SIDRA ANALYSIS RESULTS

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Morning Pk Hr Ave Month
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	65	2.0	0.226	6.4	LOS A	0.9	22.7	0.38	0.28	32.6
8	T1	135	2.0	0.226	6.4	LOS A	0.9	22.7	0.38	0.28	32.8
18	R2	224	2.0	0.142	0.0	LOS A	0.0	0.0	0.00	0.00	36.5
Approach		424	2.0	0.226	3.0	LOS A	0.9	22.7	0.18	0.13	34.6
East: Sparks Avenue											
1	L2	198	2.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.1
6	T1	164	2.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.2
16	R2	15	5.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	30.5
Approach		377	2.1	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.1
North: Atlantic Avenue											
7	L2	4	13.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.0
4	T1	54	2.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.5
14	R2	3	2.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	32.8
Approach		62	2.8	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.4
West: South Prospect Street											
5	L2	4	2.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.4
2	T1	208	3.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.5
12	R2	84	2.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	31.8
Approach		296	2.7	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.3
All Vehicles		1159	2.3	0.420	6.4	LOS A	2.1	52.1	0.35	0.28	32.7

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Evening Pk Hr Ave Month
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	74	2.0	0.215	6.4	LOS A	0.8	21.2	0.39	0.30	32.5
8	T1	112	2.0	0.215	6.4	LOS A	0.8	21.2	0.39	0.30	32.6
18	R2	198	2.0	0.125	0.0	LOS A	0.0	0.0	0.00	0.00	36.5
Approach		384	2.0	0.215	3.1	LOS A	0.8	21.2	0.19	0.15	34.5
East: Sparks Avenue											
1	L2	197	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.4
6	T1	97	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.6
16	R2	10	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	30.9
Approach		303	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.5
North: Atlantic Avenue											
7	L2	1	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	32.9
4	T1	160	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	33.0
14	R2	5	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	32.3
Approach		166	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	33.0
West: South Prospect Street											
5	L2	12	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.2
2	T1	230	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.3
12	R2	110	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	30.6
Approach		352	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.1
All Vehicles		1205	2.0	0.458	7.1	LOS A	2.3	58.1	0.40	0.35	32.5

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 6.1 | Copyright © 2000-2015 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Morning Pk Hr Peak Month
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	82	2.0	0.297	7.7	LOS A	1.2	31.3	0.45	0.38	32.0
8	T1	165	2.0	0.297	7.7	LOS A	1.2	31.3	0.45	0.38	32.2
18	R2	277	2.0	0.176	0.0	LOS A	0.0	0.0	0.00	0.00	36.5
Approach		524	2.0	0.297	3.6	LOS A	1.2	31.3	0.21	0.18	34.3
East: Sparks Avenue											
1	L2	243	2.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.9
6	T1	204	2.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	30.0
16	R2	20	5.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.4
Approach		467	2.1	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.9
North: Atlantic Avenue											
7	L2	5	13.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.5
4	T1	66	2.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	33.0
14	R2	4	2.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.3
Approach		76	2.8	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.9
West: South Prospect Street											
5	L2	5	0.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.3
2	T1	270	3.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.3
12	R2	101	2.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	30.7
Approach		376	2.7	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.1
All Vehicles		1443	2.3	0.546	8.3	LOS A	3.3	83.4	0.43	0.39	31.9

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Evening Pk Hr Peak Month
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	91	2.0	0.283	7.6	LOS A	1.1	29.2	0.46	0.40	31.9
8	T1	138	2.0	0.283	7.6	LOS A	1.1	29.2	0.46	0.40	32.0
18	R2	245	2.0	0.155	0.0	LOS A	0.0	0.0	0.00	0.00	36.5
Approach		474	2.0	0.283	3.7	LOS A	1.1	29.2	0.22	0.19	34.2
East: Sparks Avenue											
1	L2	253	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.6
6	T1	120	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.7
16	R2	12	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.1
Approach		385	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.6
North: Atlantic Avenue											
7	L2	1	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.0
4	T1	202	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.1
14	R2	9	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	31.5
Approach		212	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.1
West: South Prospect Street											
5	L2	14	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.6
2	T1	292	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.7
12	R2	140	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.2
Approach		447	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.6
All Vehicles		1517	2.0	0.642	9.9	LOS A	4.3	110.1	0.49	0.48	31.2

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 6.1 | Copyright © 2000-2015 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Morning Pk Hr Ave Month - 1 Lane per Direction
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	65	2.0	0.478	10.1	LOS B	2.5	63.3	0.50	0.40	31.3
8	T1	135	2.0	0.478	10.1	LOS B	2.5	63.3	0.50	0.40	31.4
18	R2	224	2.0	0.478	10.1	LOS B	2.5	63.3	0.50	0.40	30.7
Approach		424	2.0	0.478	10.1	LOS B	2.5	63.3	0.50	0.40	31.0
East: Sparks Avenue											
1	L2	198	2.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.1
6	T1	164	2.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.2
16	R2	15	5.0	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	30.5
Approach		377	2.1	0.420	9.0	LOS A	2.1	52.1	0.45	0.35	31.1
North: Atlantic Avenue											
7	L2	4	13.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.0
4	T1	54	2.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.5
14	R2	3	2.0	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	32.8
Approach		62	2.8	0.087	6.0	LOS A	0.3	7.5	0.46	0.39	33.4
West: South Prospect Street											
5	L2	4	2.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.4
2	T1	208	3.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.5
12	R2	84	2.0	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	31.8
Approach		296	2.7	0.349	8.3	LOS A	1.5	38.9	0.46	0.38	32.3
All Vehicles		1159	2.3	0.478	9.1	LOS A	2.5	63.3	0.47	0.38	31.5

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Evening Pk Hr Ave Month - 1 Lane per Direction
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	74	2.0	0.444	9.7	LOS A	2.2	55.4	0.50	0.41	31.4
8	T1	112	2.0	0.444	9.7	LOS A	2.2	55.4	0.50	0.41	31.5
18	R2	198	2.0	0.444	9.7	LOS A	2.2	55.4	0.50	0.41	30.9
Approach		384	2.0	0.444	9.7	LOS A	2.2	55.4	0.50	0.41	31.2
East: Sparks Avenue											
1	L2	197	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.4
6	T1	97	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.6
16	R2	10	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	30.9
Approach		303	2.0	0.335	7.6	LOS A	1.5	37.9	0.40	0.30	31.5
North: Atlantic Avenue											
7	L2	1	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	32.9
4	T1	160	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	33.0
14	R2	5	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	32.3
Approach		166	2.0	0.218	7.1	LOS A	0.8	20.9	0.47	0.42	33.0
West: South Prospect Street											
5	L2	12	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.2
2	T1	230	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.3
12	R2	110	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	30.6
Approach		352	2.0	0.458	10.9	LOS B	2.3	58.1	0.58	0.57	31.1
All Vehicles		1205	2.0	0.458	9.2	LOS A	2.3	58.1	0.49	0.43	31.5

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Morning Pk Hr Peak Month - 1 Lane per Direction
Roundabout

Movement Performance - Vehicles

Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	82	2.0	0.632	14.6	LOS B	4.6	116.5	0.66	0.65	29.4
8	T1	165	2.0	0.632	14.6	LOS B	4.6	116.5	0.66	0.65	29.5
18	R2	277	2.0	0.632	14.6	LOS B	4.6	116.5	0.66	0.65	29.0
Approach		524	2.0	0.632	14.6	LOS B	4.6	116.5	0.66	0.65	29.2
East: Sparks Avenue											
1	L2	243	2.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.9
6	T1	204	2.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	30.0
16	R2	20	5.0	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.4
Approach		467	2.1	0.546	11.9	LOS B	3.3	83.4	0.57	0.51	29.9
North: Atlantic Avenue											
7	L2	5	13.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.5
4	T1	66	2.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	33.0
14	R2	4	2.0	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.3
Approach		76	2.8	0.119	7.0	LOS A	0.4	10.2	0.51	0.48	32.9
West: South Prospect Street											
5	L2	5	0.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.3
2	T1	270	3.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.3
12	R2	101	2.0	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	30.7
Approach		376	2.7	0.472	10.8	LOS B	2.4	61.3	0.56	0.53	31.1
All Vehicles		1443	2.3	0.632	12.3	LOS B	4.6	116.5	0.60	0.56	30.1

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 6.1 | Copyright © 2000-2015 Akcelik and Associates Pty Ltd | sidrasolutions.com

MOVEMENT SUMMARY

Site: Surfside Rd, Atlantic Ave, Sparks Ave, Prospect St

2022 Build Weekday Evening Pk Hr Peak Month - 1 Lane per Direction
Roundabout

Movement Performance - Vehicles											
Mov ID	OD Mov	Demand Flows Total 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: Surfside Road											
3	L2	91	2.0	0.585	13.5	LOS B	3.8	96.7	0.64	0.63	29.8
8	T1	138	2.0	0.585	13.5	LOS B	3.8	96.7	0.64	0.63	29.9
18	R2	245	2.0	0.585	13.5	LOS B	3.8	96.7	0.64	0.63	29.3
Approach		474	2.0	0.585	13.5	LOS B	3.8	96.7	0.64	0.63	29.6
East: Sparks Avenue											
1	L2	253	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.6
6	T1	120	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.7
16	R2	12	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.1
Approach		385	2.0	0.445	9.7	LOS A	2.2	55.7	0.50	0.41	30.6
North: Atlantic Avenue											
7	L2	1	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.0
4	T1	202	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.1
14	R2	9	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	31.5
Approach		212	2.0	0.307	9.0	LOS A	1.2	30.6	0.55	0.55	32.1
West: South Prospect Street											
5	L2	14	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.6
2	T1	292	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.7
12	R2	140	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.2
Approach		447	2.0	0.642	17.2	LOS C	4.3	110.1	0.74	0.82	28.6
All Vehicles		1517	2.0	0.642	13.0	LOS B	4.3	110.1	0.62	0.62	29.9

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 Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.
Gap-Acceptance Capacity: Traditional M1.
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

SIDRA INTERSECTION 6.1 | Copyright © 2000-2015 Akcelik and Associates Pty Ltd | sidrasolutions.com

SYNCHRO ANALYSIS RESULTS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	4	191	77	182	151	14	60	124	206	4	50	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	10	10	10
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.962			0.995			0.929			0.989	
Flt Protected		0.999			0.974			0.992			0.997	
Satd. Flow (prot)	0	1753	0	0	1663	0	0	1648	0	0	1624	0
Flt Permitted		0.999			0.974			0.992			0.997	
Satd. Flow (perm)	0	1753	0	0	1663	0	0	1648	0	0	1624	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		319			242			250			380	
Travel Time (s)		7.3			5.5			5.7			8.6	
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.96	0.96	0.96	0.68	0.68	0.68
Heavy Vehicles (%)	0%	1%	0%	3%	12%	6%	1%	3%	3%	0%	9%	0%
Adj. Flow (vph)	5	220	89	188	156	14	63	129	215	6	74	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	314	0	0	358	0	0	406	0	0	87	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 73.0% ICU Level of Service C
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	17.7
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	4	191	77	182	151	14	60	124	206	4	50	5
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.96	0.96	0.96	0.68	0.68	0.68
Heavy Vehicles, %	0	1	0	3	12	6	1	3	3	0	9	0
Mvmt Flow	5	220	89	188	156	14	63	129	215	6	74	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	15.6	18.8	19.7	11.3
HCM LOS	C	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	15%	1%	52%	7%
Vol Thru, %	32%	70%	44%	85%
Vol Right, %	53%	28%	4%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	390	272	347	59
LT Vol	124	191	151	50
Through Vol	206	77	14	5
RT Vol	60	4	182	4
Lane Flow Rate	406	313	358	87
Geometry Grp	1	1	1	1
Degree of Util (X)	0.662	0.524	0.617	0.166
Departure Headway (Hd)	5.866	6.029	6.214	6.893
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	613	597	580	519
Service Time	3.911	4.078	4.262	4.961
HCM Lane V/C Ratio	0.662	0.524	0.617	0.168
HCM Control Delay	19.7	15.6	18.8	11.3
HCM Lane LOS	C	C	C	B
HCM 95th-tile Q	4.9	3	4.2	0.6

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	212	101	181	89	9	68	103	182	1	147	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	10	10	10
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.996			0.930			0.994	
Flt Protected		0.998			0.969			0.990				
Satd. Flow (prot)	0	1728	0	0	1745	0	0	1668	0	0	1698	0
Flt Permitted		0.998			0.969			0.990				
Satd. Flow (perm)	0	1728	0	0	1745	0	0	1668	0	0	1698	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		319			242			250			380	
Travel Time (s)		7.3			5.5			5.7			8.6	
Peak Hour Factor	0.88	0.88	0.88	0.96	0.96	0.96	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	5%	0%	0%	3%	1%	0%	4%	0%
Adj. Flow (vph)	13	241	115	189	93	9	73	111	196	1	160	7
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	368	0	0	291	0	0	380	0	0	168	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 75.0% ICU Level of Service D
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	18.1
Intersection LOS	C

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	212	101	181	89	9	68	103	182	1	147	6
Peak Hour Factor	0.88	0.88	0.88	0.96	0.96	0.96	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles, %	0	2	1	0	5	0	0	3	1	0	4	0
Mvmt Flow	12	241	115	189	93	9	73	111	196	1	160	7
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	19.3	17.1	19.9	13.3
HCM LOS	C	C	C	B

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	3%	65%	1%
Vol Thru, %	29%	65%	32%	95%
Vol Right, %	52%	31%	3%	4%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	353	324	279	154
LT Vol	103	212	89	147
Through Vol	182	101	9	6
RT Vol	68	11	181	1
Lane Flow Rate	380	368	291	167
Geometry Grp	1	1	1	1
Degree of Util (X)	0.647	0.631	0.533	0.322
Departure Headway (Hd)	6.138	6.173	6.608	6.915
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	585	582	543	517
Service Time	4.207	4.247	4.687	5.002
HCM Lane V/C Ratio	0.65	0.632	0.536	0.323
HCM Control Delay	19.9	19.3	17.1	13.3
HCM Lane LOS	C	C	C	B
HCM 95th-tile Q	4.7	4.4	3.1	1.4

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	248	93	224	188	18	75	152	255	5	61	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	10	10	10
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964			0.994			0.928			0.989	
Flt Protected		0.999			0.975			0.992			0.997	
Satd. Flow (prot)	0	1756	0	0	1663	0	0	1647	0	0	1624	0
Flt Permitted		0.999			0.975			0.992			0.997	
Satd. Flow (perm)	0	1756	0	0	1663	0	0	1647	0	0	1624	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		319			242			250			380	
Travel Time (s)		7.3			5.5			5.7			8.6	
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.96	0.96	0.96	0.68	0.68	0.68
Heavy Vehicles (%)	0%	1%	0%	3%	12%	6%	1%	3%	3%	0%	9%	0%
Adj. Flow (vph)	6	285	107	231	194	19	78	158	266	7	90	9
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	398	0	0	444	0	0	502	0	0	106	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 86.8% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	49.5
Intersection LOS	E

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	248	93	224	188	18	75	152	255	5	61	6
Peak Hour Factor	0.87	0.87	0.87	0.97	0.97	0.97	0.96	0.96	0.96	0.68	0.68	0.68
Heavy Vehicles, %	0	1	0	3	12	6	1	3	3	0	9	0
Mvmt Flow	6	285	107	231	194	19	78	158	266	7	90	9
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	37.3	54.8	61.8	15.3
HCM LOS	E	F	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	16%	1%	52%	7%
Vol Thru, %	32%	72%	44%	85%
Vol Right, %	53%	27%	4%	8%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	482	346	430	72
LT Vol	152	248	188	61
Through Vol	255	93	18	6
RT Vol	75	5	224	5
Lane Flow Rate	502	398	443	106
Geometry Grp	1	1	1	1
Degree of Util (X)	0.979	0.827	0.936	0.265
Departure Headway (Hd)	7.164	7.483	7.605	9.014
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	512	485	479	398
Service Time	5.164	5.516	5.637	7.077
HCM Lane V/C Ratio	0.98	0.821	0.925	0.266
HCM Control Delay	61.8	37.3	54.8	15.3
HCM Lane LOS	F	E	F	C
HCM 95th-tile Q	12.9	8.1	11.1	1.1

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	13	269	129	233	110	11	84	127	225	1	186	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	11	11	11	11	11	11	11	11	11	10	10	10
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.958			0.996			0.930			0.994	
Flt Protected		0.998			0.968			0.990				
Satd. Flow (prot)	0	1728	0	0	1744	0	0	1668	0	0	1698	0
Flt Permitted		0.998			0.968			0.990				
Satd. Flow (perm)	0	1728	0	0	1744	0	0	1668	0	0	1698	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		319			242			250			380	
Travel Time (s)		7.3			5.5			5.7			8.6	
Peak Hour Factor	0.88	0.88	0.88	0.96	0.96	0.96	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles (%)	0%	2%	1%	0%	5%	0%	0%	3%	1%	0%	4%	0%
Adj. Flow (vph)	15	306	147	243	115	11	90	137	242	1	202	10
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	468	0	0	369	0	0	469	0	0	213	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.09	1.09	1.09
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary

Area Type: Other
Control Type: Unsignalized
Intersection Capacity Utilization 90.9% ICU Level of Service E
Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	58.8
Intersection LOS	F

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	13	269	129	233	110	11	84	127	225	1	186	9
Peak Hour Factor	0.88	0.88	0.88	0.96	0.96	0.96	0.93	0.93	0.93	0.92	0.92	0.92
Heavy Vehicles, %	0	2	1	0	5	0	0	3	1	0	4	0
Mvmt Flow	15	306	147	243	115	11	90	137	242	1	202	10
Number of Lanes	0	1	0	0	1	0	0	1	0	0	1	0

Approach	EB	WB	NB	SB
Opposing Approach	WB	EB	SB	NB
Opposing Lanes	1	1	1	1
Conflicting Approach Left	SB	NB	EB	WB
Conflicting Lanes Left	1	1	1	1
Conflicting Approach Right	NB	SB	WB	EB
Conflicting Lanes Right	1	1	1	1
HCM Control Delay	71.1	48.8	70.6	23
HCM LOS	F	E	F	C

Lane	NBLn1	EBLn1	WBLn1	SBLn1
Vol Left, %	19%	3%	66%	1%
Vol Thru, %	29%	65%	31%	95%
Vol Right, %	52%	31%	3%	5%
Sign Control	Stop	Stop	Stop	Stop
Traffic Vol by Lane	436	411	354	196
LT Vol	127	269	110	186
Through Vol	225	129	11	9
RT Vol	84	13	233	1
Lane Flow Rate	469	467	369	213
Geometry Grp	1	1	1	1
Degree of Util (X)	1	1	0.881	0.55
Departure Headway (Hd)	7.913	7.991	8.598	9.296
Convergence, Y/N	Yes	Yes	Yes	Yes
Cap	459	458	428	392
Service Time	5.926	6.015	6.54	7.262
HCM Lane V/C Ratio	1.022	1.02	0.862	0.543
HCM Control Delay	70.6	71.1	48.8	23
HCM Lane LOS	F	F	E	C
HCM 95th-tile Q	13.1	13	9.1	3.2

Notes

~ : Volume Exceeds Capacity; $: Delay Exceeds 300 Seconds; Error : Computation Not Defined