

4 August 2023

Attn: Mr Jayden Forbes-Mitchell
Toowoomba Regional Council
PO Box 3021
TOOWOOMBA QLD 4350



Re: Development Application Further Advice (RAL/2022/4965)

Project No: 17162

Project Title: Gainsborough Lodge

Dear Jayden,

This letter provides a response to the following items listed in the request for information letter dated 9/05/23:

- 1. Reconfiguration Layout
- 2. Stormwater
- 3. Earthworks

The following comments are made to the requests outlined in the Request for Information letter dated 9/05/23 and subsequent email correspondence.

1. RECONFIGURATION LAYOUT

1.1	Issue:
	The 16m wide Esplanade Road (Road 2 and Road 9) is not consistent with PSP No 2. Council will not accept a reduced road reserve width for Road 2 Local Access Esplanade (75-175 lots) as identified in the Road Hierarchy Design Plan C-R0201 provided within the RMA Preliminary Engineering Assessment Report. This street requires the provision of footpaths both sides of the street given it provides pedestrian access to the Balance Lot, links with the footpaths both sides of the collector Road 2, and services including sewer, water and power will be required to service the Balance Lot 2001 and may need space within the verge along with street trees.
	Council will consider a reduced road reserve width for Road 9 Local Access Esplanade as shown on Plan C-R0201 provided the Applicant can demonstrate how the Balance Lot 2001 could be serviced by water, sewer and power, and the eastern verge of Road 9 is not required to accommodate these services.
	Information Required:
	Please amend the reconfiguration layout to include a 19m wide reserve for the Local Access Street section of Road 2 as shown on Plan C-R0201. Please provide details showing how the Balance Lot 2001 could be serviced by water, sewer and power and demonstrate the eastern verge of Road 9 adjacent to the Balance Lot 2001 is not required to convey these services.

	<p>Response:</p> <p>A modified local access typology has been proposed for the hill-base esplanade internal roads. The modification is for a reduction to the hillside verge width from 5.5m to 2.9m and an overall road reserve width from 19m to 16m. The verge reduction is considered the optimal outcome for the following reasons:</p> <ul style="list-style-type: none"> ▪ The boundary interface of Esplanade Roads and Balance Lot 2001 is fixed due to escarpment constraints. Any increase in reserve width to Road 2 Esplanade would be applied to the north, resulting in increased retaining wall heights at Hulsey Road or steeper longitudinal grades to Roads 6, 7 and 8, which are currently approximately 10%. ▪ As demonstrated in Esplanade Road cross sections, there are no services proposed within the Hilltop-facing verge: <ul style="list-style-type: none"> › Water and electrical/telecommunications are proposed on the Lot-facing verge › Stormwater gully and pipe systems will be within roads, as standard › Sewer is proposed within Lot frontages in line with Council's PSP. <p>While service to Balance Lot 2001 is subject to detail design and a future MCU application. Generally, service to Balance Lot 2001 would be provided via service crossings and connection stubs, as it makes no sense to run parallel services within the Hilltop-facing verge. An example of this would be:</p> <ul style="list-style-type: none"> › Water: End of line provided at Lot 163 › Sewer: End of lines provided near Lot 163, Lot 70/208 and Lot 313 › Stormwater: Drainage stubs from stormwater gullies within Road 2 and 9 › Electrical and Telecommunication: Service crossing near Lot 163. <p>To confirm, no service are intended within the Hilltop verge. This can be controlled via approval conditions and future staged Operational Works Applications.</p> <p>Council has previously raised concerns with Road 2 Esplanade northern verge footpath "directness" with respect to driveway and street crossing obstacles in justification of an additional southern footpath.</p> <p>However, there are no driveway crossovers proposed to Road 2 Esplanade. Lots north of Road 2 Esplanade will gain driveway access via north-south orientated roads. The topology constraints fixing these driveway locations is demonstrated in the retaining wall details previously provided; refer <i>RMA Preliminary Engineering Assessment Report Revision 1 - Appendix B, Drawing Number C-E0604 Issue B</i>.</p> <p>Noting the side lot retaining along Road 2 Esplanade, there is no justification for an additional path due to northern verge obstacles.</p>
1.3	<p>Issue:</p> <p>Proposed lots 92 to 95 gain street access via a common driveway within a 12m road reserve. Lot 103 may also use this driveway to gain rear lot access. This type of street is not a road hierarchy category supported within PSP No 2 Engineering Standards Roads and Drainage Infrastructure. Council does not support this number of blocks being serviced by a driveway some 70m long.</p> <p>Information Required:</p>

1.4	<p>Please amend the reconfiguration layout reducing the number of lots requiring access to the street via a driveway. This could include provision of a cul-de-sac.</p>
	<p>Response:</p> <p>An updated Plan of Development has been provided by RPS which provides provision of a culdesac at the subject location. Engineering details will be provided with future Operational Works Applications.</p>
	<p>Issue:</p> <p>There are numerous streets within the reconfiguration layout where the length between slow points (i.e.; intersections or curves) exceeds 120m and the provision of a maximum speed of 40km/h will not be achieved. The applicant has stated appropriate speed calming devices can be conditioned in the approval.</p> <p>The Plan C-R0201 shows traffic calming to be applied at two intersections Road 2/Road 5 and Road 2/Road 7 but there is no indication what type of device will be installed. Council wants the applicant to determine what traffic calming treatment could be imposed. A treatment such as a raised intersection may impact overland flows, while a modified/offset tee arrangement is not favoured by Council due to operational issues. The best solution may be to alter the street alignment and reconfiguration layout between Lots 143-146 to restrict the length of through road.</p> <p>There are other streets where the length exceeds 120m and there is no indication as to how speeds will be limited to a maximum of 40km/h.</p>
	<p>Information Required:</p> <p>Please advise what type of traffic calming devices could be provided on Road 2 Local Access Street to restrict speeds to a maximum of 40km/h. Please review the street layout between Lots 143-146 with a view to removal of the through road.</p> <p>Please advise what type of traffic calming devices could be provided on other streets where the straight length of street exceeds 120m.</p>
	<p>Response:</p> <p>The east-west alignment of Road 2 segment fronting Lots 134-154 is not a trip generated route as there is no connection to the external traffic network via this route. Rather, the subject alignment is required for lot access and service, specifically stormwater. The major stormwater management for the north-eastern portion of Gainsborough Lodge is supported by Road 2 east-west alignments and cannot be modified.</p> <p>Traffic calming, where required, is preferred to be applied at T-intersections. Deflected T-intersections with optional island treatment has previously been accepted in the region.</p> <p>Mid-block traffic calming is not supported for the following reasons:</p> <ul style="list-style-type: none"> ▪ Lighting nuisance to surrounding residential properties ▪ Noise nuisance from acceleration and braking to surrounding residential properties ▪ May prohibit or limit access and movement from driveways and may be restrictive for emergency and service vehicles ▪ Street trees contribute to a narrowing affect and ad hoc on-street parking naturally provide restriction and reduces speed ▪ There is clear visibility to end of roads.

	Traffic calming will be appropriately considered and applied (if necessary) with future Staged Operational Works Applications.
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2. STORMWATER

2.1	Issue:
	<p>The applicant proposes that a bio-retention basin be provided within the floor of the detention basin MB01. This is not an arrangement that is favoured by Council as the basin will be flooded during all storm events and likely to suffer through siltation and extensive inundation.</p> <p>The existing detention basin at Drayton Wellcamp Road has been sized to include at least 3,000m² of bio-retention basin in the basin floor to service the Glenvale Devine Road Development and Gainsborough. Council requires the existing detention basin to be used for Gainsborough stormwater quality treatment to confine the risk of failure to one site rather than two sites.</p> <p>Council will also require operational works design of the MB01 detention basin to include 1 in 6 batters (as outlined in PSP No 2) instead of 1 in 4 batters given that the size of the bio-retention basin is no longer dictating the basin shape.</p>
	Information Required:
	No further information is currently required. Please be advised that Council will condition for stormwater quality treatment for Gainsborough to be provided within the Drayton Wellcamp Road detention basin and the batters of proposed detention basin MB01 to be 1 in 6.
	Response:
	<p>Whilst no information response was requested, we can confirm acceptance of bioretention consolidation within the Drayton Wellcamp Road Trunk Basin.</p> <p>QUDM Section 5.11 states that basin maximum embankment slope is 1 in 4. To allow egress, the southern basin embankment is provided at 1 in 6, refer <i>RMA Preliminary Engineering Assessment Report Revision 1 - Appendix B, Drawing Number C-B0201 Issue B</i>. Detention basins with all batters at 1 in 6 are workable in locations that are not spatially and topologically constrained.</p> <p>Additionally, as outlined in of the <i>RMA Stormwater Management Plan Revision 1 Section 4.8.1</i> it is expected that detention basin MB01 is recognised by Council as trunk and creditable infrastructure within the Development Approval conditions for the following reasons:</p> <ul style="list-style-type: none"> ▪ The detention basin nominated as MB01 (southern basin) is a component of the Draft Spring Creek Stormwater Management Report's trunk infrastructure ▪ The MB01 detention basin is assumed hydraulically necessary to support the size and capacity of the downstream trunk drainage channel approved and constructed as part of the adjacent Drayton Wellcamp Road subdivision development (OW/2018/6192). ▪ The basin supports approximately 200 residential lots within the PIA boundary.

3. EARTHWORKS

3.1	Issue:
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	The retaining wall plan has been updated to include the maximum height of retaining walls but there are no walls shown against the Balance Lot 2001 and the earthworks plans shows significant cuts in the vicinity of Road 2.
	Information Required:
	Please provide updated plans that indicate the maximum height of retaining walls within the Balance Lot 2001. These walls will need to be located within Lot 2001 and be terraced if their height exceeds 1m.
	Response:
	In reference to <i>RMA Preliminary Engineering Assessment Report Revision 1 - Appendix B, Drawings S-E0602 - C-E0604</i> , retaining wall height within Balance Lot 2001 is nominated on plan as a green dashed line and referenced in legend as "Sandstone Retaining Wall 2.0-5.0m".