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TOOWOOMBA
REGIONAL COUNCIL

24 September 2025
Ref No. 28030

Mr James Gleeson
18 Jenkins Street
TOOWOOMBA QLD 4350

Email: jlg210.gumtree@gmail.com

Re: PROPOSED DWELLING UNIT DEVELOPMENT
AT Nos. 18-20 JENKINS STREET, NEWTOWN - TOOWOOMBA

CONCEPTUAL STORMWATER MANAGEMENT REPORT

1.00 INTRODUCTION

1.01 This report was prepared to address the stormwater management issues relating to this proposed development.

1.02 This *Conceptual Stormwater Management Report* has been prepared upon the basis of:

(i) Calculations completed in accordance with normally accepted engineering principles and practices.

(ii) Compliance with the general intent of *The Queensland Urban Drainage Manual* (QUDM).

(iii) Compliance with the intent of normally accepted principles, codes and policies including the *Toowoomba Regional Council's Planning Scheme Policy*.

(iv) Detailed topographical survey and site evaluations supplemented by reference to aerial mapping with respect to upstream properties.

1.03 The proposed development will involve constructing four (4) unit development with the proposed general layout of the site development as documented on the following:

(i) Lockhart Drafting and Design Drawing No. 250104 Sheet 02 Proposed Site Plan.

(ii) This firm's Drawing No. 28030 Sheet 3 Conceptual Stormwater Management Plan.

2.00 STORMWATER QUALITY CONSIDERATIONS

2.01 The site area is less than 2,500 square metres. There is no legislative requirement to treat stormwater for quality. It is proposed that stormwater will drain from the site without the provision of any treatment to achieve "quality" objectives.

3.00 PRE- AND POST-DEVELOPMENT STORMWATER ANALYSIS AND STORMWATER DRAINAGE CHARACTERISTICS

3.01 The *pre-development* stormwater drainage characteristics of this site are described as follows:

(i) Nos. 18-20 Jenkins Street currently sites three (3) dwellings, various sheds and associated hardstand areas. The existing site layout is documented on Engineering Survey plan Drawing No. 28030 Sheet 1. .

(ii) Pre-development upper catchment flows are generated on the following upstream properties:-

- No. 219 Campbell Street
- No. 217 Campbell Street
- No. 215 Campbell Street

Details of the upper stormwater catchment area/s to Nos. 18-20 Jenkins Street are documented on the Stormwater Analysis plan Drawing No. 28030 Sheet 2.

(iii) Upper catchment stormwater flows enter Nos. 18-20 Jenkins Street via the mechanism of overland flow across the southern property boundaries.

(iv) Stormwater drainage generated on Nos. 18-20 Jenkins Street discharges across the northern property alignment and into the *kerb and channel*.

3.02 The *pre- and post-development* stormwater flows have been evaluated using the *Rational Method of Stormwater Analysis.*

It is proposed to develop this site in a manner which continues to accept all upper catchment flows and allows stormwater to pass through the property in a manner which results in a *non-worsening effect* for downstream properties.

How it is proposed to achieve this result is conceptually demonstrated on Drawing No. 28030 Sheet 3.

3.03 An overview of the proposed stormwater management solution which will achieve the required *non-worsening* effect to downstream and adjacent properties is described as follows:

(i) Stormwater generated from the new roofed and paved areas will be captured in underground stormwater infrastructure and directed to the *kerb and channel*.

(ii) Upper catchment flows will be accepted into the site, captured in stormwater gully pits and conveyed to the *kerb and channel*.

3.04 The critical locations for assessing the requirement for *non-worsening* are defined on Drawing No. 28030 Sheet 2 and are as follows:

(i) The southern alignment of the site which accepts stormwater flows generated on sub-catchment area comprising No. 215 Campbell Street. (Line Y-Y)

(ii) The alignment along the southern property boundary which accepts overland stormwater flows from sub-catchment areas comprising Nos. 217 and 219 Campbell Street. (Line X-X)

(iii) The northern and eastern (front) alignments of the site where stormwater flows leave the property and discharge into the *kerb and channels* of Jenkins and Gaydon Streets. (Line AA)

(iv) The northern alignment of the site where stormwater flows leave the property and *discharge* into Jenkins Street defined as *Line BB*.

(v) Concentrated flow at the *legal point of discharge* – Point A

(vi) Concentrated flow at the *legal point of discharge* – Point B

The *pre- and post-development* flows at each of the critical locations are tabulated in Table 3.1. The results of the *Rational Method* calculations verify that the proposed stormwater management solution will achieve a result which is compliant with normally accepted assessment criteria.

3.05 The peak stormwater flows are summarised as follows:

Station	ARI	Pre - Development Flows (L/sec)	Post-Development Flows (L/sec)	Comments
Flows passing across *Line XX*	Q_2	17.8	17.8	No change OK
	Q_{20}	37.1	37.1	No change OK
Flows passing across *Line YY*	Q_2	9.1	9.1	No change OK
	Q_{20}	18.9	18.9	No change OK
Flows passing across *Line AA*	Q_2	31.3	39.4	OK <50 litres/second*
	Q_{20}	65.1	82.3	OK
Flows passing across *Line BB*	Q_2	17.6	19.4	OK <50 litres/second*
	Q_{20}	36.7	40.6	OK
Flows discharging to *Point A*	Q_2	Nil	39.4	OK <50 litres/second*
	Q_{20}	Nil	82.3	OK
Flows discharging to *Point B*	Q_2	Nil	19.4	OK <50 litres/second*
	Q_{20}	Nil	40.8	OK

Table 3.1

**(Less than the allowable 50 L/sec historically approved by Council to discharge to the kerb and channel.)*

4.00 CONCLUSIONS

4.01 It is considered this report demonstrates that there will be a *non-worsening* of the peak stormwater flow conditions draining across the downstream neighbouring property boundaries.

4.02 It is considered that this report demonstrates that when the proposed stormwater management system is implemented, a satisfactory stormwater management solution which complies with Council's Planning Policy requirements, the QUDM and with normally accepted engineering principles will be achieved.

Yours faithfully,

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LINDSAY B. REID *BE(Hons1), MIEAust, RPEQ, CPEng, NER, APEC Engineer, IntPE(Aus)*

ATTACHMENTS:

- Design Certificate No. 28030 dated 24 September 2025
- Reid Consulting Engineers Pty Ltd Drawing No. 28030 Sheets 1 - Engineering Survey
- Reid Consulting Engineers Pty Ltd Drawing No. 28030 Sheet 2 - Stormwater Analysis Plan
- Reid Consulting Engineers Pty Ltd Drawing No. 28030 Sheet 3 - Stormwater Management Plan
- Reid Consulting Engineers Pty Ltd Drawing No. 28030 Sheet 4 - Vehicle Manoeuvring