

MOVEMENT SUMMARY

Site: Option 2031 Med AM

Existing SH1/ Te Horo Beach Road
 2031 Expressway Option, Medium Growth
 AM Peak
 Stop (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Existing SH1											
1	L	135	10.9	0.078	11.6	LOS B	0.0	0.0	0.00	0.73	58.9
2	T	44	16.7	0.025	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		179	12.4	0.078	8.7	NA	0.0	0.0	0.00	0.55	63.1
North: Existing SH1											
8	T	38	22.2	0.022	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R	64	11.5	0.068	12.4	LOS B	0.2	1.8	0.30	0.70	57.6
Approach		102	15.5	0.068	7.8	NA	0.2	1.8	0.19	0.44	64.4
West: Te Horo Beach Road											
10	L	73	15.9	0.288	16.7	LOS C	1.3	10.1	0.40	0.83	54.2
12	R	123	12.0	0.288	16.1	LOS C	1.3	10.1	0.40	0.94	54.5
Approach		196	13.4	0.288	16.3	LOS C	1.3	10.1	0.40	0.90	54.4
All Vehicles		477	13.5	0.288	11.6	NA	1.3	10.1	0.21	0.67	59.4

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: 2031 Med AM

Otaki Gorge Road/ Old Hauture Link Road
 2031 Expressway Option, Medium Growth
 AM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South East: Otaki Gorge Rd East											
21	L	1	0.0	0.017	12.6	LOS B	0.0	0.0	0.00	1.53	69.1
22	T	32	6.7	0.017	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		33	6.5	0.017	0.4	NA	0.0	0.0	0.00	0.05	98.6
North West: Otaki Gorge Rd North											
28	T	15	14.3	0.029	0.5	LOS A	0.2	1.2	0.18	0.00	88.0
29	R	16	13.3	0.029	13.8	LOS B	0.2	1.2	0.18	0.93	69.8
Approach		31	13.8	0.029	7.4	NA	0.2	1.2	0.18	0.48	77.6
South West: Old Hauture Link Rd											
30	L	28	7.4	0.026	13.3	LOS B	0.1	0.7	0.11	0.71	68.4
32	R	1	0.0	0.026	12.4	LOS B	0.1	0.7	0.11	0.75	69.1
Approach		29	7.1	0.026	13.2	LOS B	0.1	0.7	0.11	0.71	68.4
All Vehicles		93	9.1	0.029	6.8	NA	0.2	1.2	0.09	0.40	80.3

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med AM

Otaki Gorge SB On Ramp/ Otaki Gorge Road Overbridge
 2031 Expressway Option, Medium Growth
 AM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
East: Otaki Gorge Rd East												
4	L	22	14.3	0.038	16.9	LOS C	0.1	0.9	0.47	0.75	63.6	
5	T	39	2.7	0.020	0.0	LOS A	0.0	0.0	0.00	0.00	100.0	
Approach		61	6.9	0.038	6.1	NA	0.1	0.9	0.17	0.27	83.1	
West: Otaki Gorge Overbridge West												
11	T	29	10.7	0.016	0.0	LOS A	0.0	0.0	0.00	0.00	100.0	
12	R	346	23.1	0.651	16.7	LOS C	3.2	26.8	0.74	0.55	65.4	
Approach		376	22.1	0.651	15.4	NA	3.2	26.8	0.68	0.51	67.3	
All Vehicles		437	20.0	0.651	14.1	NA	3.2	26.8	0.61	0.48	69.1	

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med AM

Existing SH1/ Otaki Gorge Rd Overbridge
 2031 Expressway Option, Medium Growth
 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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Existing SH1 South											
2	T	98	18.3	0.131	14.7	LOS B	0.6	4.7	0.47	0.70	65.0
3	R	22	19.0	0.131	19.7	LOS B	0.6	4.7	0.47	0.85	62.0
Approach		120	18.4	0.131	15.6	LOS B	0.6	4.7	0.47	0.73	64.4
East: Otaki Gorge Road Overbridge											
4	L	24	13.0	0.321	13.5	LOS B	1.9	15.6	0.30	0.62	66.7
6	R	344	24.2	0.321	18.8	LOS B	1.9	15.6	0.30	0.71	62.1
Approach		368	23.4	0.321	18.4	LOS B	1.9	15.6	0.30	0.71	62.4
North: Existing SH1 North											
7	L	346	22.2	0.319	13.6	LOS B	2.1	17.3	0.15	0.64	68.4
8	T	87	14.5	0.319	12.8	LOS B	2.1	17.3	0.15	0.59	68.2
Approach		434	20.6	0.319	13.4	LOS B	2.1	17.3	0.15	0.63	68.4
All Vehicles		922	21.5	0.321	15.7	LOS B	2.1	17.3	0.25	0.67	65.3

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med AM

Otaki Gorge NB Off Ramp/ New Local Arterial
 2031 Expressway Option, Medium Growth
 AM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Otaki Gorge NB Off Ramp											
1	L	325	25.2	0.369	15.2	LOS C	1.9	16.0	0.17	0.70	67.9
3	R	8	25.0	0.369	15.1	LOS C	1.9	16.0	0.17	0.83	68.3
Approach		334	25.2	0.369	15.2	LOS C	1.9	16.0	0.17	0.70	67.9
East: Otaki Gorge Rd Overbridge East											
5	T	39	2.7	0.020	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		39	2.7	0.020	0.0	NA	0.0	0.0	0.00	0.00	100.0
West: Otaki Gorge Rd Overbridge West											
11	T	367	22.1	0.215	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		367	22.1	0.215	0.0	NA	0.0	0.0	0.00	0.00	100.0
All Vehicles		740	22.5	0.369	6.8	NA	1.9	16.0	0.08	0.32	82.6

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: Expressway 2031 Med AM

Existing SH1/ Riverbank Road
 2031 Expressway Option, Medium Growth
 AM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
South: Existing SH1 NB												
1	L	181	22.1	0.113	10.8	LOS B	0.0	0.0	0.00	0.71	53.9	
2	T	258	22.4	0.152	0.0	LOS A	0.0	0.0	0.00	0.00	70.0	
Approach		439	22.3	0.152	4.5	NA	0.0	0.0	0.00	0.29	62.4	
North: Existing SH1 SB												
8	T	271	17.9	0.155	0.0	LOS A	0.0	0.0	0.00	0.00	70.0	
9	R	61	13.8	0.082	13.5	LOS B	0.3	2.5	0.52	0.79	50.3	
Approach		332	17.1	0.155	2.5	NA	0.3	2.5	0.10	0.15	65.4	
West: Riverbank Road EB												
10	L	37	11.4	1.080	161.8	LOS F	20.5	171.6	1.00	2.65	11.8	
12	R	163	25.2	1.080	162.6	LOS F	20.5	171.6	1.00	2.20	11.8	
Approach		200	22.6	1.080	162.4	LOS F	20.5	171.6	1.00	2.28	11.8	
All Vehicles		971	20.6	1.080	36.3	NA	20.5	171.6	0.24	0.65	33.5	

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Mill Rd RAB - 2031 AM
Expressway

Existing SH1/ Rahui Road/ Mill Road Roundabout
2031 Expressway Option, Medium Growth
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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rahui											
1	L	39	8.1	0.085	5.0	LOS A	0.3	2.5	0.45	0.53	43.7
2	T	39	0.0	0.085	4.7	LOS A	0.3	2.5	0.45	0.51	43.7
3	R	3	0.0	0.085	10.5	LOS B	0.3	2.5	0.45	0.88	41.1
Approach		81	3.9	0.085	5.1	LOS A	0.3	2.5	0.45	0.53	43.6
East: SH1 North											
4	L	1	0.0	0.099	6.7	LOS A	0.5	4.0	0.32	0.67	43.3
5	T	184	17.1	0.219	4.1	LOS A	1.3	9.8	0.30	0.37	44.4
6	R	202	4.2	0.219	9.5	LOS A	1.3	9.8	0.29	0.68	40.9
Approach		387	10.3	0.219	6.9	LOS A	1.3	9.8	0.30	0.53	42.5
North: Mill											
7	L	153	8.3	0.233	7.1	LOS A	1.3	10.4	0.48	0.60	42.3
8	T	34	37.5	0.233	6.5	LOS A	1.3	10.4	0.48	0.56	42.6
9	R	37	14.3	0.233	10.8	LOS B	1.3	10.4	0.48	0.71	40.4
Approach		223	13.7	0.233	7.6	LOS A	1.3	10.4	0.48	0.61	42.0
West: SH1 South											
10	L	18	17.6	0.026	8.3	LOS A	0.1	0.9	0.44	0.59	42.0
11	T	189	16.1	0.186	5.8	LOS A	1.0	8.2	0.43	0.53	43.1
12	R	19	22.2	0.186	10.6	LOS B	1.0	8.2	0.43	0.80	40.9
Approach		226	16.7	0.186	6.4	LOS A	1.0	8.2	0.43	0.55	42.8
All Vehicles		918	12.2	0.233	6.8	LOS A	1.3	10.4	0.39	0.56	42.5

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med AM

North Otaki Northbound On Ramp / New Arterial
 2031 Expressway Option, Medium Growth
 AM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: New Arterial -East											
11	T	386	10.4	0.211	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R	29	7.1	0.024	8.5	LOS A	0.1	0.8	0.43	0.65	41.5
Approach		416	10.1	0.211	0.6	NA	0.1	0.8	0.03	0.05	49.3
West: New Arterial -West											
4	L	214	16.7	0.202	6.8	LOS A	0.0	0.0	0.00	0.70	43.3
5	T	138	5.3	0.202	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		352	12.3	0.202	4.1	NA	0.0	0.0	0.00	0.43	45.7
All Vehicles		767	11.1	0.211	2.2	NA	0.1	0.8	0.02	0.22	47.6

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: Option 2031 Med PM

Existing SH1/ Te Horo Beach Road
 2031 Expressway Option, Medium Growth
 PM Peak
 Stop (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Existing SH1											
1	L	136	12.4	0.080	11.7	LOS B	0.0	0.0	0.00	0.73	58.9
2	T	38	13.9	0.021	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
Approach		174	12.7	0.080	9.1	NA	0.0	0.0	0.00	0.57	62.6
North: Existing SH1											
8	T	56	9.4	0.030	0.0	LOS A	0.0	0.0	0.00	0.00	80.0
9	R	121	4.3	0.118	11.8	LOS B	0.4	3.0	0.30	0.70	57.6
Approach		177	6.0	0.118	8.1	NA	0.4	3.0	0.21	0.48	63.3
West: Te Horo Beach Road											
10	L	69	6.1	0.278	16.2	LOS C	1.2	9.1	0.39	0.82	53.7
12	R	117	9.0	0.278	16.2	LOS C	1.2	9.1	0.39	0.96	54.0
Approach		186	7.9	0.278	16.2	LOS C	1.2	9.1	0.39	0.91	53.9
All Vehicles		537	8.8	0.278	11.2	NA	1.2	9.1	0.20	0.66	59.5

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: 2031 Med PM

Otaki Gorge Road/ Old Hauture Link Road
 2031 Expressway Option, Medium Growth
 PM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South East: Otaki Gorge Rd East											
21	L	1	0.0	0.010	12.6	LOS B	0.0	0.0	0.00	1.49	69.1
22	T	18	11.8	0.010	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		19	11.1	0.010	0.7	NA	0.0	0.0	0.00	0.08	97.6
North West: Otaki Gorge Rd North											
28	T	24	8.7	0.054	0.3	LOS A	0.3	2.0	0.13	0.00	90.9
29	R	35	6.1	0.054	13.0	LOS B	0.3	2.0	0.13	0.90	69.6
Approach		59	7.1	0.054	7.8	NA	0.3	2.0	0.13	0.53	77.1
South West: Old Hauture Link Rd											
30	L	16	6.7	0.015	13.2	LOS B	0.1	0.4	0.07	0.71	68.6
32	R	1	0.0	0.015	12.4	LOS B	0.1	0.4	0.07	0.76	69.3
Approach		17	6.3	0.015	13.1	LOS B	0.1	0.4	0.07	0.72	68.6
All Vehicles		95	7.8	0.054	7.3	NA	0.3	2.0	0.09	0.47	78.8

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med PM

Otaki Gorge SB On Ramp/ Otaki Gorge Road Overbridge
 2031 Expressway Option, Medium Growth
 PM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h	
East: Otaki Gorge Rd East												
4	L	8	25.0	0.016	16.8	LOS C	0.0	0.4	0.41	0.69	64.6	
5	T	25	4.2	0.013	0.0	LOS A	0.0	0.0	0.00	0.00	100.0	
Approach		34	9.4	0.016	4.2	NA	0.0	0.4	0.10	0.17	88.1	
West: Otaki Gorge Overbridge West												
11	T	59	7.1	0.032	0.0	LOS A	0.0	0.0	0.00	0.00	100.0	
12	R	261	19.0	0.467	15.2	LOS C	1.9	15.2	0.50	0.58	66.7	
Approach		320	16.8	0.467	12.4	NA	1.9	15.2	0.41	0.47	71.1	
All Vehicles		354	16.1	0.467	11.6	NA	1.9	15.2	0.38	0.45	72.4	

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med PM

Existing SH1/ Otaki Gorge Rd Overbridge
 2031 Expressway Option, Medium Growth
 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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Existing SH1 South											
2	T	86	6.1	0.107	13.6	LOS B	0.5	3.7	0.45	0.68	65.2
3	R	26	8.0	0.107	18.7	LOS B	0.5	3.7	0.45	0.82	62.2
Approach		113	6.5	0.107	14.8	LOS B	0.5	3.7	0.45	0.71	64.4
East: Otaki Gorge Road Overbridge											
4	L	23	18.2	0.339	14.4	LOS B	2.0	15.8	0.42	0.66	65.5
6	R	342	17.8	0.339	19.0	LOS B	2.0	15.8	0.42	0.74	61.4
Approach		365	17.9	0.339	18.7	LOS B	2.0	15.8	0.42	0.73	61.7
North: Existing SH1 North											
7	L	276	17.6	0.317	13.3	LOS B	2.1	16.2	0.15	0.65	68.4
8	T	186	5.1	0.317	12.3	LOS B	2.1	16.2	0.15	0.60	68.2
Approach		462	12.5	0.317	12.9	LOS B	2.1	16.2	0.15	0.63	68.3
All Vehicles		940	13.9	0.339	15.4	LOS B	2.1	16.2	0.29	0.68	65.1

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

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INTERSECTION

MOVEMENT SUMMARY

Site: 2031 Med PM

Otaki Gorge NB Off Ramp/ New Local Arterial
 2031 Expressway Option, Medium Growth
 PM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Otaki Gorge NB Off Ramp											
1	L	340	18.9	0.379	14.6	LOS B	2.0	15.9	0.12	0.71	68.0
3	R	21	15.0	0.379	14.2	LOS B	2.0	15.9	0.12	0.81	68.4
Approach		361	18.7	0.379	14.6	LOS B	2.0	15.9	0.12	0.71	68.0
East: Otaki Gorge Rd Overbridge East											
5	T	25	4.2	0.013	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		25	4.2	0.013	0.0	NA	0.0	0.0	0.00	0.00	100.0
West: Otaki Gorge Rd Overbridge West											
11	T	298	16.6	0.169	0.0	LOS A	0.0	0.0	0.00	0.00	100.0
Approach		298	16.6	0.169	0.0	NA	0.0	0.0	0.00	0.00	100.0
All Vehicles		684	17.2	0.379	7.7	NA	2.0	15.9	0.06	0.38	80.3

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Expressway 2031 Med PM

Existing SH1/ Riverbank Road
 2031 Expressway Option, Medium Growth
 PM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Existing SH1 NB											
1	L	175	19.3	0.107	10.7	LOS B	0.0	0.0	0.00	0.71	53.9
2	T	254	12.9	0.141	0.0	LOS A	0.0	0.0	0.00	0.00	70.0
Approach		428	15.5	0.141	4.4	NA	0.0	0.0	0.00	0.29	62.5
North: Existing SH1 SB											
8	T	303	9.4	0.165	0.0	LOS A	0.0	0.0	0.00	0.00	70.0
9	R	36	11.8	0.044	12.9	LOS B	0.2	1.3	0.49	0.75	50.9
Approach		339	9.6	0.165	1.4	NA	0.2	1.3	0.05	0.08	67.4
West: Riverbank Road EB											
10	L	63	13.3	0.846	51.0	LOS F	8.2	65.4	0.89	1.59	27.5
12	R	158	18.0	0.846	51.3	LOS F	8.2	65.4	0.89	1.43	27.5
Approach		221	16.7	0.846	51.2	LOS F	8.2	65.4	0.89	1.47	27.5
All Vehicles		988	13.7	0.846	13.8	NA	8.2	65.4	0.22	0.48	49.7

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

MOVEMENT SUMMARY

Site: Mill Rd RAB - 2031 PM
Expressway

Existing SH1/ Rahui Road/ Mill Road Roundabout
2031 Expressway Option, Medium Growth
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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
South: Rahui											
1	L	25	8.3	0.051	4.6	LOS A	0.2	1.4	0.39	0.48	44.0
2	T	24	0.0	0.051	4.3	LOS A	0.2	1.4	0.39	0.46	44.1
3	R	2	0.0	0.051	10.1	LOS B	0.2	1.4	0.39	0.86	41.3
Approach		52	4.1	0.051	4.7	LOS A	0.2	1.4	0.39	0.48	43.9
East: SH1 North											
4	L	1	0.0	0.073	6.5	LOS A	0.4	2.8	0.29	0.67	43.4
5	T	159	11.3	0.163	3.9	LOS A	0.9	6.8	0.28	0.36	44.6
6	R	135	7.0	0.163	9.4	LOS A	0.9	6.8	0.27	0.70	41.1
Approach		295	9.3	0.163	6.4	LOS A	0.9	6.8	0.27	0.52	42.8
North: Mill											
7	L	128	4.1	0.191	6.9	LOS A	1.1	7.7	0.47	0.60	42.4
8	T	36	0.0	0.191	5.8	LOS A	1.1	7.7	0.47	0.54	42.6
9	R	34	6.3	0.191	10.5	LOS B	1.1	7.7	0.47	0.71	40.4
Approach		198	3.7	0.191	7.3	LOS A	1.1	7.7	0.47	0.61	42.1
West: SH1 South											
10	L	31	10.3	0.040	7.3	LOS A	0.2	1.3	0.36	0.56	42.5
11	T	224	9.4	0.195	5.2	LOS A	1.1	8.2	0.35	0.47	43.5
12	R	31	10.3	0.195	9.9	LOS A	1.1	8.2	0.35	0.78	41.1
Approach		285	9.6	0.195	5.9	LOS A	1.1	8.2	0.35	0.52	43.1
All Vehicles		829	7.7	0.195	6.4	LOS A	1.1	8.2	0.35	0.54	42.8

Level of Service (LOS) Method: Delay (HCM 2000).

Roundabout LOS Method: Same as Signalised Intersections.

Vehicle movement LOS values are based on average delay per movement

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Roundabout Capacity Model: SIDRA Standard.

SIDRA Standard Delay Model used.

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MOVEMENT SUMMARY

Site: 2031 Med PM

North Otaki Northbound On Ramp / New Arterial
 2031 Expressway Option, Medium Growth
 PM Peak
 Giveway / Yield (Two-Way)

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 m	Prop. Queued	Effective Stop Rate per veh	Average Speed km/h
East: New Arterial -East											
11	T	293	9.0	0.159	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
12	R	28	3.7	0.022	8.3	LOS A	0.1	0.7	0.42	0.64	41.5
Approach		321	8.5	0.159	0.7	NA	0.1	0.7	0.04	0.06	49.1
West: New Arterial -West											
4	L	188	10.1	0.196	6.6	LOS A	0.0	0.0	0.00	0.72	43.3
5	T	166	4.4	0.196	0.0	LOS A	0.0	0.0	0.00	0.00	50.0
Approach		355	7.4	0.196	3.5	NA	0.0	0.0	0.00	0.38	46.2
All Vehicles		676	7.9	0.196	2.2	NA	0.1	0.7	0.02	0.23	47.5

Level of Service (LOS) Method: Delay (HCM 2000).

Vehicle movement LOS values are based on average delay per movement

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA: Intersection LOS and Major Road Approach LOS values are Not Applicable for two-way sign control since the average delay is not a good LOS measure due to zero delays associated with major road movements.

SIDRA Standard Delay Model used.

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