

Our Ref CE008678

Contact John McCormack

14 November 2008

Attention: Mr Ian Pert
GMP Management
Level 5
91 Scarborough Street
Southport Qld 4215

Dear Sir,

**TWIN TOWNS SERVICES CLUB EXPANSION
CAR PARKING LAYOUT REVIEW**

Reference is made to our recent discussions regarding the proposed expansions to the Twin Towns Services Club at Tweed Heads. This letter documents preliminary evaluation of the car parking layout, operation and revised parking demands for the expanded club using the same assessment methodology adopted by this firm and documented in reporting dated 30 October 2006 and 30 May 2007. The methodology involves a first principles approach based upon expected maximum patron occupancy (provided by the club) and information on arrival mode and vehicle occupancy identified by previous surveys for the existing club facilities.

The increases in parking demand envisaged to be generated by the expanded club facilities have been compared with Tweed Shire *Development Control Plan* (DCP) requirements.

Development Proposal

The proposed development incorporates the demolition of part of the existing Twin Towns Services Club and the construction of a new building section in its place. The proposed expansions to the services club are understood to also include refurbishment of existing club areas and some increased ancillary facilities including foyers, stairwells and external terraces. Bayden Goddard Design Architects drawings DA -10.1-10.23 (dated 17 October 2008) describes the following floor area increases applied to the expected increase in parking demand:

- new cinemas and meeting rooms – 280 seat capacity;
- new function centre – 810sq.m floor area.
- Club level 2 extension

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Expanded Club Facilities – Car Parking and Circulation Layout Design

Based on Key Outcome No.2 of the 21 August 2008 meeting minutes, the Department and Council developed a number of car park design options for consideration. *Option 4 – North-South Vehicle Movement* is the preferred option whereby a detailed assessment of traffic movements and sight distances within the car park and a review of the proposed refuse plan are presented within this letter.

The circulation of the ground floor car proposes to maintain existing access locations. The access onto Boundary Street will continue to provide all access movements. It is envisaged that only service vehicles are permitted to enter from Wharf Street. The internal layout shown in drawing DA1-10.21 (6 November 2008) demonstrates the general car park will be separated from the loading bay area by a median separator. It is proposed to provide a gate at the south eastern aisle to allow some patron vehicles to exit via Wharf Street and light loading vehicles to enter into the main car park. Permitting all vehicles to turn left out at Wharf Street will also alleviate traffic congestion onto Boundary Street and reduce on-site vehicle manoeuvres. Sight distance to, from and within the ground car park are considered to comply with Austroads Part 5 *Intersections at Grade*.

It is proposed to include speed humps on the approach to the pedestrian circulation corridor as demonstrated in drawing DA1 10-21 and in accordance with AS2890.1 to ensure low speed of one-way circulating traffic.

Expanded Club Facilities – Parking Requirements

It is considered reasonable to calculate additional car parking requirements for these uses in accordance with criteria documented in *Tweed Shire Development Control Plan: Section A2 – Site Access and Parking Code* as outlined below:

- cinema – 1 parking space/10 seats;
- function centre – 0.3 parking spaces/seat plus 0.5 parking spaces/staff;
- club – 1/4sqm bar area, 1/7sqm lounge dining area and 1 per 15sqm auditorium.

The external terraces have been assumed to be ancillary for both the function rooms and cinemas and will therefore not create any additional demand. The main club room (Level 2) will include the external terraces as part of the expected parking demand for the club. The external terraces will have a lower density and would be less intense compared to the main indoor club area and therefore it is considered reasonable to apply a lower generation rate for this particular area. Table 2 therefore presents the calculations of additional car parking requirements.

Table 2 **Car Parking Requirements (DCP2)**

Land Use Component	Yield	Parking Rate (DCP2)	Parking Requirement (Spaces)
Cinema/Meeting Room	280 seats	1 space/10 seats	28
Function Centre	810sq.m (400 seats/10 staff)	0.3 spaces/seat + 0.5 spaces/staff	125
Club Level 2 Extension	226sqm + 600sqm	1/7sqm lounge, 1/15sqm auditorium	32 + 40
Total			225

Given the location of the services club within the Tweed Heads CBD area, the proximity to surrounding accommodation opportunities and extensive promotion of accommodation packaging undertaken by Twin Towns, it is likely that a high proportion of patrons to the above uses will also be patrons of surrounding uses including particularly the Harbour and Ocean resort towers. The parking demand for the new uses is therefore likely to be significantly lower than the isolated rates documented in DCP.

Section A2.4.8 of *Tweed Shire Development Control Plan: Section A2 – Site Access and Parking Code* allows for a reduction of up to 30% of parking requirements for land uses within the Tweed Heads CBD area. Further, Table 4.9 states that the requirements for reception and conference centres can be reduced where the facility is attached to a hotel.

Surveys of usage of hotel ancillary facilities undertaken by this firm in the Cairns CBD reported around 50% usage of these ancillary facilities by guests of the adjacent hotels.

On the basis of the above information, it is considered reasonable to relax the requirements of the new conference room and club extensions by 50% and restaurant/cinema facilities by the 30% envisaged by DCP.

The total parking demand envisaged for the club is therefore **734 spaces** representing the sum of the previous demand calculations (615 spaces for the existing club facilities) and the requirements of the new uses in accordance with DCP (119 spaces).

Parking Supply

The redevelopment proposes the construction of an at-grade parking layout similar to that already adopted on the subject site. Parking supply for the Twin Towns club is provided in three locations being:

- at ground level beneath the services club;
- within the basements of the Harbour and Ocean towers;
- on street within the area surrounding the club (e.g. Wharf and Boundary Streets).

Table 3 below presents the available supply located within the twin towns development lands. This table excludes any use of Council controlled land on the foreshore of the Jack Evans Boat Harbour which has to date been utilised for some car parking, and includes the number of spaces proposed on the service club site subsequent to the proposed modifications.

Table 3 *Twin Towns Development Parking Supply*

Site	Spaces available to the Services Club	Residential Spaces	Retail Spaces	Resort Spaces	Hotel Spaces	TOTAL
Ocean Tower	307	109	0	0	59	475
Harbour Tower	309	0	14	198	0	521
Services Club	128	0	0	0	0	128
TOTAL	744	109	14	198	59	1124

The above summary tabulation indicates that the parking supply exclusively available to the services club is some **10 spaces** surplus of the demand identified.

Pedestrian Movement Corridor

A pedestrian movement corridor from the Parkland to the ground floor foyer has been provided to link with the pedestrian access depicted on the Jack Evans Masterplan. It is proposed to provide an alternative contrasting coloured pavement along the guest circulation path to ensure the major pedestrian route is clearly identifiable.

The low speed nature of the car park will ensure that pedestrians can utilise the dedicated pedestrian facilities and also access their vehicles by travelling along the car parking aisles which have been designed with a minimum width of 6.5m. As previously mentioned it is proposed to include speed humps on the approach to the pedestrian circulation corridor to ensure low speed of one-way circulating traffic.

Development Servicing

Tweed Shire Development Control Plan: Section A2 – Site Access and Parking Code identifies that provision must be made for one Heavy Rigid Vehicle (HRV) to undertake servicing wholly on-site. Servicing vehicles are currently understood to enter the site via the egress only Wharf Street access and complete necessary manoeuvres to access the servicing area.

The application proposes the reconfiguration of the existing service area such that it provides increased separation and definition of movements.

Discussions with key redevelopment stakeholders has identified that the AV's service the site as part of large stage shows. The attached concept drawing (8678-100A) prepared by Cardno Eppell Olsen illustrates the proposed access arrangements on Wharf Street. The loading dock crossover has been designed in accordance with the AV swept path requirement.

The concept design allows all servicing vehicle to enter and exit the site in a forward gear. In order to adequately accommodate service vehicles entering the development it is proposed to reconfigure the blister island/bituminous surface. The attached drawing (8678-100A) illustrates the extent of the blister islands reconfiguration requirements. It should be noted the alterations required to the street scaping blister island are clear of the pedestrian crossing with no vehicle reversing from the site onto Wharf Street. It is recommended to provide a clear identifiable service vehicle cross over area which is separated from pedestrian traffic using the crossing directly north of the access. Signage and line marking associated with the existing pedestrian crossing are still clearly visible to oncoming motorists and sight lines to and from the crossing are also considered adequate with no significant obstructions present.

Conclusions

This letter has been prepared for the proposed redevelopment of the existing Twin Towns Services Club. This letter addresses the following:

- revised analysis of the likely car parking demands expected by the service club;
- review of trafficable basement layout design;
- Identification of suitable development servicing arrangements.

The following conclusions are made regarding traffic matters associated with the proposed development:

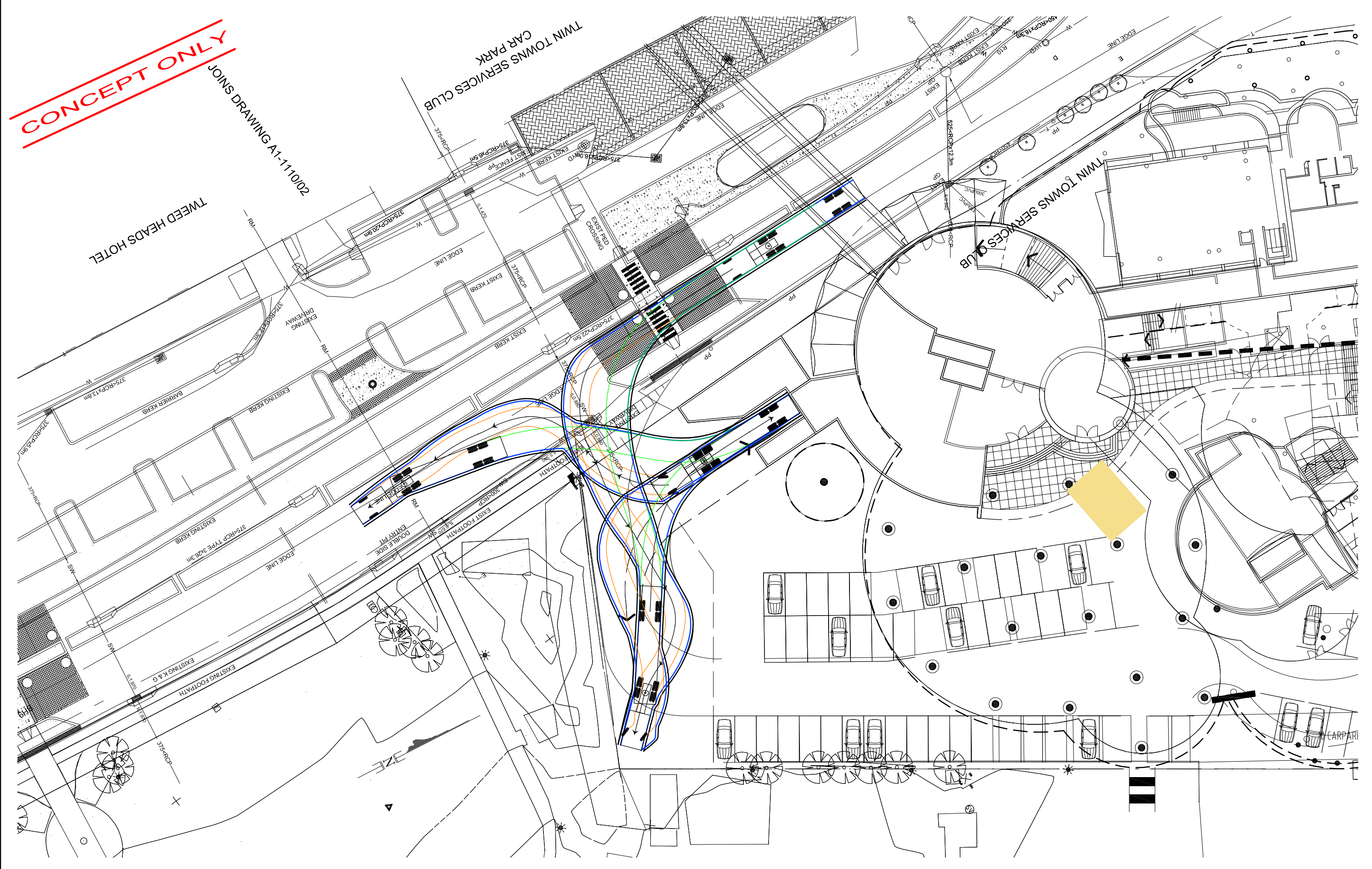
- the car parking layout is in accordance with Tweed Shire Development Control Plan: Section A2 – Site Access and Parking Code and Australian Standards 2890.1 and 2890.2.
- the layout provides for effective and efficient access by pedestrians and vehicles
- the redevelopment of the Services Club proposes the reconfiguration of the existing egress only crossover on Wharf Street and construction of a dedicated loading entry/exit crossover which will enable improved service vehicle delivering and manoeuvring.

Please call should you have any queries in relation to this matter.

Yours faithfully

A handwritten signature in blue ink, appearing to read 'J. McCormack'.

John McCormack
Senior Traffic Engineer
for **Cardno Eppell Olsen**





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Issue	Description	Date	By
A	ISSUE FOR COMMENT	311008	DZ

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NOT FOR CONSTRUCTION

North



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Base Information Supplied By		
BGD ARCHITECTS		
Design	Drawn	Checked
DZ	DZ	JM
Certified		
RPEQ No.		

Project Title
TWIN TOWNS
Client
GMP MANAGEMENT

Drawing Title
LOADING 19M AV SWEPTH PATH

Drawing No.
8678-100
Sheet 1 of 1
Scale 1:400 at A3
Project CE008678
Xref NIL
ACAD file CE008678.dwg

Issue

A

LEGEND

Existing Club - Refer DA-10-11 for extent of Refurbishments / Demolition. 2838 sqm approx.

Proposed New Building Works Major Project Application. 454 sqm approx.

Proposed New Building Works - External Terraces / Paths with feature ceiling over

Landscape Extent Refer Landscape Architects Details.

Refurbished Wharf Street Entry Area to new Atrium

Guest Circulation

Vehicle circulation

Traffic control devices Road Hump & signage (W5-10B)

1. Wharf Street Pedestrian Entry
2. Entry Lobby
3. New Atrium
4. New Glass Lift
5. Existing RSL Club & BOH areas
6. Services & Store Zone
7. Administration
8. Services Corridor
9. Access to Jack Evans Boat Harbour
10. Fire Stairs
11. Existing Loading Dock - Refurbished
12. Boundary Road - Vehicle Access
13. Wharf Road - Vehicle Access
14. Landscaping Zone
15. Existing Lifts
16. Millenium Stair & Lift Core
17. Carparking 128 Cars Total
18. Median separator for traffic control
19. Access gate & signage



PROPOSED PLAN - LEVEL 0 (GROUND)
SCALE -1:500

JACK EVANS BOAT HARBOUR FORESHORE



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PROJECT: TWIN TOWNS MAJOR PROJECT APPLICATION stage1 PROJECT No.: JOB # 335
DRAWING TITLE: PROPOSED PLAN - LEVEL 0 (GROUND) DATE: 06.11.08
CLIENT: TWIN TOWNS SERVICES CLUB DA1-10.21 REV. B

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