

68 Marshall Rd,
Mt Riverview, NSW, 2774

8 December 2018

The Department of Planning and Environment

Modification to the Northern Rd Upgrade

Replacement of Twin Bridges at Adams Rd with a Signalised Intersection.

I wish to record my objection to the proposed replacement of the grade separated junction at Adams Rd with a signalised intersection.

The Northern Rd is a major arterial road which is growing in its use and importance with the development of the second Sydney Airport. The significant importance in any road construction is the reduction of transit time to ensure that travel between major centres is efficient and safe. Where the road requires 4 or more lanes and also to be divided, is evidence that high levels of traffic flows are to be expected and indeed exist today.

It is apparent from current large intersections that already been constructed such as those at Gregory Hills on Camden Valley Way, and at the various junctions on Narellan Rd, that they do not efficiently result in an improved traffic flow. Due to the wide roads, long timings are required for the various sequences and result in significant delays to cars stopped at the red lights. Additionally approach roads and turning lanes have to be larger and longer to be able to advance the stopped traffic as close as possible to the lights to avoid undue delay in moving the large bulk of cars forward when the lights change, and to prevent long queues in turning lanes from hanging back and obstructing other traffic.

Fundamentally such junctions do not function effectively; they increase the delay to traffic and thus transit time, present an increased risk to road users due to a large conflict zone, and at 80 km/h present potentially higher collision speeds. As well much traffic travels above the posted speed limits due to the higher quality road service and overtaking opportunities again impacting safety levels. Pedestrian facilities across multiple traffic lanes have long operating times and significantly impact on the time vehicles are stopped at the intersection.

The Northern Rd upgrade is already unduly beset by too many signalised large intersections.

The strategic importance of this road between the major centres of Penrith and Campbelltown, as well as servicing the new airport makes this road worthy of a proper strategic design to minimise transit times and provide a high level of safety, especially in the higher speed sections. Minimising transit times, and stop / start driving also decreases vehicle emissions and fuel consumption.

To achieve this junctions should be grade separated and focussed on left hand turns and merging lanes only to maintain traffic flows without stopping vehicles.

Such a road standard needs to be specified without impact on costs (except to ensure the design is cost effective in itself) otherwise all intersections can be assessed on a low cost basis and be reduced to the least functional form. This is the case at Adams Rd. Lowering the cost of this intersection is insignificant in the scope of the overall project, including the airport, and will not represent the lowest all of life cost. The desire to reduce costs appears to be arbitrary as no specific reason is given. As future road widening is envisaged, the lowest overall cost to the community is the construction of the final optimised design, built once and given the opportunity to provide longer term benefits.

There already has been significant degradation in the road standards applied to the Northern Rd at Oran Park, Harrington, Narellan, as well as the M4 junction and other road junctions within the Penrith area that will upset transit times and increase collision potential.

A well designed arterial road with smoothly operating grade separated junctions does not have to occupy the same space or number of lanes as does one with many signalised intersections. If the traffic is kept moving there is no need for turning lanes nor even co-ordination as the random nature of vehicle positioning creates merging opportunities without significant delays.

One of the Adams Rd advantages of a signalised intersections is that it provides additional traffic movements. This is an advantage that cannot be permitted to favour the outcome as it would result in additional delays to traffic due to the additional sequences required, and, if actually required, shows a deficiency in the original design which I assume would have been assessed as not being necessary. Local roads generally need to be funnelled to a number of optimised access locations.

Consequently it is of the utmost imperative that the Northern Rd design is optimised for minimum transit times, and that any impediment that increases transit times should be designed out. Without this strategic approach all the good design can be under threat of being reduced to the lowest cost and worst performing options.

It is apparent from the current road designs that have been built and those which are still being built do not eliminate or reduce traffic conflicts sufficiently and is part of the reason for the poor performance of some junctions. Even the new M4-Northern Rd Junction will contain the same sets of traffic lights to manage entering and departing traffic albeit with increased sequence times due to the large road design of 4 lanes each side with a central divider. It is simply a larger version of the existing intersections. This was a lost opportunity to get it right.

Please do not let the Adams Rd junction succumb to a similar level of functional mediocrity.

Yours sincerely

Warwick Allison

