

June 18, 2021

Calardu Balgowlah Pty.Ltd.
c/o Giles Tribe Architects
L1, Chandos Street
ST LEONARDS, NSW, 2065
C/- Mr Kevin Cheong

Dear Sirs,

**Harvey Norman retail store - 176-180 & 184-190 Condamine Street, Balgowlah -
HVN Proposed Refresh Works**

Traffic Engineering Review

In response to your request and briefing information of 28 February 2020, we undertook surveys and findings dated 11 March 2020 before the COVID epidemic. The scheme has been further refined and this report is based on recent surveys and the refresh works scheme drawings of 17 June 2021.

Scope

The project is a proposed refurbishment project at Harvey Norman Balgowlah, including a marked pedestrian pathway within the carpark and relocating the existing accessible car spaces. This review is to accompany the DA submission to Council.

Existing

The Harvey Norman Balgowlah property comprises 2 levels of mixed retail including electrical, bedding, furniture and homewares next to 2 levels of car parking in a concrete structure. The shop is open 9am to 5.30 pm most days, 9pm Thursdays, and 5pm weekends, and the car park roller shutters are closed out of hours.

Site inspections and consultation with staff were undertaken from 1pm Sunday 1st March and from 3pm Monday 2nd March 2020. Selected photographs of the site are appended to this report. Further surveys of traffic and parking were undertaken on Saturday 12th June 2021.

The ground level car park contains 4 accessible marked car spaces plus 114 marked car spaces plus 4 informal car spaces under ramps. The first-floor car parking contains 2 accessible marked car spaces plus 95 marked car spaces. Vehicles enter from the northern driveway via left turns only off Condamine Street and via the southern driveway off Roseberry Street, and circulate in a predominantly one-way system of aisles and

ramps to the first-floor car parking level. Vehicles exit via the southern driveway via a left turn only to Condamine Street or via the northern driveway to Roseberry Street. Vehicle turns to and from Condamine Street are limited to left turns only by the raised concrete median along the block length of Condamine Street.

The roller shutter store door to Condamine Street has not been used for over 10 years. Pedestrians currently enter the store via central doors off the car park at ground level and at first floor level, direct from the car park. Most customers arrive or depart as pedestrians walking from cars in the car park, with less than 2 percent of observed pedestrians walking to or from the surrounding streets and footpaths and adjacent stores and bus stops, via the external driveways. Pedestrians can use travelators and lifts within the shop or stairs within the carpark.

The car park was observed in March 2020 before the COVID 19 pandemic restrictions and again in June 2021 after most pandemic restrictions had been lifted in NSW. The car park was observed to be a maximum of 80% occupied on the ground level, and 10% occupied on the first floor. Staff said the carpark was only near full several times per year. Observed entry and exit flows averaged 30 vehicles per hour during busy trading hours and the afternoon on-road peak. Up to 5 bicycles were observed parked in the car park.

All service vehicles and delivery vehicles use the separate purpose -designed driveways and loading dock area on the east façade of the store off Roseberry Street.

Proposed Refurbishment

The proposed refurbishment shown on Giles Tribe Architects drawings set DA 00A to D RevA and DA 01 Rev A to DA 19 RevA dated 17 June 2021 includes works to permanently close off the pedestrian roller shutter shop door to Condamine Street, ground floor lobby works to modify the store entry door to the current accessible car spaces adjacent, relocate those accessible car spaces, demolish existing blockwork to create a “click and collect” parcel pickup zone, and add a 1.2m wide painted pathway on the north side of the northern entry driveway from Condamine Street and along the northern side of the car park aisle and relocated pedestrian crossing to the store entrance, and to provide signage for pedestrian safety within the car park.

Review

The proposed painted pathway from Condamine Street footpath and crossing to the store entry is appropriately located and dimensioned to provide pedestrian safety. The driveway and aisle are generally 6.3m wide from kerb to column, in excess of the requirements of the Australian Standard for Off Street Car Parking AS2890.1, with a local narrowing to 5.7m wide for one-way traffic at the roller shutter.

Turning circles for cars entering the driveway and car park are adequate to safely avoid pedestrians on the pathway. Sightlines to vehicles and pedestrians are adequate. There is a paved public footpath along the length of Condamine Street. There is a public street light abutting the north side of the car park entry driveway that illuminates the path and driveway.

Grades on the driveways and car park are less than 1 in 20 and are adequate.

Headroom is currently designated and enforced by strike bars at 2.15m clearance at the entry driveway. The actual headroom within the car park is generally greater than the 2.2m required by AS2890.1 and generally greater than the 2.5m required above the existing and proposed accessible car spaces required by AS2890.6. There is scope for the strike bar to be lifted up 50mm to provide the 2.2m clearance required to comply with AS 2890.1.

The relocation of the two accessible parking spaces from the proposed new entry door area to an adjacent location on the ground floor will provide adequate accessible parking conveniently located close to the store entry.

The existing cross aisle on the ground floor opposite the base of the up ramp (4 car bays with “X” keep clear painted on the pavement) should be retained to encourage use of the first-floor parking and to aid recirculation of cars within the car park.

The overall quantity of car parking spaces and motorcycle parking spaces will be maintained as existing. Bike parking with locking rails will be increased to 10 bike parking spaces. Surveys confirmed that this is more than adequate throughout the year, and any growth in customer visitation resulting from the refurbishment will be accommodated by the proposed parking supply and the improved pedestrian access to walking, cycling, and public transport.

Peak traffic generation is expected to be not significantly different to the existing, which is operating with no substantial queues or congestion on the access driveways to or from Condamine Street and Roseberry Street. No changes to the external traffic arrangements are required by the proposed refresh works.

Observations

Pavement painting should be in accordance with Australian Standards, and with adequate paint visibility and skid resistance in all weather conditions.

Existing street lighting and car park lighting and natural day lighting along the proposed northern boundary footpath is provided, but more intense lighting should be considered at the driveway, new signage, and near the main entry doorway and pedestrian crossing.

The existing speed humps within the car park should be retained to deter excessive speeds in the car park and to deter cars from “rat running” through the car park from surrounding streets. The existing speed humps extend partly into the proposed pedestrian pathway and may pose a minor pedestrian trip hazard and should therefore be trimmed to remove the section of the speed hump within the accessible path.

Staff noted that the existing 4 accessible car parking spaces are well used and highly valued by their valued older customers. It was suggested that up to 2 additional accessible car spaces would be beneficial, by extending the existing accessible bays east of the main door, in the place of the existing car spaces to the east along the wall of the store. This could include the existing bollarded area outside the warehouse door as part of the required Shared Zone. These suggested additional accessible spaces have acceptable grades within the car space and along the accessible path of travel to the store entry.

Underutilisation of the first-floor car parking with good ramp access is partly due to the absence of shade and weather protection on this open deck. The installation of shade cloth or other weather protection could be considered to increase the attractiveness and utilisation of this first floor car parking. Solar cell car park shade systems are also available to reduce energy costs, improve sustainability and increase customer satisfaction with low inconvenience installation.

Should you have any questions, please contact the undersigned on telephone 0408 249 743.

Yours sincerely

A handwritten signature in black ink that reads "Colin Henson". The signature is written in a cursive style and is underlined with a single horizontal line.

Colin Henson

BE, MIE Aust, CPEng, NER, APEC Engineer, IntPE(Aus), MITE, Fellow PIA.

Principal

Henson Consulting

(Encl: Site Photos)





