

APPENDIX B
LEVEL OF SERVICE TECHNICAL CALCULATIONS



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
AM Peak Hour

Intersection 1

Lake Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	18	225.0%	16.7	10.8	B
	Through	88	312	354.1%	9.2	1.3	A
	Right Turn	20	76	378.0%	4.4	2.2	A
	Subtotal	116	405	349.3%	8.4	1.2	A
SB	Left Turn	72	254	352.2%	20.0	1.4	B
	Through	220	774	352.0%	10.4	1.0	B
	Right Turn	16	55	345.0%	4.5	1.8	A
	Subtotal	308	1083	351.7%	12.4	0.7	B
EB	Left Turn	4	16	400.0%	11.2	7.5	B
	Through	16	63	392.5%	9.2	2.4	A
	Right Turn	8	30	375.0%	2.9	2.3	A
	Subtotal	28	109	388.6%	7.6	2.3	A
WB	Left Turn	80	270	338.0%	16.0	1.2	B
	Through	16	112	697.5%	5.6	2.3	A
	Right Turn	116	408	352.1%	3.6	0.5	A
	Subtotal	212	790	372.8%	8.1	0.7	A
Total		664	2388	359.6%	10.1	0.6	B

Intersection 2

Holcomb Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	19	235.0%	9.6	0.9	A
	Through						
	Right Turn	36	147	407.8%	3.2	0.4	A
	Subtotal	44	166	376.4%	4.0	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	112	400	357.1%	0.9	0.1	A
	Right Turn	12	36	300.0%	0.6	0.2	A
	Subtotal	124	436	351.6%	0.9	0.1	A
WB	Left Turn	60	192	320.7%	4.1	0.4	A
	Through	216	773	358.0%	2.3	0.2	A
	Right Turn						
	Subtotal	276	966	349.9%	2.7	0.2	A
Total		444	1567	353.0%	2.3	0.1	A

SimTraffic Post-Processor
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Existing Conditions
AM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	26	330.0%	44.8	10.4	D
	Through	516	1752	339.6%	12.5	1.3	B
	Right Turn	48	155	322.5%	9.9	1.7	A
	Subtotal	572	1934	338.0%	12.7	1.4	B
SB	Left Turn	112	357	318.6%	40.3	3.7	D
	Through	788	2640	335.0%	10.3	1.0	B
	Right Turn	68	227	334.1%	8.8	1.8	A
	Subtotal	968	3224	333.1%	13.5	1.4	B
EB	Left Turn	36	124	344.4%	33.7	4.7	C
	Through	84	389	462.9%	22.0	2.8	C
	Right Turn	12	37	306.7%	7.6	3.5	A
	Subtotal	132	550	416.4%	23.7	2.4	C
WB	Left Turn	44	141	320.0%	28.5	5.2	C
	Through	192	756	393.5%	25.2	2.0	C
	Right Turn	52	179	343.8%	6.4	0.9	A
	Subtotal	288	1075	373.3%	22.5	1.7	C
Total		1960	6782	346.0%	15.5	1.2	B

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	32	112	348.8%	2.9	0.2	A
	Subtotal	32	112	348.8%	2.9	0.2	A
SB	Left Turn	8	26	330.0%	5.7	1.0	A
	Through						
	Right Turn	12	42	350.0%	3.3	0.6	A
	Subtotal	20	68	342.0%	4.3	0.8	A
EB	Left Turn	16	49	307.5%	3.8	1.0	A
	Through	224	762	340.2%	1.2	0.1	A
	Right Turn						
	Subtotal	240	811	338.0%	1.3	0.1	A
WB	Left Turn						
	Through	296	1138	384.3%	1.1	0.1	A
	Right Turn	8	27	335.0%	0.9	0.7	A
	Subtotal	304	1164	383.0%	1.1	0.1	A
Total		596	2156	361.7%	1.4	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
AM Peak Hour

Intersection 5

Kirman Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	4	11	280.0%	23.9	17.1	C
	Through	112	386	344.6%	25.0	3.0	C
	Right Turn	20	76	378.0%	27.5	5.1	C
	Subtotal	136	473	347.6%	25.4	2.9	C
SB	Left Turn	124	418	336.8%	35.2	2.2	D
	Through	212	721	340.0%	26.7	1.2	C
	Right Turn	48	171	356.7%	9.7	0.9	A
	Subtotal	384	1310	341.0%	27.2	0.9	C
EB	Left Turn	32	99	310.0%	15.4	4.4	B
	Through	188	725	385.7%	5.6	1.3	A
	Right Turn	20	65	324.0%	5.1	2.7	A
	Subtotal	240	889	370.5%	6.7	1.4	A
WB	Left Turn	32	110	342.5%	10.2	4.0	B
	Through	276	981	355.4%	7.9	0.9	A
	Right Turn	136	474	348.5%	6.0	0.8	A
	Subtotal	444	1564	352.3%	7.5	0.8	A
Total		1204	4236	351.8%	15.4	0.7	B

Intersection 6

Renown Regional Way-Ryland Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	440	1563	355.3%	20.2	3.2	C
	Subtotal	440	1563	355.3%	20.2	3.2	C
SB	Left Turn	44	131	297.3%	45.3	6.0	D
	Through						
	Right Turn	32	118	370.0%	1.8	0.1	A
	Subtotal	76	249	327.9%	24.4	4.8	C
EB	Left Turn	48	164	341.7%	17.6	3.7	B
	Through	272	971	356.9%	13.5	1.5	B
	Right Turn						
	Subtotal	320	1135	354.6%	14.1	1.2	B
WB	Left Turn	700	2422	346.0%	23.7	4.3	C
	Through	396	1421	358.8%	8.0	1.6	A
	Right Turn	116	410	353.4%	2.2	0.3	A
	Subtotal	1212	4253	350.9%	16.4	2.3	B
Total		2048	7200	351.6%	17.1	2.0	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

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Existing Conditions
AM Peak Hour

Intersection 7

Yori Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	53	330.0%	30.7	10.3	D
	Through						
	Right Turn	64	212	331.9%	10.4	4.7	B
	Subtotal	80	265	331.5%	14.4	5.0	B
SB	Left Turn						
	Through						
	Right Turn	12	33	276.7%	12.3	6.3	B
	Subtotal	12	33	276.7%	12.3	6.3	B
EB	Left Turn	4	13	320.0%	8.0	3.7	A
	Through	756	2591	342.8%	1.5	0.1	A
	Right Turn	16	47	292.5%	1.6	0.3	A
	Subtotal	776	2651	341.6%	1.6	0.2	A
WB	Left Turn	40	136	339.0%	6.9	1.1	A
	Through	1216	4145	340.9%	4.7	0.3	A
	Right Turn	8	26	320.0%	5.1	1.4	A
	Subtotal	1264	4306	340.7%	4.8	0.3	A
Total		2132	7255	340.3%	4.0	0.3	A

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	140	475	339.1%	59.4	3.9	E
	Through	392	1333	340.0%	41.2	1.9	D
	Right Turn	172	622	361.4%	14.5	1.1	B
	Subtotal	704	2429	345.1%	37.9	1.2	D
SB	Left Turn	104	361	347.3%	49.8	2.6	D
	Through	532	1790	336.4%	38.0	1.2	D
	Right Turn	92	344	373.5%	35.7	3.4	D
	Subtotal	728	2494	342.6%	39.4	1.3	D
EB	Left Turn	88	288	327.7%	55.2	4.1	E
	Through	604	2118	350.7%	28.3	1.2	C
	Right Turn	120	403	336.0%	12.7	0.9	B
	Subtotal	812	2810	346.1%	28.8	1.0	C
WB	Left Turn	336	1135	337.9%	40.4	2.3	D
	Through	988	3465	350.7%	19.9	2.1	B
	Right Turn	80	271	339.0%	17.7	4.0	B
	Subtotal	1404	4872	347.0%	24.6	1.8	C
Total		3648	12605	345.5%	31.0	0.9	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

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Existing Conditions
AM Peak Hour

Intersection 9

Golden Lane/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn	20	75	374.0%	11.8	3.9	B
	Through	844	3012	356.8%	2.1	0.1	A
	Right Turn						
	Subtotal	864	3086	357.2%	2.3	0.1	A
WB	Left Turn						
	Through	1412	4987	353.2%	7.2	0.3	A
	Right Turn	32	116	363.8%	8.1	1.7	A
	Subtotal	1444	5104	353.4%	7.2	0.3	A
Total		2308	8190	354.9%	5.3	0.3	A

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	744	2641	354.9%	139.8	14.3	F
	Through	4	12	290.0%	125.1	46.1	F
	Right Turn	568	1968	346.5%	105.4	13.2	F
	Subtotal	1316	4620	351.1%	125.1	13.5	F
EB	Left Turn						
	Through	688	2295	333.6%	25.8	1.3	C
	Right Turn	220	672	305.3%	18.4	2.6	B
	Subtotal	908	2967	326.7%	24.2	1.5	C
WB	Left Turn	172	573	333.0%	59.6	2.6	E
	Through	956	3240	338.9%	13.9	1.3	B
	Right Turn						
	Subtotal	1128	3812	338.0%	20.8	1.4	C
Total		3352	11400	340.1%	64.0	5.6	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
AM Peak Hour

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	504	1806	358.3%	60.3	6.0	E
	Through	68	236	347.1%	63.6	8.0	E
	Right Turn	288	1041	361.4%	26.6	4.2	C
	Subtotal	860	3083	358.5%	49.1	5.2	D
SB	Left Turn	48	171	356.7%	50.1	3.6	D
	Through	24	88	365.0%	48.3	7.4	D
	Right Turn	28	113	404.3%	15.5	3.4	B
	Subtotal	100	372	372.0%	39.2	2.8	D
EB	Left Turn	84	293	348.6%	60.3	2.6	E
	Through	1064	3910	367.5%	13.5	1.3	B
	Right Turn	220	760	345.6%	6.7	0.4	A
	Subtotal	1368	4964	362.8%	15.2	1.1	B
WB	Left Turn	200	688	343.8%	55.7	2.6	E
	Through	548	2046	373.4%	24.5	1.1	C
	Right Turn	44	157	357.3%	20.0	5.0	B
	Subtotal	792	2891	365.0%	31.6	1.1	C
Total		3120	11309	362.5%	29.5	1.6	C

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	108	372	344.1%	52.9	4.9	D
	Through	252	928	368.3%	34.6	2.5	C
	Right Turn	148	493	333.2%	30.8	3.6	C
	Subtotal	508	1793	352.9%	37.3	2.6	D
SB	Left Turn	20	68	338.0%	67.1	8.5	E
	Through	328	1123	342.3%	42.3	1.9	D
	Right Turn	192	631	328.8%	18.8	2.8	B
	Subtotal	540	1822	337.3%	35.1	2.1	D
EB	Left Turn	236	791	335.3%	76.8	3.8	E
	Through	1056	3793	359.2%	44.6	2.0	D
	Right Turn	124	429	345.8%	25.1	3.1	C
	Subtotal	1416	5013	354.0%	48.0	1.7	D
WB	Left Turn	188	633	336.6%	55.0	4.1	D
	Through	572	1870	326.9%	22.2	1.4	C
	Right Turn	12	40	333.3%	14.5	4.2	B
	Subtotal	772	2543	329.4%	30.2	1.5	C
Total		3236	11170	345.2%	40.1	0.8	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
AM Peak Hour

Intersection 13

Terminal Way/Vassar Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	140	500	356.9%	12.3	1.7	B
	Through	320	1198	374.4%	7.4	0.8	A
	Right Turn	116	412	355.2%	5.2	0.3	A
	Subtotal	576	2110	366.3%	8.1	0.8	A
SB	Left Turn	40	120	300.0%	13.6	2.3	B
	Through	248	1524	614.7%	8.0	0.6	A
	Right Turn	144	510	354.4%	9.7	1.0	A
	Subtotal	432	2155	498.8%	8.7	0.6	A
EB	Left Turn	128	479	374.1%	18.7	1.3	B
	Through	100	356	356.0%	11.6	1.3	B
	Right Turn	56	199	355.7%	2.6	0.5	A
	Subtotal	284	1034	364.1%	13.2	0.8	B
WB	Left Turn	92	330	359.1%	19.5	1.3	B
	Through	64	253	395.0%	10.9	1.7	B
	Right Turn	32	126	392.5%	4.1	0.8	A
	Subtotal	188	709	377.0%	13.7	1.4	B
Total		1480	6007	405.9%	9.9	0.4	A

Intersection 14

Terminal Way/Villanova Drive

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	48	158	330.0%	8.0	1.4	A
	Through	552	1822	330.1%	3.3	0.5	A
	Right Turn	12	43	356.7%	2.4	1.3	A
	Subtotal	612	2023	330.6%	3.7	0.5	A
SB	Left Turn	16	45	280.0%	8.2	1.3	A
	Through	316	1072	339.1%	4.1	0.4	A
	Right Turn	128	449	350.6%	3.4	0.4	A
	Subtotal	460	1565	340.3%	4.0	0.3	A
EB	Left Turn	80	258	322.0%	20.0	1.1	B
	Through	16	61	380.0%	13.4	2.2	B
	Right Turn	40	132	331.0%	1.5	0.3	A
	Subtotal	136	451	331.5%	13.7	1.2	B
WB	Left Turn	16	46	290.0%	19.0	2.0	B
	Through	28	85	304.3%	14.7	1.7	B
	Right Turn	16	51	320.0%	4.5	1.3	A
	Subtotal	60	183	304.7%	12.8	1.8	B
Total		1268	4222	333.0%	5.3	0.2	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
AM Peak Hour

Intersection 15

Terminal Way/Plumb Lane

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	92	320	348.3%	34.8	3.4	C
	Through	168	593	353.1%	21.6	1.9	C
	Right Turn	20	70	350.0%	8.9	1.9	A
	Subtotal	280	984	351.3%	25.0	1.5	C
SB	Left Turn	52	184	353.1%	29.5	3.1	C
	Through	104	379	364.6%	22.9	3.3	C
	Right Turn	224	837	373.8%	3.9	0.4	A
	Subtotal	380	1400	368.4%	12.4	1.1	B
EB	Left Turn	328	1177	358.8%	34.4	2.7	C
	Through	260	924	355.5%	14.8	2.0	B
	Right Turn	80	284	355.5%	5.3	1.0	A
	Subtotal	668	2386	357.1%	23.3	1.5	C
WB	Left Turn	40	159	397.0%	34.6	6.2	C
	Through	180	638	354.4%	19.4	2.6	B
	Right Turn	48	188	390.8%	2.1	0.1	A
	Subtotal	268	984	367.3%	18.6	2.5	B
Total		1596	5754	360.5%	20.1	1.1	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 1

Lake Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	18	230.0%	9.1	6.0	A
	Through	196	661	337.1%	6.3	0.7	A
	Right Turn	72	250	346.7%	3.3	0.9	A
	Subtotal	276	929	336.5%	5.5	0.7	A
SB	Left Turn	92	300	326.1%	15.7	1.4	B
	Through	264	861	326.2%	6.5	1.1	A
	Right Turn	20	60	300.0%	3.9	2.1	A
	Subtotal	376	1221	324.8%	8.6	1.0	A
EB	Left Turn	8	24	295.0%	19.9	5.1	B
	Through	28	89	318.6%	20.0	2.5	B
	Right Turn	32	99	308.8%	5.4	1.2	A
	Subtotal	68	212	311.2%	13.2	1.9	B
WB	Left Turn	68	223	327.6%	18.8	2.9	B
	Through	28	192	687.1%	7.2	1.9	A
	Right Turn	204	659	322.9%	5.5	0.6	A
	Subtotal	300	1074	358.0%	8.5	1.0	A
Total		1020	3436	336.8%	8.0	0.5	A

Intersection 2

Holcomb Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	55	342.5%	11.4	1.4	B
	Through						
	Right Turn	72	275	381.7%	3.6	0.3	A
	Subtotal	88	330	374.5%	4.9	0.6	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	172	656	381.2%	0.9	0.1	A
	Right Turn	8	21	260.0%	0.7	0.4	A
	Subtotal	180	676	375.8%	0.9	0.1	A
WB	Left Turn	44	146	332.7%	4.3	0.5	A
	Through	280	1015	362.4%	2.4	0.2	A
	Right Turn						
	Subtotal	324	1161	358.4%	2.7	0.2	A
Total		592	2167	366.1%	2.5	0.1	A

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Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	12	53	440.0%	47.5	7.8	D
	Through	1188	4452	374.7%	31.2	6.1	C
	Right Turn	32	120	375.0%	29.4	10.5	C
	Subtotal	1232	4625	375.4%	31.3	6.1	C
SB	Left Turn	48	150	313.3%	39.3	2.3	D
	Through	592	2196	370.9%	13.8	0.7	B
	Right Turn	36	130	362.2%	11.0	1.8	B
	Subtotal	676	2476	366.3%	15.2	0.6	B
EB	Left Turn	116	428	369.0%	35.4	1.9	D
	Through	124	470	379.0%	26.7	2.8	C
	Right Turn	20	88	438.0%	6.8	1.1	A
	Subtotal	260	986	379.1%	28.7	1.8	C
WB	Left Turn	80	302	377.5%	26.5	2.4	C
	Through	248	919	370.6%	24.4	0.8	C
	Right Turn	144	556	386.1%	14.9	1.9	B
	Subtotal	472	1777	376.5%	21.8	1.0	C
Total		2640	9864	373.6%	25.3	2.9	C

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	52	197	378.5%	3.0	0.3	A
	Subtotal	52	197	378.5%	3.0	0.3	A
SB	Left Turn	12	48	403.3%	7.8	1.8	A
	Through						
	Right Turn	28	96	344.3%	4.5	1.3	A
	Subtotal	40	145	362.0%	5.6	1.2	A
EB	Left Turn						
	Through	196	742	378.6%	1.4	0.1	A
	Right Turn						
	Subtotal	196	742	378.6%	1.4	0.1	A
WB	Left Turn						
	Through	460	1633	355.0%	1.4	0.2	A
	Right Turn	16	54	340.0%	1.3	0.5	A
	Subtotal	476	1688	354.5%	1.3	0.2	A
Total		764	2771	362.7%	1.7	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 5

Kirman Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	4	18	450.0%	40.8	12.1	D
	Through	184	697	378.9%	27.0	2.2	C
	Right Turn	28	105	375.7%	27.6	4.7	C
	Subtotal	216	820	379.8%	27.4	2.2	C
SB	Left Turn	140	531	379.1%	41.5	4.6	D
	Through	228	809	354.7%	25.5	1.6	C
	Right Turn	88	340	386.8%	10.4	0.8	B
	Subtotal	456	1680	368.4%	27.5	2.3	C
EB	Left Turn	44	160	362.7%	17.2	3.1	B
	Through	212	789	372.1%	8.0	0.8	A
	Right Turn	12	38	320.0%	6.4	2.7	A
	Subtotal	268	987	368.2%	9.4	1.1	A
WB	Left Turn	44	155	352.7%	12.3	2.9	B
	Through	352	1479	420.2%	9.0	1.2	A
	Right Turn	124	454	366.1%	8.1	1.3	A
	Subtotal	520	2088	401.6%	9.0	1.1	A
Total		1460	5576	381.9%	17.4	1.5	B

Intersection 6

Renown Regional Way-Ryland Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	672	2284	339.9%	51.3	28.4	D
	Subtotal	672	2284	339.9%	51.3	28.4	D
SB	Left Turn	156	504	323.1%	43.8	5.7	D
	Through						
	Right Turn	116	395	340.7%	2.2	0.2	A
	Subtotal	272	899	330.6%	25.6	4.1	C
EB	Left Turn	44	141	320.9%	23.0	5.1	C
	Through	352	1293	367.4%	20.0	6.9	B
	Right Turn						
	Subtotal	396	1434	362.2%	20.3	6.2	C
WB	Left Turn	524	1758	335.4%	22.6	2.8	C
	Through	508	1719	338.3%	10.9	2.5	B
	Right Turn	76	275	362.1%	2.3	0.5	A
	Subtotal	1108	3752	338.6%	15.7	1.3	B
Total		2448	8369	341.9%	27.4	9.2	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 7

Yori Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	12	47	393.3%	83.2	88.9	F
	Through						
	Right Turn	144	467	324.2%	57.8	63.6	F
	Subtotal	156	514	329.5%	60.2	65.5	F
SB	Left Turn	4	12	300.0%	51.8	53.8	F
	Through						
	Right Turn	8	36	455.0%	8.8	8.2	A
	Subtotal	12	48	403.3%	19.1	16.5	C
EB	Left Turn						
	Through	1140	3890	341.2%	5.9	5.0	A
	Right Turn	28	105	374.3%	5.5	5.4	A
	Subtotal	1168	3994	342.0%	5.9	5.0	A
WB	Left Turn	24	94	391.7%	10.3	2.3	B
	Through	1076	3811	354.2%	5.1	0.3	A
	Right Turn	8	31	390.0%	4.7	1.5	A
	Subtotal	1108	3936	355.2%	5.2	0.3	A
Total		2444	8493	347.5%	8.9	5.9	A

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	200	726	363.0%	103.4	10.1	F
	Through	824	3030	367.8%	58.2	8.1	E
	Right Turn	260	954	366.9%	45.0	8.4	D
	Subtotal	1284	4710	366.9%	62.5	8.4	E
SB	Left Turn	124	422	340.0%	66.3	8.0	E
	Through	596	2170	364.1%	43.4	2.3	D
	Right Turn	104	371	356.5%	42.0	4.3	D
	Subtotal	824	2962	359.5%	46.5	2.5	D
EB	Left Turn	224	779	347.7%	230.1	55.6	F
	Through	912	3175	348.1%	212.7	48.2	F
	Right Turn	176	612	347.7%	200.7	51.1	F
	Subtotal	1312	4566	348.0%	214.1	49.2	F
WB	Left Turn	320	1159	362.3%	50.3	2.0	D
	Through	748	2847	380.6%	45.8	11.8	D
	Right Turn	104	366	352.3%	49.5	13.7	D
	Subtotal	1172	4373	373.1%	47.4	9.1	D
Total		4592	16611	361.7%	97.1	15.1	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 9

Golden Lane/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	4	15	370.0%	344.7	487.8	F
	Through						
	Right Turn	52	185	355.4%	6.5	0.5	A
	Subtotal	56	200	356.4%	21.2	12.6	C
EB	Left Turn	44	139	315.5%	24.1	14.4	C
	Through	1348	4507	334.4%	21.7	18.4	C
	Right Turn						
	Subtotal	1392	4646	333.8%	21.8	18.3	C
WB	Left Turn						
	Through	1172	4280	365.2%	4.7	0.2	A
	Right Turn	40	128	319.0%	5.2	1.0	A
	Subtotal	1212	4407	363.6%	4.7	0.2	A
Total		2660	9253	347.8%	13.6	9.2	B

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	400	1440	360.1%	56.8	1.2	E
	Through						
	Right Turn	352	1212	344.2%	9.7	0.5	A
	Subtotal	752	2652	352.7%	35.3	1.0	D
EB	Left Turn						
	Through	1012	3291	325.2%	83.3	19.7	F
	Right Turn	356	1173	329.6%	105.1	25.6	F
	Subtotal	1368	4464	326.3%	89.0	21.0	F
WB	Left Turn	388	1388	357.6%	55.1	2.1	E
	Through	920	3365	365.7%	7.3	0.7	A
	Right Turn						
	Subtotal	1308	4752	363.3%	21.2	0.7	C
Total		3428	11868	346.2%	49.7	7.4	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	236	819	347.1%	58.0	2.7	E
	Through	88	309	350.9%	55.9	5.1	E
	Right Turn	184	609	331.1%	14.6	1.3	B
	Subtotal	508	1737	342.0%	42.4	2.3	D
SB	Left Turn	56	189	337.9%	55.1	6.5	E
	Through	56	190	338.6%	57.8	5.4	E
	Right Turn	76	255	335.3%	24.6	2.9	C
	Subtotal	188	634	337.0%	43.7	2.8	D
EB	Left Turn	124	414	333.5%	55.7	5.5	E
	Through	832	2775	333.5%	29.3	2.8	C
	Right Turn	480	1585	330.2%	8.1	0.2	A
	Subtotal	1436	4773	332.4%	24.6	2.0	C
WB	Left Turn	432	1445	334.5%	125.7	22.2	F
	Through	1076	3762	349.6%	42.1	8.1	D
	Right Turn	92	291	316.1%	25.7	5.1	C
	Subtotal	1600	5498	343.6%	63.3	11.9	E
Total		3732	12642	338.7%	44.8	4.9	D

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	316	1086	343.7%	57.1	3.0	E
	Through	696	2327	334.4%	42.5	3.7	D
	Right Turn	184	654	355.2%	42.4	5.1	D
	Subtotal	1196	4067	340.0%	46.4	3.4	D
SB	Left Turn	20	66	330.0%	69.6	8.4	E
	Through	316	1028	325.3%	45.3	2.1	D
	Right Turn	340	1177	346.2%	101.2	48.5	F
	Subtotal	676	2271	336.0%	75.5	26.0	E
EB	Left Turn	248	851	343.1%	75.9	13.3	E
	Through	656	2270	346.1%	48.6	7.3	D
	Right Turn	144	473	328.3%	17.5	5.1	B
	Subtotal	1048	3594	342.9%	51.0	7.9	D
WB	Left Turn	164	565	344.6%	155.8	97.6	F
	Through	988	3249	328.9%	131.1	89.1	F
	Right Turn	24	78	325.0%	104.5	75.3	F
	Subtotal	1176	3892	331.0%	134.1	89.9	F
Total		4096	13824	337.5%	76.6	26.5	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 13

Terminal Way/Vassar Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	128	428	334.1%	15.1	1.0	B
	Through	736	2618	355.8%	9.5	0.8	A
	Right Turn	80	291	364.0%	7.7	0.8	A
	Subtotal	944	3337	353.5%	10.1	0.7	B
SB	Left Turn	12	45	376.7%	19.6	5.3	B
	Through	392	1391	354.9%	13.8	1.2	B
	Right Turn	188	680	361.9%	13.4	1.8	B
	Subtotal	592	2117	357.6%	13.8	1.3	B
EB	Left Turn	168	594	353.8%	22.8	1.6	C
	Through	120	438	364.7%	11.8	1.2	B
	Right Turn	140	530	378.9%	3.3	0.3	A
	Subtotal	428	1562	365.0%	13.1	0.9	B
WB	Left Turn	96	339	353.3%	21.3	1.3	C
	Through	144	493	342.2%	13.0	1.1	B
	Right Turn	20	70	352.0%	6.1	0.8	A
	Subtotal	260	902	347.1%	15.6	0.6	B
Total		2224	7919	356.1%	12.3	0.7	B

Intersection 14

Terminal Way/Villanova Drive

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	112	341	304.6%	11.7	1.6	B
	Through	716	2288	319.5%	3.8	0.5	A
	Right Turn	24	76	315.0%	2.6	0.8	A
	Subtotal	852	2704	317.4%	4.7	0.6	A
SB	Left Turn	8	20	245.0%	9.3	6.6	A
	Through	636	2033	319.7%	5.0	0.5	A
	Right Turn	80	246	308.0%	4.3	0.6	A
	Subtotal	724	2299	317.6%	4.9	0.5	A
EB	Left Turn	68	212	312.4%	20.2	1.0	C
	Through	20	68	338.0%	13.7	2.2	B
	Right Turn	36	122	337.8%	1.4	0.2	A
	Subtotal	124	402	323.9%	13.4	1.2	B
WB	Left Turn	20	49	244.0%	18.2	2.8	B
	Through	32	97	302.5%	15.6	1.8	B
	Right Turn	12	38	316.7%	3.5	1.2	A
	Subtotal	64	184	286.9%	13.9	1.3	B
Total		1764	5589	316.8%	5.7	0.4	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Conditions
PM Peak Hour

Intersection 15

Terminal Way/Plumb Lane

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	188	568	302.1%	66.9	24.1	E
	Through	460	1384	301.0%	18.7	2.5	B
	Right Turn	20	52	260.0%	11.7	4.7	B
	Subtotal	668	2004	300.1%	32.3	8.9	C
SB	Left Turn	48	139	290.0%	35.9	4.5	D
	Through	252	792	314.3%	21.9	1.4	C
	Right Turn	420	1262	300.5%	5.8	0.5	A
	Subtotal	720	2193	304.6%	13.5	0.7	B
EB	Left Turn	360	1077	299.2%	48.6	8.0	D
	Through	140	436	311.1%	20.7	2.8	C
	Right Turn	112	356	317.9%	5.6	0.7	A
	Subtotal	612	1869	305.4%	34.0	5.4	C
WB	Left Turn	68	208	306.5%	36.3	4.1	D
	Through	276	819	296.8%	20.5	1.5	C
	Right Turn	64	200	313.1%	2.0	0.1	A
	Subtotal	408	1228	301.0%	20.1	1.5	C
Total		2408	7294	302.9%	25.0	3.6	C

MOVEMENT SUMMARY

Site: Mill/Holcomb

Mill Terminal Corridor Study
Existing Plus Project AM Peak
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Holcomb Ave NB												
3	L	7	3.0	0.043	4.0	LOS A	0.1	3.7	0.22	0.72	21.3	
18	R	36	3.0	0.043	4.0	LOS A	0.1	3.7	0.22	0.30	22.6	
Approach		42	3.0	0.043	4.0	LOS A	0.1	3.7	0.22	0.36	22.4	
East: Mill St WB												
1	L	55	3.0	0.238	5.5	LOS A	1.0	25.9	0.05	0.91	23.0	
6	T	204	3.0	0.238	5.5	LOS A	1.0	25.9	0.05	0.20	25.5	
Approach		260	3.0	0.238	5.5	LOS A	1.0	25.9	0.05	0.35	24.9	
West: Mill St EB												
2	T	108	3.0	0.113	4.5	LOS A	0.4	10.6	0.16	0.25	26.0	
12	R	10	3.0	0.113	4.5	LOS A	0.4	10.6	0.16	0.34	25.5	
Approach		117	3.0	0.113	4.5	LOS A	0.4	10.6	0.16	0.26	26.0	
All Vehicles		420	3.0	0.238	5.1	LOS A	1.0	25.9	0.10	0.33	24.9	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

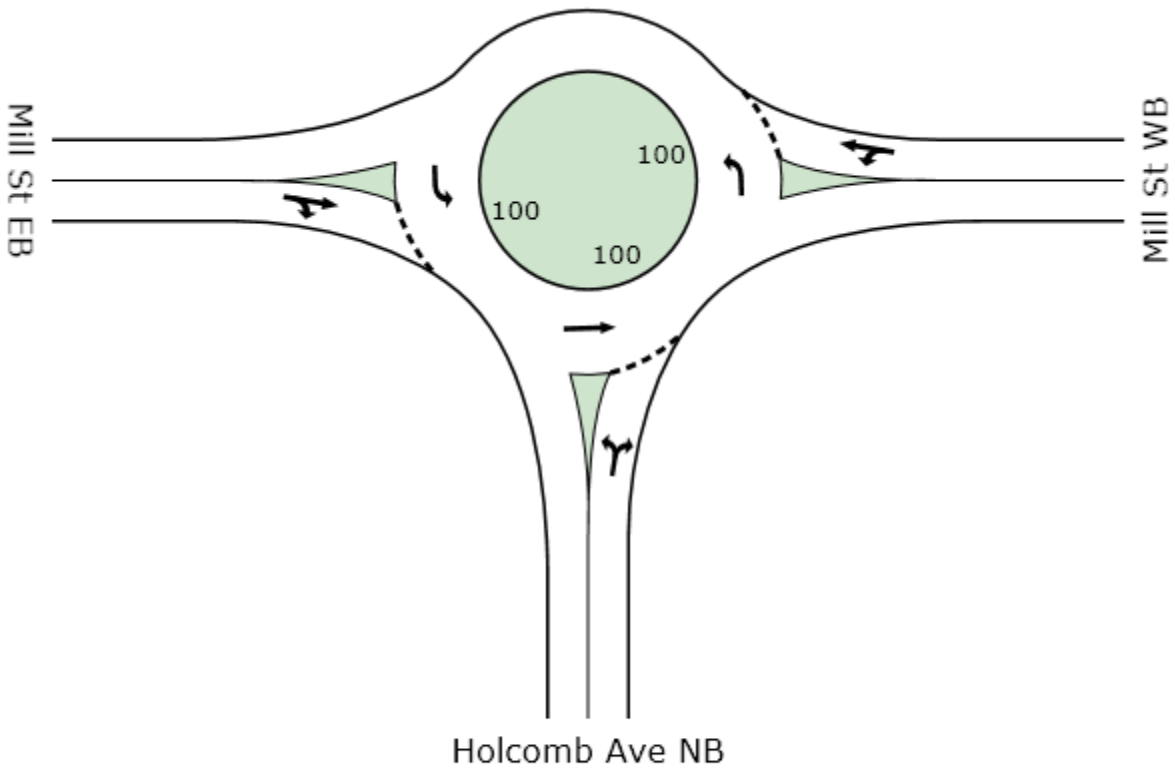
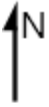
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
AM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	26	330.0%	39.5	9.2	D
	Through	516	1726	334.5%	12.3	0.8	B
	Right Turn	48	164	342.5%	8.8	1.7	A
	Subtotal	572	1917	335.1%	12.4	0.8	B
SB	Left Turn	112	371	331.4%	40.9	3.5	D
	Through	788	2664	338.1%	10.2	0.8	B
	Right Turn	68	245	360.6%	8.8	1.9	A
	Subtotal	968	3281	338.9%	13.5	0.9	B
EB	Left Turn	36	112	311.1%	29.5	5.3	C
	Through	84	353	420.5%	21.5	1.9	C
	Right Turn	12	24	203.3%	7.7	3.4	A
	Subtotal	132	490	370.9%	22.7	2.3	C
WB	Left Turn	44	146	331.8%	28.6	5.2	C
	Through	192	770	401.3%	22.7	1.0	C
	Right Turn	52	182	350.0%	5.7	0.7	A
	Subtotal	288	1098	381.4%	20.7	1.0	C
Total		1960	6786	346.2%	15.0	0.7	B

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	32	114	355.0%	3.2	0.3	A
	Subtotal	32	114	355.0%	3.2	0.3	A
SB	Left Turn	8	38	475.0%	6.5	1.7	A
	Through						
	Right Turn	12	44	366.7%	3.6	0.7	A
	Subtotal	20	82	410.0%	4.9	0.9	A
EB	Left Turn	16	56	352.5%	4.1	0.9	A
	Through	224	766	342.0%	1.3	0.1	A
	Right Turn						
	Subtotal	240	822	342.7%	1.5	0.2	A
WB	Left Turn						
	Through	296	1122	379.1%	1.9	0.2	A
	Right Turn	8	39	485.0%	1.5	0.4	A
	Subtotal	304	1161	381.8%	1.8	0.2	A
Total		596	2179	365.6%	1.9	0.1	A

MOVEMENT SUMMARY

Site: Mill/Kirman

Mill Terminal Corridor Study
Existing Plus Project AM Peak
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Kirman Ave NB												
3	L	3	3.0	0.161	6.3	LOS A	0.6	14.9	0.43	0.92	21.1	
8	T	105	3.0	0.161	6.3	LOS A	0.6	14.9	0.43	0.37	22.0	
18	R	18	3.0	0.161	6.3	LOS A	0.6	14.9	0.43	0.54	22.2	
Approach		127	3.0	0.161	6.3	LOS A	0.6	14.9	0.43	0.41	22.0	
East: Mill St WB												
1	L	30	3.0	0.442	9.0	LOS A	2.3	58.4	0.39	0.86	23.7	
6	T	262	3.0	0.442	9.0	LOS A	2.3	58.4	0.39	0.46	26.1	
16	R	128	3.0	0.442	9.0	LOS A	2.3	58.4	0.39	0.51	25.5	
Approach		421	3.0	0.442	9.0	LOS A	2.3	58.4	0.39	0.50	25.8	
North: Kirman Ave SB												
7	L	116	3.0	0.447	10.2	LOS B	2.2	55.1	0.54	0.88	19.9	
4	T	199	3.0	0.447	10.2	LOS B	2.2	55.1	0.54	0.50	20.3	
14	R	47	3.0	0.447	10.2	LOS B	2.2	55.1	0.54	0.62	20.7	
Approach		362	3.0	0.447	10.2	LOS B	2.2	55.1	0.54	0.64	20.2	
West: Mill St EB												
5	L	29	3.0	0.294	8.1	LOS A	1.2	30.0	0.49	0.95	24.2	
2	T	176	3.0	0.294	8.1	LOS A	1.2	30.0	0.49	0.61	26.6	
12	R	21	3.0	0.294	8.1	LOS A	1.2	30.0	0.49	0.65	26.0	
Approach		226	3.0	0.294	8.1	LOS A	1.2	30.0	0.49	0.66	26.2	
All Vehicles		1136	3.0	0.447	8.9	LOS A	2.3	58.4	0.46	0.57	23.4	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

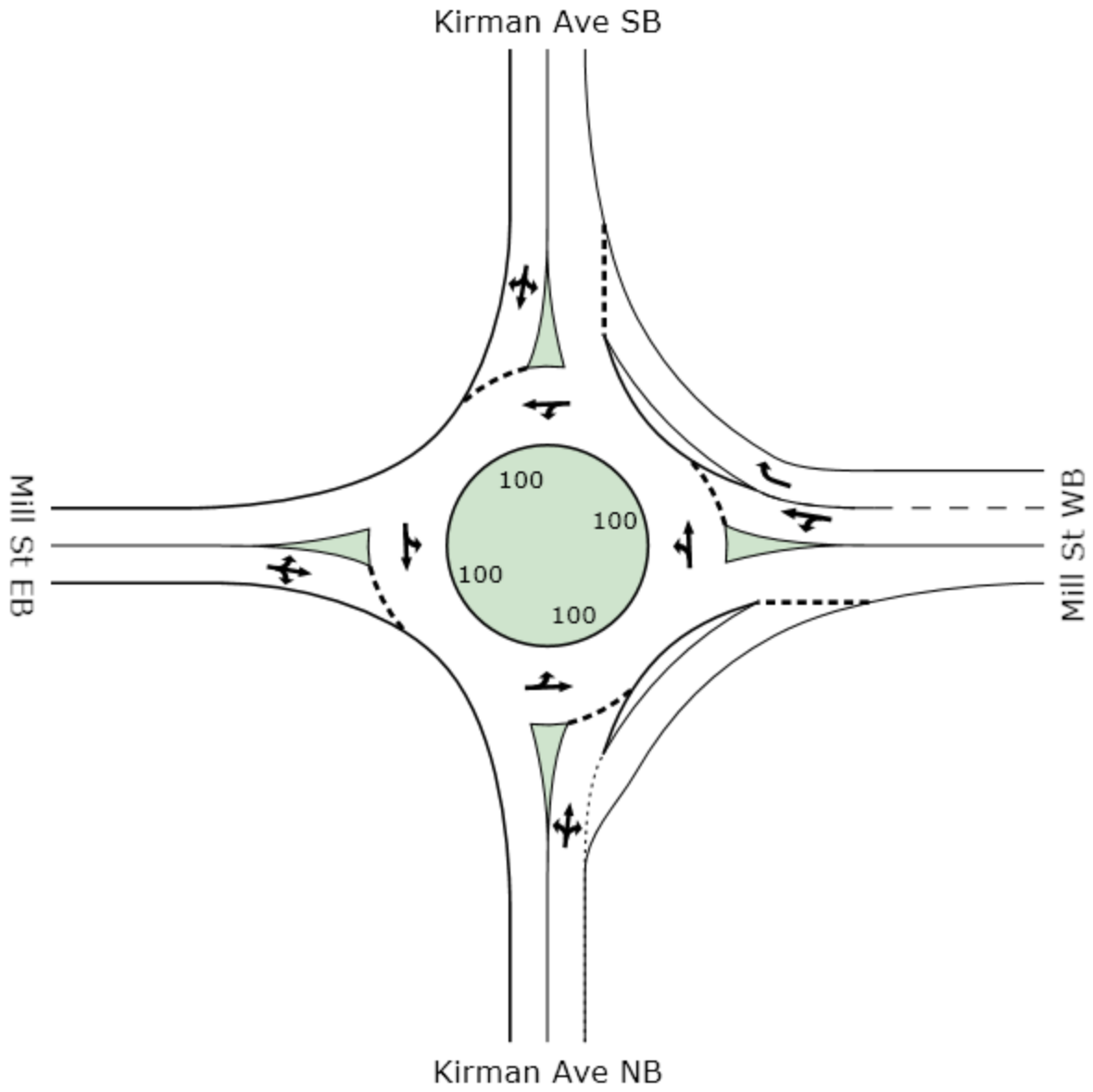
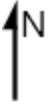
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



MOVEMENT SUMMARY

Site: Mill/Ryland/Renown

Mill Terminal Corridor Study
Existing Plus Project AM Peak

Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Mill Street WB											
6	T	700	3.0	0.588	11.3	LOS B	4.1	105.7	0.32	0.40	25.1
16	R	513	3.0	0.588	11.3	LOS B	4.1	105.7	0.32	0.41	24.9
Approach		1213	3.0	0.588	11.3	LOS B	4.1	105.7	0.32	0.40	25.0
North: Renown Way SB											
7	L	43	3.0	0.087	8.4	LOS A	0.2	5.5	0.57	0.84	20.2
14	R	39	3.0	0.083	8.8	LOS A	0.2	5.4	0.59	0.75	20.8
Approach		82	3.0	0.087	8.6	LOS A	0.2	5.5	0.58	0.80	20.5
North West: Mill Street EB											
7X	L	318	3.0	0.507	13.8	LOS B	1.9	49.8	0.60	0.91	22.1
14X	R	6	3.0	0.507	13.8	LOS B	1.9	49.8	0.60	0.84	22.9
Approach		324	3.0	0.507	13.8	LOS B	1.9	49.8	0.60	0.91	22.1
West: Ryland Street EB											
5	L	11	3.0	0.015	4.9	LOS A	0.0	1.2	0.41	0.69	25.3
2	T	441	3.0	0.239	0.0	X	X	X	X	0.35	32.0
Approach		452	3.0	0.239	0.2	LOS A	0.0	1.2	0.01	0.35	31.7
All Vehicles		2070	3.0	0.588	9.1	LOS A	4.1	105.7	0.31	0.49	25.4

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

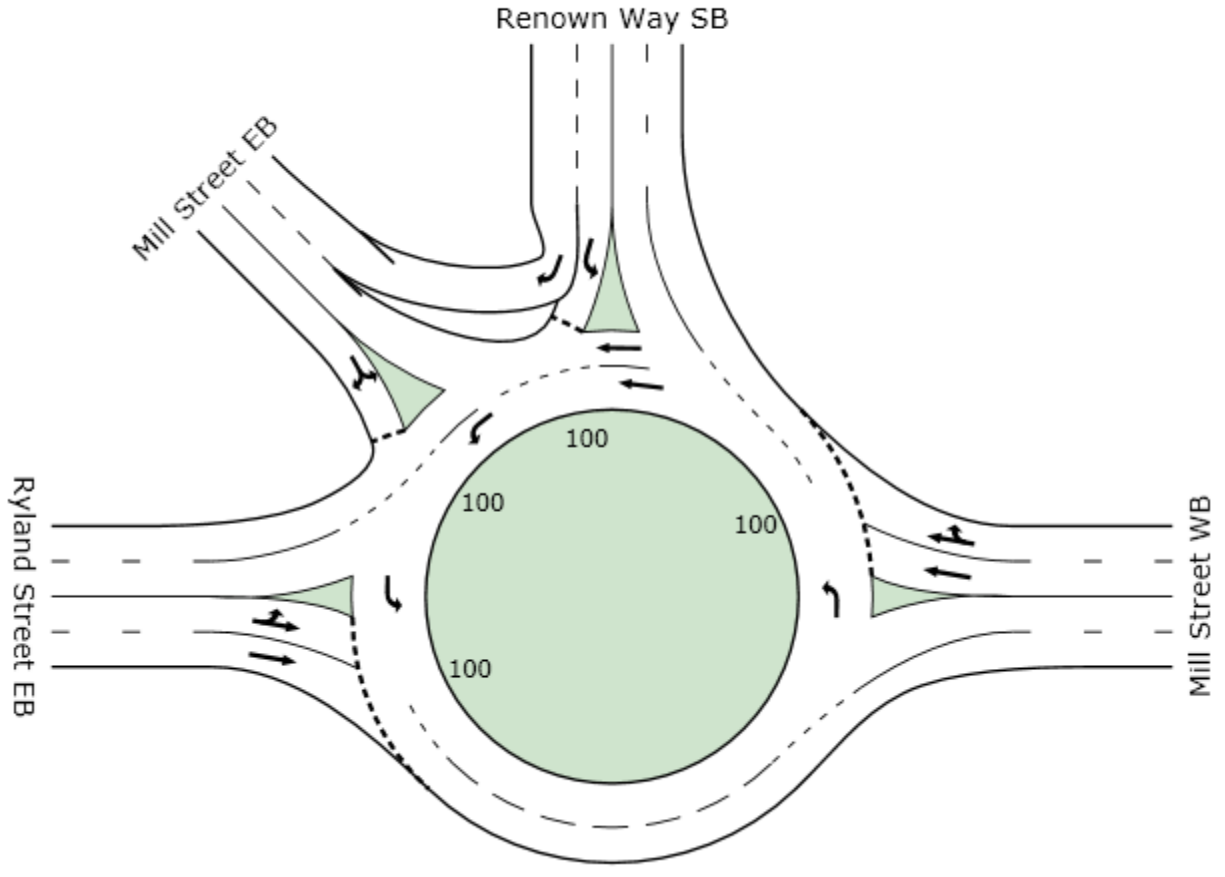
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
AM Peak Hour

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	140	480	343.1%	44.9	1.3	D
	Through	392	1396	356.2%	28.0	2.0	C
	Right Turn	172	588	342.1%	12.8	1.0	B
	Subtotal	704	2465	350.2%	27.6	1.1	C
SB	Left Turn	104	354	340.0%	92.0	27.7	F
	Through	532	1888	354.9%	32.6	1.1	C
	Right Turn	92	349	379.1%	30.2	3.0	C
	Subtotal	728	2590	355.8%	40.6	5.2	D
EB	Left Turn	88	294	334.1%	48.1	6.9	D
	Through	604	2155	356.8%	25.0	1.0	C
	Right Turn	120	401	334.0%	10.1	1.2	B
	Subtotal	812	2850	351.0%	25.3	1.4	C
WB	Left Turn	336	1172	348.9%	43.0	6.2	D
	Through	988	3532	357.5%	20.5	2.2	C
	Right Turn	80	291	364.0%	20.3	4.5	C
	Subtotal	1404	4996	355.8%	25.8	2.9	C
Total		3648	12901	353.7%	29.0	1.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
AM Peak Hour

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	744	2601	349.6%	139.8	25.2	F
	Through	4	16	400.0%	133.3	39.4	F
	Right Turn	568	1992	350.7%	114.4	24.7	F
	Subtotal	1316	4609	350.2%	128.7	24.8	F
EB	Left Turn						
	Through	688	2312	336.0%	9.8	0.8	A
	Right Turn	220	701	318.5%	2.4	0.2	A
	Subtotal	908	3013	331.8%	8.1	0.6	A
WB	Left Turn	172	565	328.4%	45.4	3.8	D
	Through	956	3401	355.7%	13.1	1.0	B
	Right Turn						
	Subtotal	1128	3966	351.6%	17.7	1.4	B
Total		3352	11588	345.7%	59.3	9.6	E

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	504	1816	360.3%	43.1	3.1	D
	Through	68	233	342.9%	46.5	4.6	D
	Right Turn	288	1048	363.9%	20.9	1.7	C
	Subtotal	860	3097	360.1%	35.8	2.2	D
SB	Left Turn	48	169	352.5%	41.3	4.7	D
	Through	24	82	340.0%	42.3	5.2	D
	Right Turn	28	98	350.0%	10.9	3.6	B
	Subtotal	100	349	348.8%	32.8	3.5	C
EB	Left Turn	84	293	348.6%	49.8	5.2	D
	Through	1064	3890	365.6%	27.0	2.2	C
	Right Turn	220	782	355.6%	5.8	0.3	A
	Subtotal	1368	4966	363.0%	25.0	1.5	C
WB	Left Turn	200	685	342.6%	42.4	3.7	D
	Through	548	2169	395.8%	17.8	1.7	B
	Right Turn	44	148	335.5%	15.0	2.8	B
	Subtotal	792	3002	379.0%	23.2	1.6	C
Total		3120	11413	365.8%	27.7	0.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
AM Peak Hour

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	108	358	331.9%	55.2	4.5	E
	Through	252	885	351.1%	25.2	2.0	C
	Right Turn	148	533	360.3%	20.1	1.8	C
	Subtotal	508	1776	349.7%	29.7	1.6	C
SB	Left Turn	20	61	304.0%	59.5	9.5	E
	Through	328	1059	322.9%	36.0	3.8	D
	Right Turn	192	634	330.0%	12.9	1.8	B
	Subtotal	540	1754	324.7%	28.5	2.6	C
EB	Left Turn	236	798	338.0%	31.4	4.1	C
	Through	1056	3743	354.4%	16.9	1.6	B
	Right Turn	124	445	358.7%	8.2	1.2	A
	Subtotal	1416	4985	352.1%	18.4	1.4	B
WB	Left Turn	188	602	320.0%	64.2	13.5	E
	Through	572	1994	348.6%	27.3	3.6	C
	Right Turn	12	39	323.3%	18.4	5.4	B
	Subtotal	772	2634	341.2%	35.6	5.6	D
Total		3236	11150	344.5%	25.9	1.0	C

MOVEMENT SUMMARY

Site: Mill/Holcomb

Mill Terminal Corridor Study
Existing Plus Project PM Peak
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Holcomb Ave NB												
3	L	15	3.0	0.096	4.8	LOS A	0.3	8.6	0.30	0.73	21.1	
18	R	73	3.0	0.096	4.8	LOS A	0.3	8.6	0.30	0.36	22.3	
Approach		88	3.0	0.096	4.8	LOS A	0.3	8.6	0.30	0.42	22.1	
East: Mill St WB												
1	L	43	3.0	0.299	6.2	LOS A	1.4	35.0	0.09	0.94	22.7	
6	T	279	3.0	0.299	6.2	LOS A	1.4	35.0	0.09	0.22	25.1	
Approach		323	3.0	0.299	6.2	LOS A	1.4	35.0	0.09	0.31	24.7	
West: Mill St EB												
2	T	172	3.0	0.170	5.0	LOS A	0.7	16.9	0.15	0.24	25.8	
12	R	7	3.0	0.170	5.0	LOS A	0.7	16.9	0.15	0.34	25.2	
Approach		178	3.0	0.170	5.0	LOS A	0.7	16.9	0.15	0.25	25.8	
All Vehicles		589	3.0	0.299	5.6	LOS A	1.4	35.0	0.14	0.31	24.6	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

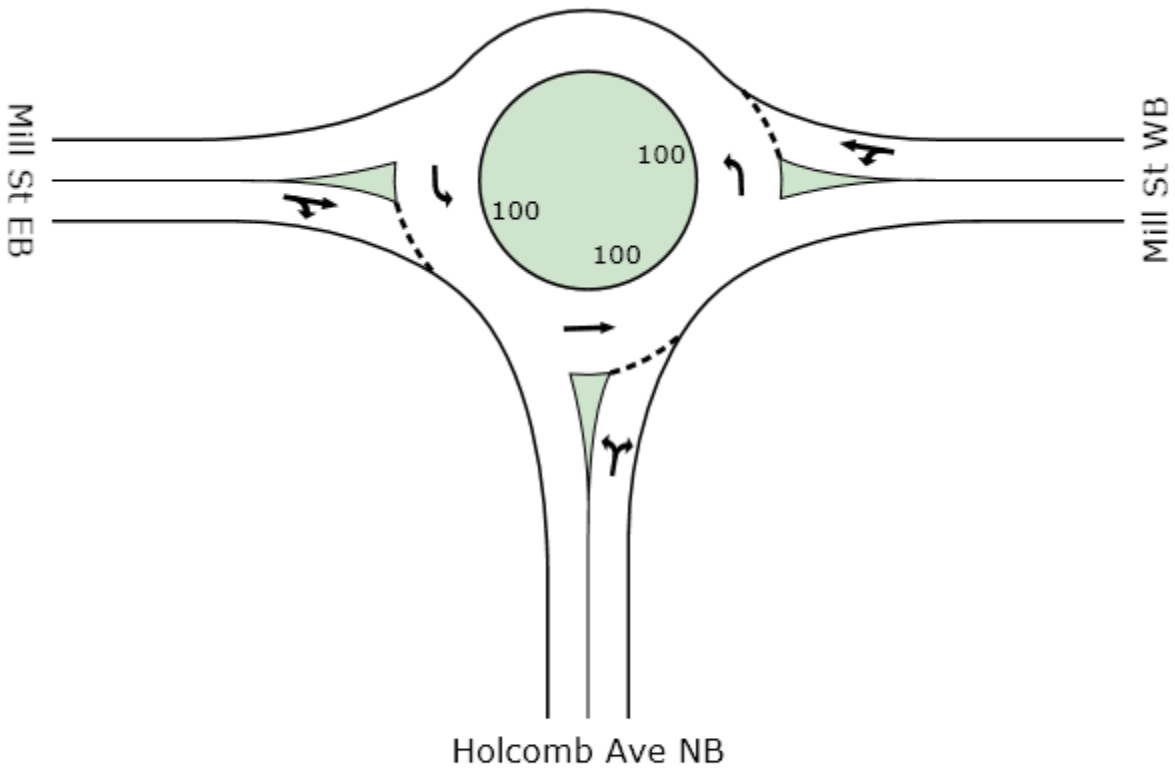
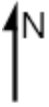
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
PM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	12	49	410.0%	42.1	4.6	D
	Through	1188	4387	369.3%	20.7	2.3	C
	Right Turn	32	109	340.0%	19.4	4.9	B
	Subtotal	1232	4545	368.9%	20.9	2.3	C
SB	Left Turn	48	161	335.8%	46.7	4.6	D
	Through	592	2156	364.3%	12.2	0.9	B
	Right Turn	36	140	390.0%	9.7	1.3	A
	Subtotal	676	2458	363.6%	14.3	1.1	B
EB	Left Turn	116	433	373.1%	51.1	12.5	D
	Through	124	458	369.7%	25.3	2.3	C
	Right Turn	20	73	364.0%	7.3	1.5	A
	Subtotal	260	964	370.8%	35.8	6.3	D
WB	Left Turn	80	301	376.0%	38.7	4.6	D
	Through	248	978	394.4%	25.3	1.4	C
	Right Turn	144	556	386.1%	14.3	1.7	B
	Subtotal	472	1835	388.7%	24.2	1.6	C
Total		2640	9802	371.3%	21.4	1.5	C

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	4	18	450.0%	7.8	1.8	A
	Through						
	Right Turn	52	192	368.5%	3.4	0.2	A
	Subtotal	56	210	374.3%	3.8	0.3	A
SB	Left Turn	12	44	370.0%	8.1	2.1	A
	Through						
	Right Turn	28	103	367.1%	4.4	0.8	A
	Subtotal	40	147	368.0%	5.5	0.9	A
EB	Left Turn						
	Through	196	728	371.2%	1.7	0.1	A
	Right Turn						
	Subtotal	196	728	371.2%	1.7	0.1	A
WB	Left Turn						
	Through	460	1700	369.7%	2.0	0.1	A
	Right Turn	16	62	385.0%	1.6	0.3	A
	Subtotal	476	1762	370.2%	2.0	0.1	A
Total		768	2846	370.6%	2.2	0.1	A

MOVEMENT SUMMARY

Site: Mill/Kirman

Mill Terminal Corridor Study
Existing Plus Project PM Peak
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Kirman Ave NB												
3	L	5	3.0	0.299	8.5	LOS A	1.2	30.0	0.52	0.97	20.5	
8	T	185	3.0	0.299	8.5	LOS A	1.2	30.0	0.52	0.51	21.1	
18	R	27	3.0	0.299	8.5	LOS A	1.2	30.0	0.52	0.65	21.4	
Approach		217	3.0	0.299	8.5	LOS A	1.2	30.0	0.52	0.54	21.1	
East: Mill St WB												
1	L	42	3.0	0.602	13.3	LOS B	4.0	103.7	0.60	0.93	22.2	
6	T	352	3.0	0.602	13.3	LOS B	4.0	103.7	0.60	0.67	24.0	
16	R	124	3.0	0.602	13.3	LOS B	4.0	103.7	0.60	0.70	23.4	
Approach		518	3.0	0.602	13.3	LOS B	4.0	103.7	0.60	0.70	23.7	
North: Kirman Ave SB												
7	L	141	3.0	0.628	16.1	LOS C	4.2	107.3	0.71	1.05	18.5	
4	T	226	3.0	0.628	16.1	LOS C	4.2	107.3	0.71	0.82	18.4	
14	R	89	3.0	0.628	16.1	LOS C	4.2	107.3	0.71	0.90	19.0	
Approach		457	3.0	0.628	16.1	LOS C	4.2	107.3	0.71	0.90	18.5	
West: Mill St EB												
5	L	45	3.0	0.373	9.8	LOS A	1.6	40.2	0.56	0.98	23.5	
2	T	213	3.0	0.373	9.8	LOS A	1.6	40.2	0.56	0.70	25.7	
12	R	11	3.0	0.373	9.8	LOS A	1.6	40.2	0.56	0.73	25.1	
Approach		268	3.0	0.373	9.8	LOS A	1.6	40.2	0.56	0.75	25.3	
All Vehicles		1461	3.0	0.628	12.8	LOS B	4.2	107.3	0.61	0.75	21.7	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

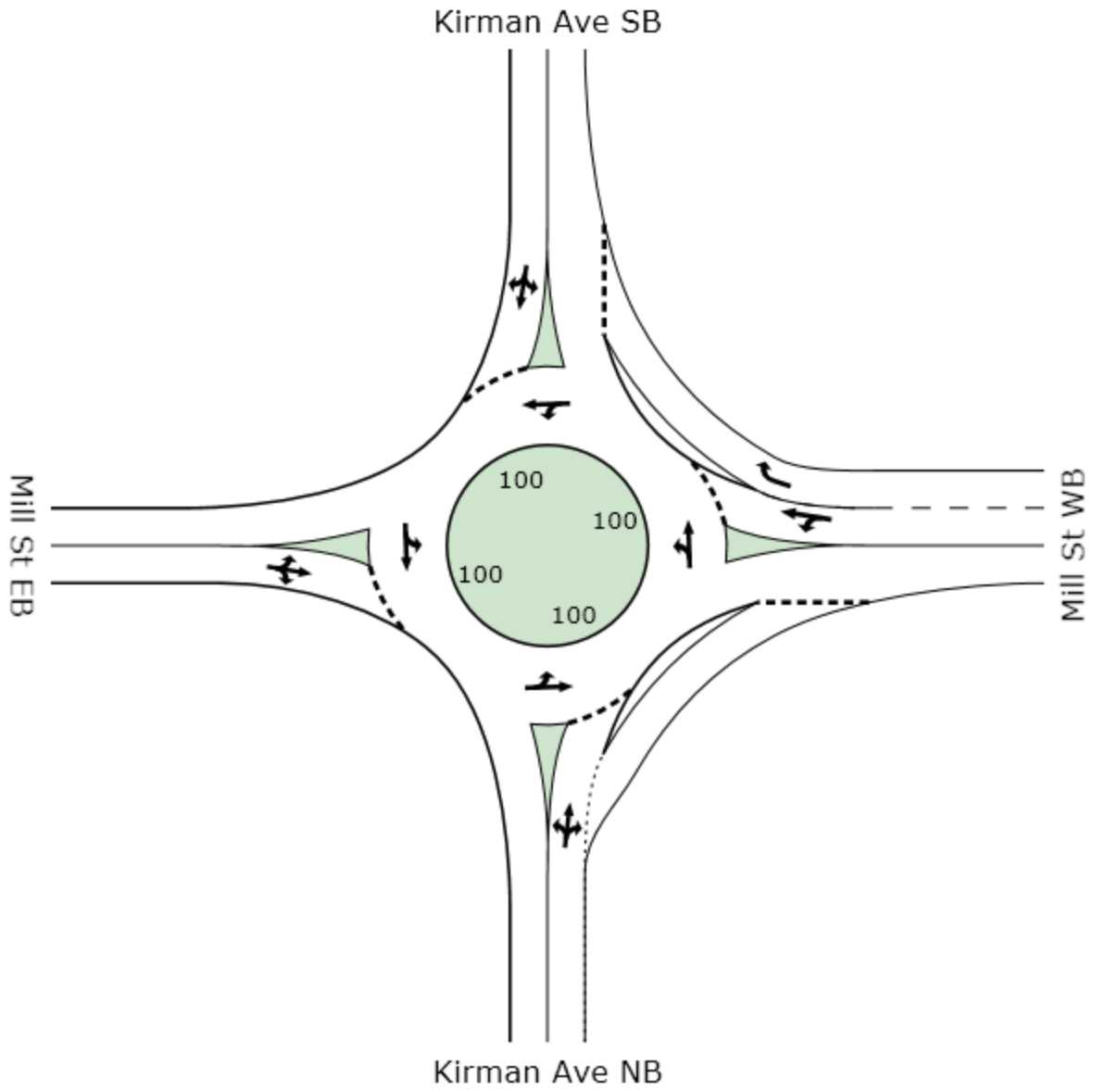
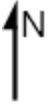
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



MOVEMENT SUMMARY

Site: Mill/Ryland/Renown

Mill Terminal Corridor Study
Existing Plus Project PM Peak

Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
East: Mill Street WB											
6	T	525	3.0	0.507	9.5	LOS A	3.1	79.0	0.27	0.38	25.9
16	R	586	3.0	0.566	10.8	LOS B	3.8	98.0	0.30	0.40	25.2
Approach		1111	3.0	0.566	10.2	LOS B	3.8	98.0	0.29	0.39	25.6
North: Renown Way SB											
7	L	155	3.0	0.299	11.4	LOS B	0.9	21.9	0.61	0.88	19.4
14	R	121	3.0	0.247	11.0	LOS B	0.7	17.8	0.62	0.78	20.1
Approach		276	3.0	0.299	11.2	LOS B	0.9	21.9	0.61	0.83	19.7
North West: Mill Street EB											
7X	L	394	3.0	0.598	16.1	LOS C	2.7	68.3	0.63	0.94	21.3
14X	R	6	3.0	0.598	16.1	LOS C	2.7	68.3	0.63	0.87	22.0
Approach		400	3.0	0.598	16.1	LOS C	2.7	68.3	0.63	0.94	21.3
West: Ryland Street EB											
5	L	12	3.0	0.019	6.0	LOS A	0.1	1.5	0.49	0.74	24.8
2	T	671	3.0	0.364	0.1	X	X	X	X	0.35	32.0
Approach		683	3.0	0.364	0.2	LOS A	0.1	1.5	0.01	0.35	31.8
All Vehicles		2470	3.0	0.598	8.5	LOS A	3.8	98.0	0.30	0.52	25.2

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

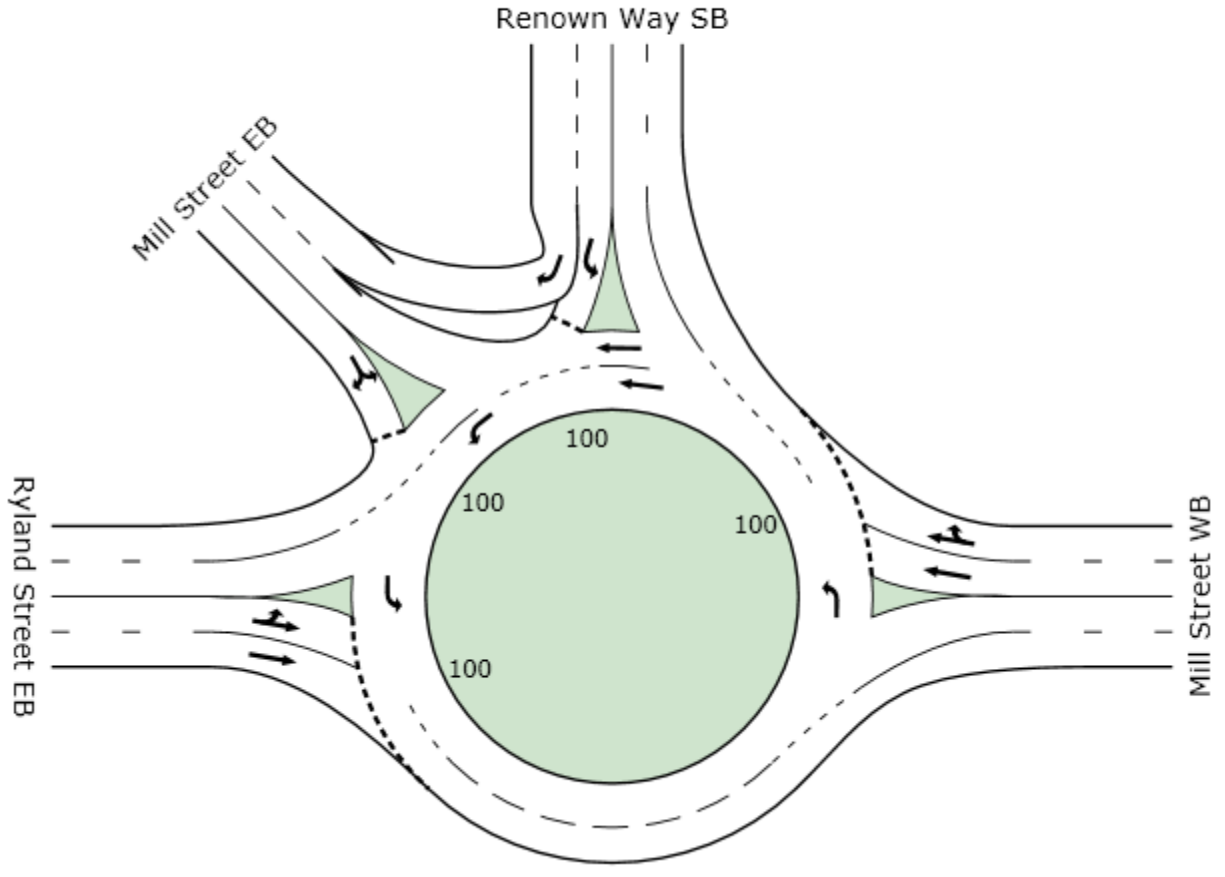
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
PM Peak Hour

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	200	764	382.2%	87.2	14.3	F
	Through	824	2978	361.4%	43.8	7.7	D
	Right Turn	260	926	356.0%	27.2	5.8	C
	Subtotal	1284	4668	363.5%	47.6	8.5	D
SB	Left Turn	124	447	360.3%	62.7	22.1	E
	Through	596	2276	381.9%	33.6	2.2	C
	Right Turn	104	370	355.4%	32.3	3.3	C
	Subtotal	824	3093	375.3%	37.7	4.0	D
EB	Left Turn	224	834	372.3%	63.5	10.0	E
	Through	912	3338	366.1%	48.5	9.3	D
	Right Turn	176	654	371.4%	23.9	6.5	C
	Subtotal	1312	4826	367.8%	47.8	8.9	D
WB	Left Turn	320	1169	365.3%	111.7	42.8	F
	Through	748	2811	375.8%	27.8	3.8	C
	Right Turn	104	372	358.1%	29.1	5.3	C
	Subtotal	1172	4352	371.4%	50.7	13.1	D
Total		4592	16939	368.9%	46.7	5.4	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
PM Peak Hour

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	400	1370	342.5%	38.8	1.7	D
	Through						
	Right Turn	352	1209	343.5%	9.5	0.5	A
	Subtotal	752	2579	343.0%	25.1	1.1	C
EB	Left Turn						
	Through	1012	3582	354.0%	12.9	1.3	B
	Right Turn	356	1193	335.2%	4.2	0.2	A
	Subtotal	1368	4776	349.1%	10.7	1.0	B
WB	Left Turn	388	1386	357.3%	61.9	8.9	E
	Through	920	3401	369.7%	5.5	1.3	A
	Right Turn						
	Subtotal	1308	4788	366.0%	21.8	3.5	C
Total		3428	12142	354.2%	18.1	1.7	B

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	236	792	335.4%	44.7	5.3	D
	Through	88	311	353.6%	44.4	3.6	D
	Right Turn	184	628	341.1%	14.4	1.6	B
	Subtotal	508	1730	340.6%	33.7	3.3	C
SB	Left Turn	56	195	348.6%	38.8	3.4	D
	Through	56	193	344.3%	44.4	6.0	D
	Right Turn	76	267	351.6%	18.9	4.1	B
	Subtotal	188	655	348.5%	32.3	3.2	C
EB	Left Turn	124	413	333.2%	55.4	5.1	E
	Through	832	2914	350.2%	23.5	1.0	C
	Right Turn	480	1680	349.9%	6.8	0.3	A
	Subtotal	1436	5007	348.7%	20.5	1.0	C
WB	Left Turn	432	1466	339.4%	60.4	17.8	E
	Through	1076	3818	354.8%	22.3	3.5	C
	Right Turn	92	324	352.6%	15.9	3.7	B
	Subtotal	1600	5609	350.6%	31.9	7.1	C
Total		3732	13001	348.4%	27.8	3.3	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
Existing Plus Project Conditions
PM Peak Hour

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	316	1072	339.4%	50.5	7.1	D
	Through	696	2324	334.0%	22.5	1.8	C
	Right Turn	184	607	329.8%	18.1	2.0	B
	Subtotal	1196	4004	334.7%	29.5	3.2	C
SB	Left Turn	20	62	308.0%	56.3	7.1	E
	Through	316	1110	351.3%	34.7	4.3	C
	Right Turn	340	1128	331.6%	20.6	2.4	C
	Subtotal	676	2299	340.1%	28.4	2.3	C
EB	Left Turn	248	863	348.1%	50.2	3.6	D
	Through	656	2329	355.1%	26.5	1.8	C
	Right Turn	144	492	341.9%	7.5	0.9	A
	Subtotal	1048	3685	351.6%	29.5	1.1	C
WB	Left Turn	164	564	343.9%	65.9	12.5	E
	Through	988	3415	345.7%	41.6	10.1	D
	Right Turn	24	81	336.7%	32.2	10.3	C
	Subtotal	1176	4060	345.2%	44.8	10.1	D
Total		4096	14048	343.0%	33.8	2.8	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 1

Lake Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	11	9	83.6%	11.3	4.6	B
	Through	98	87	89.1%	8.6	1.0	A
	Right Turn	33	31	94.5%	4.8	1.5	A
	Subtotal	142	128	89.9%	7.9	1.2	A
SB	Left Turn	87	82	94.3%	18.2	1.3	B
	Through	250	214	85.7%	9.0	0.9	A
	Right Turn	22	19	84.1%	4.2	1.7	A
	Subtotal	359	315	87.7%	11.1	0.9	B
EB	Left Turn	11	9	79.1%	11.2	3.3	B
	Through	22	20	89.5%	9.5	2.0	A
	Right Turn	11	10	93.6%	2.4	0.9	A
	Subtotal	44	39	88.0%	8.0	1.2	A
WB	Left Turn	98	92	93.7%	14.5	1.1	B
	Through	22	48	219.1%	3.7	0.7	A
	Right Turn	130	115	88.2%	3.9	0.5	A
	Subtotal	250	255	101.8%	7.7	0.4	A
Total		795	736	92.6%	9.2	0.6	A

Intersection 2

Holcomb Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	11	8	74.5%	11.0	1.3	B
	Through						
	Right Turn	43	39	90.5%	3.3	0.3	A
	Subtotal	54	47	87.2%	4.6	0.5	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	141	133	94.0%	1.0	0.2	A
	Right Turn	11	10	90.0%	0.6	0.2	A
	Subtotal	152	142	93.7%	0.9	0.2	A
WB	Left Turn	76	68	90.0%	4.4	0.2	A
	Through	272	268	98.5%	2.4	0.2	A
	Right Turn						
	Subtotal	348	336	96.6%	2.8	0.1	A
Total		554	526	94.9%	2.5	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	11	11	96.4%	46.8	11.3	D
	Through	685	639	93.3%	18.4	1.1	B
	Right Turn	65	60	91.7%	15.6	2.0	B
	Subtotal	761	709	93.2%	18.6	1.0	B
SB	Left Turn	152	133	87.3%	54.0	7.1	D
	Through	1054	976	92.6%	16.0	2.0	B
	Right Turn	98	97	98.8%	15.8	2.9	B
	Subtotal	1304	1205	92.4%	20.2	2.8	C
EB	Left Turn	54	50	92.6%	38.7	3.4	D
	Through	109	110	100.5%	27.8	2.5	C
	Right Turn	11	11	102.7%	11.3	2.9	B
	Subtotal	174	171	98.2%	29.8	2.2	C
WB	Left Turn	54	44	80.6%	31.6	3.1	C
	Through	261	246	94.3%	27.1	1.9	C
	Right Turn	65	56	85.4%	9.1	1.7	A
	Subtotal	380	345	90.8%	24.7	1.5	C
Total		2619	2430	92.8%	21.0	1.5	C

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	43	41	94.2%	3.4	0.2	A
	Subtotal	43	41	94.2%	3.4	0.2	A
SB	Left Turn	11	8	73.6%	8.3	4.2	A
	Through						
	Right Turn	22	22	98.6%	3.9	0.5	A
	Subtotal	33	30	90.3%	4.9	1.0	A
EB	Left Turn	22	18	83.2%	4.3	1.0	A
	Through	293	273	93.3%	1.1	0.1	A
	Right Turn						
	Subtotal	315	292	92.6%	1.3	0.2	A
WB	Left Turn						
	Through	380	335	88.1%	1.7	0.1	A
	Right Turn	11	7	67.3%	1.8	0.6	A
	Subtotal	391	342	87.5%	1.7	0.1	A
Total		782	704	90.0%	1.8	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 5

Kirman Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	11	10	87.3%	16.0	3.7	B
	Through	152	143	93.8%	8.7	1.0	A
	Right Turn	33	28	83.6%	8.0	1.6	A
	Subtotal	196	180	91.7%	9.0	1.1	A
SB	Left Turn	163	153	93.8%	14.4	1.0	B
	Through	293	269	91.9%	9.4	0.9	A
	Right Turn	65	60	92.6%	8.1	0.5	A
	Subtotal	521	482	92.6%	10.8	0.7	B
EB	Left Turn	43	37	85.1%	20.7	2.6	C
	Through	250	244	97.8%	9.3	0.5	A
	Right Turn	33	29	88.5%	5.9	1.7	A
	Subtotal	326	310	95.2%	10.3	0.6	B
WB	Left Turn	43	33	77.7%	15.2	2.9	B
	Through	326	273	83.9%	13.4	1.2	B
	Right Turn	185	153	82.8%	10.2	1.1	B
	Subtotal	554	460	83.0%	12.5	0.9	B
Total		1597	1432	89.7%	11.0	0.4	B

Intersection 6

Renown Regional Way-Ryland Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	565	520	91.9%	15.5	2.2	B
	Subtotal	565	520	91.9%	15.5	2.2	B
SB	Left Turn	54	52	95.7%	21.3	1.7	C
	Through						
	Right Turn	43	38	89.3%	1.9	0.1	A
	Subtotal	97	90	92.9%	13.0	1.4	B
EB	Left Turn	65	62	95.8%	19.2	2.4	B
	Through	348	344	98.7%	14.2	1.6	B
	Right Turn						
	Subtotal	413	406	98.3%	14.9	1.6	B
WB	Left Turn	891	757	84.9%	19.6	3.0	B
	Through	500	412	82.4%	6.3	0.9	A
	Right Turn	152	127	83.8%	2.6	0.4	A
	Subtotal	1543	1296	84.0%	13.7	2.0	B
Total		2618	2312	88.3%	14.3	1.7	B

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 7

Yori Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	22	17	78.6%	56.1	20.3	F
	Through	11	8	74.5%	74.3	24.6	F
	Right Turn	76	72	94.3%	29.3	11.2	D
	Subtotal	109	97	89.2%	37.5	12.4	E
SB	Left Turn	11	13	113.6%	54.1	15.4	F
	Through	11	11	95.5%	58.5	15.5	F
	Right Turn	11	12	107.3%	23.3	9.8	C
	Subtotal	33	35	105.5%	45.4	10.8	E
EB	Left Turn						
	Through	946	866	91.6%	1.9	0.1	A
	Right Turn	22	20	92.7%	1.9	0.4	A
	Subtotal	968	887	91.6%	1.9	0.1	A
WB	Left Turn	54	42	77.0%	9.4	1.0	A
	Through	1511	1263	83.6%	6.2	0.3	A
	Right Turn	11	9	85.5%	6.0	1.5	A
	Subtotal	1576	1314	83.4%	6.3	0.3	A
Total		2686	2333	86.9%	6.5	0.6	A

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	196	171	87.4%	76.5	9.6	E
	Through	543	485	89.4%	58.2	11.2	E
	Right Turn	239	221	92.4%	28.5	9.4	C
	Subtotal	978	878	89.7%	54.3	10.1	D
SB	Left Turn	130	116	89.2%	64.7	14.9	E
	Through	674	616	91.4%	60.2	19.1	E
	Right Turn	120	106	88.6%	66.0	27.2	E
	Subtotal	924	838	90.7%	61.5	18.9	E
EB	Left Turn	109	97	89.0%	62.0	11.2	E
	Through	761	709	93.2%	30.2	2.3	C
	Right Turn	152	148	97.0%	18.2	2.5	B
	Subtotal	1022	954	93.3%	31.5	2.8	C
WB	Left Turn	424	349	82.3%	78.4	14.3	E
	Through	1239	1053	84.9%	65.9	15.6	E
	Right Turn	98	83	84.4%	73.0	16.5	E
	Subtotal	1761	1484	84.3%	69.1	12.8	E
Total		4685	4154	88.7%	55.9	5.4	E

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 9

Golden Lane/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	11	12	105.5%	77.9	43.2	F
	Through						
	Right Turn	11	10	94.5%	7.7	4.6	A
	Subtotal	22	22	100.0%	45.8	24.9	E
EB	Left Turn	33	29	88.2%	24.0	6.4	C
	Through	1065	998	93.7%	2.4	0.1	A
	Right Turn						
	Subtotal	1098	1027	93.6%	3.0	0.3	A
WB	Left Turn						
	Through	1772	1486	83.8%	20.9	12.5	C
	Right Turn	43	38	88.1%	20.7	12.6	C
	Subtotal	1815	1524	83.9%	20.9	12.5	C
Total		2935	2573	87.7%	14.0	7.6	B

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	946	666	70.4%	956.4	85.2	F
	Through	11	7	61.8%	982.1	197.0	F
	Right Turn	728	508	69.8%	914.2	85.7	F
	Subtotal	1685	1181	70.1%	938.3	84.8	F
EB	Left Turn						
	Through	804	753	93.6%	25.5	2.1	C
	Right Turn	250	223	89.1%	19.2	3.0	B
	Subtotal	1054	976	92.6%	24.1	2.2	C
WB	Left Turn	196	175	89.4%	65.7	8.5	E
	Through	1109	1062	95.7%	11.5	1.7	B
	Right Turn						
	Subtotal	1305	1237	94.8%	19.2	2.4	B
Total		4044	3393	83.9%	340.3	27.2	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	630	575	91.3%	69.5	12.9	E
	Through	87	76	87.5%	74.2	17.6	E
	Right Turn	370	333	90.1%	41.7	11.1	D
	Subtotal	1087	984	90.6%	60.5	12.6	E
SB	Left Turn	65	60	92.2%	50.4	3.9	D
	Through	33	26	79.4%	47.8	7.4	D
	Right Turn	33	27	81.5%	17.6	4.0	B
	Subtotal	131	113	86.3%	41.9	3.1	D
EB	Left Turn	109	86	78.4%	47.5	6.7	D
	Through	1359	1096	80.6%	44.1	2.2	D
	Right Turn	283	221	78.2%	10.2	1.1	B
	Subtotal	1751	1403	80.1%	38.9	2.0	D
WB	Left Turn	250	231	92.4%	82.2	10.9	F
	Through	696	683	98.2%	31.3	1.2	C
	Right Turn	54	47	87.4%	25.2	3.2	C
	Subtotal	1000	962	96.2%	43.2	2.6	D
Total		3969	3462	87.2%	46.4	3.6	D

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	130	126	96.8%	53.6	6.4	D
	Through	304	283	93.2%	35.8	2.7	D
	Right Turn	185	173	93.2%	31.9	3.2	C
	Subtotal	619	582	93.9%	38.5	3.1	D
SB	Left Turn	22	20	90.5%	61.4	6.8	E
	Through	391	373	95.4%	42.1	3.9	D
	Right Turn	228	203	88.9%	23.6	4.6	C
	Subtotal	641	596	92.9%	36.4	3.8	D
EB	Left Turn	283	230	81.2%	37.4	7.4	D
	Through	1283	1111	86.6%	29.4	5.7	C
	Right Turn	152	128	83.9%	19.0	5.3	B
	Subtotal	1718	1468	85.5%	29.7	5.8	C
WB	Left Turn	228	214	93.9%	66.7	22.5	E
	Through	696	632	90.8%	43.5	11.5	D
	Right Turn	11	9	81.8%	30.9	12.5	C
	Subtotal	935	855	91.5%	49.2	14.4	D
Total		3913	3500	89.5%	37.1	4.8	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 13

Terminal Way/Vassar Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	185	174	94.1%	17.4	2.2	B
	Through	413	407	98.4%	9.4	0.4	A
	Right Turn	152	142	93.1%	8.1	0.8	A
	Subtotal	750	722	96.3%	11.1	0.7	B
SB	Left Turn	54	49	90.2%	20.3	2.7	C
	Through	359	467	130.2%	10.8	0.8	B
	Right Turn	207	189	91.1%	13.3	1.3	B
	Subtotal	620	705	113.7%	12.1	0.9	B
EB	Left Turn	163	153	93.9%	22.9	1.2	C
	Through	130	123	94.4%	13.5	1.3	B
	Right Turn	76	70	91.7%	3.2	0.5	A
	Subtotal	369	346	93.6%	15.6	0.8	B
WB	Left Turn	109	101	92.6%	22.6	1.4	C
	Through	76	74	97.4%	12.8	1.7	B
	Right Turn	43	41	94.7%	5.5	1.4	A
	Subtotal	228	216	94.6%	16.0	1.0	B
Total		1967	1988	101.1%	12.8	0.6	B

Intersection 14

Terminal Way/Villanova Drive

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	54	47	87.8%	10.7	1.1	B
	Through	652	670	102.8%	4.4	0.3	A
	Right Turn	11	11	95.5%	3.1	1.4	A
	Subtotal	717	728	101.6%	4.8	0.3	A
SB	Left Turn	22	20	90.0%	11.3	2.5	B
	Through	413	377	91.3%	5.6	0.4	A
	Right Turn	163	152	93.1%	4.5	0.3	A
	Subtotal	598	549	91.8%	5.5	0.4	A
EB	Left Turn	98	93	94.7%	20.0	0.7	B
	Through	22	18	80.5%	12.6	1.9	B
	Right Turn	43	43	100.5%	1.6	0.2	A
	Subtotal	163	154	94.3%	14.0	1.2	B
WB	Left Turn	22	19	85.9%	18.7	2.5	B
	Through	33	31	93.0%	13.0	1.3	B
	Right Turn	22	21	93.2%	4.8	1.0	A
	Subtotal	77	70	91.0%	12.1	1.1	B
Total		1555	1501	96.5%	6.3	0.3	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
AM Peak Hour

Intersection 15

Terminal Way/Plumb Lane

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	130	127	97.4%	54.6	16.2	D
	Through	239	228	95.4%	24.3	1.8	C
	Right Turn	33	29	87.6%	13.3	2.0	B
	Subtotal	402	383	95.4%	33.7	6.6	C
SB	Left Turn	76	67	88.4%	41.1	4.8	D
	Through	152	138	90.9%	28.4	2.6	C
	Right Turn	326	305	93.6%	5.7	0.5	A
	Subtotal	554	511	92.2%	16.5	1.1	B
EB	Left Turn	467	429	91.9%	40.5	3.3	D
	Through	370	324	87.6%	21.3	1.9	C
	Right Turn	109	95	87.3%	10.1	1.6	B
	Subtotal	946	849	89.7%	29.7	2.3	C
WB	Left Turn	54	54	99.8%	42.5	3.7	D
	Through	261	249	95.2%	21.5	1.8	C
	Right Turn	76	73	96.6%	2.2	0.2	A
	Subtotal	391	376	96.1%	20.8	1.7	C
Total		2293	2119	92.4%	25.7	2.3	C

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 1

Lake Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	8	44	545.0%	10.3	2.4	B
	Through	196	766	390.6%	7.7	1.0	A
	Right Turn	72	291	403.9%	4.9	0.6	A
	Subtotal	276	1100	398.6%	7.0	0.8	A
SB	Left Turn	92	353	383.9%	17.3	0.4	B
	Through	264	1056	399.8%	7.6	0.9	A
	Right Turn	20	79	394.0%	5.2	1.0	A
	Subtotal	376	1488	395.6%	9.8	0.7	A
EB	Left Turn	8	41	515.0%	20.8	4.5	C
	Through	28	125	447.1%	16.3	2.3	B
	Right Turn	32	134	420.0%	5.7	1.7	A
	Subtotal	68	301	442.4%	12.0	1.1	B
WB	Left Turn	68	269	395.9%	17.0	2.1	B
	Through	28	244	870.0%	6.8	0.9	A
	Right Turn	204	780	382.4%	6.3	0.7	A
	Subtotal	300	1293	430.9%	8.7	0.8	A
Total		1020	4181	409.9%	8.9	0.5	A

Intersection 2

Holcomb Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	16	94	587.5%	11.8	1.2	B
	Through						
	Right Turn	72	379	526.1%	4.4	0.3	A
	Subtotal	88	473	537.3%	5.9	0.4	A
SB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
EB	Left Turn						
	Through	172	856	497.7%	1.1	0.1	A
	Right Turn	8	42	520.0%	1.2	0.3	A
	Subtotal	180	898	498.7%	1.1	0.1	A
WB	Left Turn	44	184	418.2%	4.9	0.3	A
	Through	280	1235	441.0%	2.8	0.2	A
	Right Turn						
	Subtotal	324	1419	437.9%	3.1	0.2	A
Total		592	2789	471.1%	2.9	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	12	82	686.7%	100.5	38.2	F
	Through	1188	5192	437.0%	91.5	36.6	F
	Right Turn	32	162	505.0%	91.2	35.6	F
	Subtotal	1232	5436	441.2%	91.6	36.5	F
SB	Left Turn	48	237	493.3%	70.6	10.8	E
	Through	592	2872	485.1%	16.3	1.0	B
	Right Turn	36	184	512.2%	14.2	2.2	B
	Subtotal	676	3293	487.2%	20.0	1.5	B
EB	Left Turn	116	547	471.4%	90.4	46.6	F
	Through	124	667	538.1%	60.0	36.9	E
	Right Turn	20	134	672.0%	39.2	39.4	D
	Subtotal	260	1348	518.6%	70.4	41.7	E
WB	Left Turn	80	358	447.5%	47.4	15.9	D
	Through	248	1155	465.6%	29.9	3.0	C
	Right Turn	144	631	438.3%	22.2	3.0	C
	Subtotal	472	2144	454.2%	30.5	3.5	C
Total		2640	12222	462.9%	59.3	17.1	E

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	4	0	0.0%	0.0	0.0	A
	Through						
	Right Turn	52	235	452.3%	3.5	0.3	A
	Subtotal	56	235	420.0%	3.5	0.3	A
SB	Left Turn	12	74	613.3%	9.5	2.1	A
	Through						
	Right Turn	28	123	438.6%	5.5	1.0	A
	Subtotal	40	196	491.0%	7.1	1.4	A
EB	Left Turn						
	Through	196	1024	522.4%	1.3	0.1	A
	Right Turn						
	Subtotal	196	1024	522.4%	1.3	0.1	A
WB	Left Turn						
	Through	460	2059	447.6%	2.1	0.1	A
	Right Turn	16	78	490.0%	2.0	0.4	A
	Subtotal	476	2137	449.0%	2.1	0.1	A
Total		768	3593	467.8%	2.2	0.1	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 5

Kirman Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	4	42	1060.0%	17.4	4.9	B
	Through	184	794	431.7%	10.9	1.3	B
	Right Turn	28	115	411.4%	10.1	2.3	B
	Subtotal	216	952	440.7%	11.1	1.4	B
SB	Left Turn	140	662	472.9%	18.7	1.4	B
	Through	228	1238	543.2%	11.0	1.1	B
	Right Turn	88	497	564.5%	9.0	0.5	A
	Subtotal	456	2397	525.7%	12.7	0.7	B
EB	Left Turn	44	230	522.7%	27.5	3.6	C
	Through	212	1063	501.5%	11.8	1.3	B
	Right Turn	12	82	683.3%	7.7	2.2	A
	Subtotal	268	1375	513.1%	14.1	1.1	B
WB	Left Turn	44	204	463.6%	18.5	1.4	B
	Through	352	1641	466.3%	15.9	1.6	B
	Right Turn	124	579	467.1%	13.1	1.0	B
	Subtotal	520	2424	466.2%	15.4	1.2	B
Total		1460	7149	489.6%	13.7	0.7	B

Intersection 6

Renown Regional Way-Ryland Street/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	672	2371	352.8%	470.4	220.9	F
	Subtotal	672	2371	352.8%	470.4	220.9	F
SB	Left Turn	156	661	423.8%	44.2	9.3	D
	Through						
	Right Turn	116	511	440.3%	2.3	0.1	A
	Subtotal	272	1172	430.9%	26.1	5.7	C
EB	Left Turn	44	188	426.4%	51.2	47.2	D
	Through	352	1622	460.9%	95.2	73.6	F
	Right Turn						
	Subtotal	396	1810	457.1%	90.4	70.0	F
WB	Left Turn	524	1965	375.0%	18.5	2.1	B
	Through	508	1905	375.0%	15.8	3.1	B
	Right Turn	76	278	365.8%	3.7	0.6	A
	Subtotal	1108	4148	374.3%	16.2	2.3	B
Total		2448	9500	388.1%	141.8	55.5	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 7

Yori Avenue/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	12	19	160.0%	9666.1	11254.1	F
	Through						
	Right Turn	144	118	81.9%	9756.4	5494.5	F
	Subtotal	156	137	87.9%	9685.8	5584.5	F
SB	Left Turn	4	37	930.0%	440.7	225.5	F
	Through						
	Right Turn	8	38	480.0%	275.7	271.4	F
	Subtotal	12	76	630.0%	353.7	249.3	F
EB	Left Turn						
	Through	1140	4449	390.2%	36.8	7.4	E
	Right Turn	28	105	375.7%	35.8	8.8	E
	Subtotal	1168	4554	389.9%	36.8	7.4	E
WB	Left Turn	24	94	391.7%	13.6	6.0	B
	Through	1076	4184	388.8%	5.7	0.5	A
	Right Turn	8	36	450.0%	5.5	2.1	A
	Subtotal	1108	4314	389.4%	5.9	0.5	A
Total		2444	9081	371.6%	146.8	78.4	F

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	200	690	344.8%	1070.1	65.9	F
	Through	824	2928	355.4%	1022.8	99.4	F
	Right Turn	260	932	358.5%	1050.4	91.3	F
	Subtotal	1284	4550	354.4%	1035.2	89.5	F
SB	Left Turn	124	417	336.5%	888.1	398.5	F
	Through	596	2583	433.4%	232.8	122.1	F
	Right Turn	104	461	443.5%	232.4	126.4	F
	Subtotal	824	3462	420.1%	309.3	149.7	F
EB	Left Turn	224	709	316.6%	477.4	45.4	F
	Through	912	3237	355.0%	460.2	39.3	F
	Right Turn	176	595	338.2%	448.1	60.7	F
	Subtotal	1312	4542	346.2%	461.1	35.5	F
WB	Left Turn	320	1329	415.4%	126.7	16.5	F
	Through	748	3222	430.7%	118.6	27.6	F
	Right Turn	104	432	415.4%	134.5	34.4	F
	Subtotal	1172	4983	425.2%	122.2	24.2	F
Total		4592	17536	381.9%	481.8	45.9	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 9

Golden Lane/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	4	10	240.0%	3111.2	2360.0	F
	Through						
	Right Turn	52	104	199.2%	1393.7	1386.1	F
	Subtotal	56	113	202.1%	1473.1	1417.5	F
EB	Left Turn	44	160	362.7%	85.0	19.9	F
	Through	1348	4508	334.4%	80.0	23.6	F
	Right Turn						
	Subtotal	1392	4667	335.3%	80.2	23.2	F
WB	Left Turn						
	Through	1172	4988	425.6%	52.6	43.3	F
	Right Turn	40	172	431.0%	55.7	48.5	F
	Subtotal	1212	5160	425.7%	52.7	43.4	F
Total		2660	9940	373.7%	74.8	15.4	F

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	400	1770	442.4%	170.6	184.6	F
	Through						
	Right Turn	352	1537	436.7%	144.7	211.5	F
	Subtotal	752	3307	439.7%	158.9	196.8	F
EB	Left Turn						
	Through	1012	3354	331.4%	133.4	23.6	F
	Right Turn	356	1188	333.7%	175.2	31.6	F
	Subtotal	1368	4542	332.0%	144.2	23.7	F
WB	Left Turn	388	1560	402.1%	98.3	32.6	F
	Through	920	3722	404.6%	23.6	12.8	C
	Right Turn						
	Subtotal	1308	5282	403.8%	45.8	18.6	D
Total		3428	13131	383.0%	104.6	42.6	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	236	1072	454.1%	82.0	48.0	F
	Through	88	414	470.5%	64.3	20.5	E
	Right Turn	184	833	452.6%	21.8	11.5	C
	Subtotal	508	2318	456.4%	56.9	28.4	E
SB	Left Turn	56	266	474.3%	53.6	5.0	D
	Through	56	212	377.9%	71.7	14.4	E
	Right Turn	76	374	491.6%	43.8	15.5	D
	Subtotal	188	851	452.6%	53.8	11.1	D
EB	Left Turn	124	419	337.7%	81.6	10.1	F
	Through	832	3019	362.9%	21.4	1.8	C
	Right Turn	480	1688	351.7%	8.3	0.3	A
	Subtotal	1436	5126	357.0%	22.0	1.8	C
WB	Left Turn	432	1540	356.6%	176.7	29.7	F
	Through	1076	3908	363.2%	91.2	28.2	F
	Right Turn	92	338	367.0%	67.6	24.3	E
	Subtotal	1600	5786	361.7%	112.6	28.4	F
Total		3732	14082	377.3%	66.7	10.1	E

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	316	1092	345.7%	483.1	149.4	F
	Through	696	2517	361.7%	286.5	100.0	F
	Right Turn	184	643	349.3%	280.5	101.7	F
	Subtotal	1196	4252	355.6%	336.5	110.8	F
SB	Left Turn	20	42	212.0%	1499.7	621.4	F
	Through	316	764	241.6%	1286.4	316.7	F
	Right Turn	340	716	210.6%	2024.9	342.1	F
	Subtotal	676	1522	225.1%	1637.1	338.8	F
EB	Left Turn	248	920	371.0%	61.0	11.7	E
	Through	656	2624	400.0%	29.0	5.6	C
	Right Turn	144	550	381.9%	12.9	3.9	B
	Subtotal	1048	4094	390.6%	34.0	6.1	C
WB	Left Turn	164	622	379.0%	294.4	150.2	F
	Through	988	3706	375.1%	263.6	139.5	F
	Right Turn	24	74	306.7%	227.4	139.6	F
	Subtotal	1176	4402	374.3%	267.2	140.7	F
Total		4096	14270	348.4%	363.5	62.7	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 13

Terminal Way/Vassar Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	128	571	446.3%	19.9	6.0	B
	Through	736	3075	417.8%	14.8	6.3	B
	Right Turn	80	380	475.0%	11.8	4.5	B
	Subtotal	944	4026	426.5%	15.3	6.1	B
SB	Left Turn	12	30	246.7%	22.5	4.5	C
	Through	392	1330	339.4%	13.7	1.0	B
	Right Turn	188	594	315.7%	12.2	1.2	B
	Subtotal	592	1954	330.0%	13.4	0.8	B
EB	Left Turn	168	706	420.5%	29.4	3.8	C
	Through	120	524	436.3%	13.8	1.6	B
	Right Turn	140	619	442.0%	3.8	0.4	A
	Subtotal	428	1849	432.0%	16.4	1.8	B
WB	Left Turn	96	399	415.4%	23.4	2.9	C
	Through	144	608	421.9%	14.8	0.8	B
	Right Turn	20	82	412.0%	8.4	1.6	A
	Subtotal	260	1089	418.8%	17.4	1.4	B
Total		2224	8918	401.0%	15.4	3.1	B

Intersection 14

Terminal Way/Villanova Drive

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	112	439	391.8%	13.1	1.2	B
	Through	716	2772	387.2%	4.8	0.3	A
	Right Turn	24	76	315.0%	3.3	0.6	A
	Subtotal	852	3287	385.8%	5.9	0.4	A
SB	Left Turn	8	32	400.0%	10.8	1.9	B
	Through	636	2087	328.2%	5.4	0.5	A
	Right Turn	80	268	334.5%	4.4	0.8	A
	Subtotal	724	2387	329.7%	5.4	0.6	A
EB	Left Turn	68	276	406.5%	21.2	0.9	C
	Through	20	71	354.0%	12.8	2.6	B
	Right Turn	36	132	367.8%	1.5	0.2	A
	Subtotal	124	480	386.8%	14.5	0.6	B
WB	Left Turn	20	75	376.0%	18.9	1.5	B
	Through	32	126	393.8%	13.7	2.1	B
	Right Turn	12	40	330.0%	4.4	1.3	A
	Subtotal	64	241	376.3%	13.8	0.9	B
Total		1764	6394	362.5%	6.6	0.3	A

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Volumes
PM Peak Hour

Intersection 15

Terminal Way/Plumb Lane

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	188	736	391.7%	241.3	160.8	F
	Through	460	1679	365.0%	50.7	44.1	D
	Right Turn	20	85	426.0%	35.7	43.0	D
	Subtotal	668	2500	374.3%	106.5	76.4	F
SB	Left Turn	48	181	377.5%	46.0	4.6	D
	Through	252	895	355.2%	27.1	1.3	C
	Right Turn	420	1500	357.0%	7.4	0.9	A
	Subtotal	720	2576	357.8%	16.9	0.8	B
EB	Left Turn	360	1317	365.8%	115.3	50.1	F
	Through	140	560	400.3%	24.0	3.5	C
	Right Turn	112	476	425.0%	7.8	2.3	A
	Subtotal	612	2353	384.5%	72.1	28.0	E
WB	Left Turn	68	348	511.8%	57.6	13.6	E
	Through	276	1240	449.1%	21.0	1.4	C
	Right Turn	64	283	441.9%	2.3	0.2	A
	Subtotal	408	1870	458.4%	25.1	3.5	C
Total		2408	9300	386.2%	56.8	27.0	E

MOVEMENT SUMMARY

Site: Mill/Holcomb

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 AM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Holcomb Ave NB											
3	L	11	3.0	0.057	4.3	LOS A	0.2	5.0	0.26	0.72	21.3
18	R	43	3.0	0.057	4.3	LOS A	0.2	5.0	0.26	0.32	22.5
Approach		54	3.0	0.057	4.3	LOS A	0.2	5.0	0.26	0.40	22.2
East: Mill St WB											
1	L	76	3.0	0.321	6.5	LOS A	1.5	38.8	0.08	0.89	22.6
6	T	272	3.0	0.321	6.5	LOS A	1.5	38.8	0.08	0.21	25.0
Approach		348	3.0	0.321	6.5	LOS A	1.5	38.8	0.08	0.36	24.4
West: Mill St EB											
2	T	141	3.0	0.150	4.9	LOS A	0.6	14.5	0.20	0.27	25.8
12	R	11	3.0	0.150	4.9	LOS A	0.6	14.5	0.20	0.36	25.2
Approach		152	3.0	0.150	4.9	LOS A	0.6	14.5	0.20	0.28	25.8
All Vehicles		554	3.0	0.321	5.8	LOS A	1.5	38.8	0.13	0.34	24.5

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

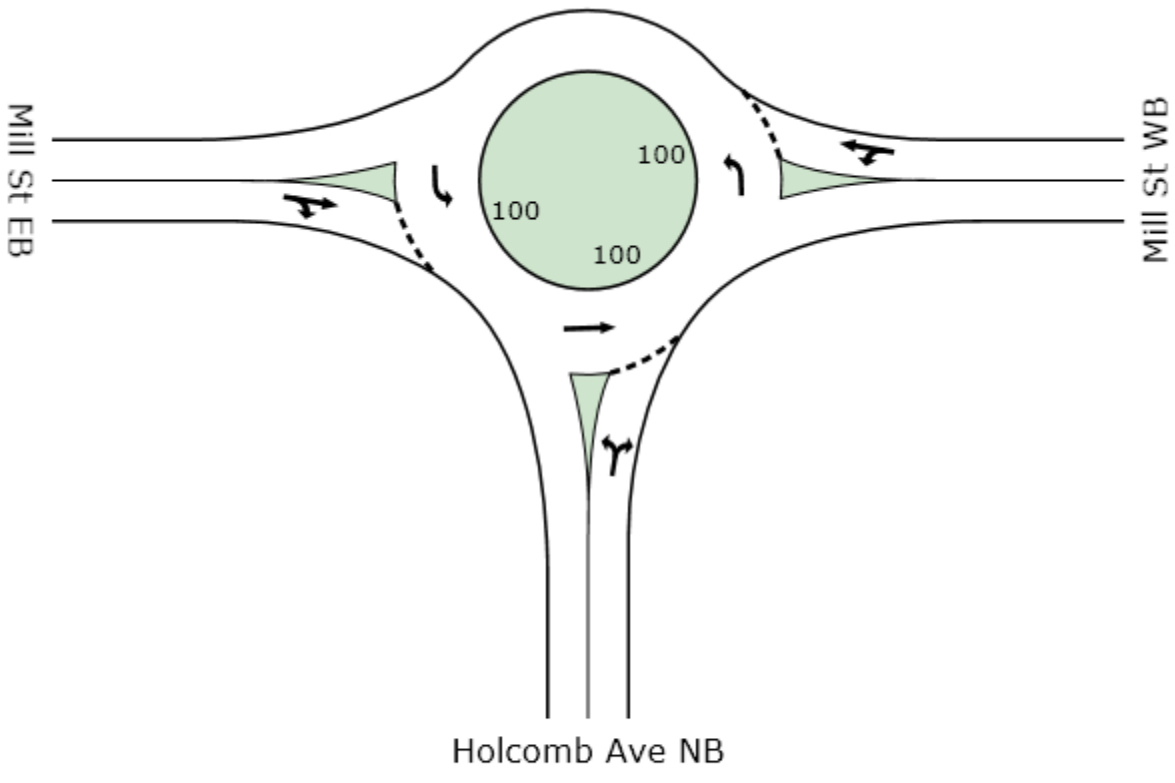
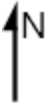
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
AM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	11	9	83.6%	47.0	9.7	D
	Through	663	631	95.2%	19.0	1.2	B
	Right Turn	63	63	99.7%	16.0	1.3	B
	Subtotal	737	703	95.4%	19.1	1.1	B
SB	Left Turn	147	147	99.7%	47.9	4.6	D
	Through	1021	965	94.5%	15.0	1.6	B
	Right Turn	95	96	101.2%	13.9	1.5	B
	Subtotal	1263	1208	95.6%	18.9	2.0	B
EB	Left Turn	53	49	92.8%	39.3	4.5	D
	Through	105	106	101.0%	27.1	1.7	C
	Right Turn	11	11	95.5%	11.7	4.7	B
	Subtotal	169	166	98.0%	29.8	2.3	C
WB	Left Turn	53	49	92.5%	33.3	3.3	C
	Through	253	256	101.3%	25.7	1.4	C
	Right Turn	63	58	92.1%	8.0	1.1	A
	Subtotal	369	363	98.5%	23.9	1.3	C
Total		2538	2440	96.1%	20.5	1.4	C

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	42	44	103.6%	4.4	0.4	A
	Subtotal	42	44	103.6%	4.4	0.4	A
SB	Left Turn	11	11	95.5%	9.4	1.8	A
	Through						
	Right Turn	21	23	110.5%	4.2	0.4	A
	Subtotal	32	34	105.3%	5.8	0.7	A
EB	Left Turn	21	21	97.6%	4.1	0.2	A
	Through	284	286	100.8%	1.4	0.1	A
	Right Turn						
	Subtotal	305	307	100.6%	1.5	0.1	A
WB	Left Turn						
	Through	368	352	95.5%	1.3	0.1	A
	Right Turn	11	10	88.2%	1.0	0.2	A
	Subtotal	379	361	95.3%	1.3	0.1	A
Total		758	745	98.3%	1.8	0.1	A

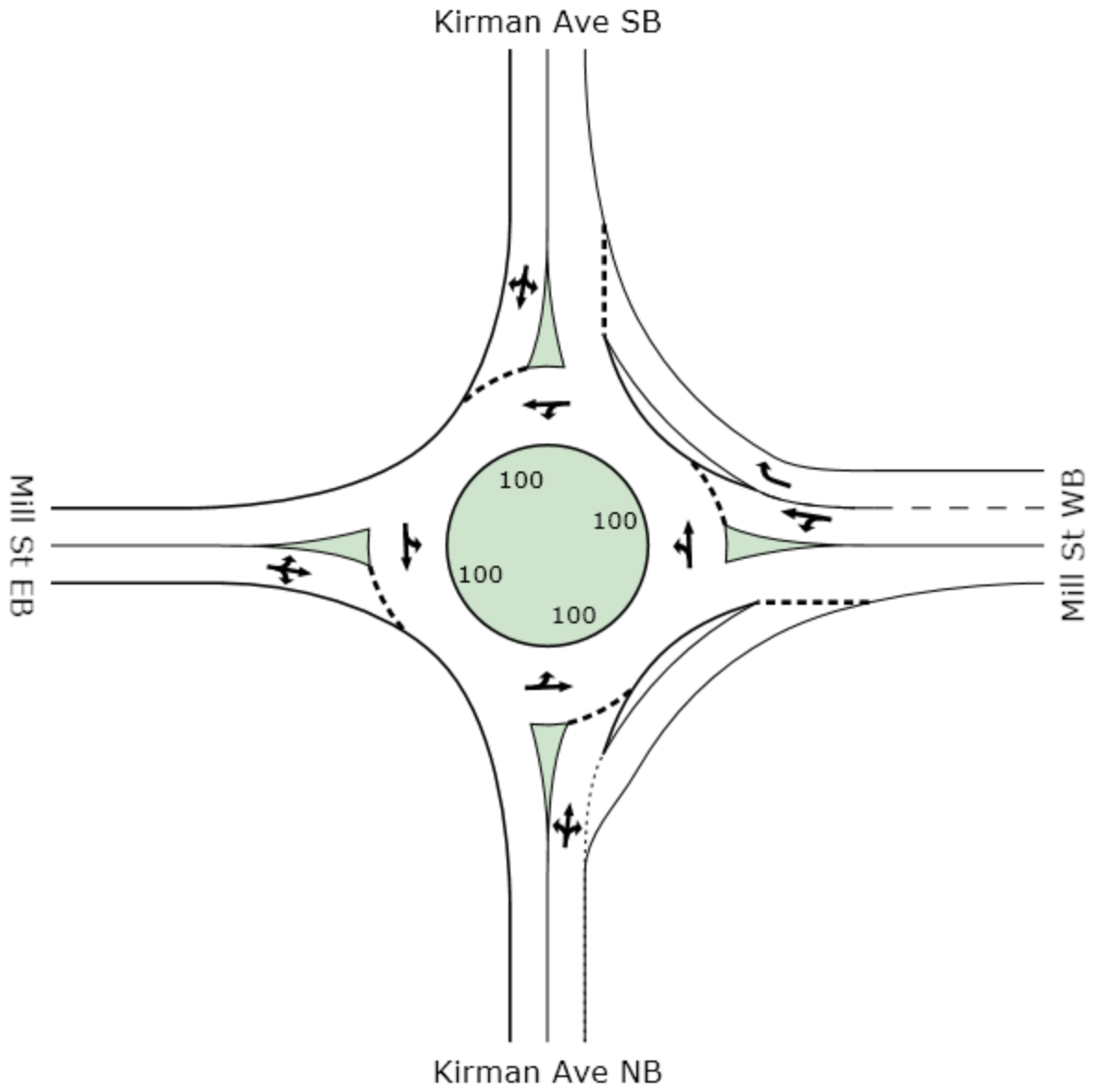
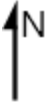
MOVEMENT SUMMARY

Site: Mill/Kirman-1In

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 AM Peak
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Kirman Ave NB												
3	L	11	3.0	0.283	8.7	LOS A	1.1	27.7	0.54	0.98	20.5	
8	T	152	3.0	0.283	8.7	LOS A	1.1	27.7	0.54	0.54	21.0	
18	R	33	3.0	0.283	8.7	LOS A	1.1	27.7	0.54	0.64	21.4	
Approach		196	3.0	0.283	8.7	LOS A	1.1	27.7	0.54	0.59	21.1	
East: Mill St WB												
1	L	43	3.0	0.417	9.0	LOS A	2.0	51.1	0.45	0.91	23.8	
6	T	326	3.0	0.417	9.0	LOS A	2.0	51.1	0.45	0.54	26.1	
16	R	185	3.0	0.206	6.1	LOS A	0.8	20.4	0.35	0.47	27.2	
Approach		554	3.0	0.417	8.0	LOS A	2.0	51.1	0.42	0.54	26.3	
North: Kirman Ave SB												
7	L	163	3.0	0.704	19.1	LOS C	5.6	142.6	0.76	1.10	17.8	
4	T	293	3.0	0.704	19.1	LOS C	5.6	142.6	0.76	0.91	17.6	
14	R	65	3.0	0.704	19.1	LOS C	5.6	142.6	0.76	0.97	18.2	
Approach		522	3.0	0.704	19.1	LOS C	5.6	142.6	0.76	0.98	17.7	
West: Mill St EB												
5	L	43	3.0	0.497	13.3	LOS B	2.5	64.6	0.66	1.04	22.3	
2	T	250	3.0	0.497	13.3	LOS B	2.5	64.6	0.66	0.82	24.0	
12	R	33	3.0	0.497	13.3	LOS B	2.5	64.6	0.66	0.84	23.4	
Approach		326	3.0	0.497	13.3	LOS B	2.5	64.6	0.66	0.85	23.7	
All Vehicles		1598	3.0	0.704	12.8	LOS B	5.6	142.6	0.59	0.75	21.7	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
 Roundabout LOS Method: Same as Sign Control.
 Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
 LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
 Roundabout Capacity Model: US HCM 2010.
 HCM Delay Model used.



MOVEMENT SUMMARY

Site: Mill/Ryland/Renown

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 AM Peak

Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
East: Mill Street WB												
6	T	891	3.0	0.770	18.3	LOS C	7.9	202.1	0.59	0.49	22.1	
16	R	652	3.0	0.770	18.3	LOS C	7.9	202.1	0.59	0.50	21.8	
Approach		1543	3.0	0.770	18.3	LOS C	7.9	202.1	0.59	0.50	22.0	
North: Renown Way SB												
7	L	54	3.0	0.136	11.1	LOS B	0.3	8.6	0.67	0.88	19.4	
14	R	54	3.0	0.034	0.0	X	X	X	X	0.20	24.3	
Approach		109	3.0	0.136	5.6	LOS A	0.3	8.6	0.33	0.54	21.4	
North West: Mill Street EB												
7X	L	413	3.0	0.752	27.5	LOS D	3.9	100.5	0.79	1.08	18.0	
14X	R	1	3.0	0.752	27.5	LOS D	3.9	100.5	0.79	1.04	18.4	
Approach		414	3.0	0.752	27.5	LOS D	3.9	100.5	0.79	1.08	18.0	
West: Ryland Street EB												
5	L	22	3.0	0.435	11.6	LOS B	2.0	51.3	0.61	1.05	22.9	
2	T	565	3.0	0.435	11.6	LOS B	2.0	51.3	0.61	0.77	24.9	
Approach		587	3.0	0.435	11.6	LOS B	2.0	51.3	0.61	0.78	24.8	
All Vehicles		2653	3.0	0.770	17.7	LOS C	7.9	202.1	0.62	0.65	21.7	

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

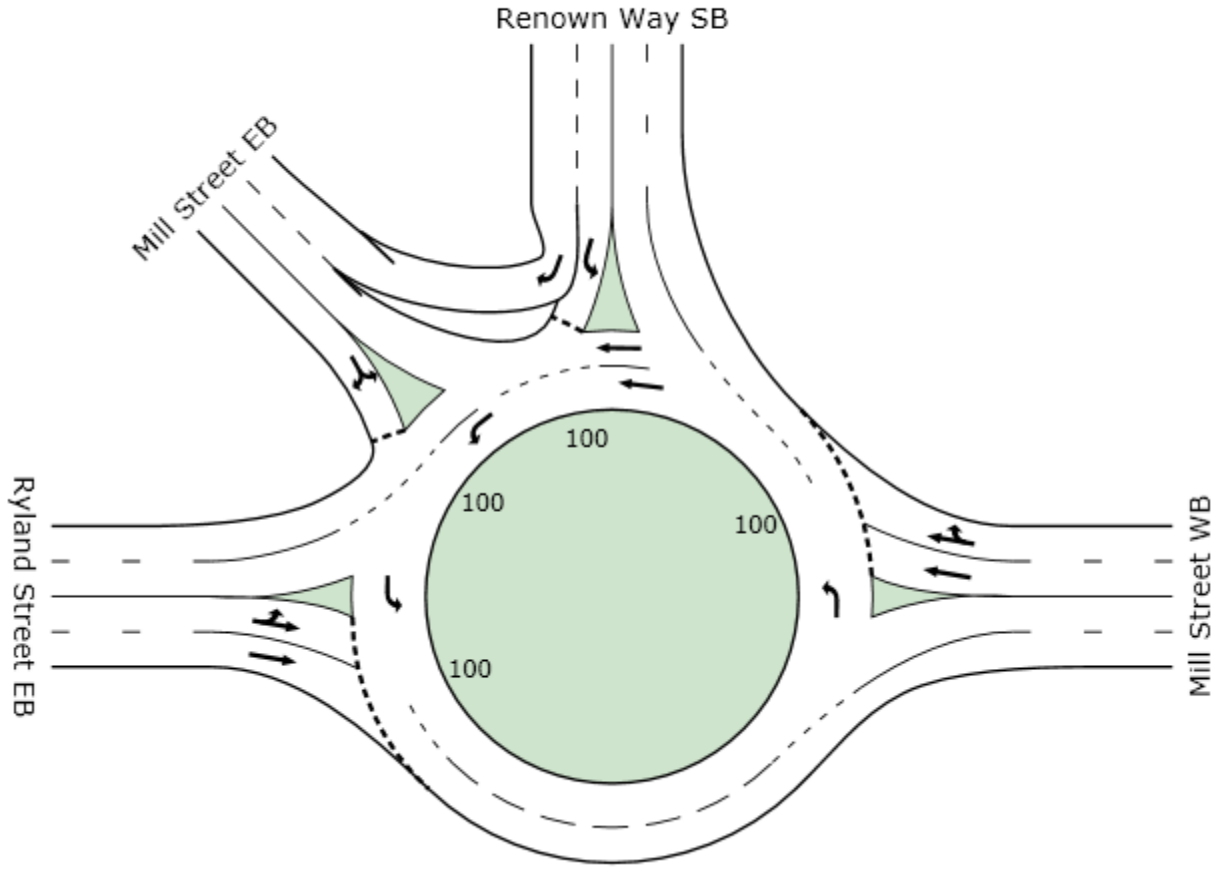
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
AM Peak Hour

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	189	183	97.0%	51.4	3.2	D
	Through	526	510	97.0%	36.3	1.8	D
	Right Turn	232	224	96.7%	14.7	1.0	B
	Subtotal	947	918	96.9%	34.0	1.5	C
SB	Left Turn	126	120	95.1%	72.0	8.9	E
	Through	653	625	95.7%	38.1	2.1	D
	Right Turn	116	108	93.1%	26.0	2.3	C
	Subtotal	895	853	95.3%	41.4	2.1	D
EB	Left Turn	105	102	97.5%	55.8	5.7	E
	Through	737	694	94.2%	33.3	2.2	C
	Right Turn	147	138	94.1%	15.5	2.7	B
	Subtotal	989	935	94.5%	33.1	1.9	C
WB	Left Turn	411	393	95.6%	67.1	9.4	E
	Through	1200	1117	93.1%	51.1	17.6	D
	Right Turn	95	88	92.4%	28.1	14.5	C
	Subtotal	1706	1598	93.7%	53.8	15.1	D
Total		4537	4303	94.8%	42.6	5.6	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
AM Peak Hour

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	916	835	91.1%	67.3	11.4	E
	Through	11	9	83.6%	76.6	17.8	E
	Right Turn	705	650	92.2%	48.8	14.9	D
	Subtotal	1632	1494	91.5%	59.3	12.0	E
EB	Left Turn						
	Through	779	760	97.6%	41.1	30.6	D
	Right Turn	242	231	95.4%	2.1	0.1	A
	Subtotal	1021	991	97.1%	31.9	23.0	C
WB	Left Turn	189	186	98.5%	116.5	43.0	F
	Through	1074	1062	98.8%	26.7	12.7	C
	Right Turn						
	Subtotal	1263	1248	98.8%	40.2	13.2	D
Total		3916	3733	95.3%	45.6	8.8	D

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	611	583	95.4%	52.2	12.4	D
	Through	84	80	95.5%	54.9	10.8	D
	Right Turn	358	337	94.0%	36.7	11.7	D
	Subtotal	1053	999	94.9%	47.2	12.0	D
SB	Left Turn	63	63	99.4%	48.2	3.7	D
	Through	32	29	90.9%	48.3	5.3	D
	Right Turn	32	30	93.8%	18.8	6.5	B
	Subtotal	127	122	95.8%	41.2	3.1	D
EB	Left Turn	105	97	92.7%	71.8	15.4	E
	Through	1316	1219	92.6%	71.3	16.9	E
	Right Turn	274	255	93.2%	29.9	12.6	C
	Subtotal	1695	1572	92.7%	64.6	16.0	E
WB	Left Turn	242	226	93.5%	62.1	4.6	E
	Through	674	694	103.0%	37.4	3.0	D
	Right Turn	53	51	95.3%	36.6	6.2	D
	Subtotal	969	971	100.2%	43.1	2.4	D
Total		3844	3664	95.3%	53.5	7.4	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
AM Peak Hour

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	126	119	94.4%	55.5	6.6	E
	Through	295	291	98.7%	35.4	3.2	D
	Right Turn	179	172	96.1%	31.0	3.2	C
	Subtotal	600	582	97.1%	38.2	3.1	D
SB	Left Turn	21	20	93.3%	58.0	6.3	E
	Through	379	355	93.7%	39.6	5.5	D
	Right Turn	221	216	97.9%	22.3	6.0	C
	Subtotal	621	591	95.2%	33.9	5.3	C
EB	Left Turn	274	250	91.3%	43.8	17.0	D
	Through	1242	1229	99.0%	39.6	19.5	D
	Right Turn	147	136	92.3%	29.6	17.4	C
	Subtotal	1663	1615	97.1%	39.4	18.9	D
WB	Left Turn	221	215	97.3%	74.7	19.0	E
	Through	674	635	94.2%	38.6	4.7	D
	Right Turn	11	10	93.6%	22.5	4.5	C
	Subtotal	906	860	94.9%	47.4	7.8	D
Total		3790	3649	96.3%	40.2	9.7	D

MOVEMENT SUMMARY

Site: Mill/Holcomb

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 PM Peak
 Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
South: Holcomb Ave NB												
3	L	22	3.0	0.138	5.5	LOS A	0.5	12.7	0.36	0.76	20.9	
18	R	98	3.0	0.138	5.5	LOS A	0.5	12.7	0.36	0.42	22.0	
Approach		120	3.0	0.138	5.5	LOS A	0.5	12.7	0.36	0.48	21.8	
East: Mill St WB												
1	L	54	3.0	0.365	7.1	LOS A	1.8	46.7	0.13	0.92	22.4	
6	T	337	3.0	0.365	7.1	LOS A	1.8	46.7	0.13	0.22	24.7	
Approach		391	3.0	0.365	7.1	LOS A	1.8	46.7	0.13	0.32	24.3	
West: Mill St EB												
2	T	228	3.0	0.231	5.7	LOS A	1.0	24.4	0.18	0.26	25.4	
12	R	11	3.0	0.231	5.7	LOS A	1.0	24.4	0.18	0.35	24.9	
Approach		239	3.0	0.231	5.7	LOS A	1.0	24.4	0.18	0.26	25.4	
All Vehicles		750	3.0	0.365	6.4	LOS A	1.8	46.7	0.18	0.33	24.2	

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

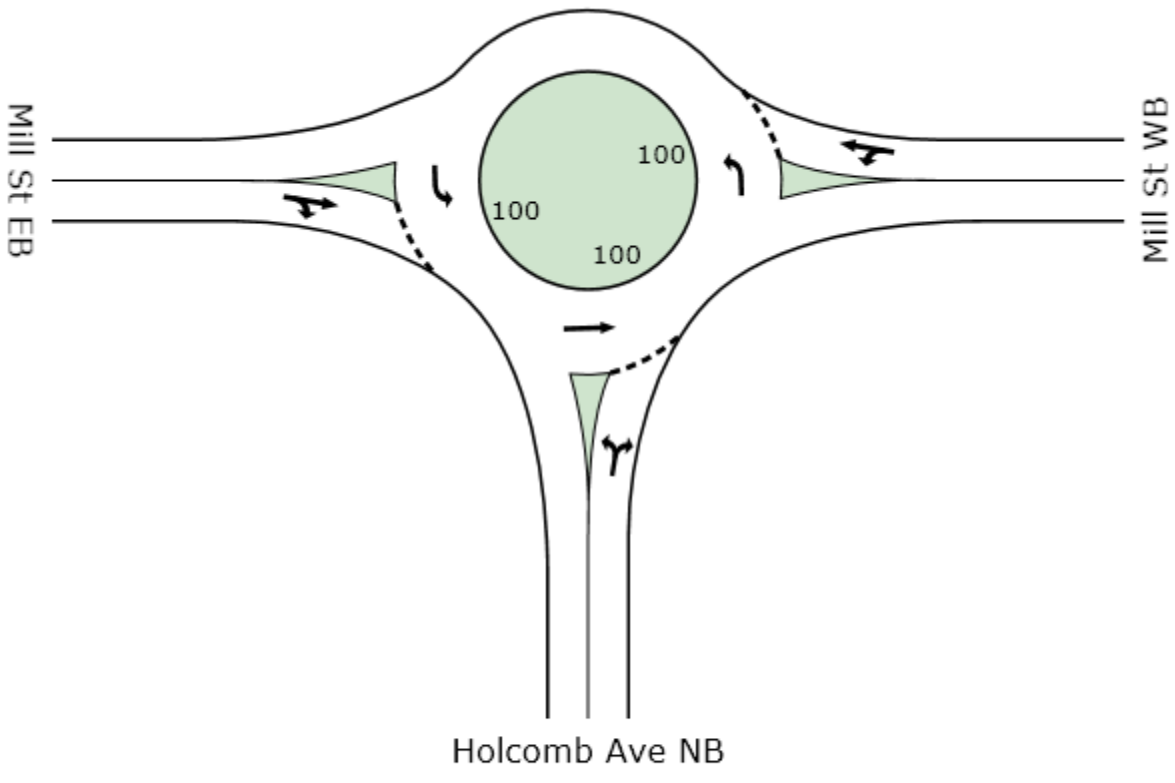
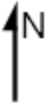
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
PM Peak Hour

Intersection 3

Wells Avenue/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	21	20	96.7%	92.0	27.0	F
	Through	1400	1319	94.2%	78.4	24.5	E
	Right Turn	42	39	92.4%	76.3	23.8	E
	Subtotal	1463	1378	94.2%	78.6	24.5	E
SB	Left Turn	63	60	95.9%	57.5	7.7	E
	Through	768	738	96.1%	16.4	1.0	B
	Right Turn	42	43	102.4%	15.0	1.8	B
	Subtotal	873	842	96.4%	19.3	1.3	B
EB	Left Turn	147	144	98.0%	94.1	42.0	F
	Through	168	156	93.1%	63.6	36.1	E
	Right Turn	32	34	105.9%	46.7	43.3	D
	Subtotal	347	334	96.4%	75.1	40.1	E
WB	Left Turn	105	94	89.0%	44.7	6.3	D
	Through	326	286	87.8%	32.4	2.6	C
	Right Turn	189	178	94.2%	24.2	2.5	C
	Subtotal	620	558	90.0%	31.9	2.3	C
Total		3303	3112	94.2%	53.8	12.6	D

Intersection 4

Locust Street/Mill Street

Unsignalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn	63	60	94.8%	4.3	0.5	A
	Subtotal	63	60	94.8%	4.3	0.5	A
SB	Left Turn	21	20	94.3%	10.9	2.2	B
	Through						
	Right Turn	32	29	90.9%	5.9	1.1	A
	Subtotal	53	49	92.3%	7.9	1.2	A
EB	Left Turn	11	8	76.4%	5.2	1.4	A
	Through	242	247	102.2%	1.6	0.1	A
	Right Turn						
	Subtotal	253	256	101.1%	1.7	0.1	A
WB	Left Turn						
	Through	579	536	92.6%	2.3	0.2	A
	Right Turn	21	20	94.3%	2.1	0.3	A
	Subtotal	600	556	92.6%	2.3	0.2	A
Total		969	920	95.0%	2.5	0.2	A

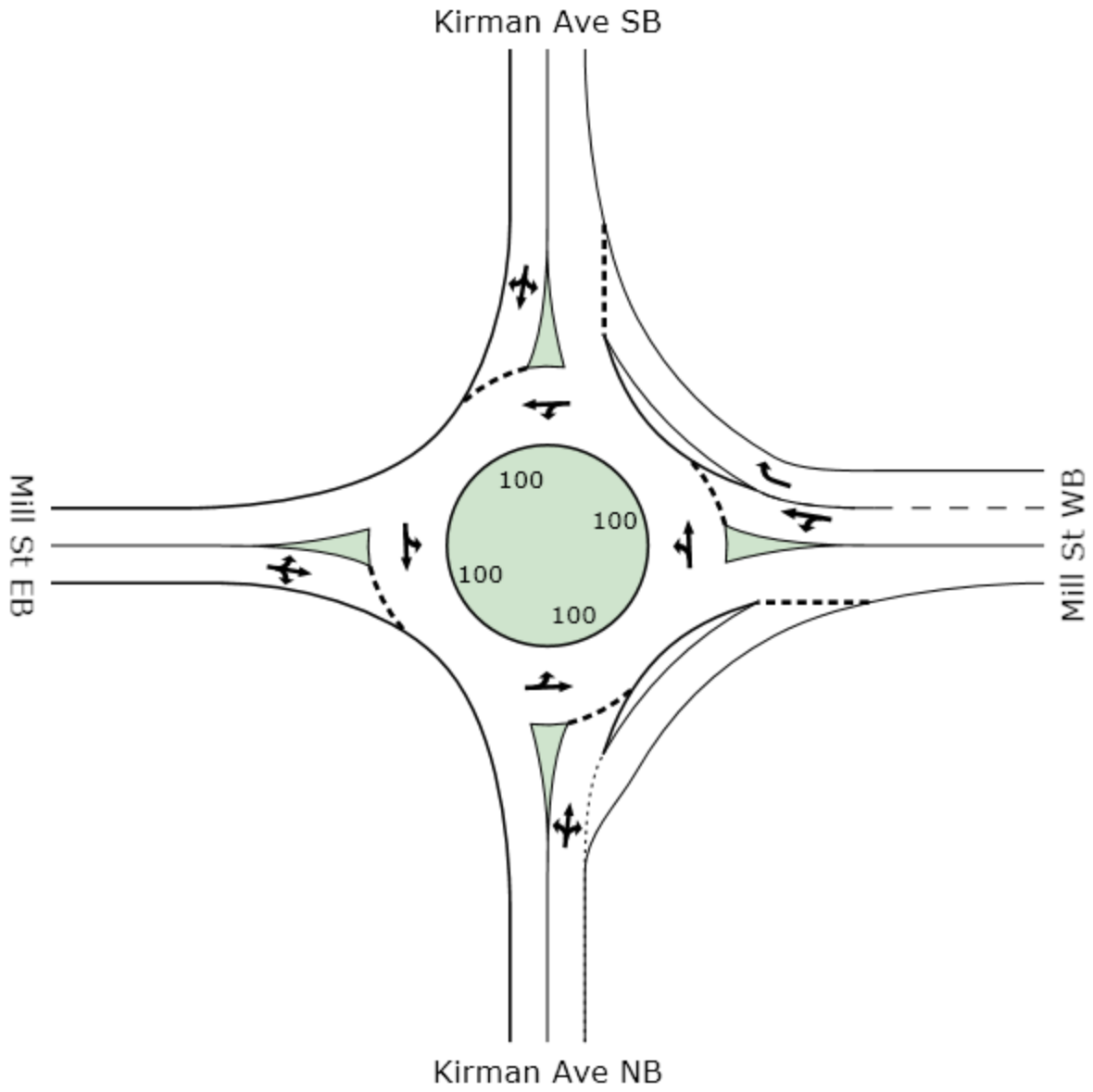
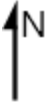
MOVEMENT SUMMARY

Site: Mill/Kirman

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 PM Peak
 Roundabout

Movement Performance - Vehicles											
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph
South: Kirman Ave NB											
3	L	11	3.0	0.405	11.3	LOS B	1.8	45.4	0.61	1.03	19.8
8	T	221	3.0	0.405	11.3	LOS B	1.8	45.4	0.61	0.65	20.1
18	R	32	3.0	0.405	11.3	LOS B	1.8	45.4	0.61	0.75	20.6
Approach		263	3.0	0.405	11.3	LOS B	1.8	45.4	0.61	0.68	20.2
East: Mill St WB											
1	L	63	3.0	0.676	16.6	LOS C	5.3	136.0	0.70	1.03	21.2
6	T	484	3.0	0.676	16.6	LOS C	5.3	136.0	0.70	0.82	22.7
16	R	179	3.0	0.219	6.7	LOS A	0.8	21.3	0.42	0.54	26.8
Approach		726	3.0	0.676	14.1	LOS B	5.3	136.0	0.64	0.77	23.4
North: Kirman Ave SB											
7	L	179	3.0	1.006	63.5	LOS F	20.3	520.6	1.00	2.08	11.5
4	T	316	3.0	1.006	63.5	LOS F	20.3	520.6	1.00	2.08	10.6
14	R	126	3.0	1.006	63.5	LOS F	20.3	520.6	1.00	2.08	11.2
Approach		621	3.0	1.006	63.5	LOS F	20.3	520.6	1.00	2.08	11.0
West: Mill St EB											
5	L	63	3.0	0.578	16.4	LOS C	3.2	83.0	0.71	1.07	21.2
2	T	274	3.0	0.578	16.4	LOS C	3.2	83.0	0.71	0.89	22.7
12	R	21	3.0	0.578	16.4	LOS C	3.2	83.0	0.71	0.91	22.1
Approach		358	3.0	0.578	16.4	LOS C	3.2	83.0	0.71	0.92	22.4
All Vehicles		1968	3.0	1.006	29.7	LOS D	20.3	520.6	0.76	1.20	16.9

Level of Service (LOS) Method: Delay & v/c (HCM 2010).
 Roundabout LOS Method: Same as Sign Control.
 Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement
 LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).
 Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).
 Roundabout Capacity Model: US HCM 2010.
 HCM Delay Model used.



MOVEMENT SUMMARY

Site: Mill/Ryland/Renown

Mill Terminal Corridor Study
 Cumulative 2030 (with Improvements)
 PM Peak

Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Flow veh/h	HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Queue Distance ft	Prop. Queued	Effective Stop Rate per veh	Average Speed mph	
East: Mill Street WB												
6	T	641	3.0	0.633	12.6	LOS B	4.8	121.9	0.40	0.43	24.5	
16	R	717	3.0	0.708	15.2	LOS C	6.3	161.4	0.47	0.45	23.2	
Approach		1359	3.0	0.708	14.0	LOS B	6.3	161.4	0.44	0.44	23.8	
North: Renown Way SB												
7	L	185	3.0	0.421	16.2	LOS C	1.3	33.8	0.72	0.96	18.2	
14	R	152	3.0	0.096	0.0	X	X	X	X	0.21	24.2	
Approach		337	3.0	0.421	8.9	LOS A	1.3	33.8	0.39	0.62	20.3	
North West: Mill Street EB												
7X	L	478	3.0	0.799	29.6	LOS D	4.9	124.8	0.79	1.10	17.6	
14X	R	1	3.0	0.799	29.6	LOS D	4.9	124.8	0.79	1.06	17.9	
Approach		479	3.0	0.799	29.6	LOS D	4.9	124.8	0.79	1.10	17.6	
West: Ryland Street EB												
5	L	22	3.0	0.757	27.8	LOS D	5.5	139.6	0.83	1.20	18.2	
2	T	815	3.0	0.757	27.8	LOS D	5.5	139.6	0.83	1.08	19.0	
Approach		837	3.0	0.757	27.8	LOS D	5.5	139.6	0.83	1.08	19.0	
All Vehicles		3012	3.0	0.799	19.7	LOS C	6.3	161.4	0.60	0.75	20.7	

X: Not applicable for Continuous movement.

Level of Service (LOS) Method: Delay & v/c (HCM 2010).

Roundabout LOS Method: Same as Sign Control.

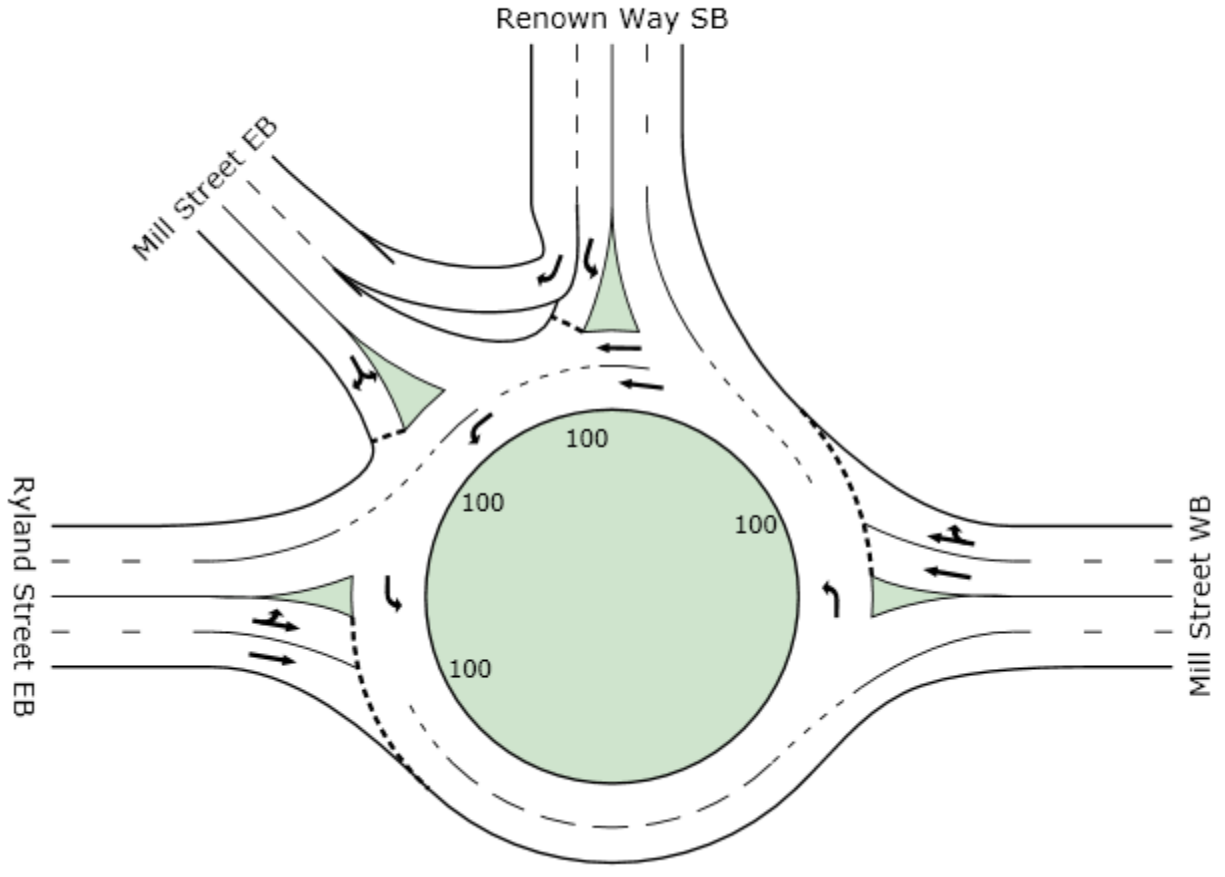
Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 2010).

Roundabout Capacity Model: US HCM 2010.

HCM Delay Model used.



SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
PM Peak Hour

Intersection 8

Kietzke Lane/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	263	205	77.8%	792.2	86.5	F
	Through	1063	795	74.8%	737.4	87.3	F
	Right Turn	337	267	79.3%	711.4	94.2	F
	Subtotal	1663	1267	76.2%	740.3	86.3	F
SB	Left Turn	158	143	90.3%	112.1	20.5	F
	Through	768	721	93.8%	44.2	2.3	D
	Right Turn	137	129	94.4%	22.9	2.9	C
	Subtotal	1063	992	93.4%	51.3	4.4	D
EB	Left Turn	263	215	81.9%	260.6	66.8	F
	Through	1168	954	81.7%	255.2	60.9	F
	Right Turn	211	169	80.2%	262.7	81.9	F
	Subtotal	1642	1339	81.5%	257.3	61.9	F
WB	Left Turn	411	321	78.0%	334.9	51.3	F
	Through	958	839	87.5%	44.9	6.3	D
	Right Turn	137	125	91.1%	29.3	7.8	C
	Subtotal	1506	1284	85.3%	115.9	14.3	F
Total		5874	4882	83.1%	303.3	27.4	F

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
PM Peak Hour

Intersection 10

US 395 SB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn						
	Through						
	Right Turn						
	Subtotal						
SB	Left Turn	484	420	86.7%	158.0	188.9	F
	Through	11	9	79.1%	200.6	278.1	F
	Right Turn	421	360	85.5%	153.4	232.9	F
	Subtotal	916	788	86.0%	156.6	210.0	F
EB	Left Turn						
	Through	1242	1025	82.5%	25.5	2.5	C
	Right Turn	442	366	82.8%	2.9	0.3	A
	Subtotal	1684	1391	82.6%	19.6	1.8	B
WB	Left Turn	484	425	87.9%	108.4	12.2	F
	Through	1126	1011	89.8%	38.3	8.6	D
	Right Turn						
	Subtotal	1610	1436	89.2%	59.1	7.0	E
Total		4210	3616	85.9%	60.2	34.0	E

Intersection 11

US 395 NB Ramps/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	284	269	94.9%	61.9	7.0	E
	Through	105	98	92.9%	64.0	5.6	E
	Right Turn	221	213	96.4%	19.7	1.9	B
	Subtotal	610	580	95.1%	46.8	4.8	D
SB	Left Turn	74	69	93.0%	48.0	5.2	D
	Through	63	64	101.1%	54.3	2.7	D
	Right Turn	95	90	95.2%	34.7	3.5	C
	Subtotal	232	223	96.1%	44.5	3.4	D
EB	Left Turn	147	123	83.8%	69.7	8.3	E
	Through	1000	831	83.1%	26.1	1.4	C
	Right Turn	579	491	84.7%	9.9	0.5	A
	Subtotal	1726	1445	83.7%	24.4	1.2	C
WB	Left Turn	516	455	88.1%	113.2	24.8	F
	Through	1242	1093	88.0%	69.4	17.5	E
	Right Turn	105	100	95.4%	53.3	13.9	D
	Subtotal	1863	1648	88.5%	80.4	18.7	F
Total		4431	3896	87.9%	52.5	7.8	D

SimTraffic Post-Processor
Average Results from 10 Runs
Volume and Delay by Movement

Mill Street/Terminal Way Corridor Study
2030 Plus Project Conditions
PM Peak Hour

Intersection 12

Terminal Way/Mill Street

Signalized

Direction	Movement	Volume (veh/hr)			Total Delay (sec/veh)		
		Demand	Served	% Served	Average	Std. Dev.	LOS
NB	Left Turn	337	305	90.6%	218.8	113.8	F
	Through	747	668	89.4%	151.5	94.1	F
	Right Turn	200	183	91.4%	144.0	92.0	F
	Subtotal	1284	1156	90.0%	168.3	98.6	F
SB	Left Turn	21	22	105.2%	89.3	48.3	F
	Through	347	321	92.5%	65.1	51.2	E
	Right Turn	368	327	88.9%	236.2	115.6	F
	Subtotal	736	670	91.0%	149.1	81.0	F
EB	Left Turn	295	255	86.3%	57.7	13.3	E
	Through	779	720	92.4%	17.7	3.5	B
	Right Turn	168	145	86.0%	9.4	3.2	A
	Subtotal	1242	1119	90.1%	25.8	4.1	C
WB	Left Turn	179	164	91.8%	196.1	89.7	F
	Through	1074	964	89.7%	140.7	85.7	F
	Right Turn	21	22	104.8%	112.6	78.4	F
	Subtotal	1274	1150	90.3%	148.0	85.9	F
Total		4536	4095	90.3%	119.4	37.1	F

MULTI-MODAL LEVEL OF SERVICE RESULTS – PEDESTRIAN LOS

Roadway Segment	Direction	Existing Conditions				2030 Conditions				
		AM Peak (Score/LOS)		PM Peak (Score/LOS)		AM Peak (Score/LOS)		PM Peak (Score/LOS)		
		No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	
Mill Street	Lake Street to Holcomb Avenue	EB WB	1.62 / A 1.99 / A	No Change	1.75 / A 1.95 / A	No Change	1.69 / A 2.10 / B	No Change	1.87 / A 2.07 / B	No Change
	Holcomb Avenue to Wells Avenue	EB WB	1.48 / A 2.07 / B	No Change	1.85 / A 2.21 / B	No Change	1.59 / A 2.26 / B	No Change	2.04 / B 2.35 / B	No Change
	Wells Avenue to Locust Street	EB WB	1.82 / A 1.60 / A	1.99 / A 1.91 / A	1.78 / A 1.87 / A	1.91 / A 2.35 / B	1.91 / A 1.72 / A	2.22 / B 2.16 / B	1.86 / A 2.04 / B	2.06 / B 2.68 / B
	Locust Street to Kirman Avenue	EB WB	1.65 / A 1.78 / A	1.86 / A 2.24 / B	1.70 / A 2.15 / B	1.95 / A 2.61 / B	1.76 / A 1.89 / A	2.07 / B 2.46 / B	1.80 / A 2.32 / B	2.16 / B 2.94 / C
	Kirman Avenue to Ryland Street ¹	EB WB	1.21 / A ¹ 2.12 / B	1.49 / A 2.13 / B	1.07 / A ¹ 2.19 / B	1.42 / A 2.21 / B	1.32 / A 2.26 / B	1.72 / A 2.27 / B	1.19 / A 2.43 / B	1.67 / A 2.45 / B
	Ryland Street to Yori Avenue	EB WB	2.98 / C 2.44 / B	2.81 / C 2.97 / C	3.36 / C 2.82 / C	3.19 / C 3.10 / C	3.24 / C 2.91 / C	3.07 / C 3.37 / C	3.72 / D 3.06 / C	3.55 / D 3.46 / C
	Yori Avenue to Kietzke Lane	EB WB	2.44 / B 3.16 / C	2.47 / B 3.22 / C	2.93 / C 3.00 / C	2.96 / C 3.05 / C	2.71 / B 3.58 / D	2.73 / B 3.63 / D	3.34 / C 3.36 / C	3.36 / C 3.41 / C
	Kietzke Lane to Golden Lane	EB WB	2.68 / B 2.89 / C	2.31 / B 2.19 / B	3.20 / C 2.78 / C	2.65 / B 2.11 / B	2.97 / C 3.19 / C	2.50 / B 2.42 / B	3.66 / D 3.05 / C	2.96 / C 2.31 / B
	Golden Lane to US 395 SB Ramps	EB WB	2.26 / B NA / F	2.05 / B 3.18 / C	2.75 / C NA / F	2.36 / B 2.96 / C	2.54 / B NA / F	2.24 / B 3.65 / D	3.20 / C NA / F	2.66 / B 3.39 / C
	US 395 SB Ramps to US 395 NB Ramps	EB WB	3.05 / C 2.29 / B²	No Change	3.08 / C 2.48 / B²	No Change	3.51 / D 2.52 / B²	No Change	3.55 / D 2.77 / C²	No Change
	US 395 NB Ramps to Terminal Way	EB WB	2.88 / C 2.57 / B	2.88 / C 2.57 / B	2.69 / B 3.14 / C	2.69 / B 3.14 / C	3.35 / C 2.83 / C	3.35 / C 2.83 / C	3.02 / C 3.59 / D	3.02 / C 3.59 / D
Terminal Way	Mill Street to Vassar Street	SB NB	2.12 / B 2.38 / B	2.13 / B 2.19 / A	2.16 / B 2.86 / C	2.18 / B 2.67 / B	2.33 / B 2.54 / B	2.34 / B 2.36 / B	2.28 / B 3.09 / C	2.30 / B 2.90 / C
	Vassar Street to Villanova Drive	SB NB	2.29 / B 2.38 / B	2.29 / B 2.38 / B	2.51 / B 2.74 / B	2.51 / B 2.74 / B	2.49 / B 2.57 / B	2.49 / B 2.57 / B	2.66 / B 2.95 / C	2.66 / B 2.95 / C
	Villanova Drive to Plumb Lane	SB NB	2.07 / B 2.55 / B	2.07 / B 2.55 / B	2.22 / B 2.75 / B	2.22 / B 2.75 / B	2.25 / B 2.73 / B	2.25 / B 2.73 / B	2.42 / B 2.90 / C	2.42 / B 2.90 / C

Notes: If no sidewalk is present, the pedestrian LOS is automatically F. Areas on Mill Street and Terminal Way with asphalt sidewalks provide a clear space for walking and were therefore counted as sidewalks in the analysis.
¹ A portion of this segment does not have sidewalk currently. The cross-section used in the no improvement analysis does have sidewalk. The portion of the segment without sidewalk has a dirt path adjacent to a large grass area that provides a clear space for walking.
² The portion of this segment between the NB ramps and the Grand Sierra Resort/Fire Station driveway does not provide sidewalk or clear space for walking, and therefore operates at LOS F.
Bold indicates an unacceptable LOS.

Source: Fehr & Peers, 2012

MULTI-MODAL LEVEL OF SERVICE RESULTS – BICYCLE LOS

Roadway Segment	Direction	Existing Conditions				2030 Conditions				
		AM Peak (Score/LOS)		PM Peak (Score/LOS)		AM Peak (Score/LOS)		PM Peak (Score/LOS)		
		No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	
Mill Street	Lake Street to Holcomb Avenue	EB WB	1.14 / A 0.50 / A	No Change	1.34 / A 0.29 / A	No Change	1.27 / A 0.61 / A	No Change	1.49 / A 0.39 / A	No Change
	Holcomb Avenue to Wells Avenue	EB WB	0.36 / A 0.47 / A	No Change	0.53 / A 0.58 / A	No Change	0.55 / A 0.62 / A	No Change	0.68 / A 0.68 / A	No Change
	Wells Avenue to Locust Street	EB WB	0.40 / A 0.35 / A	0.92 / A 0.64 / A	0.32 / A 0.43 / A	0.84 / A 0.95 / A	0.57 / A 0.54 / A	1.09 / A 0.83 / A	0.47 / A 0.57 / A	0.99 / A 1.09 / A
	Locust Street to Kirman Avenue	EB WB	0.04 / A 1.33 / A	0.56 / A 1.17 / A	0.13 / A 0.89 / A	0.65 / A 1.41 / A	0.23 / A 1.49 / A	0.75 / A 1.33 / A	0.32 / A 1.04 / A	0.84 / A 1.56 / A
	Kirman Avenue to Ryland Street	EB WB	1.79 / A ¹ 1.03 / A ¹	1.74 / A 0.75 / A	2.44 / B ¹ 1.14 / A ¹	2.46 / B 0.86 / A	1.95 / A 1.17 / A	1.89 / A 0.89 / A	2.58 / B 1.33 / A	2.61 / B 1.04 / A
	Ryland Street to Yori Avenue	EB WB	3.79 / D 3.17 / C	3.39 / C 3.08 / C	3.99 / D 3.63 / D	3.88 / D 3.84 / D	3.94 / D 3.31 / C	3.54 / D 3.23 / C	4.13 / D 3.78 / D	4.02 / D 3.98 / D
	Yori Avenue to Kietzke Lane	EB WB	2.70 / B 2.34 / B	1.12 / A 1.91 / A	2.97 / C 2.26 / B	1.39 / A 1.83 / A	2.84 / C 2.49 / B	1.27 / A 2.05 / B	3.10 / C 2.41 / B	1.52 / A 1.98 / A
	Kietzke Lane to Golden Lane	EB WB	1.48 / A 3.55 / D	1.39 / A 1.26 / A	1.72 / A 3.49 / C	1.63 / A 1.19 / A	1.63 / A 3.69 / D	1.54 / A 1.40 / A	1.86 / A 3.63 / D	1.77 / A 1.34 / A
	Golden Lane to US 395 SB Ramps	EB WB	0.52 / A 1.59 / A	0.56 / A 1.83 / A	0.78 / A 1.50 / A	0.82 / A 1.74 / A	0.67 / A 1.74 / A	0.71 / A 1.97 / A	0.92 / A 1.66 / A	0.96 / A 1.90 / A
	US 395 SB Ramps to US 395 NB Ramps	EB WB	1.60 / A 1.13 / A	No Change	1.61 / A 1.26 / A	No Change	1.74 / A 1.28 / A	No Change	1.75 / A 1.40 / A	No Change
	US 395 NB Ramps to Terminal Way	EB WB	1.82 / A 2.38 / B	1.82 / A 2.38 / B	2.01 / B 2.32 / B	2.01 / B 2.32 / B	2.18 / B 2.52 / B	2.18 / B 2.52 / B	2.16 / B 2.44 / B	2.16 / B 2.44 / B
	Terminal Way	Mill Street to Vassar Street	SB NB	1.29 / A 1.51 / A	0.95 / A 0.84 / A	1.06 / A 1.61 / A	0.72 / A 0.94 / A	1.49 / A 1.66 / A	1.14 / A 0.98 / A	1.16 / A 1.71 / A
Vassar Street to Villanova Drive		SB NB	1.42 / A 1.47 / A	1.42 / A 1.47 / A	1.62 / A 1.71 / A	1.62 / A 1.71 / A	1.61 / A 1.61 / A	1.61 / A 1.61 / A	1.72 / A 1.81 / A	1.72 / A 1.81 / A
Villanova Drive to Plumb Lane		SB NB	2.29 / B 3.14 / C	2.29 / B 3.14 / C	2.53 / B 3.29 / C	2.53 / B 3.29 / C	2.49 / B 3.28 / C	2.49 / B 3.28 / C	2.67 / B 3.38 / C	2.67 / B 3.38 / C

Notes: ¹ The majority of this segment provides bike lanes, however near the Kirman Avenue and Ryland Street intersections the roadway sections narrows and the bike lanes disappear. The level of service at these locations will likely be lower than the overall segment level of service.
Bold indicates an unacceptable LOS.

Source: Fehr & Peers, 2012

MULTI-MODAL LEVEL OF SERVICE RESULTS – TRANSIT LOS

Roadway Segment	Direction	Existing Conditions				2030 Conditions				
		AM Peak (Score/LOS)		PM Peak (Score/LOS)		AM Peak (Score/LOS)		PM Peak (Score/LOS)		
		No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	No Improvement	With Improvement	
Mill Street	Lake Street to Holcomb Avenue	EB WB	2.33 / B NA	No Change	3.53 / D NA	No Change	2.34 / B NA	No Change	3.54 / D NA	No Change
	Holcomb Avenue to Wells Avenue	EB WB	2.64 / B 2.42 / B	No Change	3.27 / C 3.08 / C	No Change	2.66 / B 2.45 / B	No Change	3.26 / C 3.10 / C	No Change
	Wells Avenue to Locust Street	EB WB	NA 3.13 / C	NA 3.18 / C	NA 4.20 / D	NA 4.27 / D	NA 3.15 / C	NA 3.21 / C	NA 4.23 / D	NA 4.32 / D
	Locust Street to Kirman Avenue	EB WB	3.06 / C NA	3.09 / C NA	4.03 / D NA	4.07 / D NA	3.08 / C NA	3.12 / C NA	4.04 / D NA	4.10 / D NA
	Kirman Avenue to Ryland Street ¹	EB WB	2.86 / C 2.67 / B	2.90 / C 2.67 / B	3.99 / D 3.84 / D	4.05 / D 3.84 / D	2.87 / C 2.69 / B	2.93 / C 2.69 / B	4.01 / D 3.87 / D	4.08 / D 3.88 / D
	Ryland Street to Yori Avenue	EB WB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	Yori Avenue to Kietzke Lane	EB WB	2.44 / B 2.16 / B	2.45 / B 2.17 / B	3.62 / D 2.84 / C	3.62 / D 2.85 / C	2.48 / B 2.22 / B	2.49 / B 2.23 / B	3.68 / D 2.90 / C	3.68 / D 2.91 / C
	Kietzke Lane to Golden Lane	EB WB	2.29 / B 3.04 / C	2.23 / B 2.94 / C	3.60 / D 4.03 / D	3.52 / D 3.93 / D	2.33 / B 3.09 / C	2.26 / B 2.97 / C	3.67 / D 4.09 / D	3.57 / D 3.98 / D
	Golden Lane to US 395 SB Ramps	EB WB	NA 2.17 / B	NA 2.17 / B	NA 3.43 / C	NA 3.45 / C	NA 2.25 / B	NA 2.27 / B	NA 3.50 / C	NA 3.52 / D
	US 395 SB Ramps to US 395 NB Ramps	EB WB	NA NA	No Change	NA NA	No Change	NA NA	No Change	NA NA	No Change
	US 395 NB Ramps to Terminal Way	EB WB	3.19 / C 2.62 / B	3.19 / C 2.62 / B	3.91 / D 4.14 / D	3.91 / D 4.14 / D	3.26 / C 2.66 / B	3.26 / C 2.66 / B	3.96 / D 4.21 / D	3.96 / D 4.21 / D
Terminal Way	Mill Street to Vassar Street	SB NB	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA	NA NA
	Vassar Street to Villanova Drive	SB NB	NA 3.67 / D	NA 3.67 / D	NA 3.72 / D	NA 3.72 / D	NA 3.70 / D	NA 3.70 / D	NA 3.76 / D	NA 3.76 / D
	Villanova Drive to Plumb Lane	SB NB	NA 3.65 / D	NA 3.65 / D	NA 3.68 / D	NA 3.68 / D	NA 3.68 / D	NA 3.68 / D	NA 3.70 / D	NA 3.70 / D

Notes: NA = There is no transit stop within the study segment.
Bold indicates an unacceptable LOS.

Source: Fehr & Peers, 2012