

Crowding and congestion

Australian Infrastructure Audit

Sydney, the Hunter and Illawarra in 2016

Sydney has grown, and so has
the time and effort it takes to
move around the city

- The annualised cost of road congestion in Sydney, Hunter and Illawarra in 2016 was approximately **\$8 billion**. Congestion is exacerbated during the morning peak.
- The cost of public transport crowding in 2016 was \$68 million.
- The city's most congested arterial roads radiate from the city to the south, west and north, and between the airport and Macquarie Park.
- Unlike Melbourne, Sydney has heavy congestion on its local roads, particularly in the inner-west.
- Network improvements, increasing road congestion and increased density have increased public transport share.
- Sydney has the largest share of journeys to work by public transport of any city.
- Notwithstanding current investment in extra capacity, the performance of Sydney's transport network is not keeping pace.

Sydney GCCSA population 2016:
5 million



3 Million additional
monthly trips on
public transport
between 2016
and 2018



765 million

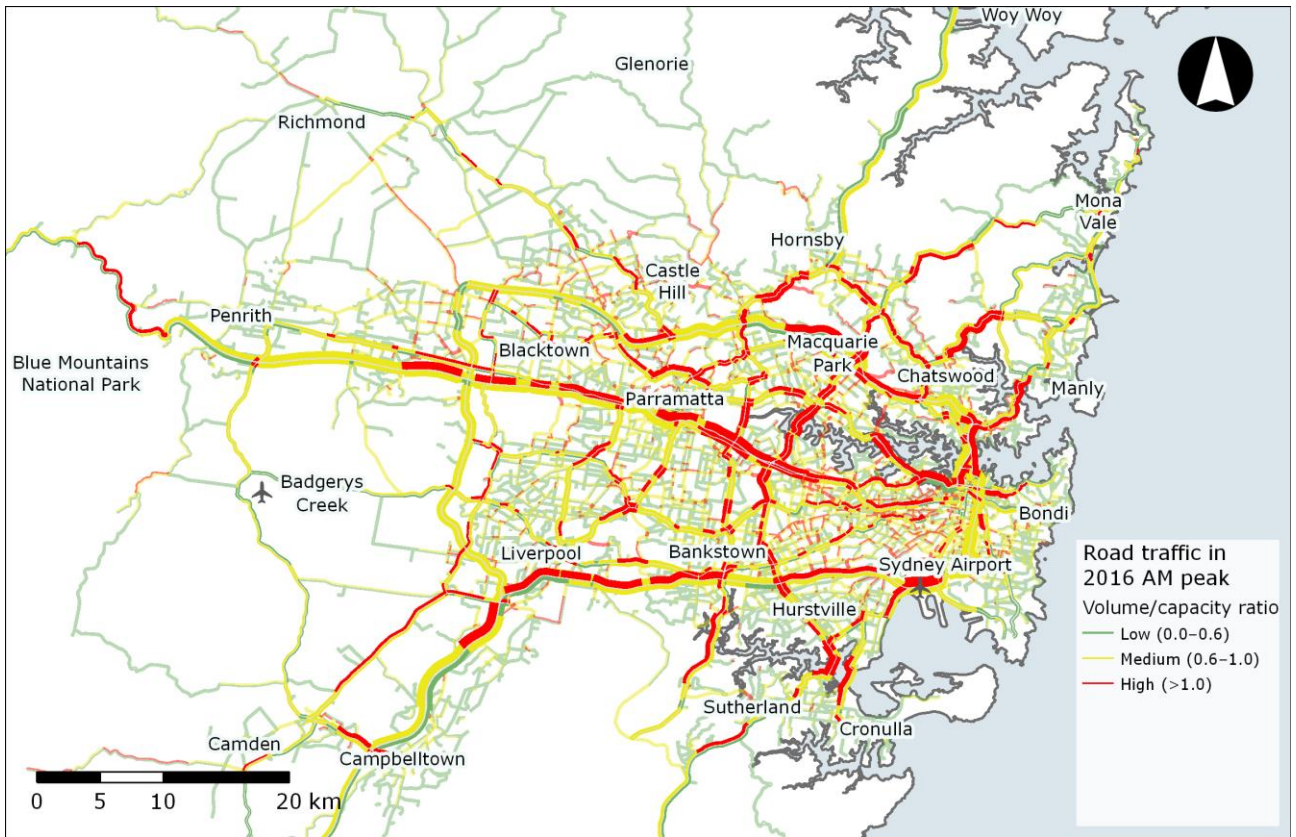
Number of annual public
transport journeys in
Greater Sydney



45%
increase

in public
transport
journeys
between 2000
and 2018

Sydney's road network congestion 2016, AM peak



Sydney's most congested roads (user experience) 2016

City rank	Corridor including origin / destination connected (direction)	Length (km)	Share of journey time due to congestion	Delay per vehicle (mins)	Cost of congestion for a car	Cost of congestion for a heavy commercial vehicle
AM peak						
1.	North Sydney to Sydney CBD via Sydney Harbour Tunnel (S/B)	4	81%	16	\$4.42	\$19.03
2.	Ashfield to Sydney CBD via City West Link / Anzac Bridge (E/B)	9	69%	22	\$6.08	\$26.17
3.	Narreweena to Chatswood via Warringah Road (W/B)	12	68%	26	\$7.18	\$30.93
4.	Hornsby to Parramatta via Pennant Hills Road (S/B)	16	67%	34	\$9.39	\$40.45
5.	Artarmon to Surry Hills via Pacific Highway / Sydney Harbour Bridge / Cahill Expressway / Eastern Distributor (S/B)	11	67%	20	\$5.52	\$23.79
6.	Westmead to Strathfield via M4 (E/B)	12	67%	17	\$4.69	\$20.22
7.	Strathfield to Haberfield via Parramatta Road (E/B)	4	67%	9	\$2.49	\$10.71
8.	Haberfield to Broadway via Parramatta Road (E/B)	7	66%	18	\$4.97	\$21.41
9.	Liverpool to Sydney Airport via M5 (E/B)	28	65%	34	\$9.39	\$40.45
10.	Mona Vale to Sydney Olympic Park via A3 (S/B)	35	62%	54	\$14.91	\$64.24
PM peak						
1.	Sydney CBD to North Sydney via Sydney Harbour Tunnel (N/B)	4	74%	11	\$3.04	\$13.09
2.	Chatswood to Narreweena via Warringah Road (E/B)	12	68%	26	\$7.18	\$30.93
3.	Parramatta to Hornsby via Pennant Hills Road (N/B)	16	66%	32	\$8.84	\$38.07
4.	Strathfield to Westmead via M4 (W/B)	12	66%	16	\$4.42	\$19.03
5.	North Sydney to Sydney CBD via Sydney Harbour Tunnel (S/B)	4	66%	7	\$1.93	\$8.33
6.	Westmead to Eastern Creek via M4 (W/B)	12	63%	13	\$3.59	\$15.47
7.	Haberfield to Strathfield via Parramatta Road (W/B)	4	63%	7	\$1.93	\$8.33
8.	Sydney CBD to Ashfield via Anzac Bridge / City West Link (W/B)	9	61%	15	\$4.14	\$17.85
9.	Sydney Olympic Park to Mona Vale via A3 (N/B)	35	59%	49	\$13.53	\$58.29
10.	Strathfield to Haberfield via Parramatta Road (E/B)	4	59%	6	\$1.66	\$7.14

Sydney, the Hunter and Illawarra in 2031

Even with committed investment, Sydney's transport networks are forecasted to become more congested

- The annualised cost of road congestion in Sydney, Hunter and Illawarra is forecast to almost double to approximately **\$15.7 billion** in 2031 if further investment does not occur. Inter-peak congestion costs will overtake AM peak congestion.
- By 2031, peak congestion will be much more common on Sydney's major routes in both directions – towards and away from the CBD.
- The growth of Sydney as a multi-centered metropolis will drive increased congestion on cross-regional north-south routes.
- Public transport use is forecast to grow substantially, influenced by investment in new infrastructure, road congestion, and higher density development.
- Despite major additions and upgrades to rail, metro and light rail networks, crowding and delays are still expected.
- Most CBD-bound train services will be operating well above seated capacity in the AM peak.
- High levels of bus crowding is forecasted for B-line services on the Northern Beaches peninsula.



**Sydney GCCSA population 2031:
6.4 million**

95.2%

increase in cost of road
congestion between
2016 and 2031



5 million

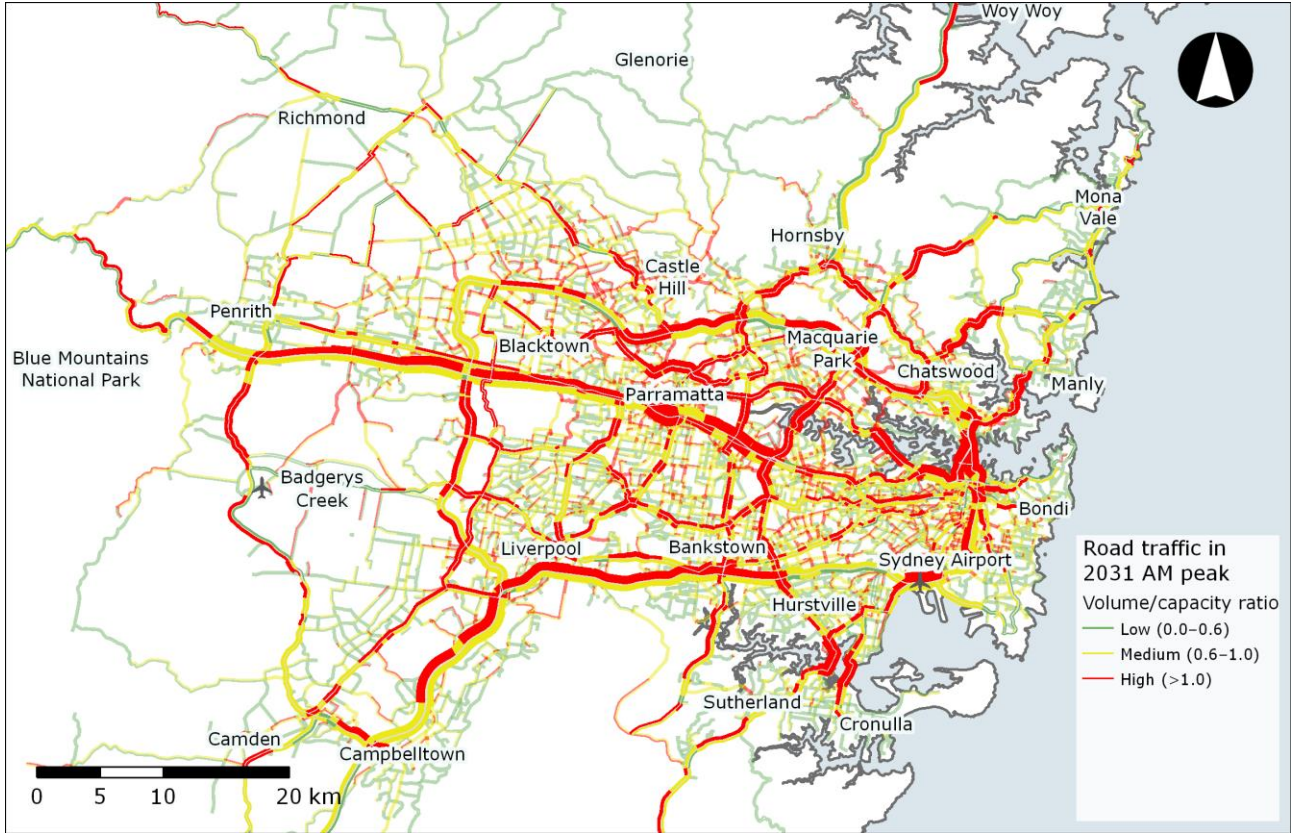
increase in daily
passenger trips



70 - 90%

percentage of trip
drivers will spend in
congestion

Sydney's road network congestion 2031, AM peak



Sydney's most congested roads (user experience) 2031

City rank	Corridor including origin / destination connected (direction)	Length (km)	Share of journey time due to congestion	Delay per vehicle (mins)	Cost of congestion for a car	Cost of congestion for a heavy commercial vehicle
AM peak						
1.	North Sydney to Sydney CBD via Sydney Harbour Tunnel (S/B)	4	84%	19	\$5.25	\$22.60
2.	Mount Druitt to Westmead via M4 (E/B)	13	75%	25	\$6.90	\$29.74
3.	Liverpool to Sydney Airport via M5 (E/B)	28	74%	49	\$13.53	\$58.29
4.	Ashfield to Sydney CBD via City West Link / Anzac Bridge (E/B)	9	73%	27	\$7.46	\$32.12
5.	Artarmon to Surry Hills via Pacific Highway / Sydney Harbour Bridge / Cahill Expressway / Eastern Distributor (S/B)	11	72%	25	\$6.90	\$29.74
6.	Narreweena to Chatswood via Warringah Road (W/B)	12	71%	30	\$8.29	\$35.69
7.	Westmead to Strathfield via M4 (E/B)	12	71%	21	\$5.80	\$24.98
8.	Baulkham Hills to Macquarie Park via M2 (E/B)	18	69%	26	\$7.18	\$30.93
9.	Hornsby to Parramatta via Pennant Hills Road (S/B)	16	68%	36	\$9.94	\$42.83
10.	Sutherland west (Lucas Heights) to Ryde west (Dundas Valley) via A6 (N/B)	32	68%	67	\$18.50	\$79.71
PM peak						
1.	Sydney CBD to North Sydney via Sydney Harbour Tunnel (N/B)	4	81%	15	\$4.14	\$17.85
2.	North Sydney to Sydney CBD via Sydney Harbour Tunnel (S/B)	4	79%	14	\$3.87	\$16.66
3.	Westmead to Eastern Creek via M4 (W/B)	12	76%	25	\$6.90	\$29.74
4.	Chatswood to Narreweena via Warringah Road (E/B)	12	72%	32	\$8.84	\$38.07
5.	Sydney CBD to Ashfield via Anzac Bridge / City West Link (W/B)	9	69%	22	\$6.08	\$26.17
6.	Macquarie Park to Baulkham Hills via M2 (W/B)	18	69%	25	\$6.90	\$29.74
7.	Surry Hills to Artarmon via Eastern Distributor / Cahill Expressway / Sydney Harbour Bridge / Pacific Highway (N/B)	12	67%	20	\$5.52	\$23.79
8.	Ryde west (Dundas Valley) to Sutherland west (Lucas Heights) via A6 (S/B)	32	67%	63	\$17.40	\$74.95
9.	Parramatta to Hornsby via Pennant Hills Road (N/B)	16	67%	34	\$9.39	\$40.45
10.	Sydney Airport to Liverpool via M5 (W/B)	27	67%	36	\$9.94	\$42.83