

31 July 2008

**MPPL Planning Study
Department of Main Roads
Reply Paid 70
SPRING HILL, Qld 4004**

Dear Sir/Madam,

Re. RACQ's Comments on the Miles Platting, Padstow and Logan Road intersection and Padstow and Warrigal Road intersection Planning Study (MPPL)

The RACQ welcomes the opportunity to comment on the MPPL Planning Study. Our comments are based on the information gathered from Newsletter 1, July 2008 and a briefing with project representatives on Tuesday, 22 July.

1.0 Background

The RACQ conducts its 'Red Spot Survey' and 'Travel Time Survey' every three years. The Red Spot Survey asks members to supply information on congested locations where delays are frustrating, but could be alleviated to some extent while the Travel Time Survey provides information on actual travel times and average speeds on arterial routes radiating from Brisbane City.

Red Spot Survey

The RACQ conducts its 'Red Spot Survey' every three years where members are asked to supply information on congested locations where delays are frustrating, but could be alleviated to some extent.

The Red Spot results are summarised below:

Intersection Red Spot:

- Padstow / Warrigal Roads - 13th highest number of nominations for a Queensland intersection - (2004 Red Spot Survey)
- Padstow / Warrigal Roads - =15th highest number of nominations for a Queensland intersection - (2007 Red Spot Survey)

15 th - 2007 (13 th - 2004)	Padstow Road and Warrigal Road, Eight Mile Plains	Heavy volumes of traffic from the east (Pacific and Gateway Motorway) as well as the west from Padstow Rd. Warrigal Rd carries heavy traffic from the south culminating in a very congested roundabout, especially at peak times. Difficulty with entering the roundabout is also of concern. Solution: Traffic signals or under/overpass.
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- Logan / Miles Platting / Padstow Roads – 3rd highest number of nominations for a Queensland intersection - (2007 Red Spot Survey)

3 rd (2007)	Logan Road and Miles Platting Road/Padstow Road, Eight Mile Plains	Through traffic congestion, not enough lanes and poorly designed intersection with poor turning lanes. Solution: More lanes/road capacity, improve turning lanes or build a tunnel/overpass.
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Road Section Red Spot:

- Logan Road (Mt Gravatt to Underwood) – 8th highest number of nominations for a Queensland road section - (2004 Red Spot Survey)
- Logan Road (Loganlea to Greenslopes) – 12th highest number of nominations for a Queensland road section - (2000 Red Spot Survey)

8 th (2004)	Mt Gravatt to Underwood	There are various problems, especially at intersections. Problems include through traffic blocking entry to turn lanes, congested turning movements and not enough road capacity. Solution: Create better merging lanes; build a bridge/overpass over major intersections.
12 th (2000)	Loganlea to Greenslopes	

TRAVEL TIME SURVEYS

Travel Time Survey results are summarised below:

Direction	Section of Road	Av. Speed (km/h)
INBOUND (AM Peak)	Logan Road between Gaskell Street and Miles Platting Road *New signals were installed recently at Gaskell Street – comparison with old data sets (Logan Road between Gateway Motorway northern signals to Miles Platting Road) is considered reasonably valid.	11.1 ²⁰⁰⁷ (18.9) ²⁰⁰⁴ (8.9) ²⁰⁰⁰ (20.1) ¹⁹⁹⁶ (16.8) ¹⁹⁹³
OUTBOUND (PM Peak)	Logan Road between Pacific Motorway Exit and Miles Platting Road	19.9 ²⁰⁰⁷

2.0 Intersection Upgrade Options

The RACQ understands that the current round of comments is primarily for information gathering, however, the Club would like to propose a number of upgrade opportunities for both of these intersections.

2.1 Logan Road, Miles Platting Road and Padstow Road Intersection (and approaches)

This intersection is congested at most times of the day in all directions. Traffic flows are extremely heavy in the AM peak inbound on Logan Road, and outbound on Logan Road in the PM peak, especially the right turn from Logan Road to Padstow Road that regularly exceeds the storage capacity and impedes the flow of southbound traffic.

It is questionable whether an at-grade solution is appropriate for this location. The right turn from Logan Road to Padstow Road currently (and will in the future) require substantial green time to provide an adequate Level of Service (LOS).

With east-west traffic movements expected to increase significantly due to commercial / residential developments east of the intersection at Rochedale, coupled with growth in traffic demand along Logan Road, an at-grade solution would require a very large footprint, including costly land resumptions.

With this in mind, the RACQ proposes that the MPPL Planning Study team investigate some grade-separated options for this intersection such as:

- A Logan Road north-south overpass;
- A Padstow Road / Miles Platting Road east-west overpass; and
- A Logan Road right turn overpass/underpass (Logan Road southbound to Padstow Road westbound)

Any upgrade option should consider providing:

- Left turn slip lanes from all directions including an adequate feeder lane length for the slip lanes;
- A third southbound lane on Logan Road from the Pacific Motorway exit ramp; and
- A third northbound lane on Logan Road from Padstow Road to the Pacific Motorway entry ramp

2.2 Padstow Road / Warrigal Road Intersection

The RACQ understands that Brisbane City Council may have already identified that the roundabout is to be upgraded to a signalised intersection.

Again, the Club questions whether all upgrade options such as a grade-separated intersection have been investigated. This intersection is constrained by a BP Service Station, the Eight Mile Plains Shopping Centre, a landscaping business and a residential housing development. Land resumptions may add significantly to the cost of the project.

The RACQ proposes that the MPPL Planning Study team investigate a grade-separated solution for this intersection such as a single lane each-way east-west underpass on Padstow Road with the roundabout continuing to operate in its current position.

Depending on the roundabout lane configuration, this option may not require any resumptions.

Separate from this, if a signalised intersection is found to be the most appropriate solution, the upgrade should include:

- Left turn slip lanes from all directions including (where possible) an adequate feeder lane length for the slip lanes;
- Two right turn lanes from Warrigal Road (northbound) to Padstow Road; and
- Two right turn lanes from Padstow Road (eastbound) to Warrigal Road

2.3 Other issues in the study area

The newsletter does not give an indication of an intersection design / layout, or any information on proposed lane designations such as High Occupancy Vehicle (HOV) lanes.

The RACQ requests that this information be supplied when preliminary options are released for comment and any proposed HOV facilities are justifiable after undertaking an analysis using a framework similar to the one described below.

In 2004, the RACQ awarded a scholarship to two QUT civil engineering students to conduct their thesis on gaining a better understanding of high occupancy vehicle (HOV) lanes. The project covered a literature review of effective measures for HOV lanes, the development of an evaluation framework and field research analysing two road corridors in Brisbane. These were Waterworks Road and Lutwyche Road containing T2 lanes and a T3 lane respectively.

The study raised some questions about the alleged benefits of a T2 lane compared to a GP lane and the perceived/actual effectiveness of T2 lane versus T3 facilities plus the associated 'empty lane syndrome'. It proved there are a number of factors to consider and measure, including person moving efficiency, travel time savings, overall corridor efficiency, impact on GP lanes, public opinion, etc., and the importance of collecting as much before and after field data as possible.

For HOV facilities to offer legitimate benefits it must be shown that they:

- increase the actual person carrying capacity of the HOV lane over a GP lane (i.e., what buses and other HOVs realistically carry, not how many they can theoretically carry) over the full period of time that they apply, (e.g. peak times or full time);
- do not adversely impact on the GP lanes which means avoiding "take a lane" HOV facilities that increase GP lane congestion and delays; and
- maximise the benefits of an "add a lane" HOV facility (i.e., avoiding "empty lane syndrome") by appropriate designation of HOV facilities (e.g., T3 versus Bus Only, T2 versus T3, and GP versus T2), as "empty lane syndrome" is a direct representation of inefficient use of an additional lane.

The RACQ does not support new or existing HOV facilities with a 'strategic intent' of making public transport competitive against private vehicles if this results in an inefficient HOV facility (i.e., one suffering from "empty lane syndrome") and limits the potential benefits of congestion alleviation in GP lanes.

One only has to look at the forecast growth in vehicle travel demand in the Brisbane metropolitan area to realise that such a 'strategic intent' approach is unbalanced.

The forecast growth in private trips is given as 45% even with a doubling of public transport patronage to a public transport mode share of 11.1% of motorised travel in 2026 as detailed in The "Hale Street Link Project Draft Impact Assessment" Part D, Section 5.1 and Airport Link Environmental Impact Statement "Technical Paper No. 1, Traffic and Transport" (p. xviii).

RACQ supports a balanced approach that offers a win/win situation for all vehicles in both HOV and GP lanes.

The RACQ believes if HOV lanes are to be considered for this project, a comprehensive, accountable and transparent feasibility study should be carried out in a consistent manner using an evaluation framework similar to the thesis paper, "*High Occupancy Vehicle Lanes – An Overall Evaluation Including Brisbane Case Studies*" (see attached). The aim of this traffic analysis should be the achievement of optimal use of all road space and therefore maximise congestion alleviation benefits.

As mentioned earlier, the Club would welcome information on any proposed HOV facilities being considered as part of the MPPL Study.

The RACQ will be monitoring the progress of this project with interest, and we would be happy to discuss this submission with you further if required, as well as meet again once preliminary options have been released for initial comment. For this purpose you can contact me on the details below.

Yours faithfully,

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