

Calvin Christian School

Classroom Additions Traffic Impact Statement

September 2023





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1. Introduction

1.1 Background

Calvin Christian School have recently undergone expansion which has resulted in the construction of new classrooms in their primary school campus. During the construction phase of the new classrooms, the School development approval was granted for the addition of four demountable classrooms. These demountable classrooms were originally intended to be temporary in nature, and removed once the permanent classrooms were completed.

Midson Traffic prepared TIA's for the development applications associated with both the permanent and temporary classrooms.

The School now proposes to retain the demountable classrooms in addition to the permanent classrooms. This TIS provides an assessment of the retention of the temporary classrooms in addition to the permanent classrooms. The use of the demountable classrooms will facilitate smaller classroom sizes and provide flexible learning spaces.

1.2 Traffic Impact Assessment/ Traffic Impact Statement

A traffic impact assessment (TIA) is a process of compiling and analysing information on the impacts that a specific development proposal is likely to have on the operation of roads and transport networks. A TIA should not only include general impacts relating to traffic management but should also consider specific impacts on all road users, including on-road public transport, pedestrians, cyclists and heavy vehicles.

A traffic impact statement (TIS) is a reduced form of a TIA, where only specific traffic and/or parking matters are required to be investigated. A TIS is often undertaken when the full traffic and transport impacts associated with a development are not considered necessary.

This TIS has generally been prepared in accordance with the Department of State Growth (DSG) publication, *A Framework for Undertaking Traffic Impact Assessments*, 2007. This TIS has also been prepared with reference to the Austroads publication, *Guide to Traffic Management*, Part 12: *Traffic Impacts of Developments*, 2019.

This TIS also addresses the relevant clauses of Codes E5.0, *Road and Railway Assets Code*, and E6.0, *Parking and Access Code*, of the Kingborough Interim Planning Scheme, 2015.

1.3 Statement of Qualification and Experience

This TIA has been prepared by an experienced and qualified traffic engineer in accordance with the requirements of Council's Planning Scheme and The Department of State Growth's, *Traffic Impact Assessment Guidelines*, August 2020, as well as Council's requirements.

The TIA was prepared by Keith Midson. Keith's experience and qualifications are briefly outlined as follows:

• 27 years professional experience in traffic engineering and transport planning.



- Master of Transport, Monash University, 2006
- Master of Traffic, Monash University, 2004
- Bachelor of Civil Engineering, University of Tasmania, 1995
- Engineers Australia: Fellow (FIEAust); Chartered Professional Engineer (CPEng); Engineering Executive (EngExec); National Engineers Register (NER)

1.4 Subject Site

The subject site is the Calvin Christian School campus in Kingston. This report considers both the Primary School and Secondary School campuses as a whole.

The subject site and surrounding road network is shown in Figure 1.

CHANNEL HIGHWAY

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Figure 1 Subject Site & Surrounding Road Network

Image Source: LIST Map, DPIPWE



1.5 Reference Resources

The following references were used in the preparation of this TIA:

- Kingborough Interim Planning Scheme, 2015 (Planning Scheme)
- Austroads, Guide to Traffic Management, Part 12: Traffic Impacts of Developments, 2019
- Department of State Growth, Traffic Impact Assessment Guidelines, 2020
- Australian Standards, AS2890.1, Off-Street Parking, 2004 (AS2890.1:2004)



2. Proposed Development

2.1 Development Proposal

The School has previously received development approval for new classrooms in the junior school. During the construction phase of these classrooms, the School applied for temporary demountable classrooms. The growth of the school has resulted in the decision to retain the demountable classrooms in addition to the new permanent classrooms.

This TIS therefore evaluates the traffic and parking impacts associated with school growth rather than physical development.

With the retention of the demountable classrooms, the School estimates the student and staff population will expand to the following numbers as shown in Table 1.

Table 1 School Staff and Student Numbers

	Primary School	Secondary School	Total
Students	354	396	750
Staff FTE	34.8	49.6	84.4



3. Traffic Impacts

3.1 Trip Generation

Traffic generation associated with the permanent classrooms was provided in the original TIA. It was assumed in the TIA for the demountable classrooms that the traffic generation would remain unchanged as the demountable classrooms were a temporary displacement of students and staff that would eventually utilise the new permanent classrooms.

With the demountable classrooms being retained, additional traffic generation will be experienced through an increase in student and staff numbers. Using the same methodology in previous TIA's associated with the School, typical peak traffic generation rates for school peak periods is equal to 0.55 times the student enrolments. This takes into account the fact that some students utilise bus transport, walk and cycle, as well as some vehicles transporting more than one student.

Based on the forecast growth of the school outlined in Table 1, the likely peak traffic generation is likely to be 413 vehicles per hour. It is noted that staff movements generally occur outside the normal school drop-off/ pick-up period.

The daily traffic generation is likely to be 945 vehicles per day. This accounts for two peak school periods plus 70% of two movements associated with each full time staff member (assuming 70% of staff arrive by car, with the balance by public transport and other modes of transport).

3.2 Access Impacts

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme states "The annual average daily traffic (AADT) of vehicle movements, to and from a site, using an existing access or junction, in an area subject to a speed limit of 60km/h or less, must not increase by more than 20% or 40 vehicle movements per day, whichever is the greater".

The school generates traffic at multiple access points. The school's growth will not increase traffic generation at any access that would exceed 20% of existing vehicle movements (noting that 20% is greater than 40 vpd at the Maranoa Road and Sophia Street car parking areas).

The Acceptable Solution A3 of Clause E5.5.1 of the Planning Scheme is met.



4. Parking Assessment

4.1 Parking Provision

No changes to the car parking provision associated with the school are proposed.

The parking areas used by the school for normal activities are summarised in Table 2 and Figure 2. The parking areas are relatively disbursed around the school. Note that some of the parking areas shown are not on School land. The school parking areas are also shown in **Error! Reference source not found.**.

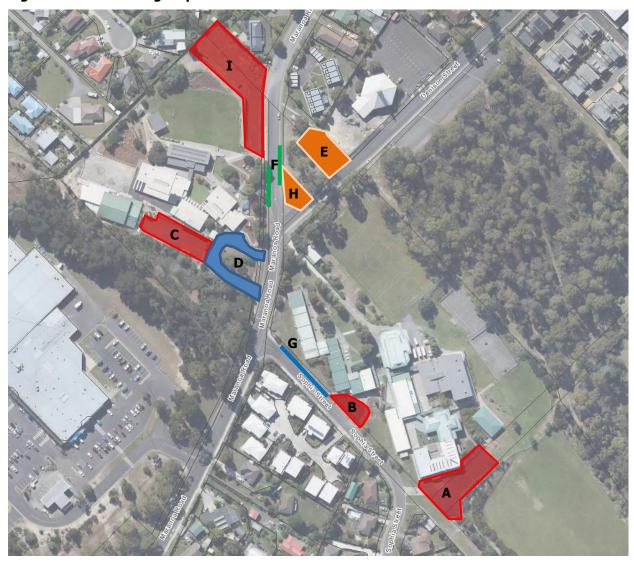
The School's on-site car parking include Areas A, B, C, D, and I. This is a total of 85 parking spaces.

Table 2 Existing Car Parking Areas

Car Parking Area	Ref.	Spaces	Use	Comments
Main Car Park, Sophia St	A	24 spaces	Staff & Visitors	
Admin Car Park	В	4 spaces 1 bus	Visitors & bus	School bus manoeuvres into this area during afternoon pick up.
Primary School Car Park	С	19 spaces (approx)	Staff and Visitors	
Bus Parking area	D	3 buses or 6 cars	School Buses, other parking outside bus times	
Church Car Park	E	20 spaces	Drop-off/ pick-up activity	Not owned or controlled by School.
Maranoa St – On-Street	F	Approx 10 spaces	Drop-off/ pick-up activity	
Sophia St Bus Parking	G	2 buses	On-street parking	
Informal Road Verge Parking	Н	Approx 10 spaces	Informal road verge parking	Council land.
Primary school car park	I	27 spaces and 5 drop-off/ pick-up spaces	Drop-off/ pick-up activity	
TOTAL		125 car spaces – 105 off-street & 20 on-street, 6 buses		



Figure 2 Car Parking Map



4.2 Planning Scheme Requirements

The Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme states "the number of on-site car parking spaces must be no less than the number specified in Table E6.1".

- For Use Class "Educational and Occasional Care (Primary School)", the parking requirements are: 0.67 spaces for each employee and a pick-up and set-down area with 1 space for each 30 students.
- For Use Class "Educational and Occasional Care (Secondary School), the parking requirements are 0.67 spaces for each employee with 1 space for each 30 students and 1 space for each 10 students over 17.



This equates to the following parking requirements in accordance with Table E6.1 of the Planning Scheme:

- <u>Primary School</u>. 23 staff parking spaces and 12 spaces for pick-up and set-down.
- Secondary School. 33 staff parking spaces, 13 student spaces, and 6 spaces for students aged 17 and over (55 students).
- Total parking requirement. 87 spaces

The provision of 85 parking spaces within the school grounds does not satisfy this requirement, with a shortfall of 2 spaces. The parking provision therefore does not meet the requirements of Acceptable Solution A1 of Clause E6.6.1 of the Planning Scheme.

The Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme states:

"The number of on-site car parking spaces must be sufficient to meet the reasonable needs of users, having regard to all of the following:

- (a) car parking demand;
- (b) the availability of on-street and public car parking in the locality;
- (c) the availability and frequency of public transport within a 400m walking distance of the site;
- (d) the availability and likely use of other modes of transport;
- (e) the availability and suitability of alternative arrangements for car parking provision;
- (f) any reduction in car parking demand due to the sharing of car parking spaces by multiple uses, either because of variation of car parking demand over time or because of efficiencies gained from the consolidation of shared car parking spaces;
- (g) any car parking deficiency or surplus associated with the existing use of the land;
- (h) any credit which should be allowed for a car parking demand deemed to have been provided in association with a use which existed before the change of parking requirement, except in the case of substantial redevelopment of a site;
- (i) the appropriateness of a financial contribution in lieu of parking towards the cost of parking facilities or other transport facilities, where such facilities exist or are planned in the vicinity;
- (j) any verified prior payment of a financial contribution in lieu of parking for the land;
- (k) any relevant parking plan for the area adopted by Council;
- (I) the impact on the historic cultural heritage significance of the site if subject to the Local Heritage Code;
- (m) whether the provision of the parking would result in the loss, directly or indirectly, of one or more significant trees listed in the Significant Trees Schedule.



The following is relevant with respect to the School:

- a. <u>Car parking demand</u>. Numerous surveys and observations indicate that the existing parking demands are met within the School's car parking areas, in addition to nearby on-street and public off-street parking.
- b. On street and public parking. There is a large pool of nearby available parking. The parking areas are summarised in Table 2. A total of 20 on-street and 20 off-street (not on school land) spaces are available during school drop-off and pick-up periods.
- c. <u>Public transport</u>. The School is well serviced by school bus transport. Dedicated bus parking is provided within the school and on-street adjacent to the site. Metro Tasmania also operate public transport frequent services along Maranoa Road and Denison Street.
- d. <u>Alternative modes of transport</u>. The School is located adjacent to Kingston CBD and within a residential catchment area. This encourages active modes of transport such as walking and cycling.
- e. Alternative car parking provision. Not applicable.
- f. <u>Shared parking</u>. During school drop-off and pick-up periods, the use of a neighbouring church car park is available. The car park is not utilised by the Church during these periods. Similarly, the park and ride parking facility in Denison Street typically has spare capacity during afternoon pick-up school activity, which is short in duration.
- g. Parking deficiency or surplus. Not applicable.
- h. Car parking credit. Not applicable.
- i. Cash in lieu. Not applicable.
- j. Payment of cash in lieu. Not applicable.
- k. <u>Parking plan</u>. Not applicable.
- I. <u>Historic cultural heritage significance</u>. Not applicable.
- m. <u>Significant trees code</u>. Not applicable.

Based on the above, the car parking provision associated with the school satisfies the requirements of Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme.

Importantly, the School provides sufficient parking to cater for staff parking. Peak pick-up and drop-off activity creates the highest demands for parking in the school and surrounding area, however this is generally short-lived. During these peak periods there is sufficient capacity in the nearby on-street and off-street parking areas to cater for this demand.

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5. Conclusions

This traffic impact statement (TIS) investigated the traffic and parking impacts of the growth associated with Calvin Christian School.

The key findings of the TIS are summarised as follows:

- The development includes the retention of the recently installed demountable classrooms in addition to the recently approved permanent classrooms. The use of the demountable classrooms will facilitate smaller classroom sizes and provide flexible learning spaces.
- The retention of the demountable classrooms enables growth within the school, as well as providing flexible learning spaces and smaller sized classrooms.
- The growth of the school is forecast to be 750 students and FTE 85 staff.
- The traffic generation associated with this growth across the whole school will be approximately 945 vehicles per day, with peaks of 413 vehicles per hour.
- No changes to parking are proposed. The existing parking provision satisfies the requirements of Performance Criteria P1 of Clause E6.6.1 of the Planning Scheme. During peak periods there is sufficient capacity in the nearby on-street and off-street parking areas to cater for this demand.

Based on the findings of this report the proposed development is supported on traffic and parking grounds.



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