

# NETWORK SUMMARY

## Network: 1 [new airport pm 2021 102k (July 2016 version - revised) ]

New Network

Network Cycle Time = 70 seconds (Network Cycle Time - User-Given)

Network Performance - Hourly Values				
Performance Measure	Vehicles	Per Unit Distance	Pedestrians	Persons
Network Level of Service (LOS)	LOS F			
Travel Time Index	2.02			
Speed Efficiency	0.28			
Congestion Coefficient	3.55			
Travel Speed (Average)	15.5 km/h		2.3 km/h	15.2 km/h
Travel Distance (Total)	5042.2 veh-km/h		19.7 ped-km/h	6070.4 pers-km/h
Travel Time (Total)	325.7 veh-h/h		8.7 ped-h/h	399.6 pers-h/h
Desired Speed	55.0 km/h			
Demand Flows (Total for all Sites)	24891 veh/h		611 ped/h	28213 pers/h
Arrival Flows (Total for all Sites)	23511 veh/h		611 ped/h	28213 pers/h
Percent Heavy Vehicles (Demand)	0.0 %			
Percent Heavy Vehicles (Arrival)	0.0 %			
Degree of Saturation	1.520			
Control Delay (Total)	228.34 veh-h/h		4.47 ped-h/h	278.47 pers-h/h
Control Delay (Average)	35.0 sec		26.3 sec	35.5 sec
Control Delay (Worst Lane)	493.4 sec			
Control Delay (Worst Movement)	493.9 sec		29.3 sec	493.9 sec
Geometric Delay (Average)	1.7 sec			
Stop-Line Delay (Average)	33.3 sec			
Queue Storage Ratio (Worst Lane)	4.38			
Total Effective Stops	18996 veh/h		527 ped/h	23322 pers/h
Effective Stop Rate	0.81 per veh	3.8 per km	0.86 per ped	0.83 per pers
Proportion Queued	0.54		0.86	0.55
Performance Index	907.6		11.6	919.3
Cost (Total)	10449.94 \$/h	2.07 \$/km	182.26 \$/h	10632.21 \$/h
Fuel Consumption (Total)	898.4 L/h	178.2 mL/km		
Fuel Economy	17.8 L/100km			
Carbon Dioxide (Total)	2111.2 kg/h	418.7 g/km		
Hydrocarbons (Total)	0.843 kg/h	0.167 g/km		
Carbon Monoxide (Total)	7.081 kg/h	1.404 g/km		
NOx (Total)	1.445 kg/h	0.287 g/km		

Network Model Accuracy Level (largest change in degree of saturation for any lane): 5.2 %

Number of Iterations: 10

Network Level of Service (LOS) Method: SIDRA Speed Efficiency.

Setup used: New Zealand.

Network Performance - Annual Values			
Performance Measure	Vehicles	Pedestrians	Persons
Demand Flows (Total for all Sites)	11,947,780 veh/y	293,053 ped/y	13,542,170 pers/y
Delay	109,602 veh-h/y	2,144 ped-h/y	133,667 pers-h/y
Effective Stops	9,118,204 veh/y	252,951 ped/y	11,194,800 pers/y
Travel Distance	2,420,263 veh-km/y	9,461 ped-km/y	2,913,777 pers-km/y
Travel Time	156,358 veh-h/y	4,166 ped-h/y	191,795 pers-h/y
Cost	5,015,974 \$/y	87,486 \$/y	5,103,460 \$/y
Fuel Consumption	431,230 L/y		
Carbon Dioxide	1,013,389 kg/y		
Hydrocarbons	405 kg/y		
Carbon Monoxide	3,399 kg/y		
NOx	694 kg/y		

Project: C:\Users\doug\Documents\2 Projects\1 Kapitl\00 PDP\3 evidence Airport Private Plan Change\analysis\new airport pm model July 2016 version 2021 102k (Beca) - revised.sip7