

TO: Rosita Chan  
DATE: 18 November 2015  
CC:  
REF: 80508280 - 0573  
FROM: George Hopkins  
MWH New Zealand Ltd  
SUBJECT: Alberton Avenue Bus Stop Design Memo

Please refer to the attached drawing for reference.

The proposed design is to install a combined school bus stop outside #63, #65, #67 and #69 Alberton Avenue to cater for three buses while removing the bus stop outside 75 Alberton Road. This includes the relocation of the bus stop south of the “zebra” crossing to 65 Alberton Avenue. The functional width of bus stop A and B labelled in attached plan will be retained and has used the following 17.4 m of kerb for another bus to sit within (labelled C). A site visit and Google Earth imaging shows that section A and B are currently functional. Section C is 14m long; this allows for the carpark to be retained outside #63. Bus tracking out of section C showed that a bus can re-enter the traffic without any conflict. Where possible the design has tried to avoid buses having to park over driveways. The removed bus stop south of the “zebra” crossing is to be replaced by NSAAT lines and a 5.5m car park. A visibility test at the “zebra” crossing has shown this design to be feasible at a design speed of 35km/h. The bus stop lengths are not compliant with ATCOP in relation to the absence of 9m spacing in between bus stops, but we recommend that this design be used due to the existing section being functional (Sections A and B), and the minimal impact of Section C on vehicle crossings.

#### **Parking Loss**

Currently, there are two school bus stops which operate from 8am-9am, and 3pm-4pm. The third bus stop (labelled B) currently has no signage but it has been assumed that this is also a school bus stop. The proposed bus stop layout will result in the following:

- Two car parks lost during school off peak hours
- One car park lost during school peak hours

#### **Risks**

1. Visibility - Although there has been no visibility assessment undertaken for movements (vehicles and pedestrians) on Alexis Avenue, the distance of the 5.5m carpark from the corner is compliant with the ATCOP Parking bylaw 11.3 which states that a car park mustn't be within 6 metres of an intersection.
2. Vehicle Crossings- there is a risk that the residents' vehicle crossings will be blocked by the buses at the stop, however it is only momentarily in the morning peak and then for approximately half an hour in the afternoon peak amongst a slow speed environment.
3. Internal Consultation – Internal Stakeholders may reject the design as there are elements that do not conform to ATCOP, however the traffic control is only for a school bus stop which is low frequency and only operational for a short period throughout the day.
4. External Consultation - There may be negative feedback from external consultation in regards to parking loss, however the parking loss has been kept to a minimum and priority is given to public transport over on street parking.

**Alternative Options**

An alternative option was to have three singular bus stops outside #69 #67 and #65 (with bus stop at #65 being fully contained in between driveways). This would also result in an additional car park being lost, and also the formalising of two nonconforming existing bus stops. The provision of a 14m bus stop will be able to contain a 13.5m bus without blocking the vehicle crossing of #67.

**Recommendation**

We believe the attached design provides the least impact on existing parking amenity while achieving the scope of relocating the bus stop as the brief requested. The risk such as blocking of access is existing issues and is considered minimal given the use of the stop is infrequent.

We recommend this to be consulted amongst all internal and external stakeholders for implementation.