



6 December 2018
Our Ref: 18BRT0482
Your Ref:

Attention: Sophie Williams

RPS Group Pty Ltd
PO Box 6149
MERIDAN PLAINS QLD 4551
Via email: Sophie.Williams@rpsgroup.com.au

Dear Sophie,

RE: Coles Flagstone – Lot B Homestead Drive, Undallah QLD

Minor Change Application – Traffic Engineering Assessment

TTM has been engaged by Coles Group Property Developments to undertake a traffic engineering review and assessment of the above-mentioned development. It is understood that this report is to accompany a Change Application to Economic Development Queensland (EDQ).

1. Summary of Proposed Changes

A copy of the updated architectural drawings, prepared by Powe Architects, is attached. Table 1 below summarises the approved and proposed building gross floor areas and on-site car parking supply arrangements. The proposed changes are summarised as follows:

- Increase of 102 m² GFA associated with Stage 1 supermarket
- Increase of 5 on-site car parking spaces within the Stage 1 supermarket car parking area
- Reconfiguration of on-site car parking areas internal circulation roadways and intersections
- Reconfiguration of Stage 1 supermarket main loading dock area and egress crossover to Branson Street
- ~~Relocation of the north-south pedestrian path through the supermarket car parking area (shifted west)~~

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The addition of a north-south pedestrian aisle through the supermarket car parking area to the west of the central pedestrian aisle

Table 1: Development Characteristics

Stage	Aspect	Approved	Proposed	Change
Stage 1 & 3 (Supermarket)	GFA - Amenities & BOH - Liquor - Retail - Supermarket <u>Stage 1 Sub-total</u> - Supermarket Expansion (St. 3) Sub-total	97 m² 150 m² 550 m² 3,542 m² <u>4,339 m²</u> 368 m² 4,707 m²	76 m² 150 m² 550 m² 3,665 m² <u>4,441 m²</u> 368 m² 4,809 m²	- 21 m² - No change - No change + 123 m² <u>+ 102 m²</u> - No change + 102 m²
	Car Parking Supply - Customer - PWD - Staff - Click & Collect - Taxi - Drop-off / pick-up - Electric charging Sub-total	185 4 32 3 1 3 0 228 spaces	188 5 31 3 1 3 2 233 spaces	+ 3 + 1 - 1 - No change - No change - No change + 2 + 5 spaces
Stage 2 (Commercial)	GFA Commercial building	300 m²	300 m²	No change
	Car Parking Supply - Standard - PWD Sub-total	14 1 15 spaces	14 1 15 spaces	- No change - No change No change

2. Adequacy of Proposed Car Parking Supply

It is understood that parking supply for the revised development should be consistent with the current Plan of Development (approved development scheme). As there is no changes proposed to the Stage 2 commercial component, the arrangements for the Stage 1 and 3 development have been assessed. Table 2 presents the approved and proposed car parking rates for each Stage of the development.

As demonstrated, the proposed parking supply rate for Stage 1 and 3 is same as the parking supply rate identified in the current development approval. The proposed supply for Stage 2 is the same as the current approval. As such, the proposed car parking supply is therefore acceptable.

Table 2: Approved and Proposed Car Parking Supply Comparison

Stage	Approved Development Scheme			Proposed Development Scheme		
	GFA	Spaces	Rate	GFA	Spaces	Rate
Stage 1 & 3	4,707 m ²	228	4.84 spaces / 100m ² GFA	4,809 m ²	233	4.84 spaces / 100m ² GFA
Stage 2	300 m ²	15	5 spaces / 100m ² GFA	300 m ²	15	5 spaces / 100m ² GFA

3. Adequacy of Proposed Car Parking Layout Changes

Review of the proposed car parking area geometry indicates the design layout satisfies, and in some aspects exceeds, the standards nominated in AS/NZS 2890.1:2004 and AS/NZS 2890.6:2009. Specific minimum geometries are:

- Supermarket customer standard spaces - 5.4m x 2.7m spaces with 6.6m wide aisles
- Supermarket PWD spaces – 5.4m x 2.7m spaces (with 2.7m wide shared area) with 6.6m wide aisles
- Supermarket staff spaces – 5.4m x 2.4m spaces with 6.6m wide aisles
- Stage 2 commercial standard spaces – 5.4m x 2.6m spaces with 6.6m wide aisle
- Stage 2 PWD space – 5.4m x 2.4m space (with 2.4m wide shared area) with 6.6m wide aisle

The internal 1-way roadway from the Homestead Drive site access has been widened from 4m to 5.0m to provide for passing of a potential broken down vehicle. The internal roundabout has been increased in diameter to facilitate more efficient and comfortable vehicle manoeuvring/movement. As demonstrated in TTM drawing 18BRT0482-06A - Sheet 3 (copy attached) the proposed layout of these intersection areas is appropriate.

The proposed relocation of the north-south oriented pedestrian link, from Branson Street to the northern future development lot (Lot 25010 SP286481), is deemed to be a more appropriate outcome than the currently approved route (through the centre of the supermarket car park). The proposed route, located along the western edge of the supermarket car park, is generally consistent with the currently approved development plan and adequately provides for this pedestrian desire line. Importantly, the proposed location minimises potential conflict between pedestrians and vehicles which would otherwise occur with the currently approved route. Additionally, the proposed location is consistent with Coles car park design guidelines which aims to provide a high level of legibility and separation of pedestrian and vehicle movement.

4. Adequacy of Proposed Service Vehicle Layout Changes

4.1 Stage 2 Commercial Building

A loading bay designed to accommodate a Small Rigid Vehicle is proposed adjacent the building effectively the same as the currently approved development. Please refer to TTM drawing number 18BRT0482-06A – Sheet 2 (copy attached) which demonstrates the vehicle swept path analysis for this loading bay.

4.2 Stage 1 Specialty Retail Loading Bay

A loading bay designed to accommodate a Medium Rigid Vehicle is proposed adjacent the northern Retail building, effectively the same as the currently approved development. Please refer to TTM drawing number 18BRT0482-06A – Sheet 2 (copy attached) which demonstrates the vehicle swept path analysis for this loading bay.

4.3 Stage 1 Supermarket Loading Dock

The proposed loading dock is designed to accommodate two vehicles simultaneously, including a 19m Articulated Vehicle and a 12.5 Heavy Rigid Vehicle. Please refer to TTM drawing number 18BRT0482-06A – Sheet 1 (copy attached) which demonstrates the vehicle swept path analysis for this loading dock.

The proposed egress crossover to Branson Street has been relocated approximately 5m west of the currently approved layout to align with the on-site loading bays to enable adequate manoeuvring of service vehicles. It is designed with a width of approximately 11m (at the property boundary) and includes a custom crossover taper on the eastern side. The purpose of the custom taper is to allow the design vehicle to undertake a left turn out of the access without having to cross the centreline of Branson Street i.e. not cross into the westbound lane on Branson Street (which the currently approved plan requires).

5. Conclusion

The assessment contained herein demonstrates that the proposed traffic modifications to the development plan are generally consistent with the current development approval. The proposed car parking supply accords with the current development approval and the proposed traffic design layout changes are appropriate and in accordance with AS/NSZ 2890.1:2004 and AS/NSZ 2890.6:2009.

I trust the information provided herein is adequate for your purposes. Should you require any further information, please contact me by phone on (07) 3327 9500 or by email at dgrummitt@ttmgroup.com.au.

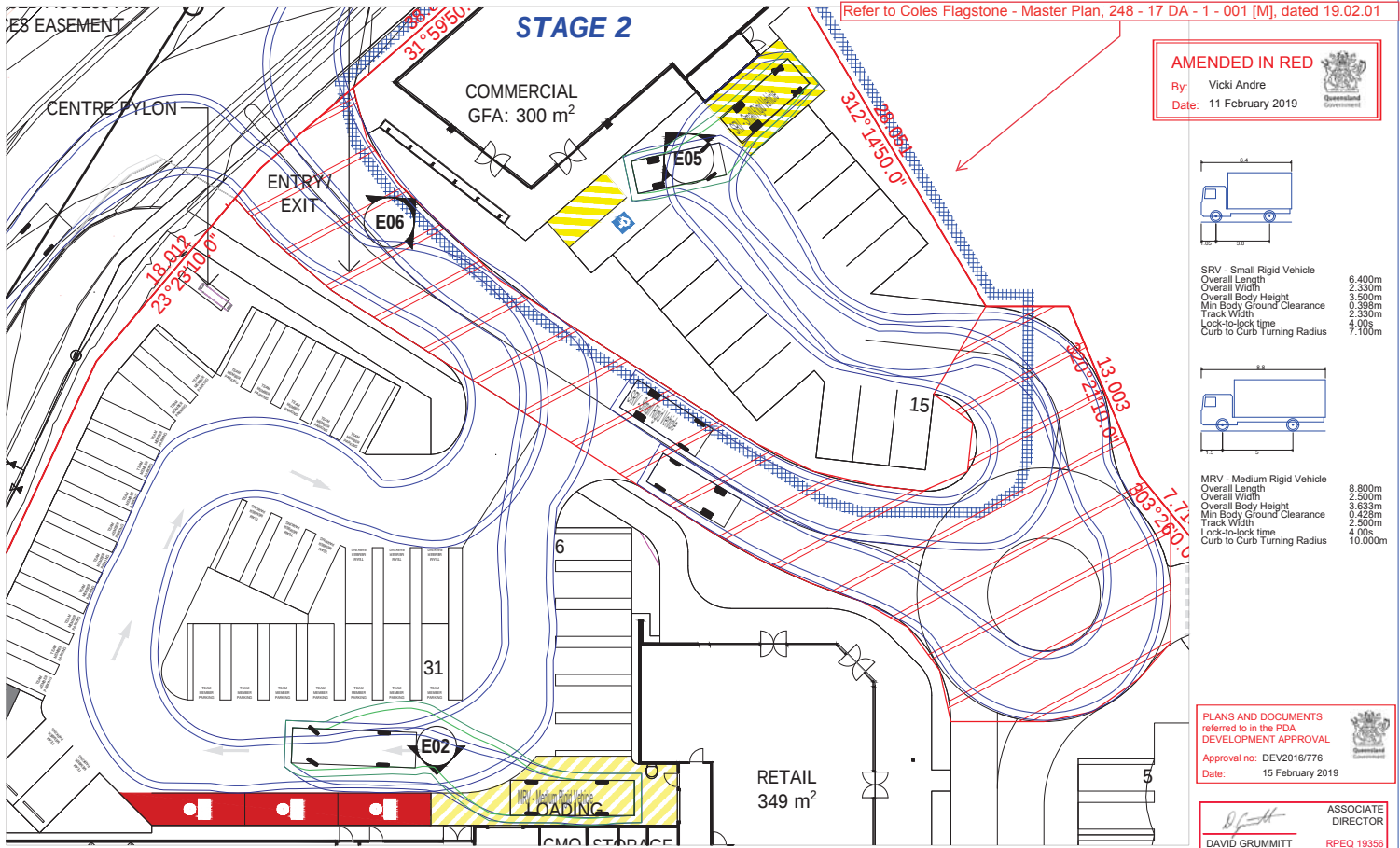
Yours sincerely,

A handwritten signature in black ink, appearing to read 'D. Grummitt', with a stylized flourish at the end.

David Grummitt | RPEQ MIEAust NER
Associate Director
[TTM Consulting Pty Ltd](#)

Attachments

1. Proposed Development Plans (Powe Architects)
2. Vehicle Swept Path Analysis Plans (TTM Consulting)



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REV	DATE	AMENDMENT DESCRIPTION	DESIGNED	CHECKED	APPROVED
A	06-12-18	ORIGINAL ISSUE	DD	DD	DD

SCALE 1:250 AT ORIGINAL SIZE

COLES



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PROJECT	PROJECT NUMBER	ORIGINAL SIZE
COLES FLAGSTONE - MINOR CHANGE APPLICATION	18BRT0482	A3
DRAWING TITLE	DRAWING NUMBER	REVISION
VEHICLE SWEEP PATH ANALYSIS COLES SPECIALTY & STAGE 2 LOADING	18BRT0482-06	A
DATE	DATE	SHEET
6 Dec 2018		2 OF 3

AMENDED IN RED

By: Vicki Andre
Date: 11 February 2019

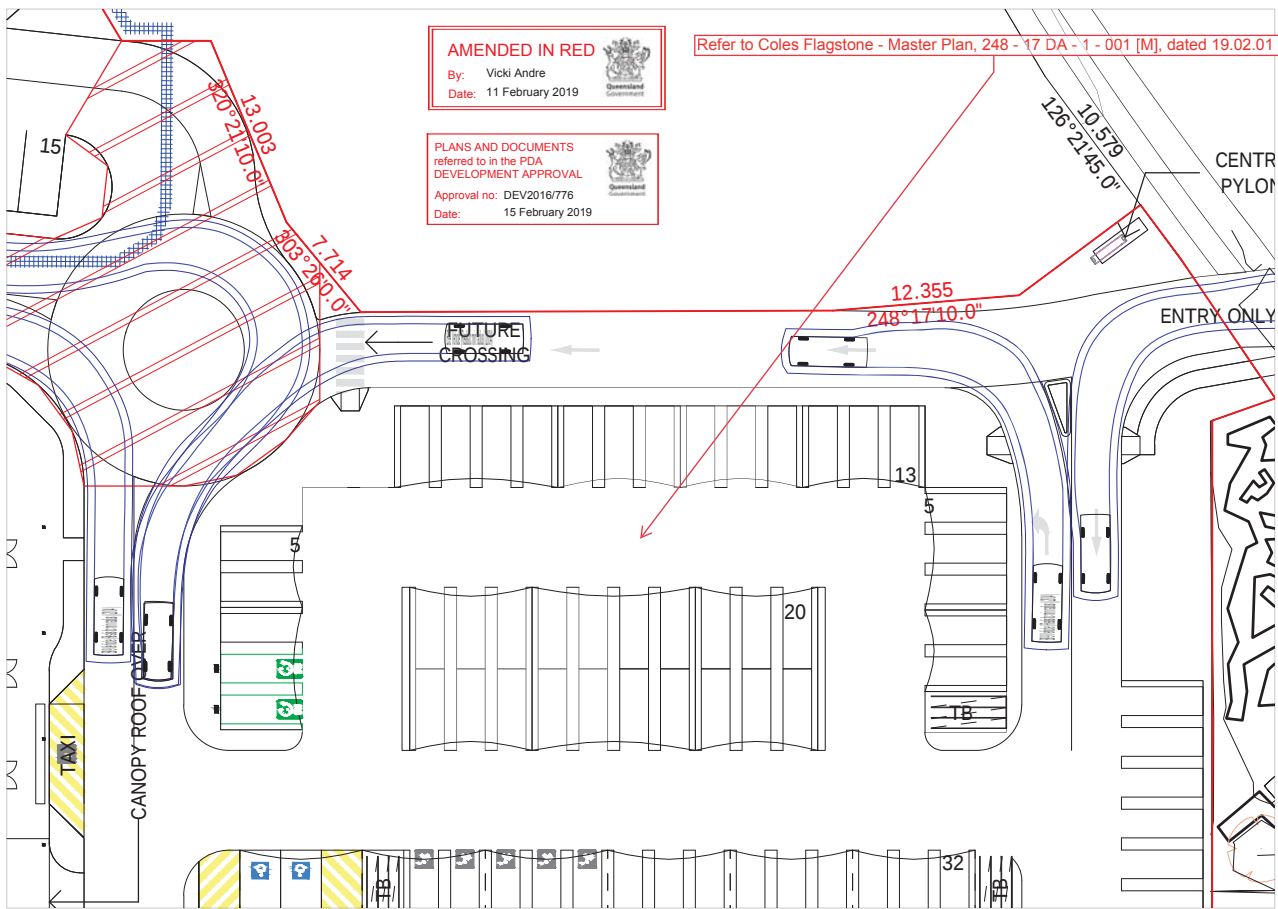


PLANS AND DOCUMENTS referred to in the PDA DEVELOPMENT APPROVAL

Approval no: DEV2016/776
Date: 15 February 2019



Refer to Coles Flagstone - Master Plan, 248 - 17 DA - 1 - 001 [M], dated 19.02.01



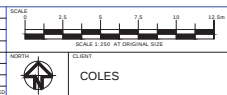
B99 Vehicle (Realistic min radius) (2004)
Overall Length 5.200m
Overall Width 1.840m
Overall Body Height 1.878m
Min Body Ground Clearance 0.272m
Track Width 1.840m
Lock-to-lock time 4.00s
Curb to Curb Turning Radius 6.250m

DAVID GRUMMITT
APPROVED 6 Dec 2018

ASSOCIATE DIRECTOR

RPEQ 19356

REV	DATE	DESCRIPTION	BY	CHKD	APPD
1	06-12-18	ORIGINAL ISSUE	EG	EG	EG
2		AMENDMENT DESCRIPTION	EG	EG	EG



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PROJECT	PROJECT NUMBER	ORIGINAL SIZE
COLES FLAGSTONE - MINOR CHANGE APPLICATION	18BRT0482	A3
DRAWING TITLE	REVISION	DATE
VEHICLE SWEEP PATH ANALYSIS INTERNAL INTERSECTIONS	18BRT0482-06	6 Dec 2018
		3 OF 3