

Sydney Opera House- Building Renewal Traffic Assessment

Being one of the busiest performance arts venues and public precincts the Sydney Opera House already effectively manages on average 148 vehicle deliveries per day. These vehicle movements include food/ beverage for associated restaurants, bump in and bump out activities for the performance art venues, building operations and maintenance operations and also business operations for staff and resident companies located at the Opera House. It is important to note that this does not include patron vehicles as parking is not provided on the site.

The Building Renewal works will require vehicle movements to service the construction projects as well as providing relief to the road network as two of the major venues will be closed for large periods of the Renewal program. At this stage the closure of the venues is forecast as follows;

- Joan Sutherland Theatre, capacity 1500, closed for an 8 month period May to December 2017
- Concert Hall, capacity 2700, closed for an 18 period from May 2019 to December 2020

Whilst the purpose of each delivery is not collected the vehicle movements to the Opera House have been forecast with the incumbent knowledge of operations staff who manage these venues. Similarly forecasts of construction vehicle movements have been bolstered through the Early Contractor Involvement of Laing O'Rourke Construction Australia who are providing construction planning and logistics expertise. Estimates have also been made with insight from SOH ticketing of the number of patron vehicles which use the Wilson Street Car Park at 2A Macquarie Street.

The following graphic provides an estimate of vehicles which will be added to the road network from construction traffic but also importantly takes into account vehicles which will be removed from the road network as a result of the venue closures.

Cumulative Traffic Assessment- Renewal Projects																
	2017				2018				2019				2020			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Venue Closure																
Construction Projects																
Approximate construction workers driving		720	720	720	576	480	480		720	720	720	720	720	720	720	720
Approximate Construction Vehicles		1920	1920	1920	1920	1920	1920		1920	1920	1920	1920	1920	1920	1920	1920
Reduction in patron traffic		5760	5760	5760					5184	5184	5184	5184	5184	5184	5184	5184
Reduction in bump in/ out traffic		12	12	12					12	12	12	12	12	12	12	12
Total Vehicle Movements		-3132	-3132	-3132	2496	2400	2400	0	-2556	-2556	-2556	-2556	-2556	-2556	-2556	-2556

Figure 1- Cumulative Traffic Assessment

As can be seen by the traffic assessment the closure of the venues will provide a greater relief to the road system than the introduction of construction vehicle traffic (both construction workers and delivery vehicles).

There is also a period in 2018, when both venues will be operating, whilst construction works will be undertaken, albeit a smaller number of construction workers will be completing these works on site. During the periods where the venues are reopened the construction traffic impact is estimated at 26 vehicles per day which represents a modest increase, well within the road capacity.

A full Construction Pedestrian and Traffic Management Plan will be developed by the contractor to ensure all impacts from the construction activities are adequately managed to limit impacts on traffic and pedestrians.