

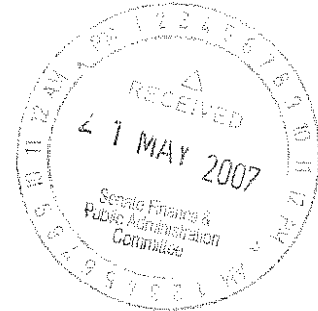


PRESIDENT OF THE SENATE

PARLIAMENT HOUSE
CANBERRA

21 MAY 2007

Senator Mitch Fifield
Chairman
Standing Committee on Finance and Public Administration
Parliament House
CANBERRA ACT 2600



Dear Senator Fifield

At the 2 February 2007 estimates hearings, Senator Robert Ray asked about traffic on Parliament Drive and in particular delays to traffic approaching Parliament House on Kings Avenue.

The Department of Parliamentary Services has provided me with a report prepared by R. D. Gossip Pty Ltd, Consulting Engineers.

I provide it herewith for the information of the committee, and in particular Senator Robert Ray.

Yours sincerely

(Paul Calvert)



SENATE ESTIMATES ISSUE

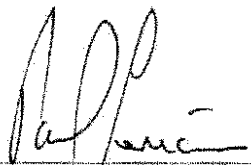
Raised by Senator Robert Ray 12 February 2007

TRAFFIC REPORT



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EXECUTIVE SUMMARY

Surveys were undertaken to assess the likelihood that there is a significant number of vehicles using Parliament Drive during the morning peak that do not need to be on Parliament Drive but use it as a short cut. At a Senate Estimates hearing on 12 February 2007, Senator Ray asked if this could be checked because the traffic on Parliament Drive was causing delay to vehicles approaching Parliament House on Kings Avenue.

The surveys indicate that it is most unlikely that drivers would choose Parliament Drive as a short cut because travel times using that route are considerably longer than the available alternatives using State Circle.

Surveys of delays to vehicles approaching Parliament Drive on Kings Avenue indicate that the average delay is less than 10 seconds. However, since individual delays of up to 41 seconds were measured, it is quite possible that a person being delayed for that time could feel that their delay was excessive.

On balance it seems reasonable to conclude that:

- there is not significant use of Parliament Drive as a short cut in the morning peak period; and
- the delays to traffic on Kings Avenue caused by traffic on Parliament Drive are not excessive.

1 BACKGROUND

1.1 Introduction

- 1.1.1 At the Senate Estimates hearing on 12 February 2007 Senator Robert Ray raised concern at the extent of traffic that appeared to be using Parliament Drive as a short cut. In particular he asked that some investigation be undertaken to assess the proportion of through traffic using Parliament Drive, particularly in the morning peak period.
- 1.1.2 Senator Ray's concerns were generated by the extent that vehicles attempting to access Parliament Drive from Kings Avenue were delayed at the intersection of Kings Avenue with Parliament Drive in the morning peak period.
- 1.1.3 The concern was that the extent of traffic using Parliament Drive as a through route and without need to access Parliament House was causing delay to vehicles wanting to access Parliament House particularly at the intersection of Kings Avenue and Parliament Drive.
- 1.1.4 At that intersection, vehicles wanting to turn onto Parliament Drive from Kings Avenue have to give way to vehicles circulating on Parliament Drive.

1.2 General Discussion

- 1.2.1 Parliament Drive provides a connection between the suburban Forrest area and the Parkes area which includes the government office developments off Kings Avenue in the Parliamentary Triangle as well as in Barton.
- 1.2.2 These areas are also connected by State circle which provides for movements in both directions around Capital Hill.
- 1.2.3 Senator Ray asked if surveys could be undertaken to determine the proportion of traffic that did not have any reason related to Parliament House to use Parliament Drive. The resources required to undertake such a survey would be extensive.
- 1.2.4 The basis of such a survey would be to define a cordon surrounding Parliament House and to record details of all vehicles crossing that cordon, either in or out, in a particular period of time.
- 1.2.5 This would require that seven locations be manned for the duration of the survey. Each station would have to record number plate details and time of entry and departure as well as vehicle occupancy to determine whether or not passengers had been dropped off or picked up within the cordon (ie at Parliament House).
- 1.2.6 The records from the seven stations would then need to be collated and matched to draw a conclusion about the proportion of through traffic.
- 1.2.7 Even with that level of effort, any conclusion would not necessarily be accurate because of the difficulty of differentiating between a vehicle undertaking a short period visit to Parliament House such as to drop of documents and a vehicle using Parliament Drive as a through route.

1.3 Alternate Approach

- 1.3.1 Rather than attempting to survey directly the extent of through movements on Parliament Drive an alternate approach is to assess the likely benefit of using Parliament Drive compared with the alternative routes utilising State Circle for drivers who are not needing to access Parliament House or areas immediately adjacent to it.
- 1.3.2 The most likely trips that would potentially provide drivers with a benefit, during the morning peak, of using Parliament Drive rather than the surrounding road network involve the link from Melbourne Avenue to Kings Avenue.
- 1.3.3 Measurements could be taken of the time to travel from Melbourne Avenue at the Melbourne Avenue / State Circle intersection to Kings Avenue at the Kings Avenue / State Circle intersection by the three alternative routes available during the morning peak period.
- 1.3.4 The three alternative routes are
1. Clockwise around State Circle, past the USA Embassy to Kings Avenue;
 2. Around Parliament Drive to Kings Avenue; or
 3. Anti-clockwise around State Circle past Canberra Avenue and Brisbane Avenue to Kings Avenue.
- 1.3.5 Comparison of the travel times for these three alternatives would provide a reasonable basis on which to assess the attractiveness of using the Parliament Drive route since trip time is the most significant basis on which drivers choose travel routes.
- 1.3.6 Although the three alternative routes have differing speed limits ranging from 70 km/h on some sections of State Circle to 50 km/h on Parliament Drive, the assessment of travel times for these alternatives addresses these differing speed limits.
- 1.3.7 This comparison does not address the potential for Parliament Drive to provide a link from Forrest to the car parks at East or West Block via Federation Mall. It is unlikely that a high proportion of drivers accessing those car parks would be coming from Forrest and consequently they are unlikely to constitute a high proportion of the traffic circulating Parliament Drive.
- 1.3.8 In any case, these drivers have as valid a reason for using Parliament Drive as those directly accessing Parliament House.
- 1.3.9 In addition to the travel time survey, individual vehicle delays of vehicles approaching Parliament Drive on Kings Avenue can be measured to assess the extent that they are being delayed.

2. SURVEYS UNDERTAKEN

2.1 Overview

- 2.1.1 A suitable date was chosen on which to undertake the surveys. It needed to be a date when Parliament was sitting to ensure that traffic movements associated with the higher activity levels of Parliament House during sitting periods.
- 2.1.2 These conditions were met on Thursday 10 May 2007, the date chosen for the survey and the survey covered the morning peak hour period from 8 am to 9 am.

2.2 Travel Time Survey

- 2.2.1 A vehicle undertook the trip from Melbourne Avenue to Kings Avenue several times during the peak period using the three alternate routes.
- 2.2.2 The route option with the least potential for variability is the clockwise route around State Circle. Although this is the longest of the three route options, there are no traffic signals involved and the two intersection turns involved use left turn slip lanes. This route was travelled twice in the period.
- 2.2.3 The option travelling anticlockwise around State circle involves passing through 5 sets of traffic signals. Peak period coordination of the signals assists in reducing the delays involved at the signals. This route was travelled three times in the period.
- 2.2.4 The final option using Parliament Drive was the shortest option. However the need to pass through two sets of signals which are not set to reduce delays on this route , combined with the congestion often experienced at the entrance to the car park on Melbourne Avenue as well as at the intersection of Melbourne Avenue and Parliament Drive result in this route having the highest variability.
- 2.2.5 For this reason this route was travelled six times in the period.

2.3 Vehicle Delay Survey

- 2.3.1 The delays experienced by all vehicles approaching Parliament Drive on Kings Avenue during the peak period were measured and recorded.
- 2.3.2 At the same time the number of vehicles approaching the Kings Avenue / Parliament Drive intersection around Parliament Drive was recorded together with the direction each vehicle took at the intersection ie whether a vehicle turned right onto Kings Avenue or continued along Parliament Drive.

3 SURVEY RESULTS

3.1 Travel Times

3.1.1 The average travel times for the three routes were:

Route	Average Travel Time / Min and Max Times
1. Clockwise around State Circle, past the USA Embassy to Kings Avenue	Av 1 min 42 sec Min 1 min 36 sec Max 1 min 47 sec
2. Around Parliament Drive to Kings Avenue	Av 3 min 21 sec Min 2 min 57 sec Max 4 min 16 sec
3. Anti-clockwise around State Circle past Canberra Avenue and Brisbane Avenue to Kings Avenue	Av 3 min 0 sec Min 2 min 35 sec Max 3 min 37 sec

3.2 Vehicle Delay

- 3.2.1 Delays experienced by all vehicles approaching Parliament Drive on Kings Avenue during the peak hour were measured.
- 3.2.2 For the peak hour period between 8 am and 9 am, the average delay to vehicles approaching Parliament Drive was 9.9 seconds.
- 3.2.3 The maximum delay recorded was 41 seconds and the maximum queue length was six vehicles.
- 3.2.4 Of the total 208 vehicles, 50 (24%) had no delay at all.
- 3.2.5 A total of 409 vehicles approached this intersection on Parliament drive in the peak hour. Of these, 290 (71%) proceeded straight through the intersection towards the Senate side and the public car park. The remaining 119 (29%) vehicles turned right.

4 DISCUSSION OF RESULTS

4.1 Travel Times

- 3.2.6 The average travel time survey indicates that the travel time from Melbourne Avenue to Kings Avenue is the shortest by a considerable margin by travelling clockwise around State Circle (Route 1). This is despite this route being the longest of the three.
- 4.1.1 The second shortest route in travel time terms is around State Circle in an anticlockwise direction (Route 3) despite this route involving five sets of traffic signals.
- 4.1.2 The longest route in travel time terms by a considerable margin is the Parliament Drive route (Route 2), even though this is the shortest of the three routes. The travel time on this route is quite variable with maximum times up to 50% higher than the shortest time for the trip.
- 4.1.3 Even the shortest time we recorded for this route (2 min 57 secs) was more than 50% higher than the average time using route 1 (1 min 42 secs).
- 4.1.4 The implication of this is that it is quite unlikely that a driver who regularly travelled between these points would choose the Parliament Drive route. It always takes longer than the main alternative route using State Circle and the potential to be held up on this route is quite high.
- 4.1.5 It is difficult to see why the Parliament Drive route would be chosen over using State Circle during the morning peak period.

4.2 Delays at Kings Avenue / Parliament Drive.

- 4.2.1 The average delay in the morning peak hour to vehicles approaching this intersection on Kings Avenue is 9.9 seconds. This is quite low and is considerably less than the average delay experienced at a typical signalised intersection.
- 4.2.2 The delay time is quite variable extending up to 41 seconds. Although a high proportion of vehicles experience no delay at this intersection on the Kings Avenue approach, a person in a vehicle that did experience a 41 second delay here would be inclined to feel unduly delayed. This is because the stream of vehicles approaching on Parliament Drive having priority and hence causing the delay would most likely be relatively light although with insufficient gaps between vehicles to allow a vehicle waiting in Kings Avenue to enter the intersection.
- 4.2.3 In comparison, although delays were not measured for vehicles approaching Parliament Drive from Melbourne Avenue, the delays being experienced on that approach, by observation, would be significantly longer than the delays being experienced at Kings Avenue.

4.3 Observations

- 4.3.1 The traffic travelling around Parliament Drive and arriving at the intersection with Kings Avenue could have many valid reasons for travelling on Parliament Drive.

- 4.3.2 Although not quantified, a high proportion of vehicles are Commonwealth Vehicles. These might be moving to a waiting area after having dropped off a passenger at Parliament House.
- 4.3.3 There were also a high proportion of taxis in this traffic stream most of which had no passengers. These are likely to have dropped off passengers at Parliament House.
- 4.3.4 During other surveys of traffic activity at Parliament House, passenger drop off is common in the morning peak.
- 4.3.5 It was also noticeable that the delays on the Kings Avenue approach reduced to negligible shortly after 9 am.

