-	-	-	0.311	0.786
HCM Control Delay (s)	11.2	-	-	-	78.1	45.4
HCM Lane LOS	B	-	-	-	F	E
HCM 95th %tile Q(veh)	0.8	-	-	-	1.1	6.4

HCM 6th TWSC
37: Parrell Road & Brosterhous Road

05/01/2018

Intersection						
Int Delay, s/veh	7.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	335	120	115	190	90	130
Future Vol, veh/h	335	120	115	190	90	130
Conflicting Peds, #/hr	0	0	0	0	2	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	1	0	1	1	0	1
Mvmt Flow	372	133	128	211	100	144

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	505	0	908
Stage 1	-	-	-	-	439
Stage 2	-	-	-	-	469
Critical Hdwy	-	-	4.11	-	6.4
Critical Hdwy Stg 1	-	-	-	-	5.4
Critical Hdwy Stg 2	-	-	-	-	5.4
Follow-up Hdwy	-	-	2.209	-	3.5
Pot Cap-1 Maneuver	-	-	1065	-	308
Stage 1	-	-	-	-	654
Stage 2	-	-	-	-	634
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1065	-	265
Mov Cap-2 Maneuver	-	-	-	-	265
Stage 1	-	-	-	-	565
Stage 2	-	-	-	-	633

Approach	EB	WB	NB
HCM Control Delay, s	0	3.3	27
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	401	-	-	1065	-
HCM Lane V/C Ratio	0.61	-	-	0.12	-
HCM Control Delay (s)	27	-	-	8.8	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	3.9	-	-	0.4	-

HCM 6th TWSC
38: SE 27th St & Ferguson Road

05/01/2018

Intersection												
Int Delay, s/veh	2.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	↕
Traffic Vol, veh/h	40	5	65	0	0	5	50	295	0	0	475	55
Future Vol, veh/h	40	5	65	0	0	5	50	295	0	0	475	55
Conflicting Peds, #/hr	2	0	0	0	0	2	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	60	-	-	-	-	90
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	3	0	0	0	0	0	2	1	0	0	2	2
Mvmt Flow	44	6	72	0	0	6	56	328	0	0	528	61

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	973	968	528	1038	1029	330	589	0	0	328	0	0
Stage 1	528	528	-	440	440	-	-	-	-	-	-	-
Stage 2	445	440	-	598	589	-	-	-	-	-	-	-
Critical Hdwy	7.13	6.5	6.2	7.1	6.5	6.2	4.12	-	-	4.1	-	-
Critical Hdwy Stg 1	6.13	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.13	5.5	-	6.1	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.527	4	3.3	3.5	4	3.3	2.218	-	-	2.2	-	-
Pot Cap-1 Maneuver	230	256	554	211	236	716	986	-	-	1243	-	-
Stage 1	532	531	-	600	581	-	-	-	-	-	-	-
Stage 2	590	581	-	492	499	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	218	241	554	172	223	715	986	-	-	1243	-	-
Mov Cap-2 Maneuver	218	241	-	172	223	-	-	-	-	-	-	-
Stage 1	502	531	-	566	548	-	-	-	-	-	-	-
Stage 2	551	548	-	423	499	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB			
HCM Control Delay, s	21.3		10.1		1.3		0			
HCM LOS	C		B							

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	986	-	-	342	715	1243	-
HCM Lane V/C Ratio	0.056	-	-	0.357	0.008	-	-
HCM Control Delay (s)	8.9	-	-	21.3	10.1	0	-
HCM Lane LOS	A	-	-	C	B	A	-
HCM 95th %tile Q(veh)	0.2	-	-	1.6	0	0	-

HCM 6th TWSC
39: 15th Street & Knott Road

05/01/2018

Intersection												
Int Delay, s/veh	6.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗			↕			↕	
Traffic Vol, veh/h	180	190	10	5	420	15	10	5	5	10	15	215
Future Vol, veh/h	180	190	10	5	420	15	10	5	5	10	15	215
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	60	-	-	130	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94	94	94	94	94	94	94
Heavy Vehicles, %	4	11	0	0	6	0	0	0	50	0	27	2
Mvmt Flow	191	202	11	5	447	16	11	5	5	11	16	229

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	463	0	0	213	0	0	1178	1063	208	1060	1060	455
Stage 1	-	-	-	-	-	-	590	590	-	465	465	-
Stage 2	-	-	-	-	-	-	588	473	-	595	595	-
Critical Hdwy	4.14	-	-	4.1	-	-	7.1	6.5	6.7	7.1	6.77	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.77	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.77	-
Follow-up Hdwy	2.236	-	-	2.2	-	-	3.5	4	3.75	3.5	4.243	3.318
Pot Cap-1 Maneuver	1088	-	-	1369	-	-	169	225	725	204	202	605
Stage 1	-	-	-	-	-	-	497	498	-	581	523	-
Stage 2	-	-	-	-	-	-	499	562	-	494	455	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1088	-	-	1369	-	-	84	185	725	171	166	605
Mov Cap-2 Maneuver	-	-	-	-	-	-	84	185	-	171	166	-
Stage 1	-	-	-	-	-	-	410	410	-	479	521	-
Stage 2	-	-	-	-	-	-	300	560	-	399	375	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	4.3			0.1			37.7			21		
HCM LOS							E			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	131	1088	-	-	1369	-	-	476
HCM Lane V/C Ratio	0.162	0.176	-	-	0.004	-	-	0.536
HCM Control Delay (s)	37.7	9	-	-	7.6	-	-	21
HCM Lane LOS	E	A	-	-	A	-	-	C
HCM 95th %tile Q(veh)	0.6	0.6	-	-	0	-	-	3.1

HCM 6th TWSC
40: China Hat Road & Knott Road

05/01/2018

Intersection												
Int Delay, s/veh	4.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	265	25	20	455	90	15	30	15	65	20	15
Future Vol, veh/h	10	265	25	20	455	90	15	30	15	65	20	15
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	0	4	0	0	1	1	0	0	0	0	12	0
Mvmt Flow	11	294	28	22	506	100	17	33	17	72	22	17

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	606	0	0	322	0	0	950	980	308	955	944	556
Stage 1	-	-	-	-	-	-	330	330	-	600	600	-
Stage 2	-	-	-	-	-	-	620	650	-	355	344	-
Critical Hdwy	4.1	-	-	4.1	-	-	7.1	6.5	6.2	7.1	6.62	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.62	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.62	-
Follow-up Hdwy	2.2	-	-	2.2	-	-	3.5	4	3.3	3.5	4.108	3.3
Pot Cap-1 Maneuver	982	-	-	1249	-	-	242	252	737	240	252	534
Stage 1	-	-	-	-	-	-	687	649	-	491	474	-
Stage 2	-	-	-	-	-	-	479	468	-	666	619	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	982	-	-	1249	-	-	211	242	737	204	242	534
Mov Cap-2 Maneuver	-	-	-	-	-	-	211	242	-	204	242	-
Stage 1	-	-	-	-	-	-	677	640	-	484	461	-
Stage 2	-	-	-	-	-	-	430	455	-	608	610	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.3			0.3			21.9			33.8		
HCM LOS							C			D		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	279	982	-	-	1249	-	-	233
HCM Lane V/C Ratio	0.239	0.011	-	-	0.018	-	-	0.477
HCM Control Delay (s)	21.9	8.7	0	-	7.9	0	-	33.8
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	0.9	0	-	-	0.1	-	-	2.4

HCM 6th Roundabout
5: NE 18th St & Empire Avenue

05/01/2018

Intersection						
Intersection Delay, s/veh	12.3					
Intersection LOS	B					
Approach	EB		WB		NB	SB
Entry Lanes	2		1		1	1
Conflicting Circle Lanes	1		1		1	1
Adj Approach Flow, veh/h	640		674		282	477
Demand Flow Rate, veh/h	641		678		282	479
Vehicles Circulating, veh/h	406		395		753	510
Vehicles Exiting, veh/h	482		640		294	563
Ped Vol Crossing Leg, #/h	1		3		7	1
Ped Cap Adj	0.999		1.000		0.999	1.000
Approach Delay, s/veh	8.8		17.7		12.2	9.4
Approach LOS	A		C		B	A
Lane	Left	Right	Left	Left	Left	Bypass
Designated Moves	L	TR	LTR	LTR	LT	R
Assumed Moves	L	TR	LTR	LTR	LT	R
RT Channelized						Yield
Lane Util	0.229	0.771	1.000	1.000	1.000	
Follow-Up Headway, s	2.535	2.535	2.609	2.609	2.609	
Critical Headway, s	4.544	4.544	4.976	4.976	4.976	101
Entry Flow, veh/h	147	494	678	282	378	844
Cap Entry Lane, veh/h	981	981	922	640	820	1.000
Entry HV Adj Factor	0.993	1.000	0.994	1.000	0.995	101
Flow Entry, veh/h	146	494	674	282	376	844
Cap Entry, veh/h	974	981	917	640	816	0.120
V/C Ratio	0.150	0.504	0.735	0.441	0.461	5.4
Control Delay, s/veh	5.1	9.9	17.7	12.2	10.4	A
LOS	A	A	C	B	B	0
95th %tile Queue, veh	1	3	7	2	2	

HCM 6th Roundabout
 11: Mt. Washington Dr & Shevlin Park Rd

05/01/2018

Intersection				
Intersection Delay, s/veh	10.7			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	309	404	542	442
Demand Flow Rate, veh/h	319	418	567	452
Vehicles Circulating, veh/h	482	504	292	438
Vehicles Exiting, veh/h	408	355	509	484
Ped Vol Crossing Leg, #/h	0	0	0	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	8.9	11.6	10.9	11.0
Approach LOS	A	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	319	418	567	452
Cap Entry Lane, veh/h	844	825	1024	883
Entry HV Adj Factor	0.969	0.966	0.956	0.979
Flow Entry, veh/h	309	404	542	442
Cap Entry, veh/h	818	798	979	864
V/C Ratio	0.378	0.507	0.553	0.512
Control Delay, s/veh	8.9	11.6	10.9	11.0
LOS	A	B	B	B
95th %tile Queue, veh	2	3	3	3

HCM 6th Roundabout
 14: NW 14th St/14th Street & Newport Ave

05/01/2018

Intersection				
Intersection Delay, s/veh	23.0			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	802	791	634	21
Demand Flow Rate, veh/h	825	804	647	21
Vehicles Circulating, veh/h	293	320	572	1100
Vehicles Exiting, veh/h	828	899	546	24
Ped Vol Crossing Leg, #/h	1	0	0	4
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	20.7	21.1	28.7	8.6
Approach LOS	C	C	D	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	825	804	647	21
Cap Entry Lane, veh/h	1023	996	770	449
Entry HV Adj Factor	0.972	0.984	0.980	1.000
Flow Entry, veh/h	802	791	634	21
Cap Entry, veh/h	995	979	755	449
V/C Ratio	0.806	0.808	0.840	0.047
Control Delay, s/veh	20.7	21.1	28.7	8.6
LOS	C	C	D	A
95th %tile Queue, veh	9	9	10	0

HCM 6th Roundabout
 24: NW 14th St & Galveston Avenue

05/01/2018

Intersection				
Intersection Delay, s/veh	24.7			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	414	601	744	558
Demand Flow Rate, veh/h	418	607	754	564
Vehicles Circulating, veh/h	709	652	413	611
Vehicles Exiting, veh/h	466	515	714	648
Ped Vol Crossing Leg, #/h	8	0	0	5
Ped Cap Adj	0.999	1.000	1.000	0.999
Approach Delay, s/veh	17.2	31.9	24.7	22.7
Approach LOS	C	D	C	C
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	418	607	754	564
Cap Entry Lane, veh/h	670	710	906	740
Entry HV Adj Factor	0.990	0.991	0.986	0.990
Flow Entry, veh/h	414	601	744	558
Cap Entry, veh/h	662	703	893	732
V/C Ratio	0.625	0.855	0.833	0.763
Control Delay, s/veh	17.2	31.9	24.7	22.7
LOS	C	D	C	C
95th %tile Queue, veh	4	10	10	7

HCM 6th Roundabout
 25: Mt. Washington Dr & Skyliners Rd

05/01/2018

Intersection				
Intersection Delay, s/veh	12.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	278	250	653	614
Demand Flow Rate, veh/h	287	256	667	631
Vehicles Circulating, veh/h	637	665	336	271
Vehicles Exiting, veh/h	265	338	587	650
Ped Vol Crossing Leg, #/h	0	1	2	6
Ped Cap Adj	1.000	1.000	1.000	0.999
Approach Delay, s/veh	10.5	10.1	14.8	11.8
Approach LOS	B	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	287	256	667	631
Cap Entry Lane, veh/h	721	700	980	1047
Entry HV Adj Factor	0.969	0.976	0.979	0.973
Flow Entry, veh/h	278	250	653	614
Cap Entry, veh/h	698	684	958	1018
V/C Ratio	0.398	0.366	0.681	0.603
Control Delay, s/veh	10.5	10.1	14.8	11.8
LOS	B	B	B	B
95th %tile Queue, veh	2	2	6	4

HCM 6th Roundabout
28: Colorado Ave & Simpson Ave

05/01/2018

Intersection				
Intersection Delay, s/veh	11.1			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	567	106	456	716
Demand Flow Rate, veh/h	572	111	462	720
Vehicles Circulating, veh/h	293	950	578	64
Vehicles Exiting, veh/h	491	90	287	997
Ped Vol Crossing Leg, #/h	13	2	11	5
Ped Cap Adj	0.998	1.000	0.998	0.999
Approach Delay, s/veh	10.8	10.2	14.8	9.1
Approach LOS	B	B	B	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	572	111	462	720
Cap Entry Lane, veh/h	1023	524	765	1293
Entry HV Adj Factor	0.991	0.955	0.986	0.995
Flow Entry, veh/h	567	106	456	716
Cap Entry, veh/h	1013	500	754	1285
V/C Ratio	0.560	0.212	0.605	0.557
Control Delay, s/veh	10.8	10.2	14.8	9.1
LOS	B	B	B	A
95th %tile Queue, veh	4	1	4	4

HCM 6th Roundabout
 29: Century Drive/SW 14th St & Simpson Ave

05/01/2018

Intersection				
Intersection Delay, s/veh	15.5			
Intersection LOS	C			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	340	443	593	623
Demand Flow Rate, veh/h	348	454	598	636
Vehicles Circulating, veh/h	594	605	535	306
Vehicles Exiting, veh/h	348	528	407	753
Ped Vol Crossing Leg, #/h	13	5	25	9
Ped Cap Adj	0.998	0.999	0.997	0.999
Approach Delay, s/veh	11.4	15.5	20.6	12.8
Approach LOS	B	C	C	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	348	454	598	636
Cap Entry Lane, veh/h	753	744	800	1010
Entry HV Adj Factor	0.976	0.976	0.992	0.979
Flow Entry, veh/h	340	443	593	623
Cap Entry, veh/h	734	726	791	988
V/C Ratio	0.463	0.610	0.750	0.631
Control Delay, s/veh	11.4	15.5	20.6	12.8
LOS	B	C	C	B
95th %tile Queue, veh	2	4	7	5

HCM 6th Roundabout
30: Mt. Washington Dr & Simpson Ave

05/01/2018

Intersection				
Intersection Delay, s/veh	10.4			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	90	385	512	651
Demand Flow Rate, veh/h	91	398	527	683
Vehicles Circulating, veh/h	743	464	300	181
Vehicles Exiting, veh/h	121	363	534	681
Ped Vol Crossing Leg, #/h	0	2	3	0
Ped Cap Adj	1.000	1.000	1.000	1.000
Approach Delay, s/veh	7.3	10.3	10.1	11.0
Approach LOS	A	B	B	B
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	91	398	527	683
Cap Entry Lane, veh/h	647	860	1016	1147
Entry HV Adj Factor	0.989	0.967	0.972	0.952
Flow Entry, veh/h	90	385	512	651
Cap Entry, veh/h	640	831	987	1093
V/C Ratio	0.141	0.463	0.519	0.595
Control Delay, s/veh	7.3	10.3	10.1	11.0
LOS	A	B	B	B
95th %tile Queue, veh	0	2	3	4

HCM 6th Roundabout
32: Century Drive & Colorado Avenue

05/01/2018

Intersection				
Intersection Delay, s/veh	9.4			
Intersection LOS	A			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	242	406	542	416
Demand Flow Rate, veh/h	244	407	545	421
Vehicles Circulating, veh/h	600	444	257	353
Vehicles Exiting, veh/h	174	358	587	498
Ped Vol Crossing Leg, #/h	11	9	8	6
Ped Cap Adj	0.998	0.999	0.999	0.999
Approach Delay, s/veh	8.8	10.0	9.5	8.9
Approach LOS	A	A	A	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	244	407	545	421
Cap Entry Lane, veh/h	748	877	1062	963
Entry HV Adj Factor	0.992	0.998	0.994	0.988
Flow Entry, veh/h	242	406	542	416
Cap Entry, veh/h	741	874	1055	950
V/C Ratio	0.327	0.464	0.514	0.438
Control Delay, s/veh	8.8	10.0	9.5	8.9
LOS	A	A	A	A
95th %tile Queue, veh	1	2	3	2

HCM 6th Roundabout
33: Century Drive & Washington Drive

05/01/2018

Intersection				
Intersection Delay, s/veh	13.7			
Intersection LOS	B			
Approach	EB	WB	NB	SB
Entry Lanes	1	1	1	1
Conflicting Circle Lanes	1	1	1	1
Adj Approach Flow, veh/h	581	408	479	369
Demand Flow Rate, veh/h	595	424	497	374
Vehicles Circulating, veh/h	413	475	593	473
Vehicles Exiting, veh/h	434	615	415	426
Ped Vol Crossing Leg, #/h	12	6	0	2
Ped Cap Adj	0.998	0.999	1.000	1.000
Approach Delay, s/veh	14.8	11.2	17.3	9.8
Approach LOS	B	B	C	A
Lane	Left	Left	Left	Left
Designated Moves	LTR	LTR	LTR	LTR
Assumed Moves	LTR	LTR	LTR	LTR
RT Channelized				
Lane Util	1.000	1.000	1.000	1.000
Follow-Up Headway, s	2.609	2.609	2.609	2.609
Critical Headway, s	4.976	4.976	4.976	4.976
Entry Flow, veh/h	595	424	497	374
Cap Entry Lane, veh/h	906	850	754	852
Entry HV Adj Factor	0.977	0.962	0.964	0.987
Flow Entry, veh/h	581	408	479	369
Cap Entry, veh/h	883	817	726	840
V/C Ratio	0.658	0.499	0.659	0.439
Control Delay, s/veh	14.8	11.2	17.3	9.8
LOS	B	B	C	A
95th %tile Queue, veh	5	3	5	2

3rd Bypass Lane Merge Point Analysis

The first bypass you entered:

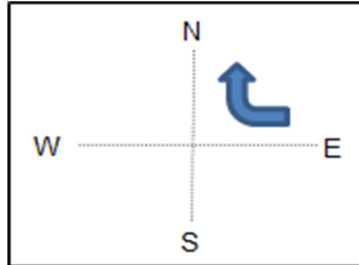
A heavy right turn volume approaches at the North leg.
 The heavy right turn volume then exits on the West leg.

The second bypass you entered:

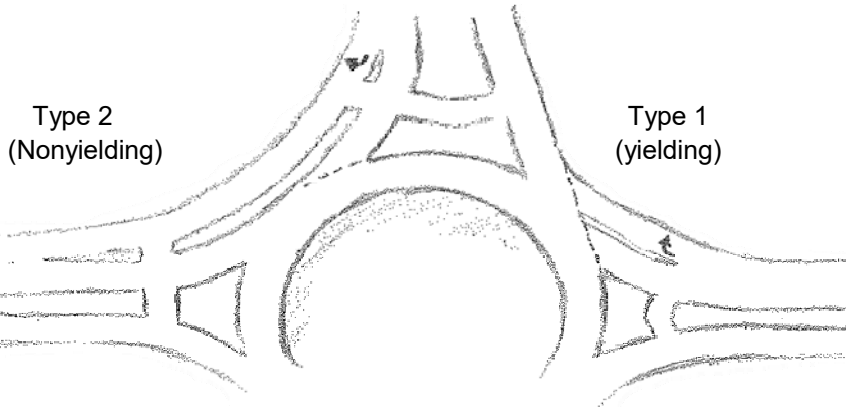
A heavy right turn volume approaches at the West leg.
 The heavy right turn volume then exits on the South leg.

Entry on the Single Lane Roundabout Calculator with no volume from 1st or second Bypass:

Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	60	200	105
	E	155	0	45	500
	S	330	230	0	0
	W	0	540	160	0



The heavy right turn volume enters from the East approach.
 The heavy right turn volume then exits on the North leg.



Type 2 Nonyielding Bypass lane

If there is room for a new lane, then bypass LOS is A and capacity is expected to be high (higher than yielding bypass values shown below) and the analysis is complete for this bypass lane.

Considerations for a Type 2 nonyielding bypass lane:

- A median refuge should ensure a pedestrian only crosses one lane at a time
- Bypass travel path geometrically slows traffic
- Is there a heavy left turn volume down this leg to create a demand to quickly merge?

Type 1 Yielding Bypass lane

Items to keep in mind if constrained to a Type 1 nonyielding bypass lane:

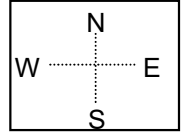
- Angle that driver has to look over the shoulder to merge, then forward to yield to pedestrians
- All traffic volume is now in one lane, consider what gaps exist for pedestrian
- Safety of heavy right movement merging into all movements exiting roundabout

Capacity	c	942	pc/h
Entry Flow Rates	v	872	veh/h
Volume to Capacity ratio	v/c	64	veh/h
Delay		0.07	
LOS		4.8	s/veh
HCM Queue		A	
		0	veh

The roundabout analysis with the North approach to the West leg bypass and previous bypasses volumes removed is to the right. Please print and electronically save this information.

General Information		Passenger Car Equivalents Rec			
Analyst:	Pat Stoplight PE	bicycle	E_b	1	1
Agency:	Safety City	medium	E_m	1.5	1.5
Date:	42269	heavy	E_h	2	2
East leg:	0	South leg:	0		
Project:	Project Name	Year:	20yrs > build		

Roundabout Input			
3 or 4 legs		4	
Portion of an hour:		0.25	
Peak hr	4	30	PM



Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	0	200	105
	E	155	0	45	500
	S	330	230	0	0
	W	0	540	160	0

THREE BYPASSES

Peak Hour Factor PHF		Approaches			
		N	E	S	W
Exits	N	0.94	0.00	0.94	0.94
	E	0.94	0.94	0.94	0.94
	S	0.94	0.94	0.94	0.00
	W	0.00	0.94	0.94	0.94

# of Bicycles vph		Approaches			
		N	E	S	W
Exits	N	0	0	1	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	1	0

# of Medium Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Heavy Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	6	1.05
	E	4.65	0	0.9	0
	S	3.3	0	0	0
	W	0	10.8	3.2	0

Adjusted Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	0	219	113
	E	170	0	49	532
	S	355	245	0	0
	W	0	586	173	0

Entry Flow Rate (pc/h)	525	831	441	645
Conflict Flow (pc/h)	1004	505	815	770
bypass delay	31.6	34.9	0.0	27.3
Weighted Entry Veh Factor	0.984	0.986	0.976	0.998
1st Bypass	170.0	0.0	0.0	0.0
Weighted Conflict Factors	0.985	0.978	0.993	0.989
2nd Bypass Entry Flo	0	0	0	372
3rd bypass entry flow	0	64	0	0

Pedestrian Crossings per #	Approaches			
	N	E	S	W
	0	0	0	0

Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	0	213	112
	E	165	0	48	532
	S	351	245	0	0
	W	0	574	170	0

Vehicle Factor f_{hv}		Approaches			
		N	E	S	W
Exits	N	1.000	1.000	0.971	0.990
	E	0.971	1.000	0.980	1.000
	S	0.990	1.000	1.000	1.000
	W	1.000	0.980	0.980	1.000

Proportion of Bicycle P_b		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.005	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.006	0.000

Proportion of Medium P_m		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy P_h		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.030	0.010
	E	0.030	0.000	0.020	0.000
	S	0.010	0.000	0.000	0.000
	W	0.000	0.020	0.020	0.000

Output		Approaches			
		N	E	S	W
Conflict flow (veh/h)	v_c	989	494	809	762
Entry flow (veh/h)	v_i	517	819	430	644
Entry capacity (veh/h)	c_i	587	878	678	719
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.88	0.93	0.63	0.90
Control delay (sec/veh)	d_i	39.7	37.3	17.1	37.3
LOS	n/a	E	E	C	E
HCM 95 th % Queue (veh)	Q_m	10	14	4	12

Int cntrl delay (sec/veh)	d_{int}	29.05			
Intersection LOS	n/a	D			

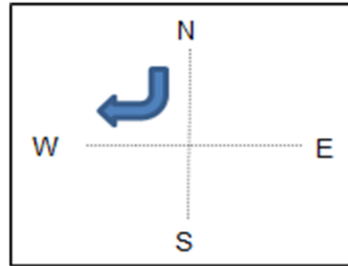
Project Name

Bypass Lane Merge Point Analysis

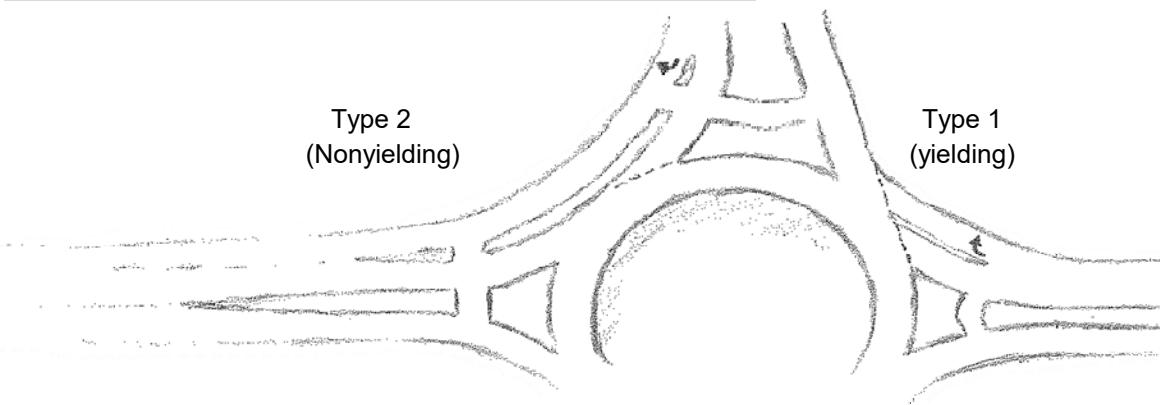
Only two selections are necessary (cell E13 and yield selection button).

Entry on the Single Lane Roundabout Calculator:

Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	60	200	105
	E	155	0	45	500
	S	330	230	0	350
	W	160	540	160	0



A heavy right turn volume approaches at the North leg.
The heavy right turn volume then exits on the West leg.



Type 2 Nonyielding Bypass lane

If there is room for a new lane, then bypass LOS is A and capacity is expected to be high (higher than yielding bypass values shown below) and the analysis is complete for this bypass lane.

Considerations for a Type 2 nonyielding bypass lane:

- A median refuge should ensure a pedestrian only crosses one lane at a time
- Bypass travel path geometrically slows traffic
- Is there a heavy left turn volume down this leg to create a demand to quickly merge?

Type 1 Yielding Bypass lane

Items to keep in mind if constrained to a Type 1 nonyielding bypass lane:

- Angle that driver has to look over the shoulder to merge, then forward to yield to pedestrians
- All traffic volume is now in one lane, consider what gaps exist for pedestrian
- Safety of heavy right movement merging into all movements exiting roundabout

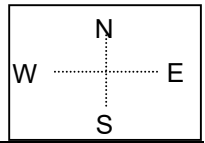
Capacity	c	771	pc/h
Entry Flow Rates	v	170	veh/h
Volume to Capacity ratio	v/c	0.22	
Delay		7.1	s/veh
LOS		A	
HCM Queue		1	veh

The roundabout analysis with the North approach to the West leg bypass volume removed is to the right. Please print and electronically save this information for your records.

Project Name

General Information		Passenger Car Equivalents Rec			
Analyst:	Pat Stoplight PE	bicycle	E_b	1	1
Agency:	Safety City	medium	E_m	1.5	1.5
Date:	9/22/2015	heavy	E_h	2	2
East leg:	0	South leg:	0		
Project:	Project Name	Year:	20yrs > build		

Roundabout Input			
3 or 4 legs		4	
Portion of an hour:		0.25	
Peak hr	4	30	PM



Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	60	200	105
	E	155	0	45	500
	S	330	230	0	350
	W	0	540	160	0
Peak Hour Factor PHF		Approaches			
		N	E	S	W
Exits	N	0.94	0.94	0.94	0.94
	E	0.94	0.94	0.94	0.94
	S	0.94	0.94	0.94	0.94
	W	0.00	0.94	0.94	0.94
# of Bicycles vph		Approaches			
		N	E	S	W
Exits	N	0	0	1	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	1	0
# of Medium Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0
# of Heavy Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	2.4	6	1.05
	E	4.65	0	0.9	0
	S	3.3	0	0	0
	W	0	10.8	3.2	0
Adjusted Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	67	219	113
	E	170	0	49	532
	S	355	245	0	372
	W	0	586	173	0
Entry Flow Rate (pc/h)		525	898	441	1017
Conflict Flow (pc/h)		1004	505	815	770
Bypass Delay		31.6	0.0	0.0	0.0
Weighted Entry Veh Factor		0.984	0.984	0.976	0.999
1st Bypass Entry Flow		170	0	0	0
Weighted Conflict Factors		0.985	0.978	0.993	0.989

ONE BYPASS

Pedestrian crossings per h	Approaches			
	N	E	S	W
#	0	0	0	0

Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	64	213	112
	E	165	0	48	532
	S	351	245	0	372
	W	0	574	170	0

Vehicle Factor f_{hv}		Approaches			
		N	E	S	W
Exits	N	1.000	0.962	0.971	0.990
	E	0.971	1.000	0.980	1.000
	S	0.990	1.000	1.000	1.000
	W	1.000	0.980	0.980	1.000

Proportion of Bicycle P_b		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.005	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.006	0.000

Proportion of Medium P_m		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy P_h		Approaches			
		N	E	S	W
Exits	N	0.000	0.040	0.030	0.010
	E	0.030	0.000	0.020	0.000
	S	0.010	0.000	0.000	0.000
	W	0.000	0.020	0.020	0.000

Output		Approaches			
		N	E	S	W
Conflict flow (veh/h)	v_c	989	494	809	762
Entry flow (veh/h)	v_i	517	884	430	1016
Entry capacity (veh/h)	c_i	587	876	678	719
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.88	1.01	0.63	1.41
Control delay (sec/veh)	d_i	39.7	54.6	17.1	210.4
LOS	n/a	E	F	C	F
HCM 95 th % Queue (veh)	Q_m	10	19	4	45

Int cntrl delay (sec/veh)	d_{int}	98.33
Intersection LOS	n/a	F

4th Bypass Lane Merge Point Analysis

The first bypass you entered:

A heavy right turn volume approaches at the North leg.
 The heavy right turn volume then exits on the West leg.

The second bypass you entered:

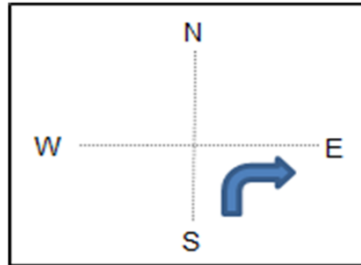
A heavy right turn volume approaches at the West leg.
 The heavy right turn volume then exits on the South leg.

The third bypass you entered:

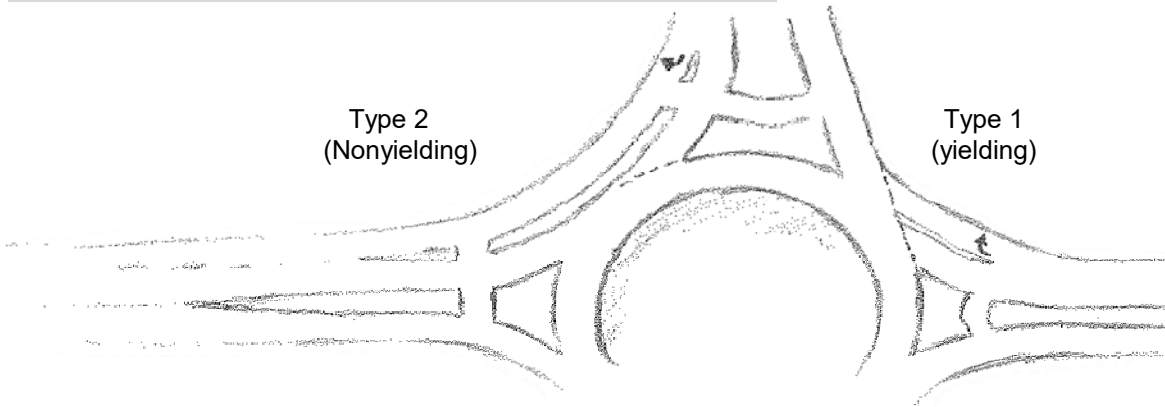
A heavy right turn volume approaches at the East leg.
 The heavy right turn volume then exits on the North leg.

Entry on the Single Lane Roundabout Calculator with no volume from 1st or second Bypass:

Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	0	200	105
	E	155	0	45	500
	S	330	230	0	0
	W	0	540	160	0



The heavy right turn volume enters from the South approach.
 The heavy right turn volume then exits on the East leg.



Type 2 Nonyielding Bypass lane

If there is room for a new lane, then bypass LOS is A and capacity is expected to be high (higher than yielding bypass values shown below) and the analysis is complete for this bypass lane.

Considerations for a Type 2 nonyielding bypass lane:

- A median refuge should ensure a pedestrian only crosses one lane at a time
- Bypass travel path geometrically slows traffic
- Is there a heavy left turn volume down this leg to create a demand to quickly merge?

Type 1 Yielding Bypass lane

Items to keep in mind if constrained to a Type 1 nonyielding bypass lane:

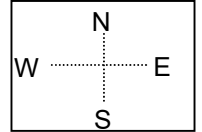
- Angle that driver has to look over the shoulder to merge, then forward to yield to pedestrians
- All traffic volume is now in one lane, consider what gaps exist for pedestrian
- Safety of heavy right movement merging into all movements exiting roundabout

Capacity	c	792	pc/h
Entry Flow Rates	v	776	veh/h
Volume to Capacity ratio	v/c	48	veh/h
Delay		0.06	
LOS		5.2	s/veh
HCM Queue		A	
		0	veh

The roundabout analysis with the North approach to the West leg bypass and previous bypasses volumes removed is to the right. Please print and electronically save this information.

General Information		Passenger Car Equivalents Rec			
Analyst:	Pat Stoplight PE	bicycle	E_b	1	1
Agency:	Safety City	medium	E_m	1.5	1.5
Date:	42269	heavy	E_h	2	2
East leg:	0	South leg:	0		
Project:	Project Name	Year:	20yrs > build		

Roundabout Input			
3 or 4 legs		4	
Portion of an hour:		0.25	
Peak hr	4	30	PM



Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	0	0	105
	E	155	0	0	500
	S	330	230	0	0
	W	0	540	160	0

FOUR BYPASSES

Peak Hour Factor PHF		Approaches			
		N	E	S	W
Exits	N	0.94	0.00	0.94	0.94
	E	0.94	0.94	0.00	0.94
	S	0.94	0.94	0.94	0.00
	W	0.00	0.94	0.94	0.94

# of Bicycles vph		Approaches			
		N	E	S	W
Exits	N	0	0	1	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	1	0

# of Medium Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Heavy Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	6	1.05
	E	4.65	0	0	0
	S	3.3	0	0	0
	W	0	10.8	3.2	0

Adjusted Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	0	0	113
	E	170	0	0	532
	S	355	245	0	0
	W	0	586	173	0

Entry Flow Rate (pc/h)	525	831	173	645
Conflict Flow (pc/h)	1004	286	815	770
bypass delay	31.6	34.9	7.8	27.3
Weighted Entry Veh Factor	0.984	0.986	0.946	0.998
1st Bypass	170.0	0.0	0.0	0.0
Weighted Conflict Factors	0.985	0.963	0.993	0.989
2nd Bypass Entry Flo	0	0	0	372
3rd bypass entry flow	0	0	0	372
4th bypass entry flow	0	0	48	0

Pedestrian		Approaches			
Crossings per l		N	E	S	W
#		0	0	0	0

Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	0	0	112
	E	165	0	0	532
	S	351	245	0	0
	W	0	574	170	0

Vehicle Factor f_{hv}		Approaches			
		N	E	S	W
Exits	N	1.000	1.000	1.000	0.990
	E	0.971	1.000	1.000	1.000
	S	0.990	1.000	1.000	1.000
	W	1.000	0.980	0.980	1.000

Proportion of Bicycle P_b		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.006	0.000

Proportion of Medium P_m		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy P_h		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.010
	E	0.030	0.000	0.000	0.000
	S	0.010	0.000	0.000	0.000
	W	0.000	0.020	0.020	0.000

Output		Approaches			
		N	E	S	W
Conflict flow (veh/h)	v_c	989	275	809	762
Entry flow (veh/h)	v_i	517	819	164	644
Entry capacity (veh/h)	c_i	587	1046	657	719
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.88	0.78	0.25	0.90
Control delay (sec/veh)	d_i	39.7	18.3	8.5	37.3
LOS	n/a	E	C	A	E
HCM 95 th % Queue (veh)	Q_m	10	8	1	12

Int cntrl delay (sec/veh)	d_{int}	28.92			
Intersection LOS	n/a	D			

Project Name

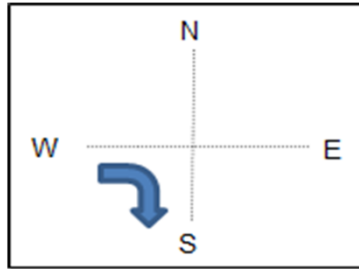
2nd Bypass Lane Merge Point Analysis

The first bypass you entered:

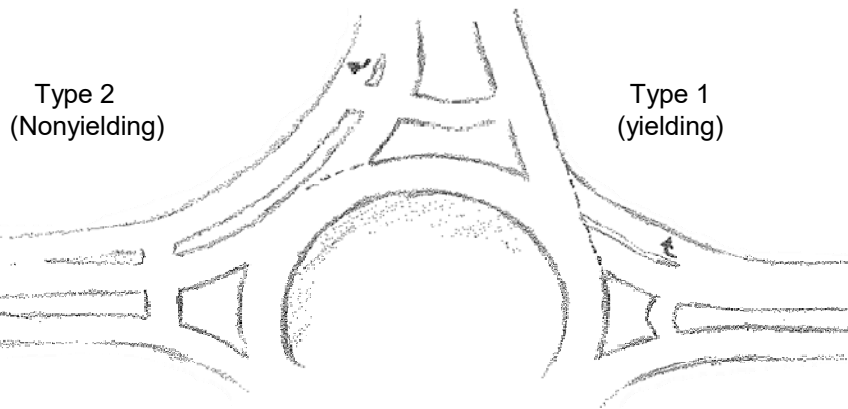
A heavy right turn volume approaches at the North leg.
 The heavy right turn volume then exits on the West leg.

Entry on the Single Lane Roundabout Calculator with no volume from 1st Bypass:

Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	60	200	105
	E	155	0	45	500
	S	330	230	0	350
	W	0	540	160	0



The heavy right turn volume enters from the West approach.
 The heavy right turn volume then exits on the South leg.



Type 2 Nonyielding Bypass lane

If there is room for a new lane, then bypass LOS is A and capacity is expected to be high (higher than yielding bypass values shown below) and the analysis is complete for this bypass lane.
 Considerations for a Type 2 nonyielding bypass lane:

- A median refuge should ensure a pedestrian only crosses one lane at a time
- Bypass travel path geometrically slows traffic
- Is there a heavy left turn volume down this leg to create a demand to quickly merge?

Type 1 Yielding Bypass lane

Items to keep in mind if constrained to a Type 1 nonyielding bypass lane:

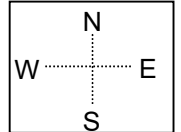
- Angle that driver has to look over the shoulder to merge, then forward to yield to pedestrians
- All traffic volume is now in one lane, consider what gaps exist for pedestrian
- Safety of heavy right movement merging into all movements exiting roundabout

Capacity	c	830	pc/h
Entry Flow Rates	v	830	veh/h
Volume to Capacity ratio	v/c	372	veh/h
Delay		0.45	
LOS		10.1	s/veh
HCM Queue		B	
		2	veh

The roundabout analysis with the North approach to the West leg bypass and previous bypass volume removed is to the right. Please print and electronically save this information.

General Information		Passenger Car Equivalents Rec			
Analyst:	Pat Stoplight PE	bicycle	E_b	1	1
Agency:	Safety City	medium	E_m	1.5	1.5
Date:	42269	heavy	E_h	2	2
East leg:	0	South leg:	0		
Project:	Project Name	Year:	20yrs > build		

Roundabout Input			
3 or 4 legs		4	
Portion of an hour:		0.25	
Peak hr	4	30	PM



Hour Volumes vph		Approaches			
		N	E	S	W
Exits	N	0	60	200	105
	E	155	0	45	500
	S	330	230	0	0
	W	0	540	160	0

TWO BYPASSES

Peak Hour Factor PHF		Approaches			
		N	E	S	W
Exits	N	0.94	0.94	0.94	0.94
	E	0.94	0.94	0.94	0.94
	S	0.94	0.94	0.94	0.00
	W	0.00	0.94	0.94	0.94

# of Bicycles vph		Approaches			
		N	E	S	W
Exits	N	0	0	1	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	1	0

# of Medium Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	0	0	0
	E	0	0	0	0
	S	0	0	0	0
	W	0	0	0	0

# of Heavy Trucks vph		Approaches			
		N	E	S	W
Exits	N	0	2.4	6	1.05
	E	4.65	0	0.9	0
	S	3.3	0	0	0
	W	0	10.8	3.2	0

Adjusted Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	67	219	113
	E	170	0	49	532
	S	355	245	0	0
	W	0	586	173	0

Entry Flow Rate (pc/h)	525	898	441	645
Conflict Flow (pc/h)	1004	505	815	770
bypass delay	31.6	0.0	0.0	27.3
Weighted Entry Veh Factor	0.984	0.984	0.976	0.998
Weighted Conflict Factors	0.985	0.978	0.993	0.989
2nd Bypass Entry Flo	0	0	0	372

Pedestrian Crossings per #		Approaches			
		N	E	S	W
		0	0	0	0

Flow Rate v_i		Approaches			
		N	E	S	W
Exits	N	0	64	213	112
	E	165	0	48	532
	S	351	245	0	0
	W	0	574	170	0

Vehicle Factor f_{hv}		Approaches			
		N	E	S	W
Exits	N	1.000	0.962	0.971	0.990
	E	0.971	1.000	0.980	1.000
	S	0.990	1.000	1.000	1.000
	W	1.000	0.980	0.980	1.000

Proportion of Bicycle P_b		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.005	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.006	0.000

Proportion of Medium P_m		Approaches			
		N	E	S	W
Exits	N	0.000	0.000	0.000	0.000
	E	0.000	0.000	0.000	0.000
	S	0.000	0.000	0.000	0.000
	W	0.000	0.000	0.000	0.000

Proportion of Heavy P_h		Approaches			
		N	E	S	W
Exits	N	0.000	0.040	0.030	0.010
	E	0.030	0.000	0.020	0.000
	S	0.010	0.000	0.000	0.000
	W	0.000	0.020	0.020	0.000

Output		Approaches			
		N	E	S	W
Conflict flow (veh/h)	v_c	989	494	809	762
Entry flow (veh/h)	v_i	517	884	430	644
Entry capacity (veh/h)	c_i	587	876	678	719
Pedestrian impedance	f_{ped}	1	1	1	1
Leg v/c ratio	x_i	0.88	1.01	0.63	0.90
Control delay (sec/veh)	d_i	39.7	54.6	17.1	37.3
LOS	n/a	E	F	C	E
HCM 95 th % Queue (veh)	Q_m	10	19	4	12

Int cntrl delay (sec/veh)	d_{int}	34.82
Intersection LOS	n/a	D

Project Name

US 97/Parkway Travel Time Reliability

Table - Weekday PM Peak Hour Travel Time Reliability

Seg. No./ Name	From	To	Posted Speed (mph)	Avg. Speed (mph)	Average Travel Time (min)	Planning Time Index
US 97/Bend Parkway Southbound						
S1	Tumalo Pl	Clausen Rd	45-65	48	4.74	1.34
S2	Clausen Rd	US 20 Interchange	45	24	2.58	3.14
S3	US 20 Interchange	SE 3rd St Interchange	45	48	1.92	1.14
S5	SE 3rd St Interchange	Colorado Ave	45	45	2.40	1.15
S7	Colorado Ave	Reed Market Rd	45	44	1.26	1.22
S9	Reed Market Rd	Murphy Rd Interchange	45	37	2.79	1.80
S11	Murphy Rd Interchange	China Hat Rd	45	41	0.96	1.41
US 97/Bend Parkway Northbound						
N11	China Hat Rd	Murphy Rd Interchange	45	42	0.96	1.27
N9	Murphy Rd Interchange	Reed Market Rd	45	40	2.50	1.43
N7	Reed Market Rd	Colorado Ave	45	47	1.18	1.08
N5	Colorado Ave	SE 3rd St Interchange	45	46	2.31	1.13
N3	SE 3rd St Interchange	US 20 Interchange	45	45	2.00	1.06
N2	US 20 Interchange	Clausen Rd	45	20	3.15	4.24
N1	Clausen Rd	Tumalo Pl.	45-65	54	4.12	1.26
US 20/US 97 Business/SE 3rd Street Southbound						
S4	US 20 Interchange	SE 3rd St Interchange	35-45	23	3.78	2.28
S6	Bend Pkwy Interchange	US 20 (Greenwood Ave)	35-45	19	3.78	2.69
S8	US 20 (Greenwood Ave)	Reed Market Rd	35	16	5.56	2.56
S10	Reed Market Rd	Murphy Rd Interchange	35*45	22	3.96	2.34
US 97 Business/SE 3rd Street Northbound						
N10	Murphy Rd Interchange	Reed Market Rd	35-45	20	4.4	2.68
N8	Reed Market Rd	US 20 (Greenwood Ave)	35	18	5.16	2.90
N6	US 20 (Greenwood Ave)	Bend Pkwy Interchange	35-45	19	3.73	3.15
N4	Bend Pkwy Interchange	US 20 Interchange	35-45	26	3.97	2.09

Source: US 97 Parkway Plan – Technical Memorandum #2: Existing Conditions, DKS Associates, December 2017.

Environmental Considerations

[Placeholder: Environmental Considerations Figures]