THE HILLS SHIRE COUNCIL
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27 March 2023

Matthew James
QIC Limited
Level 5, 66 Eagle Street
BRISBANE QLD 4000

Our Ref: 3/2023/PLP

Dear Matthew,

PLANNING PROPOSAL – KENTWELL AVENUE, SHOWGROUND ROAD, PENNANT STREET AND CASTLE STREET, CASTLE HILL (3/2023/PLP)

I refer to the abovementioned planning proposal for land at Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill. Thank you for your recent presentation at the Councillor Briefing on 14 February 2023 and our further meeting with you on 15 March 2023 and the discussion that occurred is also noted.

The purpose of this letter is to provide you preliminary feedback and the opportunity to provide additional information to assist as Council officers complete our assessment and prepare for the matter to be considered by the Local Planning Panel for advice.

A preliminary assessment of the proposal has been undertaken and we provide the following comments for your consideration:

1. **Strategic Context and Employment Outcomes**

In June 2022, preliminary advice was provided to you (provided as Attachment 1 for your reference) regarding initial concepts for this site, which noted the need for a significant contribution toward employment growth from this site, rather than a majority residential outcome. Since this time, the current planning proposal demonstrates an even further reduction in the quantum of commercial floor space and an increase in the amount of residential proposed. Commercial development appears to remain a very minor and supplementary outcome as part of your proposal, rather than the predominant land use.

The strategic framework that Council officers are required to assess planning proposals against comprises the Greater Sydney Region Plan, Central City District Plan, the North West Rail Link Corridor Strategy, the Hills Corridor Strategy and Council's Local Strategic Planning Statement (LSPS). While some of these documents do identify the potential for some residential development, it is consistently the case that commercial development is identified as the predominant land use outcome on this site.

The draft Castle Hill Precinct Plan is the next layer in the strategic policy framework and seeks to examine outcomes in the Precinct at a finer grain level, to give effect to these strategic policies. The draft Precinct Plan was considered by Council at its meeting on 7 February 2023, where Council resolved to commence community consultation with respect to the Plan, which is expected to occur in the coming months. The draft Precinct Plan has been prepared in alignment with, and to give effect to, the objectives, priorities and policy positions within the existing state and local strategic planning policies, as they relate to Castle Hill Strategic Centre.

The subject site is envisaged to emerge as a new retail, restaurant and commercial precinct with some opportunities for supplementary residential development. The draft Plan identifies the need for land within the subject site to accommodate no less than 1,700 new jobs, with *at least* 50% of floor space envisaged for employment uses. Importantly, the commercial outcome in this specific site is envisaged *in addition*

to significant employment outcomes on other key sites within the Precinct which collectively will be necessary to achieve the long-term vision for Castle Hill Strategic Centre and the applicable District Plan and LSPS job targets for the Precinct.

In contrast to the vision articulated within the strategic framework, the material submitted indicates that approximately 90% of the total floor space proposed on the site would be for residential outcomes. The remaining 10% would be a mixture of commercial and retail outcomes, which constitutes roughly 18,600m^2 and would result in around 930 new jobs. This land use outcome does not align with the role, function and vision articulated for this site in the applicable strategic planning policies.

Furthermore, it is noted that there would be minimal certainty with respect to the delivery of this small amount of non-residential floor space in the future. In particular, the majority of the commercial development proposed on the site is identified within a 14-16 storey commercial building on 'Lot A' (containing around 13,500m^2 of non-residential floor space proposed, which is around 73% of the total 18,600m^2 proposed). While the proposed floor space ratio and building heights included in the planning proposal would theoretically facilitate this outcome, the planning proposal refers to a future Development Application (which is now lodged) for the Woodward Centre sports complex on this lot and indicates that the Woodward Centre is a 'medium to long term' outcome. It is unclear how future commercial development would be facilitated on Lot A if the Woodward Centre proposal is ultimately constructed. If the high density commercial development outcome on Lot A is not pursued in the future, the planning proposal would then effectively only result in around 5,000m^2 of non-residential floor space (around 250 jobs) across the entire site.

Based on the current strategic planning framework, as it applies to the site, we remain of the view that it would not be possible for Council officers to conclude that the proposal (in its current form) aligns with the strategic planning framework or satisfies the strategic merit test. It is recommended that the land use mix included in the planning proposal be reconsidered and recalibrated to contain a more substantial employment component, preferably in line with the strategically planned outcomes considered for this site.

2. Traffic, Transport and Car Parking

The planning proposal notes that QIC intends to pursue a development scheme different from that approved under DA 864/2015/JP/B for Castle Towers, with a reduced retail provision. However, it is noted that DA 864/2015/JP has been acted on and as such, cannot be surrendered. A new Development Application for the future plans for Castle Towers has not yet been lodged. As such, there is some uncertainty with respect to the intended outcomes for Castle Towers and the impacts on traffic and transport in the locality.

The planning proposal and traffic report indicate that the change in outcomes will significantly reduce vehicle trip generation in Castle Hill, compared to the existing approval. While this may be the case, a number of traffic upgrades that have been previously identified are still required, including dual right turn lanes from Showground Road into Kentwell Avenue and upgrades to the Castle Street/Pennant Street intersection to include dual departure lane on Castle Street. There are also concerns with the proposed site access from Castle Street, loading access from Pennant Street and the proposed intersection arrangements for the Castle Street/Kentwell Avenue intersection.

Council has an established position with respect to parking rates for residential development within Station Precincts (as set out in Clause 7.11 of The Hills Local Environmental Plan 2019) and these rates should be applied to any residential component of future development on the site.

It is recommended that further technical discussions occur separately with respect to traffic and transport matters and we would be happy to arrange for a meeting to focus on this specifically with the relevant council officers. It is however suggested that you first consider the feedback in Section 1 of this letter, given the extent of changes to the land use mix that would be required for the proposal to align with the strategic planning framework would no doubt have implications for any traffic and transport assessment and discussions.

3. Proposed Local Environmental Plan Amendments

The proposal seeks to change the maximum building height controls on the site from a maximum height in metres to a relative level (RL). The planning proposal does not provide any justification for this proposed change or detail any benefits to changing the height controls from height in metres to RL. The Hills LEP only uses RLs for height controls in the Norwest Business Park. It is preferred that the proposed maximum building heights for the subject site remain as height in metres.

The planning proposal seeks to apply a blanket incentive floor space ratio as site-specific clause across the site, to facilitate a maximum gross floor area for the site. The proposed provisions provide insufficient certainty with respect to the built form outcomes that will be delivered on the site. Floor space ratio controls are intended to regulate the bulk, scale and character of existing and future surrounding development and ensure built form is compatible with the role of the centre. Therefore, it would be beneficial if the proposed floor space ratio provisions could be tailored more specifically to align with the specific built form outcomes being sought for different areas of the site.

The floor space ratio controls also provide the opportunity to secure a minimum commercial floor space outcome, to align the proposal with the strategic framework.

It is recommended that you reconsider the planning mechanism relied on in the proposal and instead:

- Provide maximum building height controls in height in metres;
- Provide specific floor space ratios for each portion of the site; and
- Include provisions to ensure the delivery of a minimum amount of commercial floor space consistent with the draft Castle Hill Precinct Plan.

4. Infrastructure Contribution Mechanism

Any future development must be matched by an adequate level of local and regional infrastructure that meets the needs of local residents and workers, including playing fields, community facilities and transport infrastructure. It is noted that that the planning proposal material states the intent to submit an offer to enter into a Voluntary Planning Agreement (VPA). Accordingly, it is requested that you please submit this offer to enter into a VPA, such that it can be considered by Council alongside your planning proposal.

5. Inconsistency between Presentation to Councillors and Application Material

The presentation material submitted for the Councillor Briefing on 14 February 2023 contained development concept imagery and metrics which differ to the application material which you have lodged. Some key differences identified include:

- The maximum building height depicted in the presentation to Councillors was 26 storeys, rather than the height of 28 storeys identified in the application material;
- The Floor Space Ratio depicted in the presentation to Councillors was 4.03:1, rather than the Floor Space Ratio of 4.5:1 identified in the application material; and
- The gross floor area depicted in the presentation to Councillors was 162,620m^2, rather than the gross floor area of 190,960m^2 identified in the application material.

It is requested that you please review these inconsistencies and advise what outcome is being sought through the planning proposal application, with all material to be updated to reflect this consistently.

6. Additional Information

The following information is required for Council officers to complete an assessment of the planning proposal;

- Heritage Impact Statement; and

- Updated concept plans that include:

    - Setbacks to the street measurements (internal and external to the site);
    - Internal floor plates, with dimensions;

- Building separation measurements; and
- Shadow diagrams that depict shadows on common open space and surrounding properties.

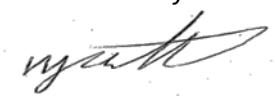
Next Steps
The next step in the process is for the matter to be reported to the Local Planning Panel for advice and following this, a Council Meeting for a decision on whether the matter should progress to a Gateway Determination.

Council Officers are tentatively working towards reporting the proposal to the Local Planning Panel meeting in May 2023, followed by a report to Council in June 2023. However, as detailed within this letter, we do not feel that we are in a position to recommend that the planning proposal, in its current form, should proceed to Gateway Determination. We will advise you further with respect to the matter being reported to the Local Planning Panel once you have advised on your intentions to submit any revised material and further traffic-related discussions have been held.

Council officers are unable to progress further with the assessment of your proposal, until such time as the proposal is updated to clearly set out the development outcomes and LEP amendments being sought through this application. Your revised submission should also be supported by the additional information requested in Part 6 of this letter. It is recommended that when preparing your revised application material, you consider making material amendments to your proposal in consideration of the strategic issues identified in Section 1 of this letter. Following clarification of these matters, it would then be appropriate for further targeted discussions with Council officers with respect to traffic and transport matters and the resolution of infrastructure issues.

Should you wish to discuss the proposal further, please don't hesitate to contact Emma Langan, Town Planner, on 9843 0243.

Yours faithfully



Nicholas Carlton
MANAGER – FORWARD PLANNING

Attachment
1. Letter dated 16 June 2022

Stantec Australia Pty Ltd
Level 25, 55 Collins Street
Melbourne VIC 3000

27 April 2023

Project/File: 301401344

Nicholas Carlton
The Hills Shire Council
c/- Ethos Urban

Dear Nicholas,

RE: "SITE B" PLANNING PROPOSAL – RESPONSE TO COUNCIL RFI

In February 2023, Stantec prepared a Transport Impact Assessment Report (TIAR) that was submitted to the Hills Shire Council (Council) and was subsequently forwarded to Transport for New South Wales (TfNSW) for a Planning Proposal for land commonly known as "Site B" generally bounded by Showground Road, Kentwell Avenue, Castle Street and Pennant Street, Castle Hill.

After its consideration of the submitted documentation, Council issued a Request for Further Information (RFI) dated 27 March 2023. The RFI included several items related to transport and traffic matters. Each of these items have been reproduced below with a response from Stantec.

It is noted that through the development of this application, as well as other applications by QIC, extensive engagement has occurred with Council and TfNSW pertaining to both this Planning Proposal application, as well as the development application for the "Woodward" indoor sports action centre development site.

Response to Comments

"The planning proposal notes that QIC intends to pursue a development scheme different from that approved under DA 864/2015/JP/B for Castle Towers, with a reduced retail provision. However, it is noted that DA 864/2015/JP has been acted on and as such, cannot be surrendered. A new Development Application for the future plans for Castle Towers has not yet been lodged. As such, there is some uncertainty with respect to the intended outcomes for Castle Towers and the impacts on traffic and transport in the locality. "

On 27 September 2016, DA864/2015/JP was approved as a Deferred Commencement Consent by the then Joint Regional Planning Panel (now Sydney Central City Planning Panel) for the Stage 3 Expansion of Castle Towers Shopping Centre. The Deferred Commencement conditions have since been satisfied to activate the Consent. The Consent was subsequently modified by the Panel on 22 February 2022 (864/2015/B). The approved works, which are able to be completed in stages, include:

- Significant demolition, reconstruction and expansion works of the Castle Towers Shopping Centre to significantly increase the Centre's retail gross floor area from 132,779sqm to 258,423sqm and gross lettable area from 113,197sqm to 193,457sqm.
- Construction of a vehicular tunnel beneath Pennant Street and via Site B to provide a new direct vehicular access/egress from the centre's car park to Showground Road via the signalised intersection at Kentwell Avenue.
- Closure of Castle Street between Pennant Street and Old Northern Road.
- Increase parking provision from 5,639 car spaces to 7,996 car spaces.

Reference: Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)

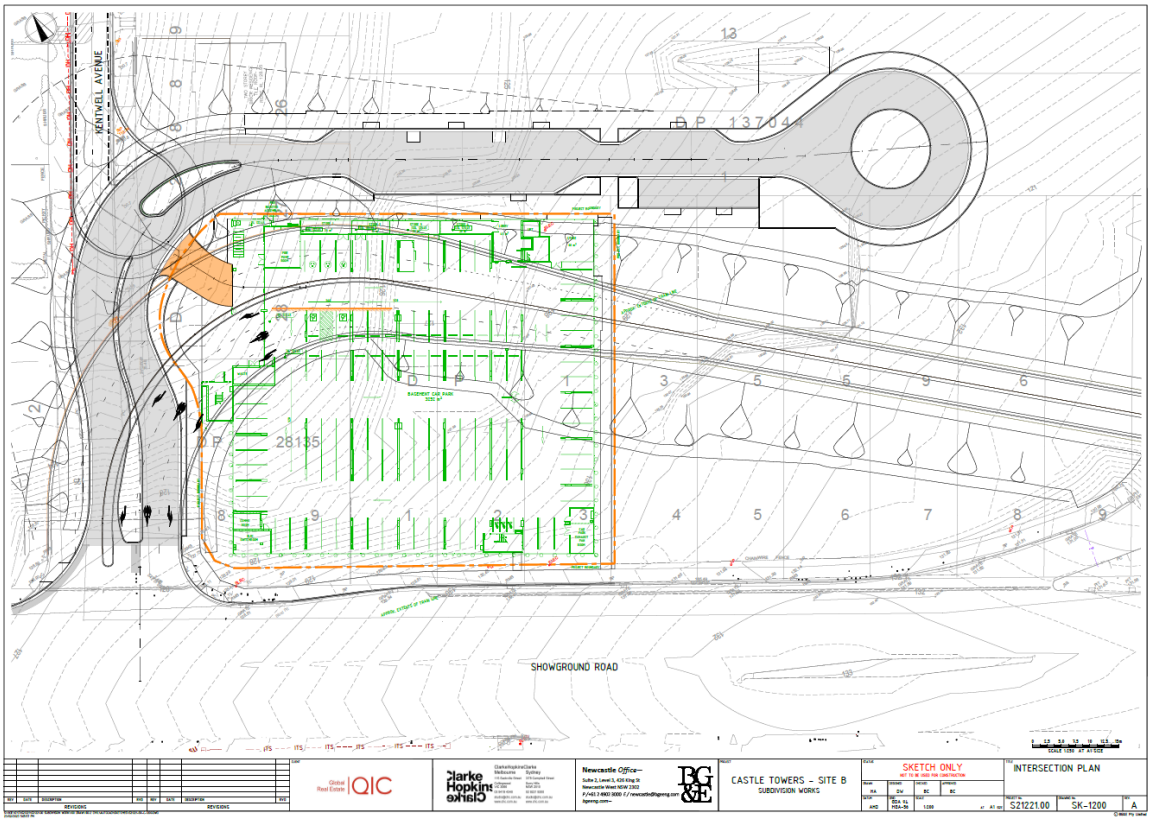
This approved DA has been acted upon in terms of the following:

- Works have been carried out in Zone 2 of the Centre, including the Sydney Metro concourse connection, which included a modest increase in retail floor area.
- A Voluntary Planning Agreement was entered into between QIC and TfNSW to provide $15m for significant upgrade works to Showground Road to increase the road capacity in Castle Hill. This payment was completed by QIC, and the road upgrade has been constructed.

Advice provided to Stantec indicates that the elements of this DA that are yet to be completed can be surrendered. In their Response to RFI Report, Ethos Urban addresses this matter and confirms that the Proponent can surrender the development consent under the relevant planning legislation.

From a practice perspective, we also note that the Planning Proposal lodged for "Site B", as well as the DA submitted for the Woodward Indoor Action Sports Centre on the land, prevents the construction of the required vehicle access through the subject land associated with DA864/2015/JP. That is, it is not possible for the layout proposed under the "Site B" Planning Proposal (or the Woodward DA) to exist in parallel with the approved vehicle access arrangements required under DA864/2015/JP. This conflict is best shown in Figure 1, which overlays the previously approved vehicle access with the Woodward DA layout and illustrates that the two cannot exist at the same time.

Figure 1: Previously Approved Vehicle Access for Retail Expansion overlaid with DA Plans



In this context, we consider there is limited uncertainty regarding the traffic impacts and transport in the locality given:

1. QIC has confirmed its intent to Council that it will not complete DA864/2015/JP.

2. Advice provided by Ethos Urban in their Response to RFI Report indicates that the DA can be surrendered as per relevant planning legislation.

3. The Planning Proposal lodged by "Site B", as well as the DA submitted for the Woodward Indoor Action Sports Centre on the land, prevents the construction of the required vehicle access through the subject land associated with DA864/2015/JP.

For the above reasons, it is requested that "Site B" Planning Proposal is reviewed and assessed on its own merit, with the traffic impacts and required infrastructure works reviewed within the context of the traffic expected to be generated by the most up-to-date and current application. In our view, it is neither necessary nor beneficial to assume that the proposed development exists in addition to the development approved under DA864/2015/JP as this simply cannot physically occur.

"The planning proposal and traffic report indicate that the change in outcomes will significantly reduce vehicle trip generation in Castle Hill, compared to the existing approval. While this may be the case, a number of traffic upgrades that have been previously identified are still required, including dual right turn lanes from Showground Road into Kentwell Avenue and upgrades to the Castle Street/Pennant Street intersection to include dual departure lane on Castle Street."

Stantec respectfully queries how Council has reached a conclusion that the abovementioned road works are still required despite the significant reduction in vehicle trip generation in Castle Hill.

If this position is based on traffic modelling undertaken by Council and TfNSW for the precinct, we would request its release such that it can be reviewed. This is particularly sought for the Showground Road / Kentwell Avenue intersection as we consider it unlikely that the traffic modelling will show that two entry lanes are required given the significant reduction in traffic generation to, from and through Site B.

For reference, a comparison of the traffic generation associated with the approved and now proposed developments is presented below, followed by the expected implications for the intersections outlined by Council above.

1. Traffic Generation Comparison

1.1. Previously Approved (DA864/2015/JP) Traffic Generation

Further detail is provided below to quantify and compare the traffic generation from the previously approved application with the current application.

Traffic analysis was completed in the TIA for the now approved DA864/2015/JP. This traffic analysis concluded a number of required intersection upgrades in the road network surrounding Castle Towers Shopping Centre to accommodate the significant retail expansion to the centre. These recommended works included the upgrade of the Showground Road / Kentwell Avenue intersection, which would become a new site access point to the retail centres car park.

The expected increase associated with DA864/2015/JP is presented in Table 1 and indicates that the approved development (ultimate conditions) was expected to increase traffic volumes on the adjacent road network by over 1,000 vehicle movements during the weekday PM peak hour.

Table 1: Traffic Generation of DA864/2015/JP

Stage	Area (sqm)	Generation Rate (vph/100sqm)	Generation (vph)
Existing	113,197sqm	3.00 vph/100sqm	3,393 movements
Ultimate Post Development	193,457sqm	2.30 vph/100sqm	4,444 movements (+1,051 movements)

This traffic volume also informed the AIMSUN traffic modelling completed for the approved DA which was also submitted and ultimately supported by TfNSW and Council. For reference, the anticipated post-development traffic volumes from the previous modelling are shown in Figure 1 on the following page. This figure is sourced from the GTA (now Stantec) report submitted with the approved development that was submitted to Council and TfNSW previously.

Figure 1: Previously Approved Ultimate Traffic Volumes – Weekday PM Peak Hour

Figure 1 shows that 1,022 vehicle movements (including 485 entry and 537 exit movements) were expected to use the Showground Road / Kentwell Avenue during the weekday PM peak hour.

This volume of traffic was anticipated as the vehicle access road connecting to this intersection, running through Site B and then under Pennant Street, serviced the majority of the additional 2,357 car spaces to be constructed at the southern end of Site A as part of DA864/2015/JP.

This previous traffic volume was very significant and informed the design of the Showground Road / Kentwell Avenue intersection to include two entry lanes, including two right-turn entry lanes from Showground Road, and three exit lanes onto Showground Road.

1.2. New Development Traffic Generation

The planning proposal for Site B includes the development of a mixed-use precinct, consisting primarily of residential development. A summary of the development traffic generation as found in the TIA report submitted to Council is shown in Table 2.

Table 2 indicates that the new development proposed on Site B is expected to generate approximately 400 vehicle movements in the weekday PM peak hour. This compares to over 1000 vehicle movements that were expected to be generated by the previously approved development and confirms that a significant traffic volume reduction can be expected for the new development.

It must also be noted that whereas the previously approved development anticipated that over 1,000 vehicle movements would pass through the Showground Road / Kentwell Avenue intersection during the weekday PM peak hour (refer Figure 1 above), the anticipated traffic volume of approximately 400 vehicle movements from the new development will be distributed through proposed intersections to Showground Road, Kentwell Avenue and Castle Street during the same peak hour. Accordingly, the traffic volume passing through the Showground Road / Kentwell Avenue will actually be lower than 400 vehicle movements per hour.

Table 2: Traffic Generation of this Application

Land Use	No of Car Spaces	Peak Hour Generation Rate		Peak Hour Traffic Generation	
		AM Peak	PM Peak	AM Peak	PM Peak
Residential	1,252	0.15 vph per parking space	0.12 vph per parking space	188 vph	150 vph
Commercial	47	0.5 vph per car parking space	0.5 vph per car parking space	24 vph	24 vph
Showroom	68	0.33 vph per car parking space	1 trip per car parking space	22 vph	68 vph
Shop / F&B	39	0.33 vph per car parking space	1 trip per car parking space	13 vph	39 vph
Supermarket	56	1 trip per car parking space	2 vph per car parking space	56 vph	112 vph
Total				303 vph	393 vph

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1.3. Comparison Discussion

The comparison presented above indicates that the traffic generation of the new development will be significantly lower than the previously approved development, with resultant traffic volumes through key intersections that are similarly significantly lower.

It is noted that the above view was shared by Stantec with TfNSW and Council during a meeting held in February 2023. At that meeting, TfNSW and Council presented their view that the intersections should be retained at their previously designed size regardless of the anticipated reduction in traffic volume. In our view, this is not appropriate given:

1. It is overly conservative particularly for Showground Road / Kentwell Avenue which is proposed to serve a predominately residential development (rather than a shopping centre).

2. It is inconsistent with common practice which typically seeks to favour pedestrians and cyclists, rather than vehicle movements, in activity centre environments. (In stating this view, Stantec accepts that the adjacent road network is congested, but nevertheless presents the view that this congestion should not dictate the overdesign of intersections particularly those providing vehicle access to development).

Accordingly, we retain the view that a reduction in the size of these intersections (and particularly the Showground Road / Kentwell Avenue) compared to the intersection arrangements related to DA864/2015/JP is appropriate, as is discussed later in this letter.

2. Specific Intersection Discussion

2.1. Showground Road / Kentwell Avenue intersection

As outlined above, whilst this intersection was previously designed to accommodate over 1,000 vehicle movements per hour for DA864/2015/JP, it is now proposed to accommodate well less than 400 vehicle movements per hour.

The TIA submitted with the Site B Planning Proposal included a sensitivity assessment assuming 100% of traffic generated of the proposed development (approximately 400 vehicle movements per hour) were to utilise the Showground Road / Kentwell Street intersection. This sensitivity assessment is considered highly conservative but still suggests that the intersection will carry approximately 40% of the traffic volume it was previously designed to accommodate.

Moreover, it is noted that the SIDRA analysis contained within this TIA clearly indicated that a reduction in the intersection size could be achieved without compromising the operation of the surrounding road network. It is noted that whilst we accept that concern has been raised by TfNSW regarding the use of SIDRA to analyse this intersection, we note our understanding that no other analysis has been completed by TfNSW or Council to confirm that the larger (existing) intersection size is required for the reduced traffic generation. If this analysis exists, we request it be provided.

Overall, we retain the view that the proposed reduction in the size of the Showground Road / Kentwell Avenue intersection from having three exit lanes and two entry lanes to instead providing two exit lanes and one entry lane is appropriate for the following reasons:

1. The traffic analysis contained in the TIA indicate that the reduced intersection size is acceptable from a traffic perspective and cannot be expected to detrimentally impact the operation of Showground Road.

2. The request from TfNSW and Council to provide the additional inbound lane (and potentially an outbound lane) at the intersection appears to be based on the previously approved application, which is now no longer being pursued. This planning proposal will generate a significantly smaller volume of traffic. We are not aware of any traffic analysis that has been completed to confirm the larger intersection size is still required for the significantly reduced quantum of traffic generation to, from and through Site B.

3. The reduced intersection size facilities a range of other benefits including improvements to landscaping and reductions in barriers to pedestrian movements.

It is understood that this reduction is not supported by TfNSW and Council's traffic engineering team due to the associated reduction in the traffic capacity which principally relates to the reduction from two entry lanes to one entry lane into the site[1]. The traffic capacity loss is not disputed by Stantec. However, we retain the view that the capacity lost is surplus to the intersection's needs given the significant reduction in traffic volume that will be passing through the intersection. As outlined above, the intersection is expected to carry 40% of the traffic volume it was previously designed to accommodate.

Notwithstanding this, after further consideration of TfNSW and Council's position, QIC has agreed to amend the proposed design for the intersection to better allow for the second entry lane (or indeed even a third exit lane) to be provided in the future, should it be deemed necessary for the Site B Planning Proposal or its associated development applications. This future proofing has been achieved by ensuring that the new internal access road matches the existing constructed width of the Kentwell Avenue stub at Showground Road and then "filling" the middle of that existing width with landscaping rather than traffic lanes. This allows for the middle section of the internal access road width to be used for additional lanes in the future if it is proven to be required for traffic capacity reasons.

For reference, the proposed and potential future designs of this intersection are shown in Figures 2 and 3 below. It is emphasised that the design in Figure 2 is to be provided as part of the proposed Woodward development and TFNSW and Council approval is sought for this layout. In comparison, the design shown in Figure 3 is presented solely to illustrate that the proposed design could be widened to provide two entry lanes if required in the future.

Overall, we reiterate the views outlined above that a larger intersection layout should not be considered necessary at the Showground Road / Kentwell Avenue intersection for the revised development proposed on Site B. This is supported by traffic analysis submitted previously to Council and TfNSW.

[1] It is noted that a reduction from three to two exit lanes from the site is unlikely to have a significant impact on Showground Road as it is expected that the phasing of the intersection would not be altered to give more green time to the exit from the site in the event that it has three or two exit lanes.

Reference: **Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)**

Figure 2: Showground Road / Kentwell Avenue Intersection – Proposed Design

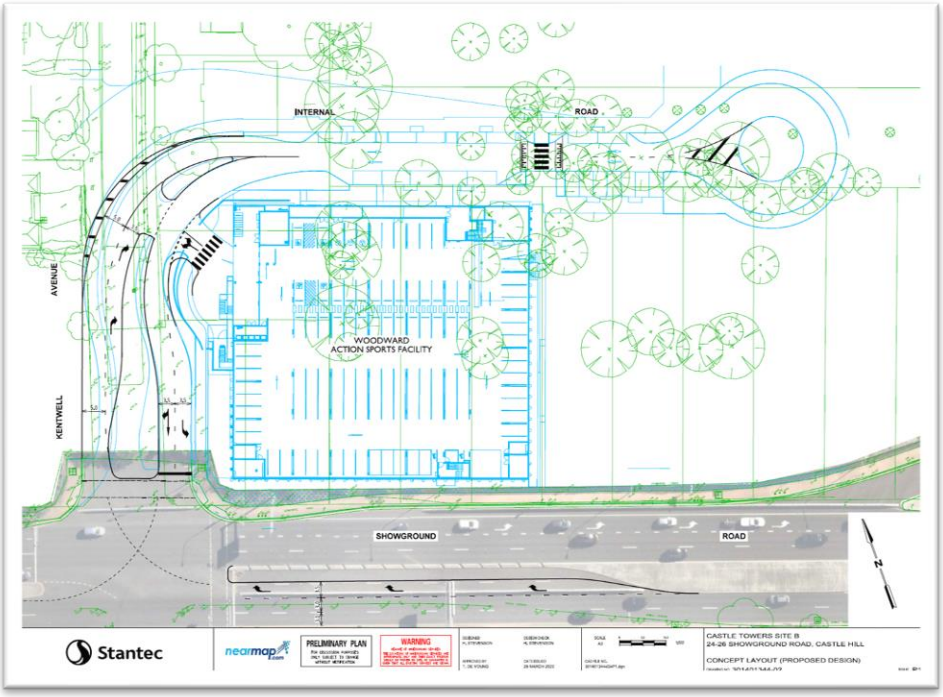
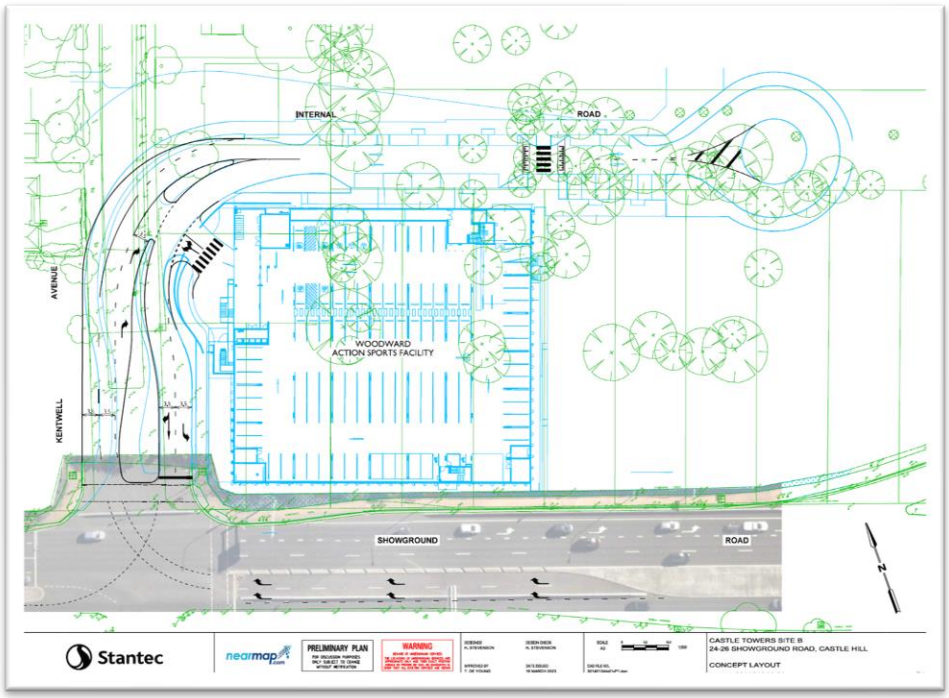


Figure 3: Showground Road / Kentwell Avenue Intersection – Potential Ultimate Design



2.2. Castle Street / Pennant Street intersection

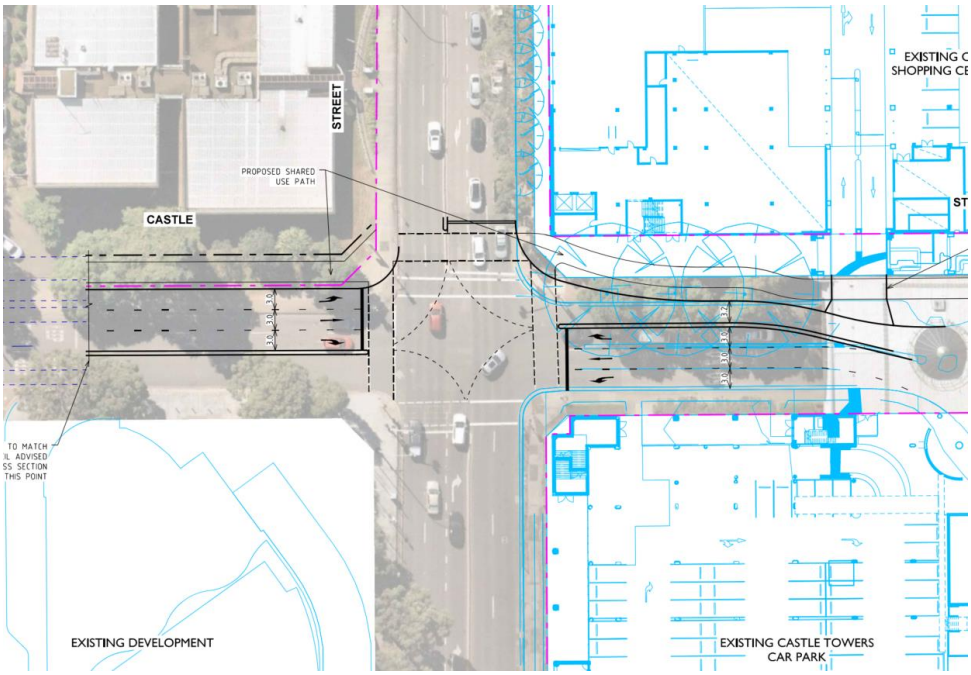
The proposed design of the Castle Street / Pennant Street intersection has been informed by a number of design constraints and requirement that we consider require equal consideration. These are as follows:

- The ability for the intersection to accommodate the future traffic volumes on the road network, including those generated by the site, as best as possible.
- The need to ensure that generous footpath (and preferably) cycling facilities can be provided through the intersection. (It is understood that Council proposes construction of a footbridge at this intersection. Notwithstanding this infrastructure, we consider it critical that appropriate access is also provided for pedestrians and cyclist at ground level.)
- The need to fit the intersection within the existing constraints of bult form at this intersection noting that QIC no longer propose to demolish the Shopping Centre at this location as was previously proposed under DA864/2015/JP.

It is understood that Council and TfNSW are currently considering the completion of works at this intersection to improve its safety and operation. The works proposed are to enable 'double diamond' traffic signal phasing at the intersection and thus remove filtered right turns. This phasing requires separate right-turn lanes on the Castle Street approaches.

Assuming works are required at the intersection, we recommend the layout as shown in Figure 4. This layout is included in the TIA prepared for the Site B Planning Proposal and we believe it leads to the best "on balance" design outcome. Ultimately though, we note that the Planning Proposal does not impact the final decision made with respect to the layout at this intersection,

Figure 4: Proposed Castle Street / Pennant Street Design



2.3. Castle Street / Proposed Vehicle Access Road intersection

The TIA submitted with the Site B Planning Proposal contains a SIDRA analysis for this intersection which outlines that it is expected to operate satisfactorily as an unsignalised intersection.

This outcome is expected as the intersection is expected to accommodate only a modest volume of traffic during peak hours and will likely operate with 'platooned' traffic volumes given the signalised intersection at Pennant Street / Castle Street.

As this vehicle access is intentionally designed as a secondary point of vehicle access to Site B, we would contend it is not appropriate to design it with a higher level of vehicle capacity (such as by signalising the intersection) as this would likely only attract people to drive through the site. Rather, if Council were concerned with an unsignalised full-turning movement intersection, we would suggest that turn bans be considered prior to signalisation.

In our view, neither this intersection nor the Castle Street / Kentwell Avenue intersection need to be signalised or controlled by a roundabout. We retain the view outlined in our TIA that unsignalised intersections are appropriate.

"There are also concerns with the proposed site access from Castle Street, loading access from Pennant Street and the proposed intersection arrangements for the Castle Street/Kentwell Avenue intersection."

Stantec acknowledges this concern was initially raised by TfNSW when consultation first commenced on the project in mid-2022.

Notwithstanding this, we retain the view that the proposed design is the most appropriate outcome for the site, particularly having regard to the impact to the layout and amenity of the internal layout of the predominantly residential development now proposed on Site B that would otherwise be caused if the vehicle access was refused[2].

The proposed design is also considered appropriate for the following reasons (as reproduced from our TIA report submitted with the Site B Planning Proposal):

- The vehicle access is able to be designed with a fully compliant deceleration lane, even allowing for the downgrade of Pennant Street. In this context, the vehicle access will be more compliant than the other existing Castle Towers Shopping Centre loading dock accesses off this road which have no deceleration lanes.
- The vehicle access is to be restricted to loading and waste collection vehicle movements only. This restriction will mean that the vehicle access carries low level of traffic each day. These vehicle movements may also be able to be further managed to occur outside of road network peak hours via a loading dock management plan that can be enforced by TfNSW.

[2] The impact on the internal road layout to accommodate large trucks would be significant and include considerably wider streets and significant lost ground level activation by having to provide ramps down to basement loading levels. At present, the proposed design avoids these issues by relying on existing roads already built to accommodate these trucks and by brining trucks into the site at the lowest point on the site.

- The internal design of the loading dock will be subject to subsequent Development Applications but is proposed to be designed to reduce the potential for vehicle queuing to extend onto Pennant Street. The indicative layout of this loading dock indicates that the loading bays will be located some distance into the site. It is further noted that it is not proposed to control the loading dock vehicle access near the property boundary.

- The vehicle access is positioned at a location which was previously approved by TfNSW (RMS) for a previous development on the site.

If TfNSW and/or Council retain an objection to this vehicle access, we would kindly request further detail on the nature of the concerns so we can seek to mitigate them within the current design. (For example, QIC advises it would be happy to agree a 'concept design' for the loading dock to illustrate how it will be designed to mitigate any impact on the adjacent road network).

"Council has an established position with respect to parking rates for residential development within Station Precincts (as set out in Clause 7.11 of The Hills Local Environmental Plan 2019) and these rates should be applied to any residential component of future development on the site."

The following outlines the car parking rates contained in Clause 7.11 of The Hills Local Environmental Plan 2019:

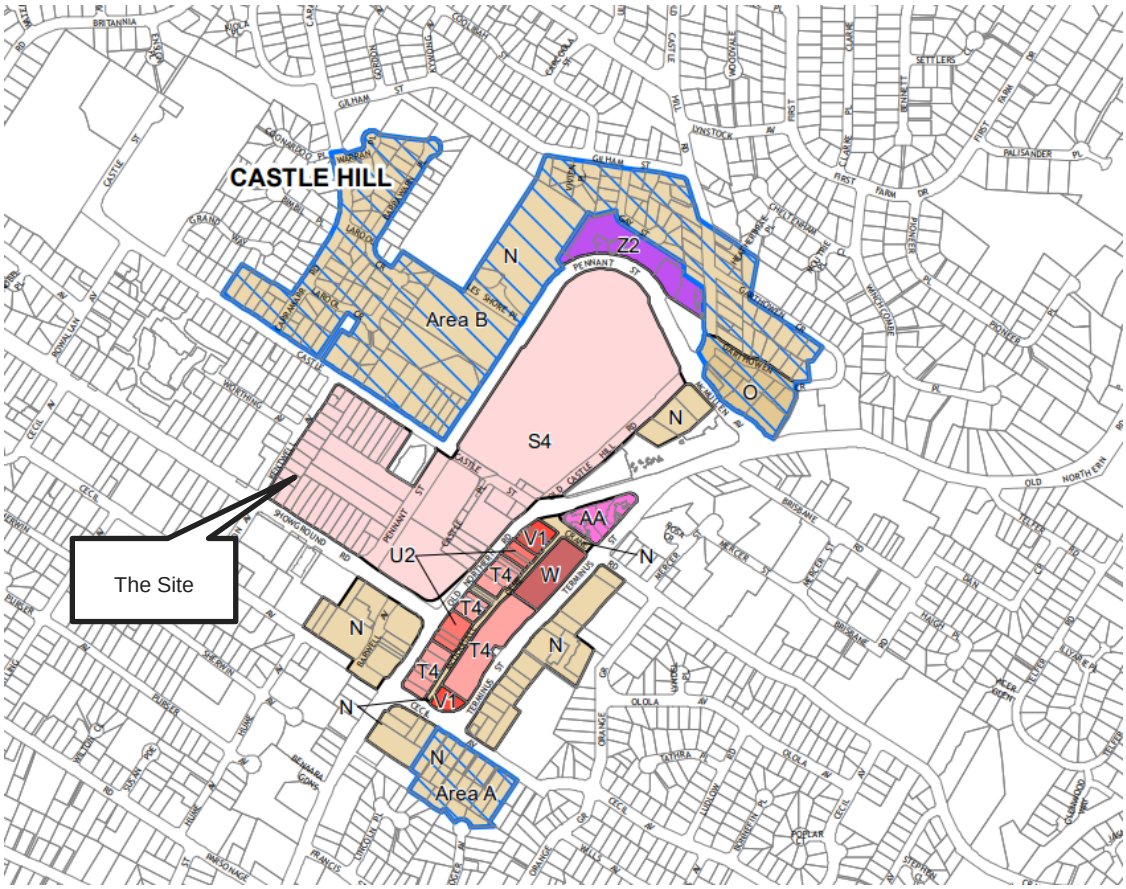
- "If the development is on land identified as "Area A" on the Floor Space Ratio Map, the following minimum number of car parking spaces are to be provided for the development:
    - for each dwelling - 1 car parking space,
    - for every 5 dwellings - 1 car parking space, in addition to the car parking space required for the individual dwelling, and
- If the development is on land identified as "Area B" on the Floor Space Ratio Map, the maximum number of car parking spaces that are to be provided for the development is the sum of the following:
    - for each studio or 1 bedroom dwelling - 0.5 car parking spaces,
    - for each 2 bedroom dwelling - 0.8 car parking spaces,
    - for each 3 or more bedroom dwelling - 1.3 car parking spaces,
    - for every 5 dwellings - 1 car parking spaces, in addition to the car parking spaces required for each individual dwelling"

These requirements are applicable to "Area A and "Area B" as outlined in the floor space ratio maps. These are identified in Figure 5 below. This map shows that Site B is located immediately to the south of Area B.

The rates identified with the LEP are consistent with those identified in the Castle Hill North DCP. Both of these rates apply to the land located immediately adjacent to the site, north of Castle Street. Whilst these rates do not technically apply to the development site, given the immediate proximity to the site, we consider they represent a useful resource for comparative purposes.

The TIA submitted with the Site B Planning Proposal assume car parking rates are generally consistent with the identified car parking rates. Accordingly, we consider the proposed car parking provisions to be appropriate. As outlined in Ethos Urban's Response to RFI Report, the Planning Proposal will seek to introduce a site-specific clause into The Hills LEP to facilitate an incentive Floor Space Ratio for the site's seven lots, which is tied to car parking rates consistent with those presented for "Area B" in Clause 7.11 of The Hills LEP

Figure 5: The Hills Shire Local Environmental Plan 2019 Floor Space Ratio Map



It is recommended that further technical discussions occur separately with respect to traffic and transport matters and we would be happy to arrange for a meeting to focus on this specifically with the relevant council officers. It is however suggested that you first consider the feedback in Section 1 of this letter, given the extent of changes to the land use mix that would be required for the proposal to align with the strategic planning framework would no doubt have implications for any traffic and transport assessment and discussions.

Stantec would be happy to further engage with Council with regard to traffic and transport matters.

Prior to that engagement, however, we would kindly ask that Council considers the responses outlined in this letter from a balanced 'planning and transport' perspective. This is recommended as we consider that compliance with some requests relating to traffic and transport may create other issues. By way of example, we note the removal of the loading dock access road from Pennant Street will have a very significant impact on the layout of the balance of the site.

Reference: **Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)**

As far as practicable, we would also request further information (including any traffic modelling) be provided to us so we can better consider Council's position.

Kind regards,

STANTEC AUSTRALIA PTY LTD

Tim De Young
Senior Principal - Transport
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tim.deyoung@stantec.com

Stantec Australia Pty Ltd
Level 25, 55 Collins Street
Melbourne VIC 3000

27 April 2023

Project/File: 301401344

Nicholas Carlton
The Hills Shire Council
c/- Ethos Urban

Dear Nicholas,

RE: "SITE B" PLANNING PROPOSAL – RESPONSE TO COUNCIL RFI

In February 2023, Stantec prepared a Transport Impact Assessment Report (TIAR) that was submitted to the Hills Shire Council (Council) and was subsequently forwarded to Transport for New South Wales (TfNSW) for a Planning Proposal for land commonly known as "Site B" generally bounded by Showground Road, Kentwell Avenue, Castle Street and Pennant Street, Castle Hill.

After its consideration of the submitted documentation, Council issued a Request for Further Information (RFI) dated 27 March 2023. The RFI included several items related to transport and traffic matters. Each of these items have been reproduced below with a response from Stantec.

It is noted that through the development of this application, as well as other applications by QIC, extensive engagement has occurred with Council and TfNSW pertaining to both this Planning Proposal application, as well as the development application for the "Woodward" indoor sports action centre development site.

Response to Comments

"The planning proposal notes that QIC intends to pursue a development scheme different from that approved under DA 864/2015/JP/B for Castle Towers, with a reduced retail provision. However, it is noted that DA 864/2015/JP has been acted on and as such, cannot be surrendered. A new Development Application for the future plans for Castle Towers has not yet been lodged. As such, there is some uncertainty with respect to the intended outcomes for Castle Towers and the impacts on traffic and transport in the locality. "

On 27 September 2016, DA864/2015/JP was approved as a Deferred Commencement Consent by the then Joint Regional Planning Panel (now Sydney Central City Planning Panel) for the Stage 3 Expansion of Castle Towers Shopping Centre. The Deferred Commencement conditions have since been satisfied to activate the Consent. The Consent was subsequently modified by the Panel on 22 February 2022 (864/2015/B). The approved works, which are able to be completed in stages, include:

- Significant demolition, reconstruction and expansion works of the Castle Towers Shopping Centre to significantly increase the Centre's retail gross floor area from 132,779sqm to 258,423sqm and gross lettable area from 113,197sqm to 193,457sqm.
- Construction of a vehicular tunnel beneath Pennant Street and via Site B to provide a new direct vehicular access/egress from the centre's car park to Showground Road via the signalised intersection at Kentwell Avenue.
- Closure of Castle Street between Pennant Street and Old Northern Road.
- Increase parking provision from 5,639 car spaces to 7,996 car spaces.

Reference: Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)

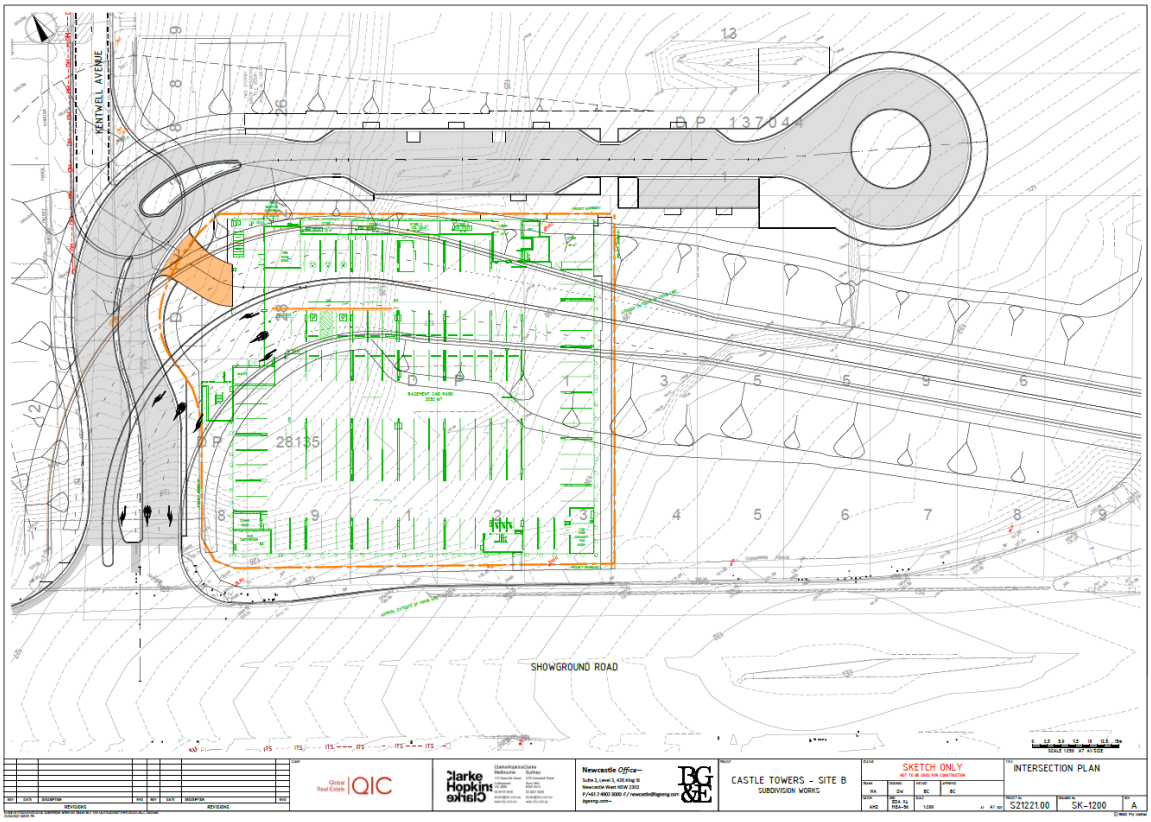
This approved DA has been acted upon in terms of the following:

- Works have been carried out in Zone 2 of the Centre, including the Sydney Metro concourse connection, which included a modest increase in retail floor area.
- A Voluntary Planning Agreement was entered into between QIC and TfNSW to provide $15m for significant upgrade works to Showground Road to increase the road capacity in Castle Hill. This payment was completed by QIC, and the road upgrade has been constructed.

Advice provided to Stantec indicates that the elements of this DA that are yet to be completed can be surrendered. In their Response to RFI Report, Ethos Urban addresses this matter and confirms that the Proponent can surrender the development consent under the relevant planning legislation.

From a practice perspective, we also note that the Planning Proposal lodged for "Site B", as well as the DA submitted for the Woodward Indoor Action Sports Centre on the land, prevents the construction of the required vehicle access through the subject land associated with DA864/2015/JP. That is, it is not possible for the layout proposed under the "Site B" Planning Proposal (or the Woodward DA) to exist in parallel with the approved vehicle access arrangements required under DA864/2015/JP. This conflict is best shown in Figure 1, which overlays the previously approved vehicle access with the Woodward DA layout and illustrates that the two cannot exist at the same time.

Figure 1: Previously Approved Vehicle Access for Retail Expansion overlaid with DA Plans



In this context, we consider there is limited uncertainty regarding the traffic impacts and transport in the locality given:

1. QIC has confirmed its intent to Council that it will not complete DA864/2015/JP.

2. Advice provided by Ethos Urban in their Response to RFI Report indicates that the DA can be surrendered as per relevant planning legislation.

3. The Planning Proposal lodged by "Site B", as well as the DA submitted for the Woodward Indoor Action Sports Centre on the land, prevents the construction of the required vehicle access through the subject land associated with DA864/2015/JP.

For the above reasons, it is requested that "Site B" Planning Proposal is reviewed and assessed on its own merit, with the traffic impacts and required infrastructure works reviewed within the context of the traffic expected to be generated by the most up-to-date and current application. In our view, it is neither necessary nor beneficial to assume that the proposed development exists in addition to the development approved under DA864/2015/JP as this simply cannot physically occur.

"The planning proposal and traffic report indicate that the change in outcomes will significantly reduce vehicle trip generation in Castle Hill, compared to the existing approval. While this may be the case, a number of traffic upgrades that have been previously identified are still required, including dual right turn lanes from Showground Road into Kentwell Avenue and upgrades to the Castle Street/Pennant Street intersection to include dual departure lane on Castle Street."

Stantec respectfully queries how Council has reached a conclusion that the abovementioned road works are still required despite the significant reduction in vehicle trip generation in Castle Hill.

If this position is based on traffic modelling undertaken by Council and TfNSW for the precinct, we would request its release such that it can be reviewed. This is particularly sought for the Showground Road / Kentwell Avenue intersection as we consider it unlikely that the traffic modelling will show that two entry lanes are required given the significant reduction in traffic generation to, from and through Site B.

For reference, a comparison of the traffic generation associated with the approved and now proposed developments is presented below, followed by the expected implications for the intersections outlined by Council above.

1. Traffic Generation Comparison

1.1. Previously Approved (DA864/2015/JP) Traffic Generation

Further detail is provided below to quantify and compare the traffic generation from the previously approved application with the current application.

Traffic analysis was completed in the TIA for the now approved DA864/2015/JP. This traffic analysis concluded a number of required intersection upgrades in the road network surrounding Castle Towers Shopping Centre to accommodate the significant retail expansion to the centre. These recommended works included the upgrade of the Showground Road / Kentwell Avenue intersection, which would become a new site access point to the retail centres car park.

The expected increase associated with DA864/2015/JP is presented in Table 1 and indicates that the approved development (ultimate conditions) was expected to increase traffic volumes on the adjacent road network by over 1,000 vehicle movements during the weekday PM peak hour.

Table 1: Traffic Generation of DA864/2015/JP

Stage	Area (sqm)	Generation Rate (vph/100sqm)	Generation (vph)
Existing	113,197sqm	3.00 vph/100sqm	3,393 movements
Ultimate Post Development	193,457sqm	2.30 vph/100sqm	4,444 movements (+1,051 movements)

This traffic volume also informed the AIMSUN traffic modelling completed for the approved DA which was also submitted and ultimately supported by TfNSW and Council. For reference, the anticipated post-development traffic volumes from the previous modelling are shown in Figure 1 on the following page. This figure is sourced from the GTA (now Stantec) report submitted with the approved development that was submitted to Council and TfNSW previously.

Figure 1: Previously Approved Ultimate Traffic Volumes – Weekday PM Peak Hour

Figure 1 shows that 1,022 vehicle movements (including 485 entry and 537 exit movements) were expected to use the Showground Road / Kentwell Avenue during the weekday PM peak hour.

This volume of traffic was anticipated as the vehicle access road connecting to this intersection, running through Site B and then under Pennant Street, serviced the majority of the additional 2,357 car spaces to be constructed at the southern end of Site A as part of DA864/2015/JP.

This previous traffic volume was very significant and informed the design of the Showground Road / Kentwell Avenue intersection to include two entry lanes, including two right-turn entry lanes from Showground Road, and three exit lanes onto Showground Road.

1.2. New Development Traffic Generation

The planning proposal for Site B includes the development of a mixed-use precinct, consisting primarily of residential development. A summary of the development traffic generation as found in the TIA report submitted to Council is shown in Table 2.

Table 2 indicates that the new development proposed on Site B is expected to generate approximately 400 vehicle movements in the weekday PM peak hour. This compares to over 1000 vehicle movements that were expected to be generated by the previously approved development and confirms that a significant traffic volume reduction can be expected for the new development.

It must also be noted that whereas the previously approved development anticipated that over 1,000 vehicle movements would pass through the Showground Road / Kentwell Avenue intersection during the weekday PM peak hour (refer Figure 1 above), the anticipated traffic volume of approximately 400 vehicle movements from the new development will be distributed through proposed intersections to Showground Road, Kentwell Avenue and Castle Street during the same peak hour. Accordingly, the traffic volume passing through the Showground Road / Kentwell Avenue will actually be lower than 400 vehicle movements per hour.

Table 2: Traffic Generation of this Application

Land Use	No of Car Spaces	Peak Hour Generation Rate		Peak Hour Traffic Generation	
		AM Peak	PM Peak	AM Peak	PM Peak
Residential	1,252	0.15 vph per parking space	0.12 vph per parking space	188 vph	150 vph
Commercial	47	0.5 vph per car parking space	0.5 vph per car parking space	24 vph	24 vph
Showroom	68	0.33 vph per car parking space	1 trip per car parking space	22 vph	68 vph
Shop / F&B	39	0.33 vph per car parking space	1 trip per car parking space	13 vph	39 vph
Supermarket	56	1 trip per car parking space	2 vph per car parking space	56 vph	112 vph
Total				303 vph	393 vph

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1.3. Comparison Discussion

The comparison presented above indicates that the traffic generation of the new development will be significantly lower than the previously approved development, with resultant traffic volumes through key intersections that are similarly significantly lower.

It is noted that the above view was shared by Stantec with TfNSW and Council during a meeting held in February 2023. At that meeting, TfNSW and Council presented their view that the intersections should be retained at their previously designed size regardless of the anticipated reduction in traffic volume. In our view, this is not appropriate given:

1. It is overly conservative particularly for Showground Road / Kentwell Avenue which is proposed to serve a predominately residential development (rather than a shopping centre).

2. It is inconsistent with common practice which typically seeks to favour pedestrians and cyclists, rather than vehicle movements, in activity centre environments. (In stating this view, Stantec accepts that the adjacent road network is congested, but nevertheless presents the view that this congestion should not dictate the overdesign of intersections particularly those providing vehicle access to development).

Accordingly, we retain the view that a reduction in the size of these intersections (and particularly the Showground Road / Kentwell Avenue) compared to the intersection arrangements related to DA864/2015/JP is appropriate, as is discussed later in this letter.

2. Specific Intersection Discussion

2.1. Showground Road / Kentwell Avenue intersection

As outlined above, whilst this intersection was previously designed to accommodate over 1,000 vehicle movements per hour for DA864/2015/JP, it is now proposed to accommodate well less than 400 vehicle movements per hour.

The TIA submitted with the Site B Planning Proposal included a sensitivity assessment assuming 100% of traffic generated of the proposed development (approximately 400 vehicle movements per hour) were to utilise the Showground Road / Kentwell Street intersection. This sensitivity assessment is considered highly conservative but still suggests that the intersection will carry approximately 40% of the traffic volume it was previously designed to accommodate.

Moreover, it is noted that the SIDRA analysis contained within this TIA clearly indicated that a reduction in the intersection size could be achieved without compromising the operation of the surrounding road network. It is noted that whilst we accept that concern has been raised by TfNSW regarding the use of SIDRA to analyse this intersection, we note our understanding that no other analysis has been completed by TfNSW or Council to confirm that the larger (existing) intersection size is required for the reduced traffic generation. If this analysis exists, we request it be provided.

Overall, we retain the view that the proposed reduction in the size of the Showground Road / Kentwell Avenue intersection from having three exit lanes and two entry lanes to instead providing two exit lanes and one entry lane is appropriate for the following reasons:

1. The traffic analysis contained in the TIA indicate that the reduced intersection size is acceptable from a traffic perspective and cannot be expected to detrimentally impact the operation of Showground Road.

2. The request from TfNSW and Council to provide the additional inbound lane (and potentially an outbound lane) at the intersection appears to be based on the previously approved application, which is now no longer being pursued. This planning proposal will generate a significantly smaller volume of traffic. We are not aware of any traffic analysis that has been completed to confirm the larger intersection size is still required for the significantly reduced quantum of traffic generation to, from and through Site B.

3. The reduced intersection size facilities a range of other benefits including improvements to landscaping and reductions in barriers to pedestrian movements.

It is understood that this reduction is not supported by TfNSW and Council's traffic engineering team due to the associated reduction in the traffic capacity which principally relates to the reduction from two entry lanes to one entry lane into the site[1]. The traffic capacity loss is not disputed by Stantec. However, we retain the view that the capacity lost is surplus to the intersection's needs given the significant reduction in traffic volume that will be passing through the intersection. As outlined above, the intersection is expected to carry 40% of the traffic volume it was previously designed to accommodate.

Notwithstanding this, after further consideration of TfNSW and Council's position, QIC has agreed to amend the proposed design for the intersection to better allow for the second entry lane (or indeed even a third exit lane) to be provided in the future, should it be deemed necessary for the Site B Planning Proposal or its associated development applications. This future proofing has been achieved by ensuring that the new internal access road matches the existing constructed width of the Kentwell Avenue stub at Showground Road and then "filling" the middle of that existing width with landscaping rather than traffic lanes. This allows for the middle section of the internal access road width to be used for additional lanes in the future if it is proven to be required for traffic capacity reasons.

For reference, the proposed and potential future designs of this intersection are shown in Figures 2 and 3 below. It is emphasised that the design in Figure 2 is to be provided as part of the proposed Woodward development and TFNSW and Council approval is sought for this layout. In comparison, the design shown in Figure 3 is presented solely to illustrate that the proposed design could be widened to provide two entry lanes if required in the future.

Overall, we reiterate the views outlined above that a larger intersection layout should not be considered necessary at the Showground Road / Kentwell Avenue intersection for the revised development proposed on Site B. This is supported by traffic analysis submitted previously to Council and TfNSW.

[1] It is noted that a reduction from three to two exit lanes from the site is unlikely to have a significant impact on Showground Road as it is expected that the phasing of the intersection would not be altered to give more green time to the exit from the site in the event that it has three or two exit lanes.

Reference: **Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)**

Figure 2: Showground Road / Kentwell Avenue Intersection – Proposed Design

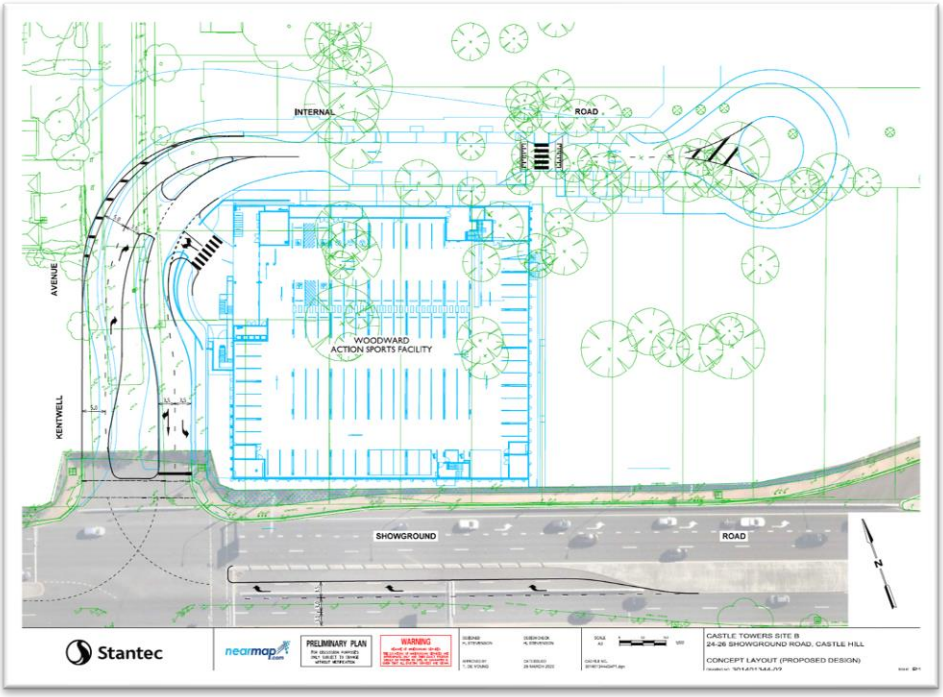
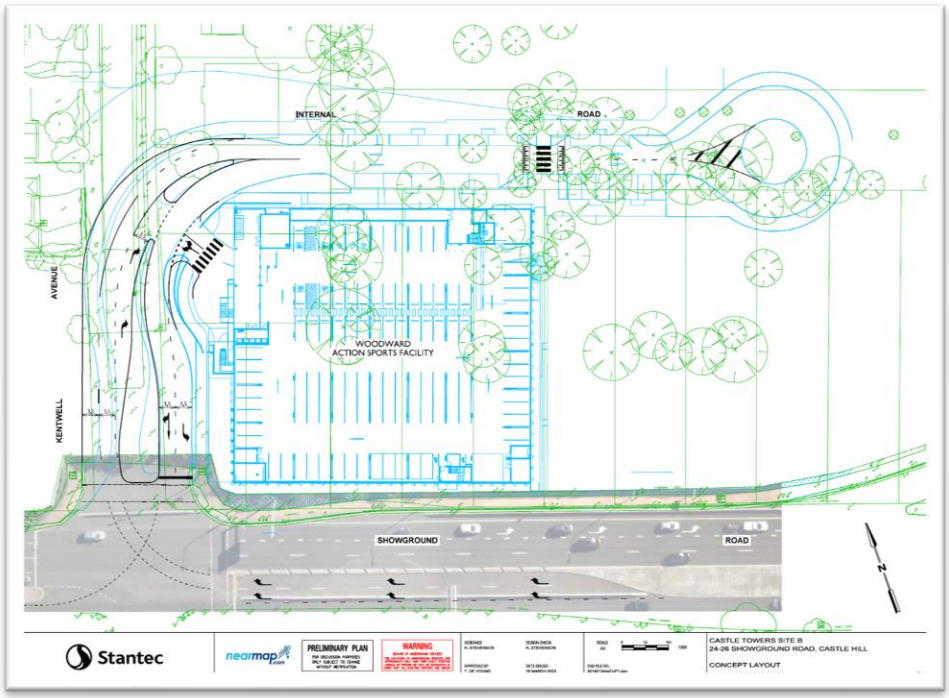


Figure 3: Showground Road / Kentwell Avenue Intersection – Potential Ultimate Design



2.2. Castle Street / Pennant Street intersection

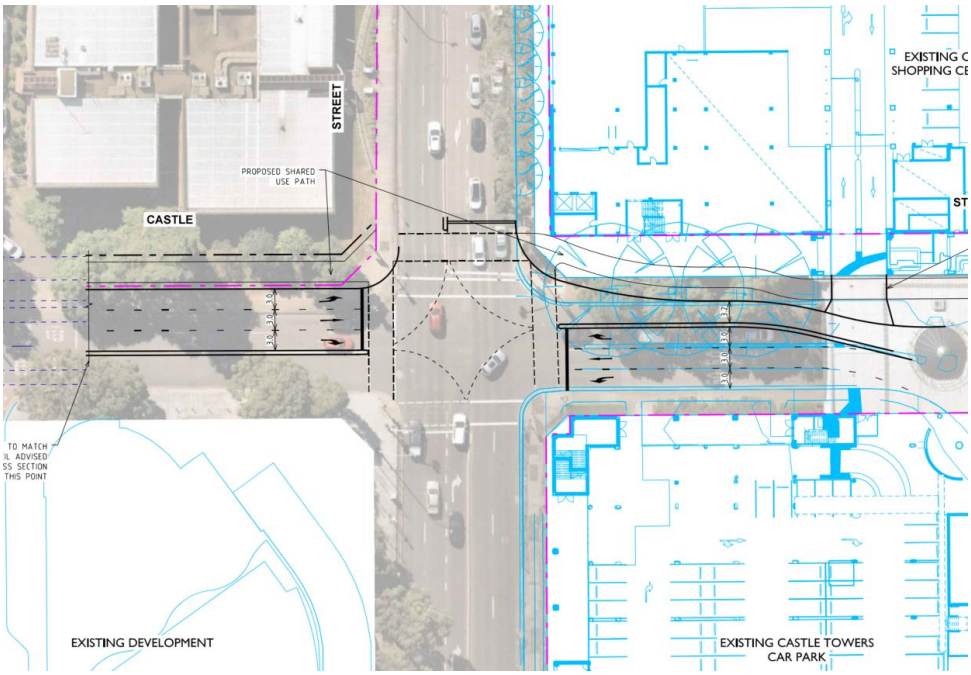
The proposed design of the Castle Street / Pennant Street intersection has been informed by a number of design constraints and requirement that we consider require equal consideration. These are as follows:

- The ability for the intersection to accommodate the future traffic volumes on the road network, including those generated by the site, as best as possible.
- The need to ensure that generous footpath (and preferably) cycling facilities can be provided through the intersection. (It is understood that Council proposes construction of a footbridge at this intersection. Notwithstanding this infrastructure, we consider it critical that appropriate access is also provided for pedestrians and cyclist at ground level.)
- The need to fit the intersection within the existing constraints of bult form at this intersection noting that QIC no longer propose to demolish the Shopping Centre at this location as was previously proposed under DA864/2015/JP.

It is understood that Council and TfNSW are currently considering the completion of works at this intersection to improve its safety and operation. The works proposed are to enable 'double diamond' traffic signal phasing at the intersection and thus remove filtered right turns. This phasing requires separate right-turn lanes on the Castle Street approaches.

Assuming works are required at the intersection, we recommend the layout as shown in Figure 4. This layout is included in the TIA prepared for the Site B Planning Proposal and we believe it leads to the best "on balance" design outcome. Ultimately though, we note that the Planning Proposal does not impact the final decision made with respect to the layout at this intersection,

Figure 4: Proposed Castle Street / Pennant Street Design



2.3. Castle Street / Proposed Vehicle Access Road intersection

The TIA submitted with the Site B Planning Proposal contains a SIDRA analysis for this intersection which outlines that it is expected to operate satisfactorily as an unsignalised intersection.

This outcome is expected as the intersection is expected to accommodate only a modest volume of traffic during peak hours and will likely operate with 'platooned' traffic volumes given the signalised intersection at Pennant Street / Castle Street.

As this vehicle access is intentionally designed as a secondary point of vehicle access to Site B, we would contend it is not appropriate to design it with a higher level of vehicle capacity (such as by signalising the intersection) as this would likely only attract people to drive through the site. Rather, if Council were concerned with an unsignalised full-turning movement intersection, we would suggest that turn bans be considered prior to signalisation.

In our view, neither this intersection nor the Castle Street / Kentwell Avenue intersection need to be signalised or controlled by a roundabout. We retain the view outlined in our TIA that unsignalised intersections are appropriate.

"There are also concerns with the proposed site access from Castle Street, loading access from Pennant Street and the proposed intersection arrangements for the Castle Street/Kentwell Avenue intersection."

Stantec acknowledges this concern was initially raised by TfNSW when consultation first commenced on the project in mid-2022.

Notwithstanding this, we retain the view that the proposed design is the most appropriate outcome for the site, particularly having regard to the impact to the layout and amenity of the internal layout of the predominantly residential development now proposed on Site B that would otherwise be caused if the vehicle access was refused[2].

The proposed design is also considered appropriate for the following reasons (as reproduced from our TIA report submitted with the Site B Planning Proposal):

- The vehicle access is able to be designed with a fully compliant deceleration lane, even allowing for the downgrade of Pennant Street. In this context, the vehicle access will be more compliant than the other existing Castle Towers Shopping Centre loading dock accesses off this road which have no deceleration lanes.
- The vehicle access is to be restricted to loading and waste collection vehicle movements only. This restriction will mean that the vehicle access carries low level of traffic each day. These vehicle movements may also be able to be further managed to occur outside of road network peak hours via a loading dock management plan that can be enforced by TfNSW.

[2] The impact on the internal road layout to accommodate large trucks would be significant and include considerably wider streets and significant lost ground level activation by having to provide ramps down to basement loading levels. At present, the proposed design avoids these issues by relying on existing roads already built to accommodate these trucks and by brining trucks into the site at the lowest point on the site.

- The internal design of the loading dock will be subject to subsequent Development Applications but is proposed to be designed to reduce the potential for vehicle queuing to extend onto Pennant Street. The indicative layout of this loading dock indicates that the loading bays will be located some distance into the site. It is further noted that it is not proposed to control the loading dock vehicle access near the property boundary.

- The vehicle access is positioned at a location which was previously approved by TfNSW (RMS) for a previous development on the site.

If TfNSW and/or Council retain an objection to this vehicle access, we would kindly request further detail on the nature of the concerns so we can seek to mitigate them within the current design. (For example, QIC advises it would be happy to agree a 'concept design' for the loading dock to illustrate how it will be designed to mitigate any impact on the adjacent road network).

"Council has an established position with respect to parking rates for residential development within Station Precincts (as set out in Clause 7.11 of The Hills Local Environmental Plan 2019) and these rates should be applied to any residential component of future development on the site."

The following outlines the car parking rates contained in Clause 7.11 of The Hills Local Environmental Plan 2019:

- "If the development is on land identified as "Area A" on the Floor Space Ratio Map, the following minimum number of car parking spaces are to be provided for the development:
    - for each dwelling - 1 car parking space,
    - for every 5 dwellings - 1 car parking space, in addition to the car parking space required for the individual dwelling, and
- If the development is on land identified as "Area B" on the Floor Space Ratio Map, the maximum number of car parking spaces that are to be provided for the development is the sum of the following:
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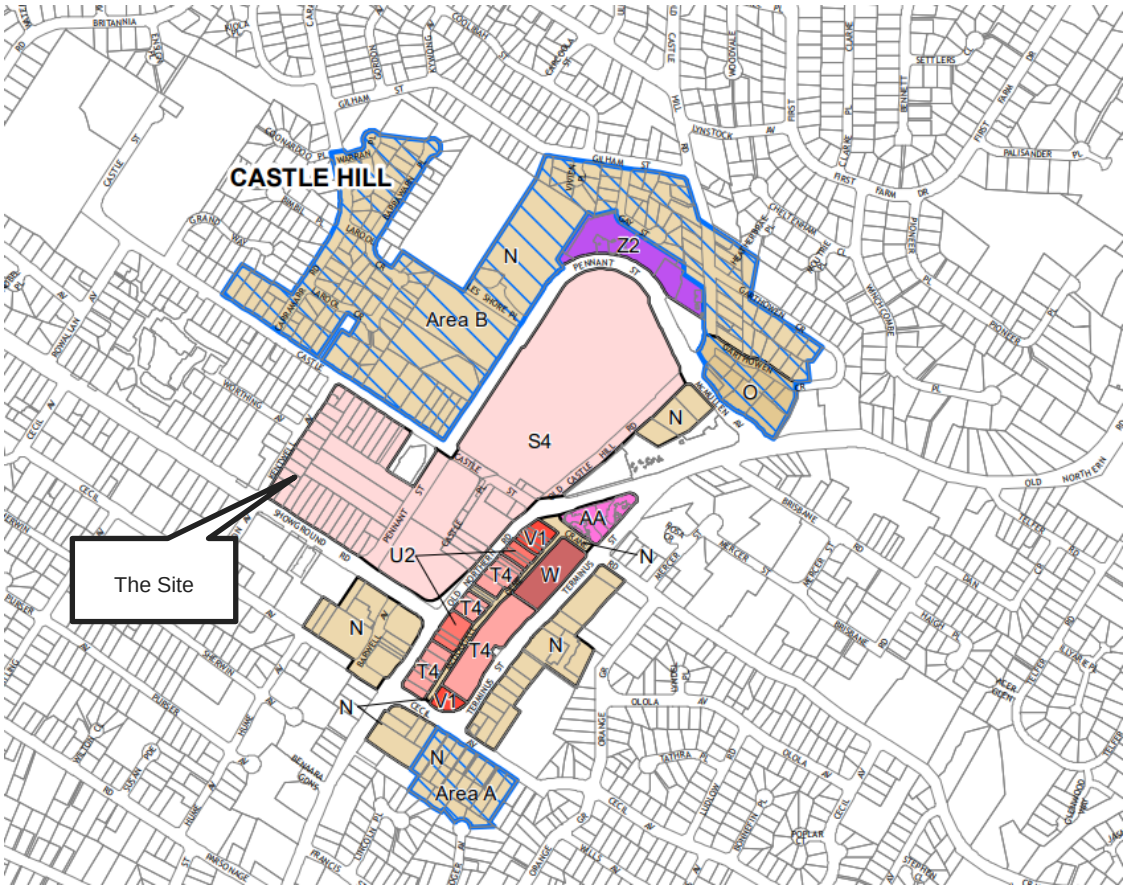
    - for each 2 bedroom dwelling - 0.8 car parking spaces,
    - for each 3 or more bedroom dwelling - 1.3 car parking spaces,
    - for every 5 dwellings - 1 car parking spaces, in addition to the car parking spaces required for each individual dwelling"

These requirements are applicable to "Area A and "Area B" as outlined in the floor space ratio maps. These are identified in Figure 5 below. This map shows that Site B is located immediately to the south of Area B.

The rates identified with the LEP are consistent with those identified in the Castle Hill North DCP. Both of these rates apply to the land located immediately adjacent to the site, north of Castle Street. Whilst these rates do not technically apply to the development site, given the immediate proximity to the site, we consider they represent a useful resource for comparative purposes.

The TIA submitted with the Site B Planning Proposal assume car parking rates are generally consistent with the identified car parking rates. Accordingly, we consider the proposed car parking provisions to be appropriate. As outlined in Ethos Urban's Response to RFI Report, the Planning Proposal will seek to introduce a site-specific clause into The Hills LEP to facilitate an incentive Floor Space Ratio for the site's seven lots, which is tied to car parking rates consistent with those presented for "Area B" in Clause 7.11 of The Hills LEP

Figure 5: The Hills Shire Local Environmental Plan 2019 Floor Space Ratio Map



It is recommended that further technical discussions occur separately with respect to traffic and transport matters and we would be happy to arrange for a meeting to focus on this specifically with the relevant council officers. It is however suggested that you first consider the feedback in Section 1 of this letter, given the extent of changes to the land use mix that would be required for the proposal to align with the strategic planning framework would no doubt have implications for any traffic and transport assessment and discussions.

Stantec would be happy to further engage with Council with regard to traffic and transport matters.

Prior to that engagement, however, we would kindly ask that Council considers the responses outlined in this letter from a balanced 'planning and transport' perspective. This is recommended as we consider that compliance with some requests relating to traffic and transport may create other issues. By way of example, we note the removal of the loading dock access road from Pennant Street will have a very significant impact on the layout of the balance of the site.

Reference: **Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill (3/2023/PLP)**

As far as practicable, we would also request further information (including any traffic modelling) be provided to us so we can better consider Council's position.

Kind regards,

STANTEC AUSTRALIA PTY LTD

Tim De Young
Senior Principal - Transport
Mobile: 0411 863 774
tim.deyoung@stantec.com

Transport for NSW

22 July 2024

TfNSW Reference: SYD24/01146/01
DPHI Reference: RR-2023-30 / PP-2023-3644

Mr Alexander Galea
Manager, Planning Proposal Authority
Department of Planning, Housing & Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Attention: Shruthi Sriram

PRE-GATEWAY AGENCY CONSULTATION – QIC CASTLE HILL SITE B PLANNING PROPOSAL – KENTWELL AVE, SHOWGROUND ROAD, PENNANT STREET & CASTLE STREET, CASTLE HILL

Dear Mr Galea,

Thank you for providing Transport for NSW (TfNSW) with an opportunity to comment on the above amended proposal, which was referred to us by the Department of Planning, Housing & Infrastructure (DPHI) in correspondence dated 20 June 2024.

We note that the current proposal for the site seeks to amend *The Hills Local Environmental Plan (LEP) 2019* (the LEP) to:

- rezone part of the site for a proposed public park from MU1 Mixed Use to RE1 Public Recreation,
- increase the maximum Height of Buildings (HOB) control currently ranging from 7m – 28m to a range of 20m - 94m across the site, and
- introduce a site-specific incentive FSR. The original proposal quantified this as incentive GFA 190,960m2 (the equivalent of an average 4.5:1 FSR across the site), while the May 2023 update translated this to a series of specified incentive FSRs which are proposed to be mapped (2.22:1 to 10.25:1). The incentive FSR requires a number of conditions to be met to be used.

We also acknowledge the Planning Panel's recommendation which states, that prior to submitting the Planning Proposal for a Gateway determination, the Planning Proposal is to be revised to address the following:

- Consultation with Transport for NSW
  Further consultation should occur with Transport for NSW to confirm and specific requirements that may affect the site in terms of road widening or other matters (including the pedestrian bridge) relevant only to the Planning Proposal stage. Any such advice (if and as relevant) should be reflected in the revised scheme and associated calculations, including the proposed setbacks, FSR, Gross Floor Area and building heights.

TfNSW's detailed comments are provided in **TAB A**. It is requested that the comments provided are satisfactorily addressed by DPHI and the proponent *prior* to the Gateway determination.

Should you have any questions or further enquiries in relation to this matter, please don't hesitate to contact Andrew Popoff, Senior Land Use Planner, via phone on 0413 459 225 or email: andrew.popoff@transport.nsw.gov.au.

Yours sincerely

IKaraman

Ilyas Karaman
Acting Senior Manager Strategic Land Use (Central and Western)
Planning & Programs, Greater Sydney Division

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2124
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TAB A – Detailed TfNSW Comments - QIC Castle Hill Site B Planning Proposal – Kentwell Ave, Showground Road, Pennant Street & Castle Street, Castle Hill

Property:

Comment / Recommendation:

The subject development site is within an area under investigation for the Showground Road Project (Bus Priority Improvement).

The investigations completed to date indicate that part of the subject site could be required if the preferred option is adopted as shown by pink colour on the attached Approval Plan 0157 031 SP2321 (Lot 2 DP1201722) and the below aerial "X".

The area required for road should be identified on any plan of development.

Any future questions regarding this matter can also be directed to the Project team via Roshan Aryal at roshan.aryal@transport.nsw.gov.au.

Intersection of Showground Road / Kentwell Avenue:

Comment / Recommendation:

The information provided by the proponent for this Gateway determination in the context of future configuration requirements at this intersection seem to be inconsistent with separate reports / discussions that TfNSW has had with the proponent.

C2. RFI Appendix A – Updated Concept Plans_PP-2022-3644 illustrates 2-approach and 2-departure lanes on the Kentwell Avenue leg of this intersection with Showground Road.

However, on the 12 February 2024, Stantec had prepared a letter "Project No: 301401344" which is titled "24-28 Showground Road & 1-5A Kentwell Avenue, Castle Hill – Proposed Indoor Action Sports Centre – Response to Council RFI" which highlighted outcomes from discussions with TfNSW of the need to ensure that development and planning in and around this intersection facilitates the future provision of 3-approach and 2-departure lanes on the Kentwell Avenue leg of this intersection. See **Figure 1** on the following page.

Therefore, any plans, setbacks, etc associated with this planning proposal must ensure that the future provision of 3-approach and 2-departure lanes on the Kentwell Avenue leg of this intersection are suitably addressed.

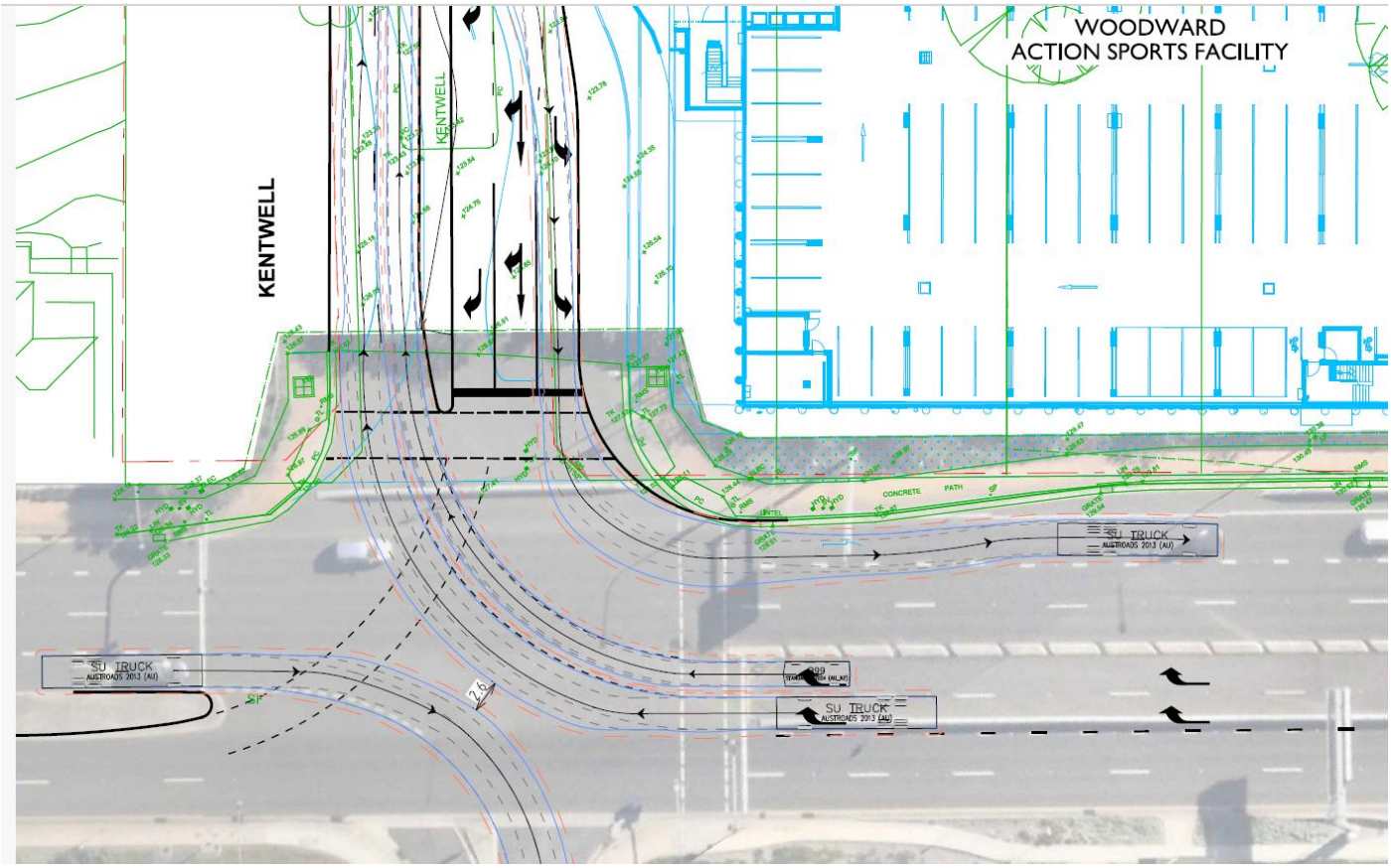


Figure 1 – Showground Road / Kentwell Ave (Future Intersection Configuration)

Proposed Loading Dock Access – Pennant Street:

Comment / Recommendation:

TfNSW notes the proponent's commentary on matters associated with the proposed loading dock access from Pennant Street within the following submitted reports:

- **C5. RFI Appendix D – Traffic Response Letter_PP-2022-3644** – (Pages 10-11)
- **B7. PP Appendix F_Traffic Impact Assessment – Site B, Castle Hill_PP-2022-3644** – (Section 5.4.3 and Figures 5.5 / 5.6)

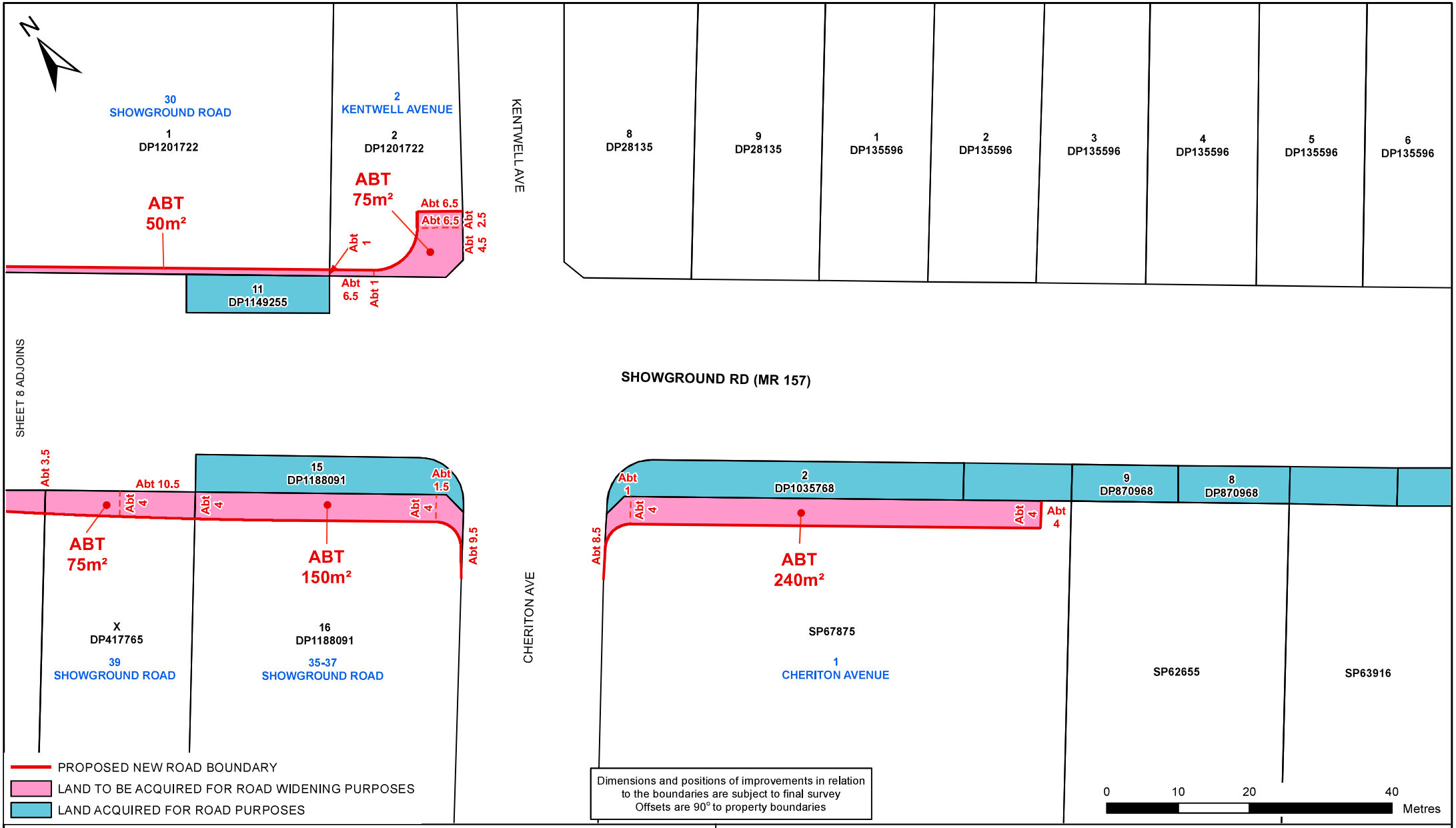
The proponent's proposed loading dock access off Pennant Street is still not supported by TfNSW. Heavy vehicles will be travelling down the steepest part of Pennant Street while trying to brake and turn into the access. This is not considered suitable when there is also likely to be increased pedestrian activity along Pennant Street as a result of this proposal. Sight distance for vehicles exiting the loading dock is also limited due to the crest to the south. In addition, as Pennant Street is the main traffic route around Castle Hill and fulfills a key traffic function, additional vehicular accesses are not supported. This is based off the various matters, principles and facts provided within Section 3.3.1 – Road Access Management of Austroads Guide to Traffic Management Part 12 – Integrated Transport Assessments for Developments.

The above advice should be reflected in the revised scheme and associated calculations, including the proposed setbacks, FSR, Gross Floor Area and building heights.

Post Gateway Requirement – Transport Modelling Methodology:

Recommendation:

A condition must be imposed upon the Gateway Determination requiring the proponent to further consult with TfNSW (prior to public exhibition of the Planning Proposal) in order to reconfirm past communications with the Transport Modelling Methodology and key assumptions associated with the Transport Modelling / Report which will accompany the Planning Proposal.



ROADS & MARITIME SERVICES
INFRASTRUCTURE DEVELOPMENT

LGA: THE HILLS
Locality: CASTLE HILL
Parish: CASTLE HILL
County: CUMBERLAND
Reduction Ratio 1:500
Lengths are in metres

Transport Roads & Maritime Services

APPROVAL PLAN

DRAWN	K. DUVENHAGE
DATE	21/02/2017
CHECKED	R. NUNES
DATE	21/02/2017
PASSED	S. RIXON
DATE	21/02/2017

Page 9 of 9

APPROVED
ANGUS STURROCK
PRINCIPAL MANAGER
BUSWAYS PROGRAM
DATE 22/02/2017
FILE: LA 31.1271

M. R. No. 157
SHOWGROUND ROAD
From Gilbert Rd, Castle Hill
to Kentwell Ave, Castle Hill

0157 031 SP2321

Printed on 21 FEB 2017

eukai
Transport Advisory

4 October 2024

Our Ref: 24015

Department of Planning, Housing & Infrastructure
C/-Ethos Urban
Level 4, 180 George St
Sydney NSW 2000

Attention: Alexander Galea (Manager, Planning Proposal Authority)

Dear Alexander,

Castle Towers Site B Planning Proposal
Response to TfNSW Letter dated 22 July 2024

I refer to the "Castle Towers Site B Planning Proposal" which relates to land generally bound by Kentwell Avenue, Showground Road, Pennant Street and Castle Street in Castle Hill.

In August 2022, a transport impact assessment report (TIAR) was prepared by Stantec[1] for the Planning Proposal. This report assessed the appropriateness of the proposed layout, including the vehicle access arrangements, and broader traffic impacts associated with the anticipated development of the site. Since the preparation of this report, a Development Application for the Woodward Indoor Recreation Facility has been lodged and approved by The Hills Shire Council for part of the land on "Site B". The vehicle access arrangements for the approved DA were generally consistent but those proposed in the August 2022 TIAR, as outlined later in this letter.

It is understood that the Planning Proposal was referred to Transport for New South Wales (TfNSW), by the Department of Planning, Housing & Infrastructure (DPHI) on 20 June 2024, with a response issued by TfNSW via letter dated 22 July 2024. The TfNSW letter outlines only four matters which it requests are "satisfactorily addressed by DPHI and the proponent *prior* to the Gateway determination".

The four items have been reproduced below (in bold italics) with a response provided thereafter.

Item #1 - Property:

The subject development site is within an area under investigation for the Showground Road Project (Bus Priority Improvement).

It is understood that part of Lot 2 DP1201722 on the northwest corner of the Showgrounds Road / Kentwell Avenue intersection, which forms part of the site, may be acquired in the future to deliver a Bus Priority Improvement project on Showground Road. This land is shown in Figure 1 over page.

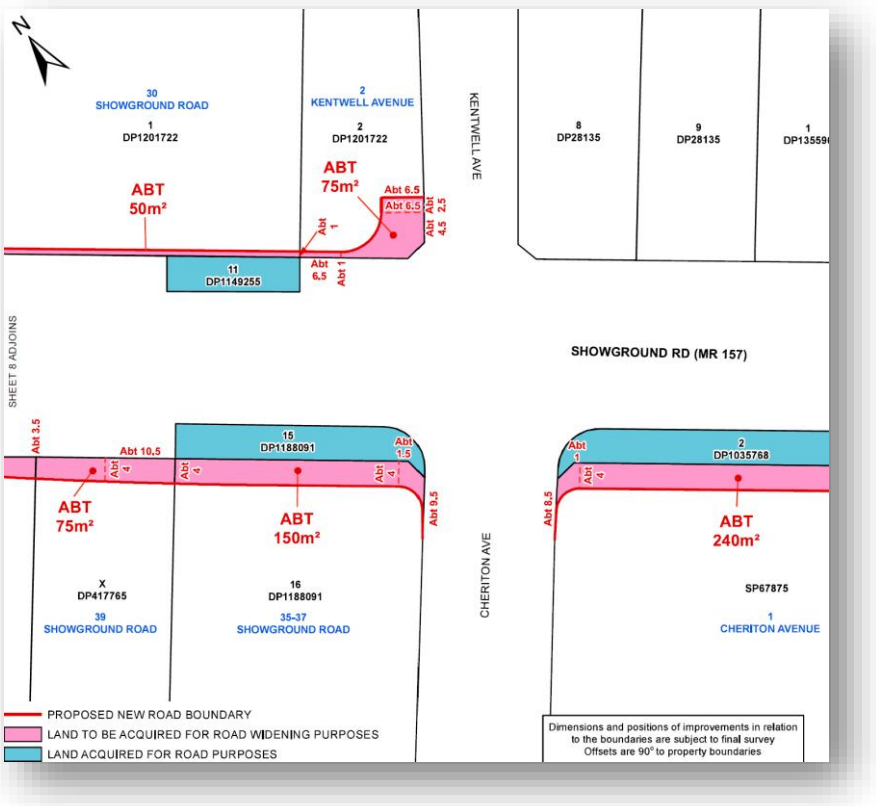
In this respect, I observe that the land that may be potentially acquired is expected to form part of the future road reserve set aside for the delivery of the vehicle access to/from Showground Road at this location. As such, the future acquisition of this land is not expected to impact the vehicle access arrangements or development layout associated with the Planning Proposal.

[1] The Stantec report (dated 26 August 2022) was prepared under the direction of Tim De Young, the author of this letter, when previously employed at Stantec.

Notwithstanding this, if a CAD version of the plan showing the land subject to potential acquisition can be provided by TfNSW, QIC confirms that it will include an appropriate note on the Planning Proposal documentation showing this land is potentially subject to future acquisition and not to be relied upon for development (unless otherwise agreed with TfNSW).

Overall, I do not consider that this potential future land acquisition will have a material impact on the Planning Proposal as the land expected to be acquired is likely to be allocated as road reserve in any event. As such, I consider it is a matter which can be addressed after the Gateway determination via the inclusion of appropriate notation on the Planning Proposal documentation.

Figure 1: Land subject to potential future acquisition by TfNSW



<u>Item #2 - Intersection of Showground Road / Kentwell Avenue:</u>

The information provided by the proponent for this Gateway determination in the context of future configuration requirements at this intersection seem to be inconsistent with separate reports / discussions that TfNSW has had with the proponent.

The concept layout plan for the Showgrounds Road / Kentwell Avenue intersection that was included in the August 2022 TIAR for the Planning Proposal was prepared in June 2022. At that time, it was proposed that the intersection would be configured with one entry lane and two exit lanes given greater traffic capacity was not required due to the “traffic de-intensification” of the site i.e., moving away from a major retail development to a residential development. Thie intersection layout proposed at that time is shown in Figure 2 over page.

Since the submission of the Planning Proposal, however, I note that numerous discussions have been held with TfNSW regarding the design of the intersection as part of the Woodward DA (which is located on the northeast corner of this intersection). At the request of TfNSW, QIC agreed to modify the design of the intersection to:

1. Provide a second entry lane into the site from Showground Road; and
2. Future proof the design to allow a third exit lane to be provided out of the site onto Showground Road. It is noted that this third lane is not proposed as part of the Woodward DA works and is to be provided only if it is demonstrated to be required as part of future DAs).

The agreement to the modified intersection layout was confirmed in a letter prepared by Stantec dated 12 February 2024. This Stantec letter included concept plans for the proposed layout (two entry and two exit lanes) and the potential long-term / ultimate layout (two entry and three exit lanes). These plans are reproduced in this letter in Figures 3 and 4, respectively. The two concept plans show that the total width of the vehicle access to/from Site B does not alter in the two options; rather, the third lane out of the site is simply created via conversion of the central median into a trafficable lane.

Importantly, I also that the Stantec letter dated 12 February 2024 also noted the following with respect to the capacity of the intersection: *"Stantec retains its view that the intersection has effectively been designed very conservatively in that it will be able to accommodate a volume of traffic far greater than what is anticipated in the foreseeable future."*

Overall, I confirm that the intersection has been designed to accord with TfNSW's requirements and this is confirmed in the architectural plans for the approved Woodward DA. As such, I consider this a matter that can be addressed after the Gateway determination via a minor revision to the Planning Proposal documentation.

Figure 2 – Initially Proposed Concept Layout (Source: Stantec TIAR for Planning Proposal)

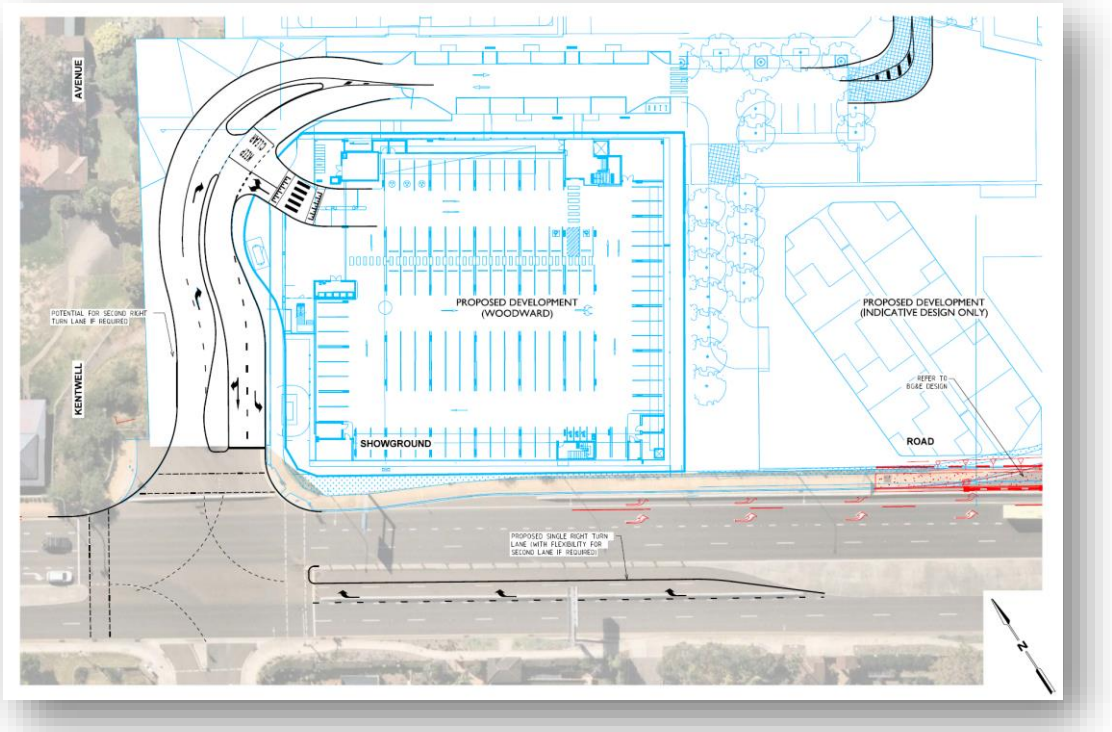


Figure 3 – Woodward DA Proposed Concept Layout (Source: Stantec letter dated 12/2/24)

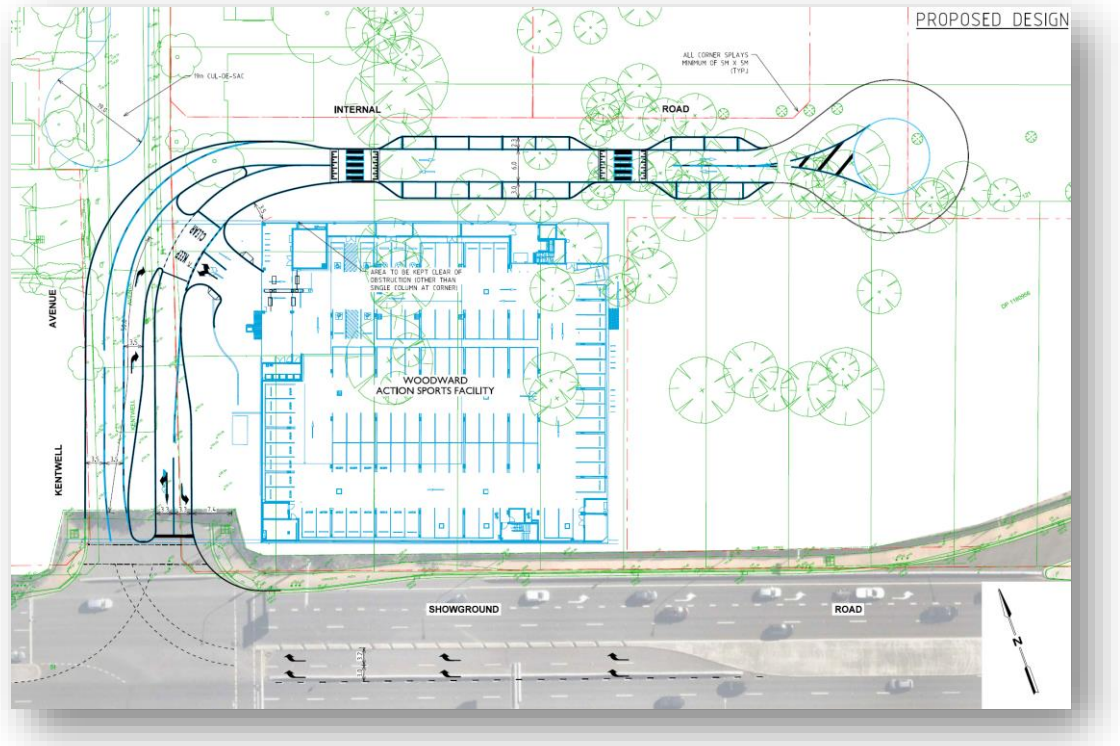
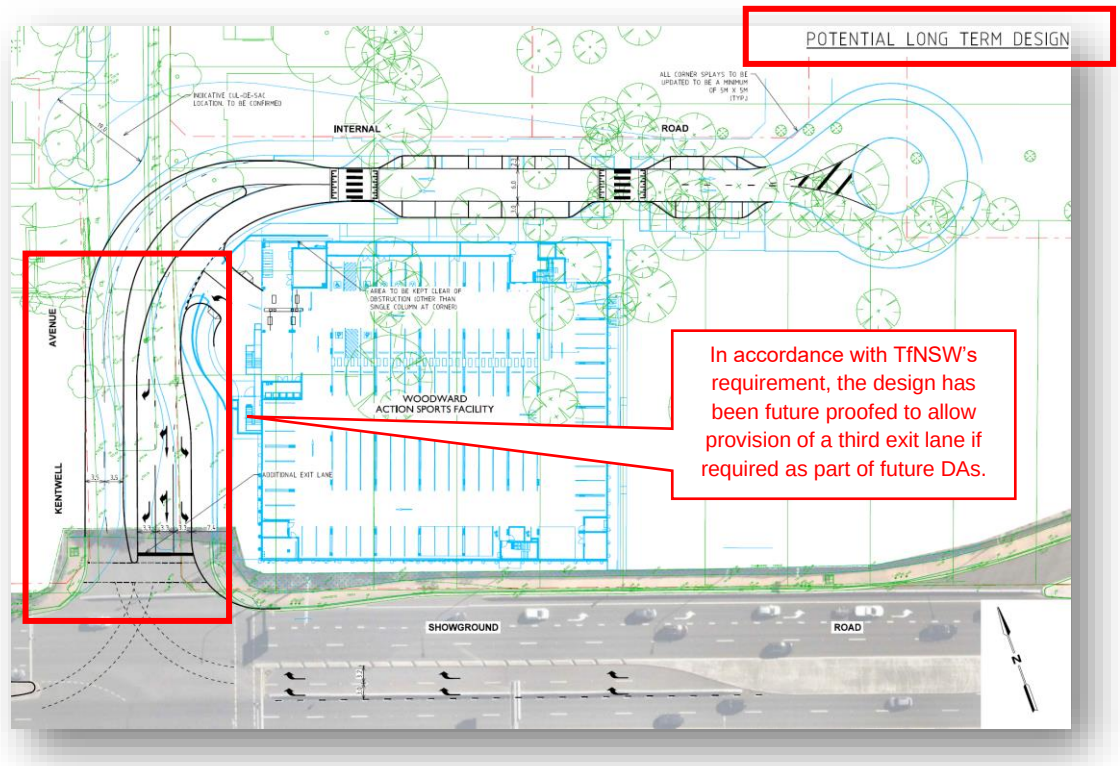


Figure 4 – Potential Long-term (Ultimate) Concept Layout (Source: Stantec letter dated 12/2/24)



Item #3 - Proposed Loading Dock Access – Pennant Street:

The proponent's proposed loading dock access off Pennant Street is still not supported by TfNSW. Heavy vehicles will be travelling down the steepest part of Pennant Street while trying to brake and turn into the access. This is not considered suitable when there is also likely to be increased pedestrian activity along Pennant Street as a result of this proposal. Sight distance for vehicles exiting the loading dock is also limited due to the crest to the south. In addition, as Pennant Street is the main traffic route around Castle Hill and fulfills a key traffic function, additional vehicular accesses are not supported. This is based off the various matters, principles and facts provided within Section 3.3.1 – Road Access Management of Austroads Guide to Traffic Management Part 12 – Integrated Transport Assessments for Developments.

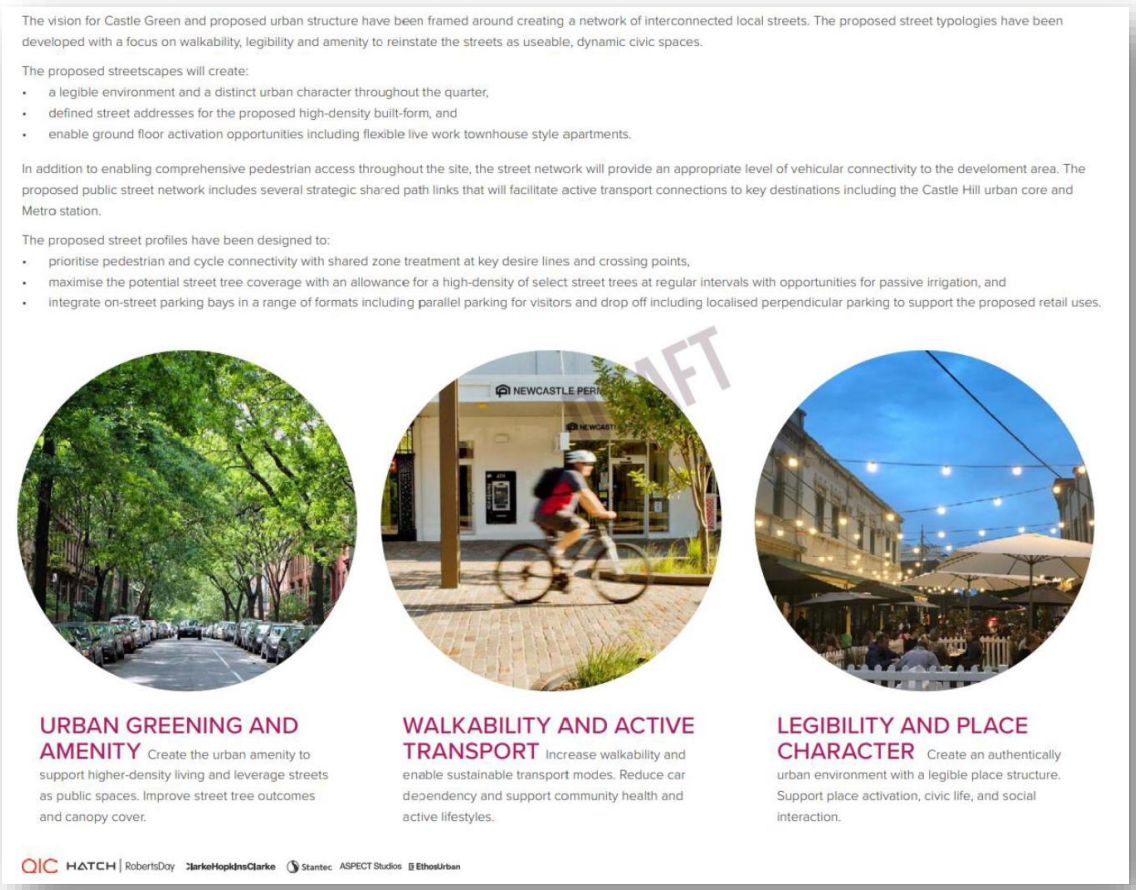
The provision of the vehicle access off Pennant Street was discussed with TfNSW prior to submission of the Planning Proposal. At that time, TfNSW raised concern regarding the vehicle access and stated its view that all vehicle access to the site should be provided off other road frontages.

In response to this early concern, QIC agreed to limit the vehicle access to loading vehicles only and a detailed discussion was included within the August 2022 Stantec TIA (Section 5.3.3) regarding the need and appropriateness of the vehicle access. This discussion noted the following:

> *"This loading dock vehicle access is critical to achieve the design principles and objectives outlined above, as it minimises loading movements on the internal road network and therefore allows the streets to be designed better for pedestrians (e.g., relatively narrower road widths). In addition, it also allows for greater ground level activation to the streets, as vehicle crossover widths (and ramping impacts) can be minimised."*
>
> *"It is appreciated that preliminary feedback provided by TfNSW suggests that this vehicle access is not supported. Notwithstanding this, the vehicle access is retained in the proposed design given it has significant benefits and is considered to be acceptable for the following reasons:*
>
> - *The vehicle access is able to be designed with a fully compliant deceleration lane, even allowing for the downgrade of Pennant Street…. In this context, the vehicle access will be more compliant that the other existing loading dock accesses off this road which have no deceleration lanes.*
> - *The vehicle access is to be restricted to loading and waste collection vehicle movements only. This restriction will mean that the vehicle access carries low level of traffic each day. These vehicle movements may also be able to be further managed to occur outside of road network peak hours via a loading dock management plan that can be enforced by TfNSW.*
> - *The internal design of the loading dock will be subject to subsequent Development Applications but is proposed to be designed to reduce the potential for vehicle queuing to extend onto Pennant Street. The indicative layout of this loading dock… indicates that the loading bays will be located some distance into the site. It is further noted that it is not proposed to control the loading dock vehicle access near the property boundary.*
> - *The vehicle access is positioned at a location which was previously approved by TfNSW (RMS) for a previous development on the site."*

In the context of the above text, I note that reference to 'design principles and objectives' relate to those sought for the overall development and urban structure and include the creation of *"a network of interconnected local streets… with a focus on walkability, legibility and amenity to reinstate the streets as useable, dynamic civic spaces".* These principles and objectives were also stated in the August 2022 Stantec TIAR (Section 5.1), as reproduced below in Figure 5 for reference.

Figure 5 – Urban Structure Design Principles & Objectives (Source: Stantec TIAR)



If the vehicle access of Pennant Street is not provided, the internal road network would need to be redesigned to allow large trucks to circulate through the site and the built form would need to be modified to either provide ramps down to basement loading docks or the provision of at-grade loading docks. In our view, such change would be contrary to the design principles and objectives and adversely impact the quality and useability of the civic spaces proposed within the development.

In addition, we also note the following with respect to the vehicle access:

1. **The vehicle access aligns with the Purpose of Council's Draft Precinct Plan.**

   The Draft Precinct Plan outlines its purposes (page 5) as follows: *"The Precinct Plan serves as a tool to… create a structure for urban development that is place based, resolves competing issues and gives certainty and confidence to Council, the local community, developers and businesses"*

   As outlined above, I confirm that the vehicle access to Pennant Street has been specifically proposed to provide loading access only (at the lowest point of the site which connects directly into the basement loading dock) such that the internal road network can be designed to optimise "place based" planning outcomes. Specifically, the proposed arrangement seeks to create *"a network of interconnected local streets… with a focus on walkability, legibility and amenity to reinstate streets as useable, dynamic civic spaces".*

In our view, the concern being raised by TfNSW in relation to the vehicle access to Pennant Street represents a perfect example of where competing issues exist and where the Structure Plan recommended approach of seeking to achieve "place based" urban development ought to be prioritised in determine the best "on balance" arrangement.

2. The vehicle access has been designed in accordance with relevant design standards.

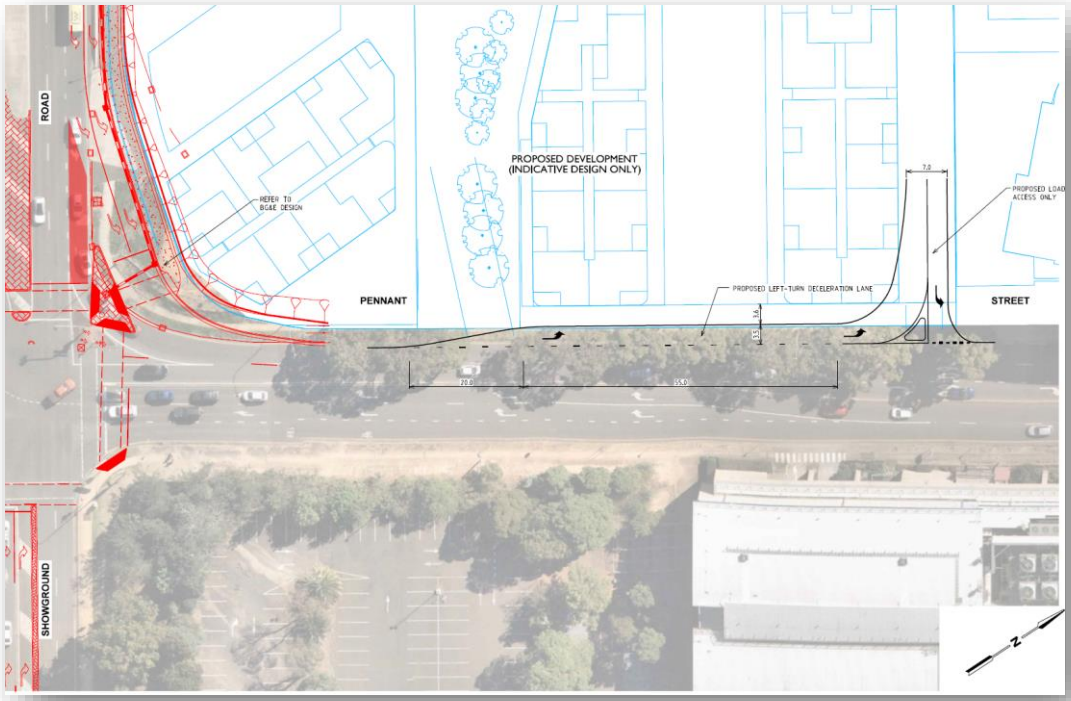
The left in / left out vehicle access to Pennant Street has been designed in accordance with the dimensional requirements set out in Austroads 'Guide to Road Design Part 4A: Unsignalised and Signalised Intersections', as follows:

- ***Deceleration Turning Lane Length***
    - Reference to Drawing No. 300303493-19-05 included as an appendix to the August 2022 Stantec TIAR, and reproduced below in Figure 6, indicates that a 75m left turn deceleration lane is proposed at the left in / left out access.
    - Section 5.2 of the Austroads Guide indicates that a 55m deceleration lane (comprising 20m taper and 35m storage) is required for a vehicle travelling at 60km/h to come to a complete stop. Additionally, the Guide identifies that the lane length should be factored to reflect any up or downhill grades on the major road. In this instance, the deceleration lane length has been increased by a factor of 1.35 (55m x 1.35 = 75m) as stipulated in the Austroads Guide for downgrades of 5 to 6%. As such, the deceleration requirements are met.
    - In our view, the adoption of a 60km/hr speed is also very conservative given the generally congested nature of the road network which means that vehicles will not be travelling at this speed at this location. We also disagree with the comment presented by TfNSW that the footpath adjacent the deceleration lane will be subject to high pedestrian demands given the Planning Proposal is proposing a pedestrian bridge over Pennant Street which will be preferred route for pedestrians travelling between Castle Hill Station and the site.
- ***Sightlines***
    - Sight distance requirements for commercial vehicles exiting a loading dock are set out in Section 3.4 of Australian Standards Part 2: Off-Street Commercial Vehicle Facilities (AS2890.2-2018). The Australian Standards recommends that a minimum 83m sign distance be available to cater for left turning vehicles for a design speed of 60km/hr.
    - In this instance, whilst we acknowledge that the sight distances to the south along Pennant Street is limited by the crest in the road, we consider that sight distance is met. (Moreover, we also note that the use of a 60km/hr speed is very conservative for the calculation of this sight distance).

I also consider it prudent to note that the proposed left-in / left-out vehicle access will be the only vehicle access (including to loading docks and other car parks) along the length of Pennant Street between Showground Road and Old Northern Road that has a deceleration lane. That is, the vehicle access has been designed to a standard that far exceeds what exists on this road at present.

In this context, we consider the proposed vehicle access design is appropriate.

Figure 6 – Initially Proposed Concept Layout (Source: Stantec TIAR for Planning Proposal)



3. The provision of the vehicle access to Pennant Street is consistent with its function in the network.

The TfNSW letter advises that vehicle accesses to Pennant Street should not be supported as "Pennant Street is the main traffic route around Castle Hill and fulfills a key traffic function".

Whilst it is not disagreed that Pennant Street has an important function in moving traffic through the network, we note that it is a road that is already designed to accommodate a high volume of traffic and already provides vehicle access to numerous roads, car parks and loading docks. In this context, we disagree that vehicle access to Pennant Street should be denied based on a view that it is inconsistent with the roads function (particularly given that a fully compliant deceleration lane will be provided to offset impacts).

In accordance with Movement & Place objectives, I also note that as Castle Towers develops, and the vision of Council's Precinct Plan is realised, the function of Pennant Street will also need to evolve as the significance of the abutting "place" increases. In our view, this will likely mean that it will be no longer appropriate to manage Pennant Street as a road that must be 'protected' from adverse impact associated with urban development, but rather managed to help facilitate and support this urban development whilst also retaining acceptable road safety and efficiency outcomes.

In this context, I consider that the proposed design of the vehicle access, which is limited to loading movements only and has a fully compliant deceleration lane, is entirely consistent with achieving an appropriate balance for the future of Pennant Street.

4. **The vehicle access is proposed at the same location as a previously approved vehicle access to the site.**

   The vehicle access is positioned at a location which was previously approved by TfNSW (RMS) for the previous DA for the Castle Towers Site A (major retail expansion).

   It is understood that the approved vehicle access catered for both passenger and commercial vehicles and, as such, would have a had a greater traffic generation compared to the proposed vehicle access which caters for commercial vehicles only.

   In our view, QIC's acceptance to limit this vehicle access to loading movements only is likely to improve the operation of the vehicle access in comparison to the previous approval.

In summary, we consider the proposed vehicle access arrangements represent the best "on balance" planning and design outcome for the site, particularly given the Pennant Street vehicle access has been designed to accord with relevant design standards and thus we consider that it can be expected to operate safely. As such, QIC retains its position that the vehicle access should be supported for the Planning Proposal.

Item #4 – Traffic Modelling

A condition must be imposed upon the Gateway Determination requiring the proponent to further consult with TfNSW (prior to public exhibition of the Planning Proposal) in order to reconfirm past communications with the Transport Modelling Methodology and key assumptions associated with the Transport Modelling / Report which will accompany the Planning Proposal.

We support continued engagement between the Applicant and TfNSW to resolve transport matters associated with the Planning Proposal through to public exhibition.

However, we would query the need for any potential additional traffic modelling to support the Planning Proposal given:

1. There has been very extensive traffic modelling completed over the past few years by Cardno now Stantec for Council and TfNSW. This modelling shows that the road network is at its limit at present and thus the primary focus on mitigating traffic impacts of future development ought to occur by limiting car parking supply.
2. The development now proposed by QIC on Sites A and B will generate less traffic (particularly on weekends) than the previously approved major retail expansion project on Site A. This net traffic volume reduction is anticipated as the new land uses are predominately residential and commercial in nature (rather than retail), with substantially less car parking.
3. The main intersection providing vehicle access to Site B (Showground Road / Kentwell Avenue) has been designed to have flexibility to allow additional capacity in the future if its required; refer discussion earlier in this letter.

Summary

Based on the above discussion, it is evident that items 1, 2 and 4 have been and/or able to be resolved in accordance with TfNSW's request. With respect to item 3 (vehicle access to Pennant Street), whilst there is still disagreement with TfNSW, we consider the proposed arrangements should be supported for the reasons outlined at length in this letter.

I trust the above is consistent with your requirements for the time being. Naturally, should you have any questions regarding this proposal, please do not hesitate to contact myself or Andrew Farran.

Kind regards,
Eukai Pty Ltd

Tim De Young
Director

BEng (Civil), BCom, MBA, CPEng, FIEAust, NER

Transport for NSW

31 October 2024

TfNSW Reference: SYD24/01146/02
DPHI Reference: RR-2023-30 / PP-2023-3644

Mr Alexander Galea
Manager, Planning Proposal Authority
Department of Planning, Housing & Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Attention: Shruthi Sriram

PRE-GATEWAY AGENCY CONSULTATION – QIC CASTLE HILL SITE B PLANNING PROPOSAL – KENTWELL AVENUE, SHOWGROUND ROAD, PENNANT STREET & CASTLE STREET, CASTLE HILL

Dear Mr Galea,

Thank you for providing Transport for NSW (TfNSW) with an opportunity to comment on the above amended proposal, which was referred to us by the Department of Planning, Housing & Infrastructure (DPHI) in correspondence dated 15 October 2024.

We note that the current proposal for the site seeks to amend *The Hills Local Environmental Plan (LEP) 2019* (the LEP) to:

- rezone part of the site for a proposed public park from MU1 Mixed Use to RE1 Public Recreation,
- increase the maximum Height of Buildings (HOB) control currently ranging from 7m – 28m to a range of 20m - 94m across the site, and
- introduce a site-specific incentive FSR. The original proposal quantified this as incentive GFA 190,960m2 (the equivalent of an average 4.5:1 FSR across the site), while the May 2023 update translated this to a series of specified incentive FSRs which are proposed to be mapped (2.22:1 to 10.25:1). The incentive FSR requires a number of conditions to be met to be used.

We also acknowledge that DPHI have requested that TfNSW review the proponent's (QIC) responses to our previous correspondence dated 22 July 2024 (Ref: SYD24/01146/01) to confirm whether there are matters that remain outstanding which would preclude the submission of the proposal for a Gateway Determination.

TfNSW's detailed comments are provided in **TAB A**. It is requested that the comments provided are satisfactorily addressed by DPHI and the proponent *prior* to and as part of the Gateway determination.

Should you have any questions or further enquiries in relation to this matter, please don't hesitate to contact Andrew Popoff, Senior Land Use Planner, via phone on 0413 459 225 or email: andrew.popoff@transport.nsw.gov.au.

Yours sincerely

Dipen Nathwani
A / Senior Manager, Strategic Land Use (Eastern)
Transport Planning
Planning, Integration and Passenger

4 Parramatta Square, 12 Darcy Street, Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2124
W transport.nsw.gov.au

TAB A – Detailed TfNSW Comments - QIC Castle Hill Site B Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street & Castle Street, Castle Hill

Property:

Comment / Recommendation:

We previously acknowledged that the subject development site is within an area under investigation for the Showground Road Project (Bus Priority Improvement) and the investigations completed to date indicate that part of the subject site could be required if the preferred option is adopted as shown by pink colour on the attached Approval Plan 0157 031 SP2321 (Lot 2 DP1201722) and the below aerial "X".

The area required for road should be identified on any plan of development.

We understand that the proponent has acknowledged that the future acquisition of this land is not expected to impact vehicle access arrangements or development layout associated with the Planning Proposal, but have requested a CAD version of the plan showing the land subject to the potential acquisition so that the proponent will include an appropriate note on the Planning Proposal documentation showing this land being potentially subject to future acquisition and not to be relied upon for development.

TfNSW advises that we will provide the proponent with a copy of the shape files depicting the property affectation in the coming weeks and we agree that this matter can be addressed after the Gateway Determination via the inclusion of an appropriate notation on the Planning Proposal documentation.

Intersection of Showground Road / Kentwell Avenue:

Comment / Recommendation:

We note that the proponent has acknowledged the potential long term (ultimate) concept layout which highlights the future provision of 3-approach and 2-departure lanes on the Kentwell Avenue leg of this intersection, see **Figure 1** on the following page.

TfNSW also supports the proponent's statement that this matter (agreed ultimate layout) can be addressed after the Gateway Determination via a minor revision to the Planning Proposal documentation.

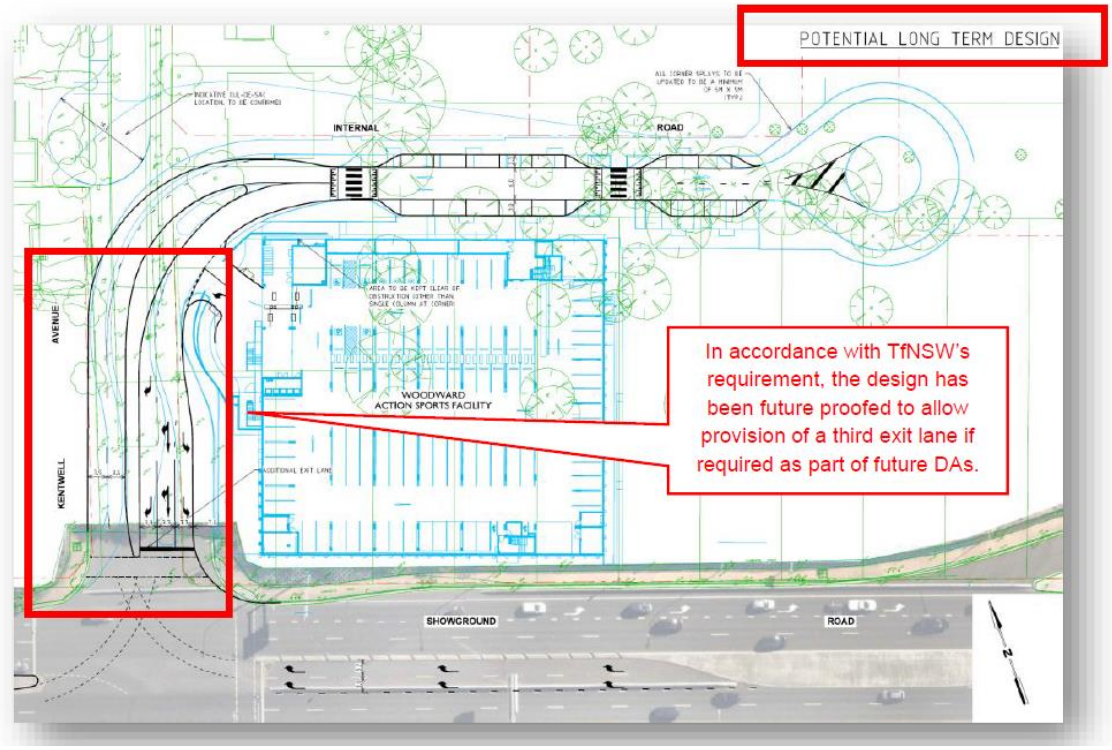


Figure 1 – Potential Long-term (Ultimate) Concept Layout

Proposed Loading Dock Access – Pennant Street:

Comment:

TfNSW notes the proponent's commentary on matters associated with the proposed loading dock access from Pennant Street. We will endeavour through detailed commentary below to elaborate on the various issues associated with our concerns and why we currently believe the loading dock access should not be provided along Pennant Street but be located off the proposed new local street system.

- **Road Safety / Traffic Efficiency matters**

  Firstly, we acknowledge that there is about 110m frontage on Pennant Street from the departure side of Showground Road signals and the northeastern edge of the property boundary (see image below). Various Road Safety and Traffic Efficiency matters are detailed further below.

- **Weaving –** any trucks turning right from Showground Road into Pennant Street will need to weave across traffic that is turning left from Showground Road into Pennant Street. In addition, on peak retail shopping days (i.e. Thursdays, Fridays and weekends) a large proportion of traffic turning left into Pennant Street from Showground Road is trying to get into the right turn bay on Pennant Street at the Castle Street intersection. This creates localised friction whereby the left turning traffic from Showground Road into Pennant Street northbound is trying to enter the right most lane and some of the right turning traffic from Showground Road into Pennant Street wants to avoid this slow-moving queue (in lane No. 2) and moves into the kerbside lane. Permitting loading dock access to Pennant Street would only add to this issue as any heavy vehicle turning right from Showground Road would need to weave across to enter into the loading dock.

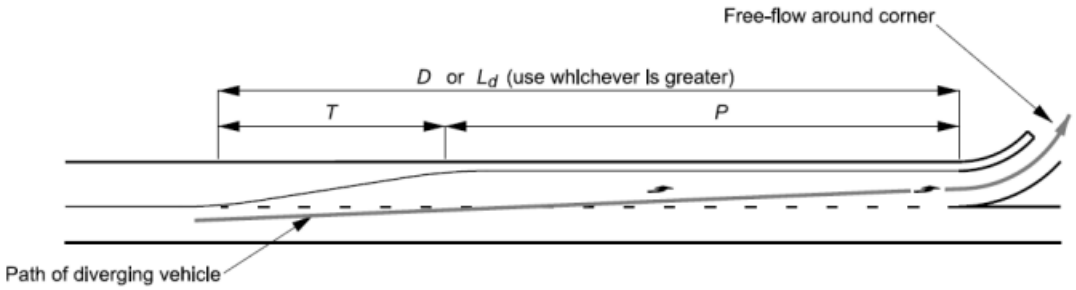
  Note: We acknowledge that some of the abovementioned weaving concerns would also be reduced in the future once the intersection of Showground Road / Pennant Street is upgraded to provide for a signalised dual left turn from Showground Road into Pennant Street.

- **Lack of room for vehicles to safely change lanes -** According to Austroads Guide to Road Design – Part 4A (see image below), the length of storage lane required for a 70km/h design speed (60km/h posted speed limit) on a level grade is 75m to achieve a comfortable stop condition. Assuming the loading dock is of the same width as the existing loading dock off Pennant Street located further north, the driveway would be around 16m wide. This means there would be approximately 25m (115m – 75m – 15m) for a delivery vehicle driver to turn right from Showground Road, provide themselves enough time to run parallel to traffic in the far-side lane (lane No. 2), pick a gap in this traffic (which is coming off a generally free flowing left turn lane), then change lanes and then change lanes again to move into the deceleration lane for the loading dock. A lot of these calculations and movements need to occur in a very short distance which is somewhat difficult to achieve in a safe manner.

Table 5.2: Deceleration distances required for cars on a level grade

Design speed of approach road (km/h)	Length of deceleration D – including diverge taper *T* (m)										Diverge length L_d[3] for lane widths (m)	
	Stop condition[1] (m)		Design speed of exit curve (km/h)[2]									
	0	0	20	30	40	50	60	70	80	90	3.5 m[4]	3.0 m[4]
	Comfortable 2.5 m/s²	Maximum 3.5 m/s²	Comfortable average rate of deceleration 2.5 m/s²									
50	40	30	30	25	15						33	27
60	55	40	50	40	30	15					40	33
70	75	55	70	60	50	40	20				47	40
80	100	70	95	85	75	60	45	25			54	44
90	125	90	120	110	100	85	70	50	25		60	50
100	155	110	150	140	130	115	100	80	55	30	67	57
110	185	135	180	175	160	150	130	110	90	60	74	62

1 *Rates of deceleration are: 2.5 m/s² for comfortable deceleration; 3.5 m/s² is the maximum for design purposes.*
2 *Speed of exit curve depends on radius and crossfall (Figure 5.2).*
3 *Distance L_d assumes a lateral rate of movement of 1.5 m/s.*
4 *Example lane widths – use actual lateral shift distance of vehicle.*



(b) Deceleration to a turning speed

Note: The difficulty with the abovementioned issue is how can you legally prevent a heavy vehicle from turning right from Showground Road into Pennant Street, noting that the vehicle would then try to access the proposed loading dock driveway. A Loading Dock Management Plan can suggest / recommend that Heavy Vehicles only come from the west, but this cannot be policed.

- **Possibility of some vehicles exiting the loading dock trying to get into the right turn lane for Castle Street -** The concerns are that some heavy vehicles exiting the driveway may attempt to cut across two lanes of traffic to enter the right turn lane to turn right into Castle Street. This may become an issue if there are queues within this right turn lane which are queued past this loading dock driveway. Vehicles turning out of the proposed loading dock and trying to get into the right turn lane would be queued across the through lanes of Pennant Street resulting in safety and efficiency issues.

- **Limited sight distance** – As we acknowledged previously, the sight distance available to/from vehicles exiting the loading dock is limited by the crest on Pennant Street. The proponent's response acknowledges that the sight distance is limited but it complies with the standards. On this matter, we would need the proponent to provide a detailed assessment (which allows for road geometry) and the design speed to confirm sight distance can clearly be achieved.

- **Lack of information in relation to expected vehicle movements** - The proponent has not provided full information in relation to all of the different types of vehicles, the number of movements of each vehicle size during the day / at peak times, and full design details of the loading dock (including internal queuing storage) etc for our consideration and review. This information is critical before any consideration can be given to a loading dock access.

- **Active Transport interactions / concerns** - We note that there is a proposed future Council cycle route along Pennant Street as shown within the Figure below which has been extracted from the Landscape Masterplan Report. A proposed loading dock access on this part of Pennant Street would clearly interfere with future cyclists. Therefore, relocating the Loading Dock access to the proposed internal road network would avoid the abovementioned conflicts with Council's proposed future cycle route.

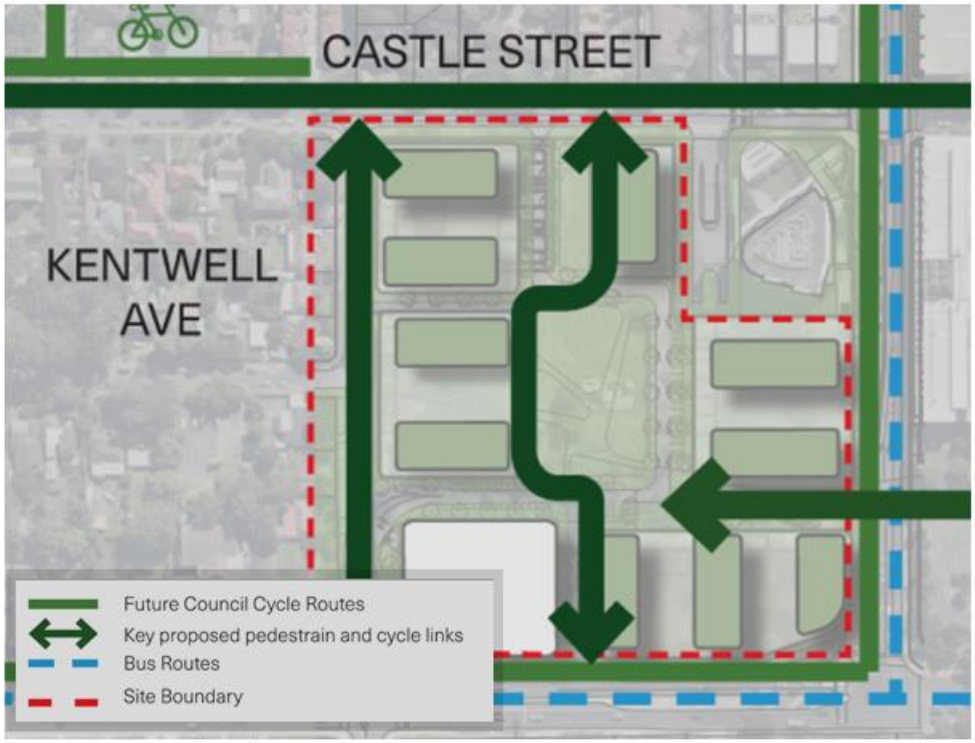


Figure 4. Proposed cycle link (page 8/26 of 20240620 - B5. PP Appendix D_Landscape Masterplan - Site B, Castle Hill_PP-2022-3644.pdf)

- **Internal Road Network concerns**

  We note that the proponent makes the following statements below:

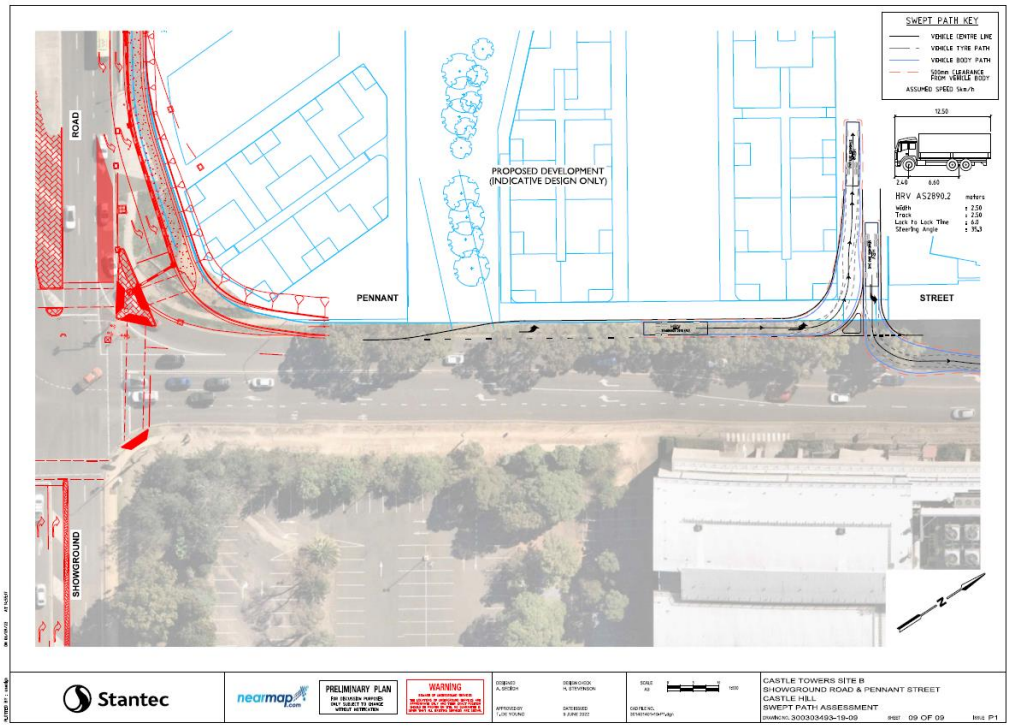
  "If the vehicle access of Pennant Street is not provided, the internal road network would need to be redesigned to allow large trucks to circulate through the site and the built form would need to be modified to either provide ramps down to basement loading docks or the provision of at-grade loading docks."

  "This loading dock vehicle access is critical to achieve the design principles and objectives outlined above, as it minimises loading movements on the internal road network and therefore allows the streets to be designed better for pedestrians (e.g., relatively narrower road widths)."

We do acknowledge that relocating the loading dock access onto the internal road network would require changes to be made to the built form. However, we do question to what extent would the proposed internal road network require a redesign, noting the following evidence below that the proponent has previously provided.

TfNSW understands that the **Stantec – Castle Towers – Site B – Planning Proposal – Transport Impact Assessment** – Dated 31 August 2022 – Revision C, details the following information below:

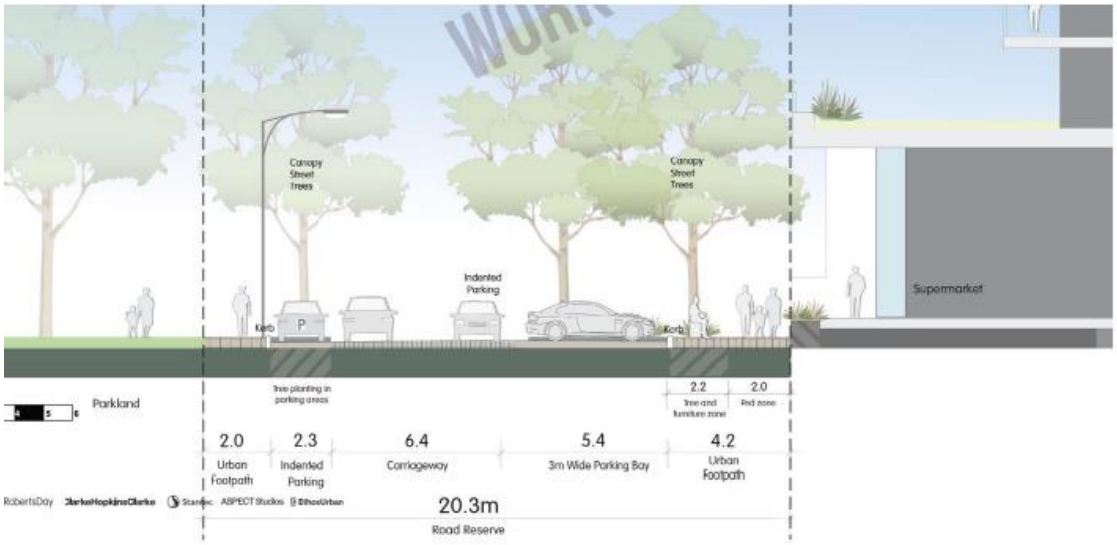
The use of 12.5m Heavy Rigid Vehicles (HRV) as the design swept paths for heavy vehicles entering / exiting the proposed loading dock off Pennant Street (as illustrated below).



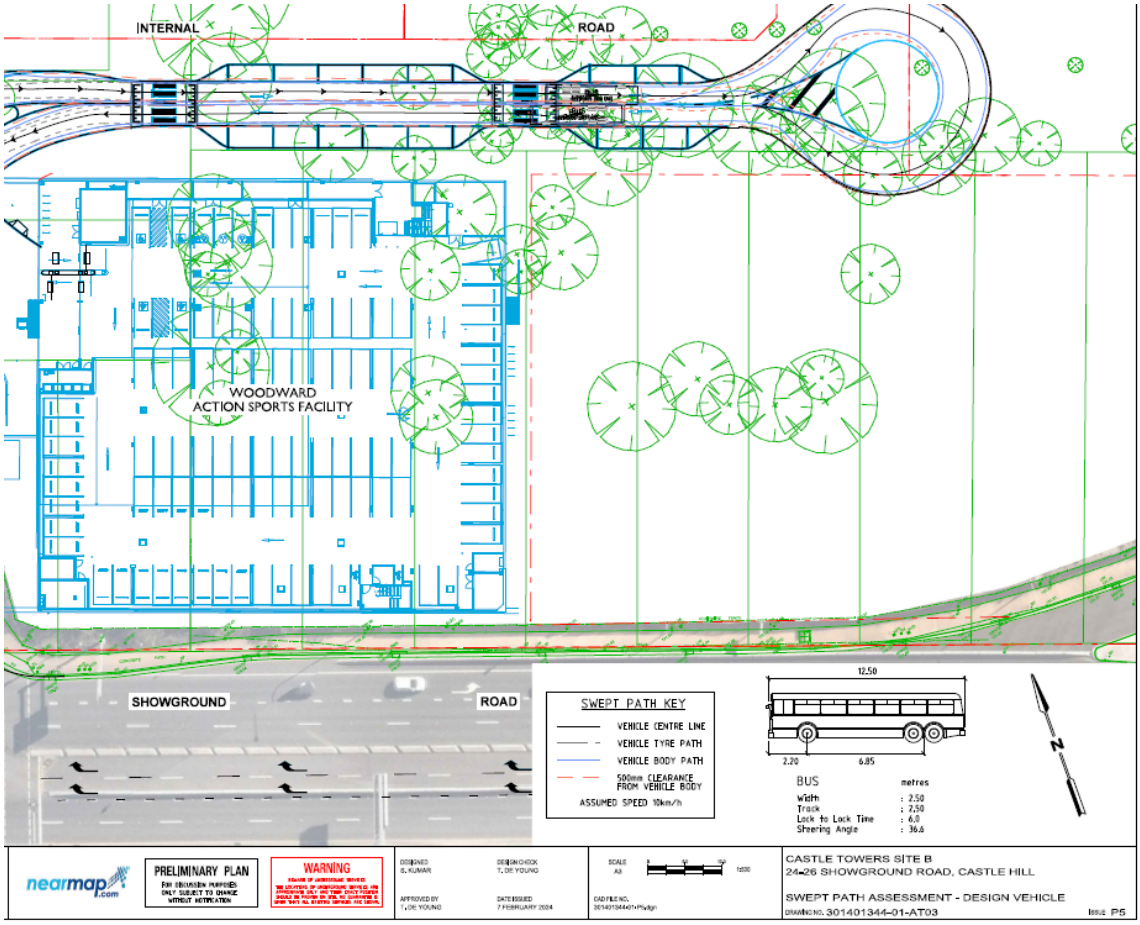
The following internal road network details and Cross Sections “B” and “D” below, noting that the Cross-section Location B (Internal Link Street) allows for truck / bus parking on the southern side of the road at 3.0m width.

Cross-Section for Location B ("Internal Link Street")

Cross-Section for Location D ("Urban Green Street")



The **Stantec Response to Council RFI for the Proposed Indoor Action Sports Centre at 24-28 Showground Road & 1-5A Kentwell Avenue, Castle Hill** – Dated 12 February 2024 highlights a design vehicle of a 12.5m bus traversing both sides of the Internal Link Street as illustrated on the following page below.



Based off the information above, we highlight the following:

- The loading dock design vehicle used is a 12.5m HRV.
- The internal link street (which would connect to Showground Road) is designed to accommodate a 12.5m Bus (in both directions).
- The internal link street is designed with a 6m carriageway width.
- The urban green street (which would potentially front any proposed loading dock access) is designed with a 6.4m wide carriageway

Therefore, noting that the internal link street (i.e. 6m carriageway) could accommodate the 12.5m HRV in both directions, and noting that the urban green street is proposing a wider carriageway with of 6.4m, TfNSW questions the comment made by the proponent that the internal road network would need to be redesigned to allow large trucks to circulate through the site. The information provided above seems to indicate that the proposed internal road network (i.e. from the Showground Road intersection to any proposed loading dock located on the urban green street) could accommodate a 12.5m HRV.

Recommendation:

The responses from the proponent are acknowledged and it is noted that there is already a precedent and an approval for a driveway (i.e. from an earlier DA that is no longer proceeding) that the proponent had. Based on this, TfNSW may be able to reconsider the proposed loading dock off Pennant Street. However, in order for TfNSW to reconsider our current position on this matter, the proponent must satisfactorily address and respond to all of the issues raised above.

TfNSW recommends that the proponent responds to the above issues in order to resolve the matter prior to issue of the Gateway Determination. Alternatively, DPHI may wish to include a condition in the Gateway Determination which requires this matter to be resolved with TfNSW prior to the public exhibition.

Gateway Determination Requirement – Transport Impact Assessment Report and Modelling:

Comment / Recommendation:

TfNSW correspondence (TfNSW Reference – SYD23/00178/01 dated 5 May 2023) previously provided to the proponent as part of the Pre Gateway Transport Study requirements for Site A clearly indicated that the combined weekday PM peak traffic generation of the proposed new Site A and Site B Planning Proposals would generate more traffic than the previously approved Retail Expansion of Castle Towers Shopping Centre. Therefore, the proponent's statement that the development now proposed by the proponent on Sites A and B will generate less traffic (particularly on weekends) than the previously approved major retail expansion project on Site A, is only correct in the context of weekends.

TfNSW requests that the previously submitted **Stantec – Castle Towers – Site B – Planning Proposal – Transport Impact Assessment** – Dated 31 August 2022 – Revision C will require updating, should the proposal receive Gateway Determination, to address the following items:

- Compliance with Council's recently revised Car Parking rates contained within The Hills DCP 2012 – Part C – Section 1 Parking (where applicable).
- Consideration of Council's Castle Hill Precinct Plan.
- Updating the SIDRA Analysis which was previously undertaken for this report as follows:
    - Utilise the previously supplied SIDRA modelling files (provided to the proponent in late 2023) that were undertaken by Cardno for the whole of the Castle Hill Precinct but focus on using the weekday 2019 and 2036 (AM / PM) scenarios.
    - From those models, only model the following intersections:
        - Showground Road / Rowallan Avenue.
        - Showground Road / Kentwell Avenue / Cheriton Avenue.
        - Showground Road / Pennant Street.
        - Pennant Street / Castle Street.
    - Noting that the 2019 SIDRA models are based off Pre-Covid traffic count data, ensure that the report provides a comparison of the 2019 AM / PM peak survey data at these intersections against recent post covid AM / PM peak count data at these intersections (for validation purposes).
    - Noting that the abovementioned Cardno SIDRA modelling was based on the previous retail expansion of Castle Towers (which is no longer proposed), update this SIDRA modelling for the 2036 (with development scenario) based off the current proposed Mixed Use Development Yields being proposed for Site B.
    - Ensure that the proposed future peak hour vehicle trip generation rates for the Site B Planning Proposal have been agreed to "in principle" for the various land uses by TfNSW.
    - Model the 2036 Scenarios (with and without the Proposed Site B).
    - With the intersections mentioned above for the year 2036, model these intersections (with / without) the anticipated/proposed future upgrade layouts.

28 November 2024

Our Ref: 24015

Department of Planning, Housing & Infrastructure
C/-Ethos Urban
Level 4, 180 George St
Sydney NSW 2000

Attention: Alexander Galea (Manager, Planning Proposal Authority)

Dear Alexander,

Castle Towers Site B Planning Proposal
Response to TFNSW Letter dated 31 October 2024

I refer to the "Castle Towers Site B Planning Proposal" which relates to land generally bound by Kentwell Avenue, Showground Road, Pennant Street and Castle Street in Castle Hill.

There has been a substantive body of reporting prepared in association with this Planning Proposal, including:

- In August 2022, a transport impact assessment report (TIAR) was prepared by Stantec for the Planning Proposal. This report assessed the appropriateness of the proposed layout, including the vehicle access arrangements, and broader traffic impacts associated with the anticipated development of the site.
- Following the preparation of the Stantec August 2022 report, a Development Application for the Woodward Indoor Recreation Facility was lodged with and approved by The Hills Shire Council for part of the land on "Site B". The approved DA was supported by transport reports prepared by Stantec[1], which confirmed vehicle access arrangements for the approved DA are generally consistent to those proposed in the August 2022 TIAR.
- The Planning Proposal including the associated August 2022 TIAR was referred to Transport for New South Wales (TFNSW), by the Department of Planning, Housing & Infrastructure (DPHI) on 20 June 2024, with a response issued by TFNSW via letter dated 22 July 2024. Eukai prepared a letter dated 4 October 2024 responding to TFNSW.
- Subsequently, TFNSW issued a letter dated 31 October 2024 containing additional comments on the Planning Proposal and requesting that these comments be "satisfactorily addressed by DPHI and the proponent *prior to and as part of* the Gateway determination".

On review of the TFNSW October 2024 letter, we consider that TFNSW is generally supportive of the Planning Proposal, with no major concerns raised that could not be addressed via the inclusion of notations on the architectural plans and/or the preparation of a revised TIAR that could be conditions of the Gateway approval.

Notwithstanding this general support, Eukai has prepared this letter to respond to matters raised by TFNSW as we consider it preferable to resolve as many of the items raised as possible as part of the Planning Proposal process. If desired by DPHI and/or TFNSW, we also confirm that we are happy to meet in person to discuss these matters further as required.

Our responses to the matters raised in the TFNSW October 2024 letter are provided in Appendix A, with a summary of our position being:

1. Eukai notes there is general agreeance with TFNSW regarding the potential future acquisition of land within the site and the potential long term (ultimate) concept layout for the intersection of Showground Road and Kentwell Avenue

2. Eukai considers the proposed Pennant Street loading dock vehicle access to be acceptable and therefore recommend it be included as part of the Planning Proposal. Detailed responses to the TFNSW concerns are outlined in the appendix which confirm (from):

    - The sight distances for the loading dock vehicle access meet minimum requirements;
    - The loading dock vehicle access will not be constructed prior to the completion of the Showground Road / Pennant Street intersection works, which means that the vehicle entry weaving issue will not eventuate[1]; and
    - The preparation of a Loading Dock Management Plan is supported to discourage loading activity during road network peak hours as well as the use of Castle Street for vehicles exiting the loading dock[1].

3. Eukai accepts the preparation of an updated TIAR is reasonable post Gateway determination but notes its view that the SIDRA modelling requested by TFNSW ought not be required for the Site B Planning Proposal for the reasons outlined within Appendix A.

In this context, we consider the following to be appropriate:

- **The Planning Proposal should be approved inclusive of the proposed Pennant Street loading dock vehicle access; and**
- **The TFNSW requirement for an updated TIAR should be re-worded to preferably delete the need for the SIDRA modelling or at least confirm that the need for this modelling will be determined following liaison with QIC. Other recommended revisions are also outlined in the appendix to this letter.**

I trust the above is consistent with your requirements for the time being. Naturally, should you have any questions regarding this proposal, please do not hesitate to contact me.

Kind regards,
Eukai Pty Ltd

Tim De Young
Director

BEng (Civil), BCom, MBA, CPEng, FIEAust, NER

[1] This could be conditioned on any subsequent DA approval as required.

Appendix A – Eukai Responses

Matters Agreed by All Parties

On review of the TFNSW letter, there is agreeance by all parties on the following matters:

- The potential future acquisition of land within the subject development site to support the Showground Road Project (Bus Priority Improvement), and
- The potential long term (ultimate) concept layout for the intersection of Showground Road and Kentwell Avenue.

Eukai agrees with TFNSW that this matter can be addressed post-Gateway Determination

Proposed Loading Dock Access – Pennant Street

The October 2024 TFNSW letter provides detailed commentary on several traffic engineering concerns regarding the proposed Pennant Street loading access .

However, the letter also states that TFNW would be willing to reconsider the proposed loading dock vehicle access off Pennant Street if the issues raised can be satisfactorily addressed. In this context, Eukai has undertaken additional investigations and has provided further information in responses to all issues raised by TFNSW.

Overall, we consider the proposed Pennant Street loading dock vehicle access to be acceptable and therefore recommend it is included as part of the Planning Proposal. Detailed responses to each of the items raised by TFNSW is presented below. These responses confirm:

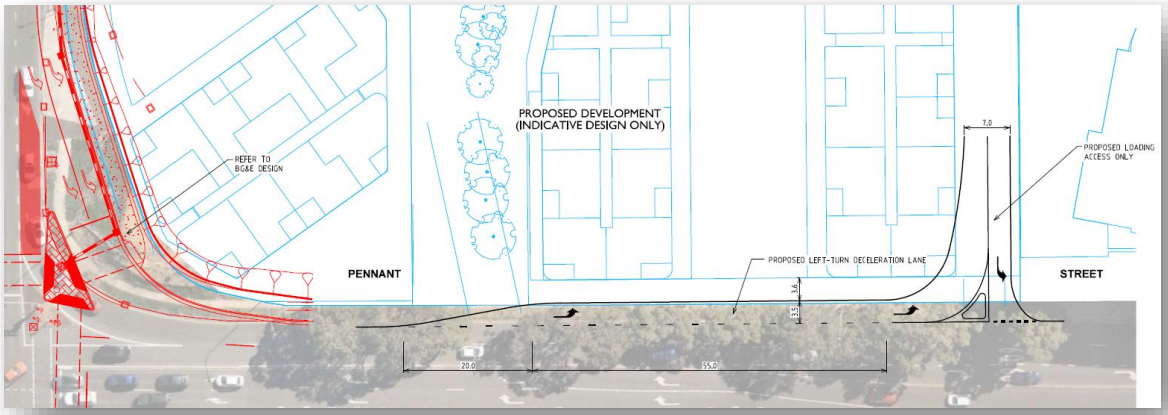
- The sight distances for the loading dock vehicle access meet minimum requirements;
- The loading dock vehicle access will not be constructed prior to the completion of the Showground Road / Pennant Street intersection works, which means that the vehicle entry weaving issue will not eventuate2; and
- The preparation of a Loading Dock Management Plan is supported to discourage loading activity during road network peak hours as well as the use of Castle Street for vehicles exiting the loading dock1.

Our responses are presented below, noting that further information can be provided in a meeting with DPHI and/or TFNSW if required.

Road Safety / Traffic Efficiency matters

Eukai notes TFNSW's comment on the 110m frontage on Pennant Street from the departure side of Showground Road signals and the northeastern edge of the property boundary. Eukai notes that this distance is sufficient to provide the required deceleration lanes, as shown in the Stantec TIAR.(refer to figure reproduced below).

[2] This could be conditioned on any subsequent DA approval as required.



Weaving

Eukai notes that advice provided by QIC indicates that the intersection works at the Showground Road / Pennant Street intersection (shown in red in the extract above) will be completed prior to the operation of the loading dock.

TFNSW acknowledges that some of the identified weaving concerns would be reduced in the future once the intersection upgrade is completed given it will include a signalised dual left turn from Showground Road into Pennant Street. The signalisation of this left-turn will mean that vehicles turning right from Showground Road will not need to weave across the left-turn lane to enter the loading dock. Eukai considers that this staging will remove all weaving concerns associated with the entry movements into the loading dock.

Eukai notes its understanding that QIC would not object to the inclusion of a condition of Gateway Determination that the Pennant Street loading dock cannot be operational prior to the upgrade of the Showground Road / Pennant Street intersection.

Lack of room for vehicles to safely change lanes

As outlined above with respect to the 'Weaving' issue raised by TFNSW, we consider this issue will not exist following the future upgrade of the Showground Road / Pennant Street intersection.

Possibility of some vehicles exiting the loading dock trying to get into the right turn lane for Castle Street

We accept that it is possible that loading vehicles exiting onto Pennant Street could seek to access the right turn lane into Castle Street, which could be difficult during road network peak hours given the queueing in this right-turn lane.

However, we do not consider this will result in an issue given:

- The volume of traffic exiting onto Pennant Street from the loading dock will be very low. The Stantec August 2022 TIAR advises this loading dock may be configured with as few as five loading bays, which means it realistically could not be expected to generate more than approximately 5 exiting movements in a peak hour. This equates to one exiting vehicle every 12 minutes (on average).

- The vast majority of loading activity is likely to occur early in the very early morning and interpeak daytime periods, and not during the road network peak hours when the queues in the right-turn lane into Castle Street are experienced. This is consistent with traffic data that has historically been collected at the Centre which indicates that loading most often occurs at the start of the day to ensure shops are adequately stocked for daytime sales.
- The section of Castle Street between Pennant Street and Terminus Street is arguably the most congestion part of Castle Hill, with long delays often experienced at the Old Castle Hill Road / Castle Street intersection. This congestion is likely to discourage exiting trucks wanting to use this route to head to the south.

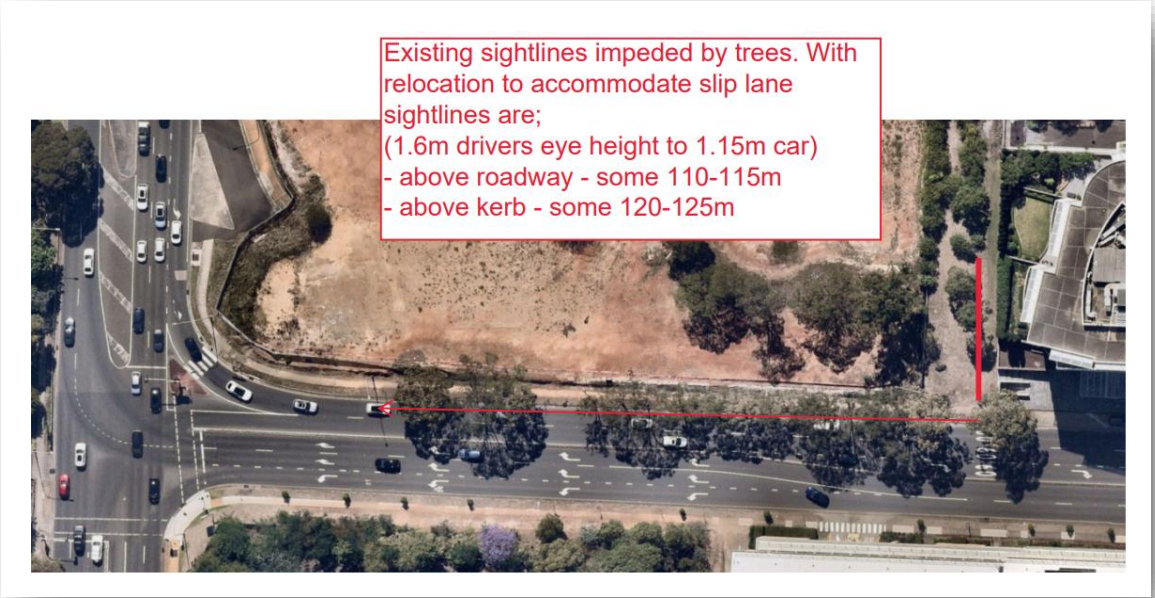
In addition, Eukai also notes that advice provided by QIC indicates that they would accept a condition requiring the preparation a Loading Dock Management Plan (LDMP) to discourage loading activity during road network peak hours as well as the use of Castle Street for vehicles exiting the loading dock. It is accepted that whilst such Plans are difficult to enforce, they are often prepared to best manage such issues.

Limited sight distance

Eukai confirms that a distance check was undertaken by a senior traffic engineer via a physical site inspection on 20th November 2024.

This check indicated that at a distance of 2.5m back from the existing kerb line, from a driver's eye height and taken 1.15m above the road surface, a minimum available sight distance of approximately 110m is available from the proposed loading exit looking south along Pennant Street. (This distance assumes the relocation of the existing trees which will not be able to be retained once the deceleration lane into the loading dock is provided).

A figure showing the available sight distance an aerial photograph is provided below.



For reference, a site inspection photo showing the available sight distance at the proposed access is provided below. It is noted that this photo was taken near the kerb line (despite the sight distance check being completed 2.5m back from it) as the existing trees to be removed to facilitate the proposed access restrict the ability to take a photo showing a clear view from 2.5m back from the kerb line. Nonetheless, given that the primary sight line issue is the crest (i.e. as opposed to a bend in the road), this photo is provided to clearly show the available sight distance.

In addition, we note that a video recorded during the sight inspection indicates that there is an approx. 8 second gap between observing a northbound Pennant Street vehicle and it driving past the proposed loading egress. This video can be viewed using the below link

- video_looking_south_from_proposed_loading_egress.mp4
- Password = 241120pennantstsightdistanceeukaivideo

In this circumstance, the requirements for sight distance at loading dock access driveways are set out at Figure 3.2 to the Australian Standard for Commercial Loading Facilities (AS2890.1:2004). This figure indicates that for non-domestic access driveways and the current Pennant Street speed limit of 60km/hr, there is a desirable sight distance of 83m and a minimum sight distance of 65m. There sight distances will be exceeded at the proposed loading dock access. Moreover, we note that the video provided above demonstrates that an approx. 8 second gap along the frontage road is available, which exceeds the desirable 5 second gap availability identified within Figure 3.2 in AS2890.1:2004.

For the reasons provided above, we consider the sight distances to be acceptable. We also note that vehicles on Pennant Street are highly unlikely to be travelling at 60km/hr given the existence of the signalised left-turn and right-turn lanes at the Showground Road / Pennant Road intersection which will stop most traffic before turning.

Lack of information in relation to expected vehicle movements

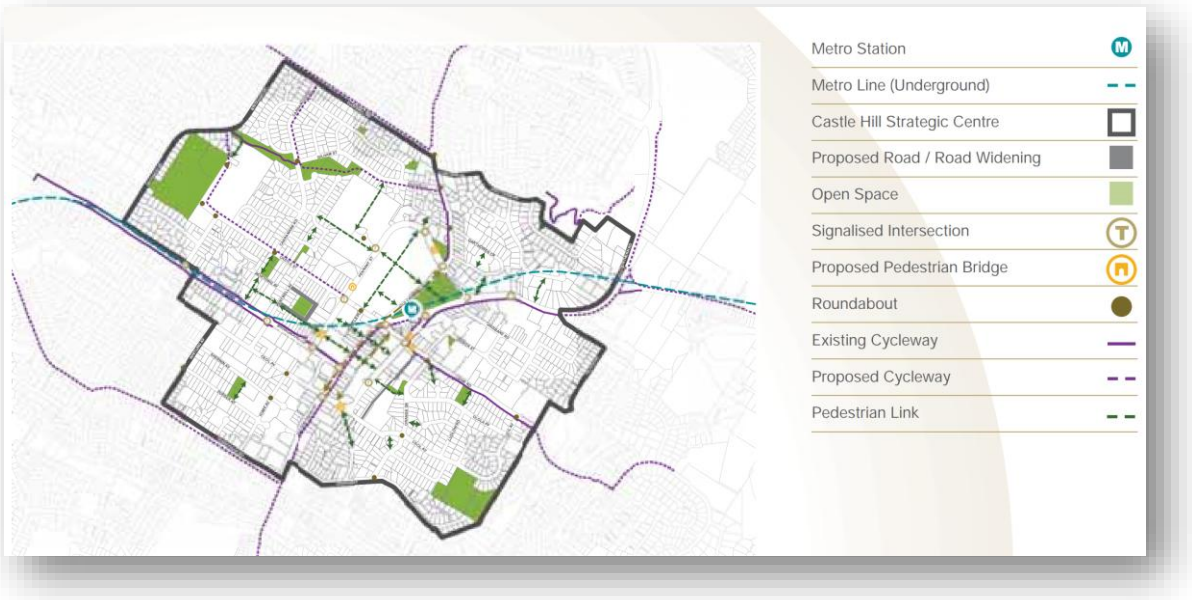
Information relating to expected vehicle movements requested by TFNSW is as follows:

- **Types of vehicles:** The loading dock is expected to be configured with approximately 5 bays, inclusive of bays for vehicles up to 12.5m in length.
- **The number of movements of each vehicle size during the day / peak times:** Assuming 5 bays, it is expected that there will be a maximum of 5 vehicles accessing the loading dock during any hour of the day (i.e. 1 vehicle accessing each bay per hour). The vast majority of loading activity is expected to occur in the early morning and outside of any road network peak hours. Assuming a peak hour to daily ratio of 10%, this may mean that up to 50 loading vehicles (100 loading movements in total) could be expected per day.
- **Full design details of the loading dock (including internal queuing storage):** All loading vehicles will be able to enter and exit the loading dock in a forward direction. Further details of the loading dock layout cannot be confirmed at the Planning Proposal stage.

Notwithstanding this, we consider that matters surrounding the design of the loading dock are best addressed post-Gateway Determination at the DA stage (when further information regarding the size and number of loading bays is better known).

Active Transport interactions / concerns

We understand that Council's endorsed Castle Hill Precinct Plan indicates that it no longer plans for a future cycleway on Pennant Street – refer Figure 63 of the Plan which is reproduced below.



If this cycleway were to be provided, however, we are satisfied that a suitable design solution would be found for the vehicle access to ensure that cyclist amenity or safety is not compromised. In our view, this is a matter that can be resolved at the DA stage.

Internal Road Network concerns

Eukai confirms that the internal road network proposed for the Site B Woodward DA was designed to allow travel by vehicles of a size up to a 12.5m long bus in the event that such vehicles were required for occasional school events.

However, this vehicle was adopted as a “test vehicle” only, with the vehicle allowed to pass onto the wrong side of the road if required per the relevant Austroads guidance. It was not adopted as a “design vehicle” given it was expected very infrequently (e.g., potentially up to 1 or 2 bus movements on select days of the week only).

Although it would be possible for the broader internal road network to be modified to provide loading access (in lieu of the Pennant Street loading vehicle access), this would result in the following adverse outcomes:

- The internal roads and intersections would need to be widened / enlarged given such loading vehicles would likely become a “design vehicle” requirement. This would reduce the quantum and quality of public realm and impact the movements of pedestrians and cyclists.
- The loading docks would likely still be expected to be provided at basement level and thus lengthy ramps would be required to traverse from the upper ground level down to the lower basement loading docks. This would have significant impact to the ability to activate the public realm as developable land would instead need to be provided for ramping. In contrast, the Pennant Street loading dock vehicle access brings vehicles into the site at the lowest point of the site and thus avoids this issue.
- The arrangement would result in up to approximately 100 loading movements per day needing to be travel through the internal road network. It is considered undesirable to accommodate this volume through the internal road network given the intent to design the site with a people friendly public realm, centred around a new public park.

For these reasons, we consider the use of Pennant Street for loading dock access to represent a better “on balance” planning outcome.

Transport Impact Assessment Report and Modelling

The October 2024 TFNSW letter requests that the Transport Impact Assessment Report (TIAR) dated August 2022 submitted as part of the planning proposal be updated to address various items, including updating the report’s SIDRA analysis.

Eukai agrees with TFNSW that these matters can be addressed following Gateway Determination. We also accept in principle that an updated TIAR will be required post-Gateway Determination to respond to any issues raised by authorities and adopt any updated Site B land use yields

However, we consider that TFNSW’s wording is overly prescriptive in what should be contained within the updated report. Our reasons for this position are clarified in Table A.1 on the following page. We request that the TFNSW condition is reworded to avoid being over prescriptive and preferably remove the need for the updated SIDRA modelling.

Table A.1: Responses to TFNSW Comments on TIAR and Modelling

Matter Raised	Eukai Response
Compliance with Council's recently revised Car Parking rates contained within The Hills DCP 2012 – Part C – Section 1 Parking (where applicable).	We consider the proposed car parking rates to be appropriate and consistent with a contemporary car parking management approach which seeks to constrain traffic generation (and therefore impact to the road network) by limiting car parking provision. This approach is also generally consistent with the endorsed Council Precinct Plan. We note that reduced car parking rates, as is proposed for Site B, should be encouraged as a proactive means to mitigate traffic congestion in the precinct.
Consideration of Council's Castle Hill Precinct Plan	We have no objection to further considering Council's Precinct Plan in the updated TIAR.
Request for updated SIDRA modelling	Eukai have no issue 'in principle' with providing additional / updated modelling if required. However, we query the purpose and benefit of this modelling for the Site B Planning Proposal noting: • The Site B Planning Proposal will generate only modest amounts of traffic compared to the previously approved Retail Expansion of Castle Towers Shopping Centre. We note that TFNSW refers to its memo dated 5 May 2023 which outlines its view that the Site A and Site B Planning Proposals combined will generate more traffic than that generated by the previous approved Retail Expansion. In our view, this matter is best responded to as part of the Site A Planning Proposal submission, which is soon to be lodged, with the Site B Planning Proposal assessed on its merits. • The Site B Planning Proposal primarily includes residential land uses in a train station precinct. This proposal is entirely consistent with the aspirations of the TFNSW Transit Oriented Development program and we understand that detailed traffic modelling is generally not being completed to support the TOD precincts. • The road network in the area has been assessed in detail by Stantec (formerly Cardno) via Aimsun. This modelling was based on land use yields that are more conservative (i.e. higher) than the actual yields. We understand that Aimsun was used instead of SIDRA as it was agreed that SIDRA would not be able to accurately model this area. • The road infrastructure improvement required foe the precinct have already been determined in the Stantec (formerly Cardno) modelling and referenced in Council's Precinct Plan (which has been adopted). It is unclear what additional modelling would be used to inform in the context that the intersection works have already been determined. For the reasons provided above, we respectfully ask TFNSW to reconsider its position the need for updated SIDRA modelling.

From:	Andrew Popoff
To:	Shruthi Sriram; Ilyas Karaman
Cc:	Alexander Galea
Subject:	RE: TfNSW response - The Hills Shire Council - SYD24-01146/03 - Proponents Response to TfNSW Letter - Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill - PP-2022-3644
Date:	Monday, 20 January 2025 5:49:29 PM
Attachments:	image003.png image004.png image007.png image008.png image009.png TfNSW Response SYD24_01146_02_Pre-Gateway Agency consultation - QIC Castle Towers Site B Castle Hill.pdf TfNSW Response SYD24_01146_03_Pre-Gateway Agency consultation - QIC Castle Towers Site B Castle Hill.pdf
Importance:	High

Hi Shruthi,

I refer to your email below.

I've attached a copy of our previous correspondence dated 31 October 2024. I note that on page 8 of that letter it states:

Regarding the proposed Loading Dock Access off Pennant Street:

Recommendation:
The responses from the proponent are acknowledged and it is noted that there is already a precedent and an approval for a driveway (i.e. from an earlier DA that is no longer proceeding) that the proponent had. Based on this, TfNSW may be able to reconsider the proposed loading dock off Pennant Street. However, in order for TfNSW to reconsider our current position on this matter, the proponent must satisfactorily address and respond to all of the issues raised above.
TfNSW recommends that the proponent responds to the above issues in order to resolve the matter prior to issue of the Gateway Determination. Alternatively, DPHI may wish to include a condition in the Gateway Determination which requires this matter to be resolved with TfNSW prior to the public exhibition.

The reason for the change within our latest letter is explained below:

- My current Senior Manager is taking a more cautious approach to Road Safety matters associated with the proposed Loading Dock Access to Pennant Street.
- TfNSW's agreement to the Loading Dock Access to Pennant Street is reliant upon the proponent satisfactorily addressing all road safety issues. As noted within our most recent response dated 17th January 2025, the proponent's need to examine the "SISD" is an outstanding matter.
- The examination of the SISD shouldn't take long for the proponent's Transport Consultant to complete.
- At this point in time we don't know whether the proposed Load Dock Access will comply with the SISD, be a minor non-compliance, or be a major non-compliance. So it would be prudent to understand this outcome sooner rather than later.

We didn't want to get to the point (i.e. post Gateway Approval) of a position whereby the evidence provided by the proponent does not satisfactorily address TfNSW's Road Safety Concerns. Under such a hypothetical situation it could mean a complete redesign of the loading dock access to the local street system, thus affecting built form outcomes, noting that any proposed new driveway access to a classified road (i.e. Pennant Street) requires TfNSW's concurrence under Section 138(2) of the Roads Act at the DA stage. Furthermore, if we agree to such an access, that Road Safety Risk (if a court matter occurs due to a future road accident relating to this access) ends up being our responsibility to defend in court.

Surely, the proponent would not want to be in a position many months from now (i.e. post Gateway) receiving feedback from TfNSW that we cannot support the proposed Loading Dock Access from Pennant Street on Road Safety Grounds, noting that there would be significant changes / redesign required.

Happy to discuss further.

I'll also respond via separate email tomorrow regarding our availability to meet.

Kind regards

Andrew Popoff
Senior Land Use Planner
Transport Planning
Planning, Integration and Passenger
Transport for NSW

M 0413 459 225 **E** Andrew.Popoff@transport.nsw.gov.au

transport.nsw.gov.au

Level 8, 4 Parramatta Square, 12 Darcy Street
Parramatta NSW 2150

From: Shruthi Sriram <shruthi.sriram@dpie.nsw.gov.au>
Sent: Monday, 20 January 2025 4:39 PM

To: Andrew Popoff <Andrew.POPOFF@transport.nsw.gov.au>
Cc: Alexander Galea <Alexander.Galea@dpie.nsw.gov.au>
Subject: RE: TfNSW response - The Hills Shire Council - SYD24-01146/03 - Proponents Response to TfNSW Letter - Kentwell Avenue, Showground Road, Pennant Street and Castle Street, Castle Hill - PP-2022-3644

Hi Andrew

Thank you for providing TfNSW's comments on the planning proposal.

We understand that TfNSW had previously stated in the comments dated 31 October 2024, that the loading dock access can be resolved prior to exhibition with the Gateway conditioned accordingly.

We note that the most recent comments now require minimum sight distance requirements for the loading dock to be addressed **prior to Gateway**. We wanted to clarify if this matter could still be resolved prior to exhibition with the Gateway conditioned accordingly. To assist it would be appreciated if TfNSW's could clarify why the change.

We will also arrange a meeting with the proponent to work through TfNSW's comments to ensure the timely progression of the proposal through the plan making process. Could you please provide availabilities – please note we are unable to meet on the following dates:

- 22-24 January;
- 5-7 February; and
- 12-13 February.

Please do not hesitate to contact me, should you have any questions.

Kind regards,

Shruthi Sriram (*she/her*)
Planning Officer, Planning Proposal Authority
Planning Land Use Strategy, Housing, and Infrastructure | Planning Group
Department of Planning, Housing and Infrastructure

T 02 9228 6362 **E** shruthi.sriram@dpie.nsw.gov.au

dphi.nsw.gov.au

12 Darcy Street
Parramatta NSW 2150

I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

Transport for NSW

17 January 2025

TfNSW Reference: SYD24/01146/03
DPHI Reference: RR-2023-30 / PP-2023-3644

Mr Alexander Galea
Manager, Planning Proposal Authority
Department of Planning, Housing and Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Attention: Shruthi Sriram

RE: PRE-GATEWAY AGENCY CONSULTATION – QIC CASTLE HILL SITE B PLANNING PROPOSAL – KENTWELL AVENUE, SHOWGROUND ROAD, PENNANT STREET & CASTLE STREET, CASTLE HILL

Dear Mr Galea,

Thank you for providing Transport for NSW (TfNSW) with an opportunity to comment on the above amended proposal, which was referred to us by the Department of Planning, Housing & Infrastructure (DPHI) in correspondence dated 10 December 2024.

We note that the current proposal for the site seeks to amend The Hills Local Environmental Plan (LEP) 2019 (the LEP) to:

- rezone part of the site for a proposed public park from MU1 Mixed Use to RE1 Public Recreation,
- increase the maximum Height of Buildings (HOB) control currently ranging from 7m – 28m to a range of 20m - 94m across the site, and
- introduce a site-specific incentive FSR. The original proposal quantified this as incentive GFA 190,960m2 (the equivalent of an average 4.5:1 FSR across the site), while the May 2023 update translated this to a series of specified incentive FSRs which are proposed to be mapped (2.22:1 to 10.25:1). The incentive FSR requires a number of conditions to be met to be used.

We also acknowledge that DPHI have requested that TfNSW review the proponent's (QIC) latest responses dated 28 November 2024 which aim to respond to our previous correspondence dated 31 October 2024 (Ref: SYD24/01146/02) to confirm whether there are matters that remain outstanding which would preclude the submission of the proposal for a Gateway Determination.

TfNSW's detailed comments are provided in **TAB A**. It is requested that the loading dock - road safety related comments provided are satisfactorily addressed by DPHI and the proponent prior to the Gateway determination. Other comments provided can be satisfactorily addressed by DPHI and the proponent as part of the Gateway determination.

If it assists, TfNSW are also happy to meet with the proponent (prior to Gateway Determination) once they have had the opportunity to review the contents of this correspondence.

Should you have any questions or further enquiries in relation to this matter, please contact Andrew Popoff, Senior Land Use Planner, via phone on 0413 459 225 or email at andrew.popoff@transport.nsw.gov.au.

Yours sincerely,

IKaraman

Ilyas Karaman
A / Senior Manager Strategic Land Use (Central and Western)
Transport Planning
Planning, Integration and Passenger

4 Parramatta Square, Parramatta NSW 2150
PO Box 973 Parramatta CBD NSW 2124
W transport.nsw.gov.au

TAB A – Detailed TfNSW Comments - QIC Castle Hill Site B Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street & Castle Street, Castle Hill

Proposed Loading Dock Access – Pennant Street:

Comment / Recommendation:

Weaving

TfNSW has reviewed the Eukai response on this matter and supports the recommendation for the inclusion of a condition of Gateway Determination that the Pennant Street loading dock cannot be operational prior to the future upgrade of the Showground Road / Pennant Street intersection. We acknowledge that resolution of the loading dock and its access may impact built form outcomes.

Limited Sight Distance

TfNSW appreciates the information provided by the Eukai response dated 28 November 2024 noting that certain aspects associated with the sight distance have been measured to satisfy the minimum sight distance requirement for an access driveway. However, as part of the detailed assessment, there is one additional matter associated with sight distance which we require from the proponent in order to satisfactorily address our concerns on this issue. This relates to the need to comply with Safe Intersection Sight Distance (SISD) as detailed within Sections 3.2.2 and 3.4 of Austroads Guide to Road Design Part 4A.

SISD is the minimum sight distance that should be provided on the major road at any intersection / property access and is measured along the carriageway from the approaching vehicle to the conflict point. The line of sight having to be clear to a point 7.0m (5.0m minimum) back along the side road / access driveway from the conflict point. This is to allow a vehicle on the main road sufficient space to stop when the vehicle exiting the loading dock access is observed to be moving out onto the main road.

Therefore, TfNSW requests that a detailed assessment for SISD be provided for review.

Internal Road Network

TfNSW notes that the proponent is willing to accept a condition requiring the preparation a Loading Dock Management Plan (LDMP) to be conditioned on any subsequent DA approval to discourage loading activity during road network peak hours as well as the use of Castle Street for vehicles exiting the loading dock.

Ideally, TfNSW's preference would be for the loading dock access to be provided via the internal road network. A question is raised that if the proponent is willing to prepare a LDMP for a proposed loading dock access off Pennant Street, then why couldn't a LDMP also be implemented (i.e. in the context of a loading dock access via the internal road network) to reduce the risk of the interface between pedestrians, cyclists and loading dock traffic.

TfNSW notes the proponent's desire to have the proposed loading bays located in the basement level. However, if the loading bays are located on a higher level (i.e. ground level), long ramps down to the basement from the internal street network would not be required.

Despite this, TfNSW accepts that separating loading vehicles from pedestrians and cyclists is preferable for amenity / liveability. Therefore, should the other outstanding issues raised within this correspondence be satisfactorily addressed (i.e. relating to the requirements we stated within our previous correspondence associated with agreement to a loading dock access from Pennant Street), then TfNSW would ultimately require a future DA condition for any loading dock located on Pennant Street to be limited to a maximum of 100 total daily loading movements off Pennant Street (i.e. 50 entries and 50 exits).

Active Transport

TfNSW notes that the latest Draft Castle Hill Precinct Plan does not include the proposed cycleway on Pennant Street. Despite this, the proponent states "*If this cycleway were to be provided, however, we are satisfied that a suitable design solution would be found for the vehicle access to ensure that cyclist amenity or safety is not compromised. In our view, this is a matter that can be resolved at the DA stage*."

TfNSW is satisfied with this response and has no further concerns surrounding the proposed cycleway at this time.

Transport Impact Assessment Report and Modelling:

Comment / Recommendation:

We firstly acknowledge the proponent's response that they have no issue "in principle" with providing additional / updated modelling if required post Gateway Determination. TfNSW believes that this will be the case. However, we would like to explain in detail further below why we were prescriptive on the Modelling requirements within our previous correspondence dated 31 October 2024 (Ref: SYD24/01146/02).

- TfNSW have conducted a spot check via SCATS counts for the intersections of Showground Road / Cheriton Ave / Kentwell Ave and Showground Road / Pennant St for the date of Thursday 19 September 2024. This highlighted the following:

    - Eastbound and westbound approach volumes along Showground Road are about 100+vph higher in each direction for the Showground Road / Cheriton Ave / Kentwell Ave intersection than what was adopted as PM Base Traffic Volumes at this intersection within the "Castle Towers – Site B - Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)".
    - The left turn from Showground Road into Pennant St and the right turn from Pennant St into Showground Rd are about 100+vph in each direction than what was adopted as PM Base Traffic Volumes at this intersection within the "Castle Towers – Site B - Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)".

  Therefore, the base year traffic volumes and modelling associated with the Castle Towers – Site B - Planning Proposal need to be updated / rebased as part of the updated Transport Impact Assessment (TIA) Report (post Gateway Determination).

- The intersections modelled within the "Castle Towers – Site B - Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)" were all done in isolation and not as a network noting that there may be the potential for queue spillback (in some locations) to affect intersection performance results. Such impacts are particularly important to understand for intersections serving as accesses to/from the site. Furthermore, linked to the issue above, it is noted that Base Year Traffic Counts were undertaken at the Showground Road / Pennant Street intersection within this TIA report, but this key intersection was not modelled.

  Therefore, an updated Transport Impact Assessment (TIA) Report (post Gateway Determination) needs to model all key intersections fronting the site within a linked network model.

- The detailed SIDRA modelling results for the intersection of Pennant Street / Castle Street within the "Castle Towers – Site B - Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)" highlighted the following issue below:

    - The 95% queue fills up and goes slightly beyond the 100m storage length for the right turn bay for the right turn movement from Pennant St northbound into Castle St eastbound (in all modelled PM Peak scenarios).

  TfNSW staff have observed this issue above and note this to be significantly worse on the weekend peak. Whilst it is acknowledged that the Site B Planning Proposal would not add further traffic to this right turn movement, the proponent's upcoming Site A Planning Proposal will add further traffic to this right turn movement, thus causing a higher probability of one of the northbound lanes along Pennant St (i.e. western CBD Ring Road) to become intermittently blocked during peak times (i.e. due to queue spillback out of the right turn bay).

  The issues raised above are an undesirable outcome for regional traffic and customer traffic heading towards Castle Towers travelling northbound along Pennant St, as this will increase road safety concerns for vehicles trying to avoid the blocked through lane due to the right turn bay queuing out.

  Any potential solutions to the above matter will likely require an increase to the storage length for the right turn bay (i.e. for the right turn movement from Pennant St northbound into Castle St eastbound). However, in order to achieve a feasible solution this will require an additional strip of land (i.e. approx. 3.5m wide, length to be confirmed via modelling or via further interagency discussion with the proponent) along the Site B Planning Proposal's frontage to Pennant St. This would likely result in planning control amendments for the site (i.e. compensatory planning control amendments for the loss of developable land such as a possible FSR bonus).

An updated Transport Impact Assessment (TIA) Report (post Gateway Determination) with updated modelling should be provided as part of the future Planning Proposal documentation. In addition, this also needs to model or identify this additional land requirement to ensure its inclusion within the future Site B Planning Proposal.

7 February 2025

Our Ref: 24015

Department of Planning, Housing & Infrastructure
C/-Ethos Urban
Level 4, 180 George St
Sydney NSW 2000

Attention: Alexander Galea (Manager, Planning Proposal Authority)

Dear Alexander,

Castle Towers Site B Planning Proposal
Response to TFNSW Letter dated 17 January 2025

I refer to the "Castle Towers Site B Planning Proposal" which relates to land generally bound by Kentwell Avenue, Showground Road, Pennant Street and Castle Street in Castle Hill.

The Planning Proposal including the associated August 2022 Transport Impact Assessment Report (**TIAR**) prepared by Stantec was referred to Transport for New South Wales (**TFNSW**), by the Department of Planning, Housing & Infrastructure (**DPHI**), on 20 June 2024.

TFNSW raised a number of concerns in relation to the Planning Proposal in letters dated 22 July 2024 and 31 October 2024. These concerns were responded to by Eukai in letter responses dated 4 October 2024 and 28 November 2024.

Subsequent to the above correspondence, TFNSW issued a letter dated 17 January 2025 advising:

- It requests that the 'loading dock - road safety' related comments provided are satisfactorily addressed by DPHI and the proponent *prior to* the Gateway determination. (Specifically, TFNSW requests a Safe Intersection Sight Distance (**SISD**) consistent with the Austroads Guide to Road Design Part 4A (**the Guide**))
- Other comments provided can be satisfactorily addressed by DPHI and the proponent *as part of* the Gateway determination.

This letter has been prepared to respond to the TFNSW request for a SISD assessment, given that this is the only matter TFNSW has requested be resolved *prior to* the Gateway determination[1]. In this regard, we note the following:

- The SISD requirement is 122m. This distance is based on a design speed of 60km/hr, a reaction time (R_T) of 1.5 seconds, and an assumed downhill grade of 6%. These inputs are considered appropriate, if not conservative, for reasons outlined in Appendix A of this letter..

[1] Notwithstanding this, the QIC project team will seek to organise a separate meeting with TFNSW and DPHI to discuss the modelling matters raised by TFNSW in its January 2025 letter. This meeting is not urgent and will be sought after Gateway determination.

- The sight distance check undertaken via a physical site inspection on 20th November 2024 indicates that there is an available sight distance of approximately **115m** from the proposed loading exit looking south on Pennant Street[2]. The details of this sight distance check are summarised in our previous letter dated 28 November 2024.
- The assessment indicates that a shortfall of approximately **7m** is expected between the estimated available sight distance and the Guide's SISD requirements.

In our view, whilst the SISD requirement is not met, the shortfall is very minor (7m) and we hold the view that it cannot be expected to adversely impact the overall safety of the vehicle access or Pennant Street, particularly given:

1. **Driver Alertness:** The proposed vehicle access is located in a built-up urban location in a congested road network comprised of closely spaced signalised intersections. In such environments, drivers of vehicles are likely to be alert to potential hazards. In the context of the Austroads Guide, we consider the road conditions to be most strongly associated with 'alert driving conditions' as specified within Table 5.2 of the Austroads Guide to Road Design Part 3.
2. **Adopted Design Speed:** Our SISD calculation adopted the current Pennant Street speed limit of 60km/hr as the design speed. However, we consider this input to be highly conservative as vehicles at the crest on Pennant Street (immediately north of Showground Road) are unlikely to be travelling at 60km/hr due to:
    (a) The road network adjacent the site is commonly congested, which limits vehicle speeds to well below the speed limit during significant periods of the day. Traffic modelling undertaken by Cardno now Stantec for TFNSW and Council also indicates that this congestion is expected to increase in the future.
    (b) As the Showground Road / Pennant Street intersection is configured as a T-intersection with a fully-controlled left and right-turn lanes into Pennant Street, the majority of vehicles travelling northbound along Pennant Street will be accelerating from a stop or slower speed.

    We note that if a reduced speed of 50km/hr was adopted (noting our view that the ongoing urbanisation of the Castle Towers precinct may indeed result in a lessening of the speed limit in the future), the SISD requirement would be met. (At the 50km/hr design speed, the SISD requirement would be 95m, compared to 115m provided).

Notwithstanding the views presented above, in the event that TFNSW considers further mitigation measures to be required, we further confirm that the Applicant would not object to TFNSW including a condition on a future Development Application requiring the provision of a sign (static or dynamic) at the crest of Pennant Street north of Showground Road advising the presence of the loading vehicle access. This signage would help increase driver awareness regarding the potential for a vehicle exiting the proposed loading dock.

For completeness, we also consider it prudent to note our view that the Austroads Guide specifies its SISD requirement to be a desirable, rather than a mandatory, requirement for driveways. In this instance, we retain the view that the most appliable minimum sight distance requirements are specified in AS 2890.1 and AS 2890.2. These requirements have been demonstrated to be satisfied in our letter dated 28 November 2024. Further commentary on the applicability of the Guide's SISD requirement is provided at Appendix B to this letter.

[2] Details of this check are documented within the Eukai November 2024 letter.

In summary, based on the discussion within this letter, we consider the proposed Pennant Street loading vehicle access to be acceptable and we hope that this response is able to provide TFNSW with sufficient comfort to support the proposal proceeding to Gateway determination. If TFNSW is not satisfied, however, we would request a meeting with TFNSW and DPHI so that TFNSW can explain its outstanding concerns.

I trust the above is consistent with your requirements for the time being. Naturally, should you have any questions regarding this proposal, please do not hesitate to contact me.

Kind regards,
Eukai Pty Ltd

Tim De Young
Director

BEng (Civil), BCom, MBA, CPEng, FIEAust, NER

Appendix A – SISD Check Calculations

The SISD requirement on sealed roads for a variety of design speed and reaction time parameters is provided at Table 3.2 of the Austroads Guide to Road Design Part 4A (the Guide) and is reproduced below.

Table 3.2: Safe intersection sight distance (SISD) and corresponding minimum crest vertical curve size for sealed roads (S < L)

Design speed (km/h)	Based on safe intersection sight distance for cars[1] h_1 = 1.1; h_2 = 1.25, d = 0.36[2]; Observation time = 3 sec					
	R_T = 1.5 sec[3]		R_T = 2.0 sec		R_T = 2.5 sec	
	SISD (m)	*K*	SISD (m)	*K*	SISD (m)	*K*
40	67	4.9	73	6	–	–
50	90	8.6	97	10	–	–
60	114	14	123	16	–	–
70	141	22	151	25	–	–
80	170	31	181	35	–	–
90	201	43	214	49	226	55
100	234	59	248	66	262	74
110	–	–	285	87	300	97
120	–	–	324	112	341	124
130	–	–	365	143	383	157

1 *If the average grade over the braking length is not zero, calculate the safe intersection sight distance (SISD) values using the correction factors in Table 3.4 (or use Equation 2) by applying the average grade over the braking length.*

2 *A coefficient of deceleration of greater than 0.36 is not provided in this table. The provision of SISD requires more conservative values than for other sight distance models (e.g. the stopping sight distance model allows values up to 0.46 in constrained situations). This is because there is a much higher likelihood of colliding with hazards at intersections (that is, other vehicles). Comparatively, there is a relatively low risk of hitting a small object on the road (the stopping sight distance model).*

3 *A 1.5 sec reaction time is only to be used in constrained situations where drivers will be alert. Typical situations are given in Table 5.2 of AGRD Part 3. The general minimum reaction time is 2 sec.*

Notes:

K is the length of vertical curve for a 1% change in grade.

To determine SISD for trucks around horizontal curves, use Equation 2 with an observation time of 2.5 sec.

Main Roads Western Australia have adopted a desirable minimum reaction time of 2.5 sec and an absolute minimum reaction time of 2.0 sec. A reaction time of 1.5 sec is not to be used in Western Australia.

Combinations of design speed and reaction times not shown in this table are generally not used.

Source: Austroads Guide to Road Design Part 4A. Red box identifying adopted SISD value inserted by Eukai

For this assessment, we have adopted a reaction time of 1.5 seconds and a design speed of 60km/hr, for the reasons summarised in Table A.1 on the following page.

Table A.1: Adopted Values for SISD Calculation

Variable	Value adopted	Eukai Commentary
Reaction time (R_T)	1.5 seconds	We consider a reaction time of 1.5 seconds to be most appropriate in this instance given that the road conditions are most strongly associated with 'alert driving conditions' as specified within Table 5.2 of the Austroads Guide to Road Design Part 3. Specifically, this table identifies the following typical components of 'alert driving conditions' that are applicable in this scenario: *"high expectancy of stopping due to traffic signals, restricted low speed urban areas, and built-up areas – high traffic volumes"*
Design speed (km/hr)	60km/hr	We have adopted this speed as it is the current speed limit. We consider this value to be conservative 'on the high side' as we do not expect Pennant Street traffic to be travelling at the speed limit at the crest of Pennant Street when they may fist observe a vehicle exiting the loading dock. Our reasons for this view are outlined in the body of this letter. We also acknowledge that whilst TFNSW has a preference to assume the design speed is 10km/hr above the posted speed limit, we refer to TFNSW 'Supplement to Austroads Guide to Road Design' (TS 02642:1.0, December 2023) which states: *"The design speed may be equal to the posted speed on urban roads when the speed limit is ≤ 60 km/h and with validation that the existing operating speed is equal to or less than the posted speed."* If required, a tube count to record vehicle speeds on the crest of Pennant Street could be attained, although we would suggest this ought not be required given the reasons outlined in this letter.

Based on the above values, there is a minimum requirement for 114m of SISD assuming a flat grade. As Pennant Street is on a grade, we have then increased this SISD requirement in accordance with Table 3.4 of the Guide. This table is reproduced below.

Table 3.4: Grade corrections to ASD and SISD (cars)

Design speed (major road) (km/h)	Correction (m)							
	Upgrade				Downgrade			
	2%	4%	6%	8%	2%	4%	6%	8%
40	–1	–2	–2	–3	1	2	3	5
50	–1	–3	–4	–5	2	3	5	8
60	–2	–4	–6	–7	2	5	8	11
70	–3	–5	–8	–10	3	7	11	15
80	–4	–7	–10	–13	4	9	14	20
90	–5	–9	–13	–16	5	11	18	25
100	–6	–11	–16	–20	6	14	22	31
110	–7	–13	–19	–24	8	17	26	38
120	–8	–16	–22	–29	9	20	31	45
130	–10	–18	–26	–34	11	23	37	53

Note: This table to be used in conjunction with Table 3.2.

Source: Austroads Guide to Road Design Part 4A. Red box identifying adopted downgrade inserted by Eukai

For the purposes of this assessment, we have adopted a downgrade of 6%. This is an assumption as we are not aware of the exact grade of the road. (If 8% was adopted, the SISD would increase by 3m. This would not impact the views stated in this letter).

In total, we calculate the SISD as 122m (i.e. 114m + 8m).

Appendix B – Applicability of SISD Requirement

The Austroads Guide to Road Design Part 4A (the Guide) states that the Safe Intersection Sight Distance (SISD) *"must be provided in the design of all intersections" (underlining ours for emphasis)*

The Guide further states *"SISD is the minimum sight distance which should be provided on the major road at any intersection"* and that it should be measured between the driver's eye height of 1.1m to points 1.25m above the road. The Guide confirms it is required as it:

"provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation (e.g. in the worst case, stalling across the traffic lanes), and to decelerate to a stop before reaching the collision point. All possible conflict points arising from vehicles entering from the minor road should be assessed."

Critically, we note our view that the proposed Pennant Street loading dock vehicle access is not an intersection, but rather a non-domestic property access**.** The Guide states the following regarding requirements for sight distances at property entrances at Section 3.4:

"Desirably, sight distances at accesses should comply with the sight distance requirements for intersections, i.e. that approach sight distance (ASD), safe intersection sight distance (SISD), and minimum gap sight distance (MGSD) are achieved. However, where this is not possible due to constraints, guidance is provided in Appendix A.3 to apply EDD for sight distance at domestic accesses. AS 2890.1 provides guidance for nondomestic accesses." (underlining ours for emphasis)

Based on the above extract from the Guide, we conclude the following:

- Sight distances at property accesses (i.e. appliable to this Planning Proposal) should desirably comply with the SISD requirement. However, this is not a mandatory requirement.
- Where the SISD requirement in the Guide is not possible due to constraints, guidance for sight distances at property accesses is provided at AS 2890.1.

As outlined in the Eukai letter dated 28 November 2024, it has been demonstrated that the sight distance requirements contained at AS 2890.1:2004 will be exceeded at the proposed loading dock vehicle access.

Transport for NSW

24 February 2025

TfNSW Reference: SYD24/01146/04
DPHI Reference: RR-2023-30 / PP-2023-3644

Mr Alexander Galea
Manager, Planning Proposal Authority
Department of Planning, Housing and Infrastructure
Locked Bag 5022
Parramatta NSW 2124

Attention: Shruthi Sriram

RE: PRE-GATEWAY AGENCY CONSULTATION – QIC CASTLE HILL SITE B PLANNING PROPOSAL – KENTWELL AVENUE, SHOWGROUND ROAD, PENNANT STREET & CASTLE STREET, CASTLE HILL

Dear Mr Galea,

Thank you for providing Transport for NSW (TfNSW) with an opportunity to comment on the above amended proposal, which was referred to us by the Department of Planning, Housing & Infrastructure (DPHI) in correspondence dated 11 February 2025.

We note that the current proposal for the site seeks to amend The Hills Local Environmental Plan (LEP) 2019 (the LEP) to:

- rezone part of the site for a proposed public park from MU1 Mixed Use to RE1 Public Recreation,
- increase the maximum Height of Buildings (HOB) control currently ranging from 7m – 28m to a range of 20m - 94m across the site, and
- introduce a site-specific incentive FSR. The original proposal quantified this as incentive GFA 190,960m2 (the equivalent of an average 4.5:1 FSR across the site), while the May 2023 update translated this to a series of specified incentive FSRs which are proposed to be mapped (2.22:1 to 10.25:1). The incentive FSR requires a number of conditions to be met to be used.

We also acknowledge that DPHI have requested that TfNSW review the proponent's (QIC) latest responses dated 7 February 2025 which aim to respond to our previous correspondence dated 17 January 2025 (Ref: SYD24/01146/03) to resolve loading dock road safety related matters that would preclude the submission of the proposal for a Gateway Determination.

TfNSW's detailed comments are provided in **TAB A**. It is requested that the comments provided are satisfactorily addressed by DPHI and the proponent as part of the Gateway determination.

Should you have any questions or further enquiries in relation to this matter, please contact Andrew Popoff, Senior Land Use Planner, via phone on 0413 459 225 or email at andrew.popoff@transport.nsw.gov.au.

Yours sincerely,

IKaraman

Ilyas Karaman
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TAB A – Detailed TfNSW Comments - QIC Castle Hill Site B Planning Proposal – Kentwell Avenue, Showground Road, Pennant Street & Castle Street, Castle Hill

Property:

Comment / Recommendation:

Previous comments provided by TfNSW in correspondence dated 31 October 2024 (Ref: SYD24/01146/02) can be addressed after the Gateway Determination via the inclusion of an appropriate notation on the Planning Proposal documentation.

Intersection of Showground Road / Kentwell Avenue:

Comment / Recommendation:

We note that the proponent has acknowledged the potential long term (ultimate) concept layout which highlights the future provision of 3-approach and 2-departure lanes on the Kentwell Avenue leg of this intersection, as illustrated within **Figure 1** of the TfNSW in correspondence dated 31 October 2024 (Ref: SYD24/01146/02).

TfNSW supports the proponent's statement that this matter (agreed ultimate layout) can be addressed after the Gateway Determination via a minor revision to the Planning Proposal documentation.

Proposed Loading Dock Access – Pennant Street:

Comment / Recommendation:

Sight Distance (SISD Assessment)

TfNSW has reviewed the information provided by the Eukai response dated 7 February 2025. Even though the value for the SISD equated to a distance of 115m for a speed of 60km/h is short of the required 122m, this is considered acceptable subject to the following requirements detailed below being satisfactorily addressed:

- The loading dock will be designed to accommodate up to a maximum of 12.5m single unit heavy vehicles.
- The loading dock will only have approximately 5 loading bays thereby limiting truck movements.
- The proposed loading dock access must be designed to include an Austroads Guide to Road Design Part 4A compliant left turn deceleration lane.
- The existing trees located within the Pennant Street footway (fronting the site) are to be removed to ensure unobstructed sight lines are achieved.
- **Weaving -** TfNSW requires the recommendation for the inclusion of a condition of Gateway Determination that the proposed Pennant Street loading dock cannot be operational prior to the completion of the future upgrade of the Showground Road / Pennant Street intersection which involves providing signal controlled dual left turn lanes from Showground Road into Pennant Street and the removal of filtered right turn movements from Showground Road into Pennant Street.
- **Loading Dock Management Plan -** A condition requiring the preparation a Loading Dock Management Plan (LDMP) to be conditioned on any subsequent DA approval to discourage loading activity during road network peak hours (i.e. 6am-10am, 3pm-7pm Monday to Friday) as well as the use of Castle Street for vehicles exiting the loading dock.

  Note: TfNSW reserves the right to impose further limit/restrictions on the times of usage of the loading dock should vehicle movements associated with the loading dock result in road safety impacts on Pennant Street.

Active Transport

TfNSW notes that the latest Draft Castle Hill Precinct Plan does not include the proposed cycleway on Pennant Street. Despite this, the proponent states "*If this cycleway were to be provided, however, we are satisfied that a suitable design solution would be found for the vehicle access to ensure that cyclist amenity or safety is not compromised. In our view, this is a matter that can be resolved at the DA stage*."

TfNSW is satisfied with this response and has no further concerns surrounding the proposed cycleway at this time.

Transport Impact Assessment Report and Modelling:

Comment / Recommendation:

We acknowledge the proponent's past response that they have no issue "in principle" with providing additional / updated modelling if required post Gateway Determination. TfNSW believes that this will be the case. Therefore, we have also reiterated below the details contained within our previous correspondence dated 17 January 2025 (Ref: SYD24/01146/03) on this matter.

- TfNSW have conducted a spot check via SCATS counts for the intersections of Showground Road / Cheriton Ave / Kentwell Ave and Showground Road / Pennant St for the date of Thursday 19 September 2024. This highlighted the following:

    - Eastbound and westbound approach volumes along Showground Road are about 100+vph higher in each direction for the Showground Road / Cheriton Ave / Kentwell Ave intersection than what was adopted as PM Base Traffic Volumes at this intersection within the "Castle Towers – Site B – Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)".
    - The left turn from Showground Road into Pennant St and the right turn from Pennant St into Showground Rd are about 100+vph in each direction than what was adopted as PM Base Traffic Volumes at this intersection within the "Castle Towers – Site B – Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)".

  Therefore, the base year traffic volumes and modelling associated with the Castle Towers – Site B – Planning Proposal need to be updated / rebased as part of the updated Transport Impact Assessment (TIA) Report (post Gateway Determination).

- The intersections modelled within the "Castle Towers – Site B – Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)" were all done in isolation and not as a network noting that there may be the potential for queue spillback (in some locations) to affect intersection performance results. Such impacts are particularly important to understand for intersections serving as accesses to/from the site. Furthermore, linked to the issue above, it is noted that Base Year Traffic Counts were undertaken at the Showground Road / Pennant Street intersection within this TIA report, but this key intersection was not modelled.

  Therefore, an updated Transport Impact Assessment (TIA) Report (post Gateway Determination) needs to model all key intersections fronting the site within a linked network model.

- The detailed SIDRA modelling results for the intersection of Pennant Street / Castle Street within the "Castle Towers – Site B – Planning Proposal – Transport Impact Assessment (Stantec – 31 August 2022)" highlighted the following issue below:

    - The 95% queue fills up and goes slightly beyond the 100m storage length for the right turn bay for the right turn movement from Pennant St northbound into Castle St eastbound (in all modelled PM Peak scenarios).

  TfNSW staff have observed this issue above and note this to be significantly worse on the weekend peak. Whilst it is acknowledged that the Site B Planning Proposal would not add further traffic to this right turn movement, the proponent's upcoming Site A Planning Proposal will add further traffic to this right turn movement, thus causing a higher probability of one of the northbound lanes along Pennant St (i.e. western CBD Ring Road) to become intermittently blocked during peak times (i.e. due to queue spillback out of the right turn bay).

  The issues raised above are an undesirable outcome for regional traffic and customer traffic heading towards Castle Towers travelling northbound along Pennant St, as this will increase road safety concerns for vehicles trying to avoid the blocked through lane due to the right turn bay queuing out.

  Any potential solutions to the above matter will likely require an increase to the storage length for the right turn bay (i.e. for the right turn movement from Pennant St northbound into Castle St eastbound). However, in order to achieve a feasible solution this will require an additional strip of land (i.e. a3pprox. 3.5m wide, length to be confirmed via modelling or via further interagency discussion with the proponent) along the Site B Planning Proposal's frontage to Pennant St. This would likely result in planning control amendments for the site (i.e. compensatory planning control amendments for the loss of developable land such as a possible FSR bonus).

  An updated Transport Impact Assessment (TIA) Report (post Gateway Determination) with updated modelling should be provided as part of the future Planning Proposal documentation. In addition, this also needs to model or identify this additional land requirement to ensure its inclusion within the future Site B Planning Proposal.

Finally, TfNSW also acknowledges/accepts the response provided further below by the Eukai correspondence dated 7 February 2025 with regards to the abovementioned comments on the Transport Impact Assessment Report and Modelling:

"...the QIC project team will seek to organise a separate meeting with TFNSW and DPHI to discuss the modelling matters raised by TFNSW in its January 2025 letter. This meeting is not urgent and will be sought after Gateway determination."