

**Our Reference:** LU23281-LTR-01 (Rev A)

**Council Reference:** MCUC 2025\_5845/1

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Property Services  
Douglas Shire Council  
PO Box 723  
Mossman QLD 4873

Monday 01 June 2026

**Re: Response to Further Issues Letter – Material Change of Use-Code  
Childcare Centre and Community Facilities - Place of Worship)**

36 Front Street, Mossman  
Lot 1 on RP706244

Dear Georgia Graham,

We write on behalf of our client, The Uniting Church In Australia Property Trust (Q), in response to Douglas Shire Council's Further Issues Letter dated 31 March 2026, and subsequent correspondence regarding the stormwater design for the above-referenced development application.

We are pleased to advise that the outstanding stormwater matters have now been fully addressed. An amended Stormwater Management Plan (SWMP) and independent third-party peer review are enclosed with this correspondence.

## **1. Stormwater drainage**

Council raised concern that the adjoining allotment to the south does not constitute a lawful point of discharge for the development, and that the proposed stormwater design results in an increase of captured and concentrated flows being discharged onto that allotment.

In response, Lekker Urban has pursued the alternative pathway outlined in Council's Further Issues Letter – demonstrating that post-development flows do not exceed pre-development flows at the lawful point of discharge, such that no net increase in stormwater discharge to the adjoining property results from the development.

The amended SWMP demonstrates the following:

- The lawful point of discharge for the subject site is the existing open grass-lined channel discharging to the Mossman High School property to the south and east of the site (Lot 93 on SR284). This discharge arrangement exists under pre-development conditions and is maintained under the proposed development.
- Under existing conditions, site stormwater is conveyed as sheet flow across the site, progressively concentrating as it traverses in a west-to-east direction in accordance with the site's natural topography. This overland flow is ultimately concentrated and collected by the existing open channel, which conveys flows southward to the lawful point of discharge.
- DRAINS hydrologic and hydraulic modelling confirms that post-development peak flows to the lawful point of discharge are less than pre-development flows across all design storm events — including the 5-year, 10-year, and 100-year ARI events — with the proposed On-Site Detention (OSD) measures in place. The modelling results are summarised below.

	% AEP Event	Pre-Development – South (m3/s)	Post-Development – South (m3/s)	Pre-Development – East (m3/s)	Post-Development – East (m3/s)
5-year	20%	0.039	0.036	0.024	0.019
10-year	10%	0.042	0.040	0.026	0.020
100-year	1%	0.063	0.054	0.038	0.031

*Table 7 – Pre and Post Development Peak Flows to Mossman High School (Southern Catchment).*

- Post-development peak flows to the lawful point of discharge are reduced across all storm events, demonstrating a non-worsening outcome in accordance with QUDM Section 3.9.1.
- OSD is provided in the form of 5,000L above-ground rainwater tanks connected to both the OSHC facility and the new hall, fitted with 40mm diameter low-flow and high-flow outlets to throttle post-development peak flows to pre-development equivalent levels.

- A minor increase in overland flows to Front Street is noted under post-development conditions. This is considered acceptable as Front Street is a State-controlled road with kerb and channel infrastructure capable of accommodating these flows, and the increase does not represent a concentrated discharge to a third-party property.

The amended SWMP has been prepared and certified by Joshua Affleck, RPEQ No. 24039. An independent third-party peer review of the amended SWMP has been undertaken by an independent RPEQ, confirming that the proposed drainage design is appropriate and that post-development flows at the lawful point of discharge do not exceed pre-development flows.

We are satisfied that the enclosed documentation fully addresses Council's outstanding stormwater concerns and respectfully request that the assessment of the application be progressed to a Decision Notice.

We trust the above addresses Council's outstanding information requirements. Should you require any further information, please do not hesitate to contact our office on (07) 4253 7023 or at [contact@lekkerurban.com.au](mailto:contact@lekkerurban.com.au).

Yours faithfully,



**Joshua Affleck**  
**Civil Engineer – Civil Lead** | MIEAust CPEng NER RPEQ (No. 24039)

# Attachment A

Stormwater Management Plan



**Lekker  
Urban.**

# STORMWATER MANAGEMENT PLAN

The Uniting Church of Australia C/- Elevation Architecture

Lot 1 on RP706244

36 Front Street, Mossman QLD 4873

# Lekker Urban.

1 June 2026

LU23281-SWMP-01 (Revision B)

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This report has been prepared by the office of Lekker Urban.


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## Revision

<b>Report Title:</b>	Stormwater Management Plan & Servicing Report
<b>Street Address</b>	36 Front Street, Mossman QLD 4873
<b>RP Description</b>	Lot 1 on RP706244
<b>Prepared For:</b>	The Uniting Church of Australia C/- Elevation Architecture
<b>Date:</b>	1 June 2026
<b>Revision No.</b>	B
<b>Report Status:</b>	Issued for Approval
<b>Prepared By:</b>	
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<b>Signature</b>	

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# 1 Introduction:

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## 1.1 Background

Lekker Urban have been commissioned by The Uniting Church of Australia C/o Elevation Architecture to prepare this Stormwater Report for the proposed Material Change of Use situated at 36 Front Street, Mossman. This Stormwater Report aims to support the proposed commercial development being lodged with Douglas Shire Council (DSC).

## 1.2 Property Detail

The details of the subject property for the proposed development are shown in Table 1 below.

Existing Property Details	
Title	Lot 1 on RP706244
Street Address	36 Front Street, Mossman QLD 4873
Site Area	2,021m <sup>2</sup>

*Table 1 – Existing Property Details*

## 1.3 Scope and Objective

This SWMP addresses the stormwater management requirements for the proposed development in accordance with the following standards and guidelines:

- o FNQROC Development Manual – Design Manual D4: Stormwater Drainage;
- o FNQROC Development Manual – Design Manual D5: Stormwater Quality Management;
- o Queensland Urban Drainage Manual (QUDM), Fourth Edition (2017);
- o Australian Rainfall and Runoff (ARR 2019); and
- o Queensland State Planning Policy 2017 – Part E: Assessment Benchmarks – Water Quality.

The objectives of this SWMP are to:

- Quantify the pre-development and post-development stormwater peak flow rates for the 5-year, 10-year, and 100-year ARI storm events;

- Demonstrate that post-development peak flows will not exceed pre-development levels at the Lawful Point of Discharge, through the provision of On-Site Detention (OSD);
- Identify and confirm the Lawful Point of Discharge in accordance with QUDM Section 3.9.1;
- Address stormwater quality management requirements in accordance with the Queensland State Planning Policy 2017 and FNQROC D5; and

The proposed development includes:

- Demolition/relocation of the existing hall and construction of a new community hall;
- Proposed building for Outside School Hours Care Facility (OSHC);
- Internal carparking, bike racks and pedestrian paths;
- Landscaped areas;

## 2 Existing Conditions:

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### 2.1 Property Detail

As can be seen in the aerial photo below, the Site (total site area is 0.2023 Ha) is bounded by the following:

- o North boundary – Mossman State School.
- o East boundary – Mossman State High School
- o South boundary – Existing residential dwelling.
- o West boundary – Front Street (State-controlled road).



Figure 1 – Site Location Plan (Source: Queensland Globe 2025)

## 2.2 Topography

A detail and contour survey has been undertaken by Brazier Motti on 25<sup>th</sup> September 2024. Alongside the contour and feature survey of the site, broader topographical information (ELVIS and QLD Globe) has been reviewed to identify constraints affecting the site.

The site generally falls in a west-east direction, being relatively flat for the most-part with less than 1% grade. Existing surface levels slopes across the site varying between AHD RL 9.5-9.6m.

The site adjoins Front Street to the west, with a grassed verge located between the road pavement and the site. Existing low-density residential allotments are located on the southern side of the site and Mossman Primary School to the north and east.

## 2.3 Existing Site Conditions & Improvements

The subject site, located on Lot 1 on RP706244, is partially developed with the existing place of worship located to the western boundary along Front Street and an existing unsealed driveway and hardstand located centrally, providing informal onsite parking to the rear of the existing church and the current hall, which is to be demolished and replaced. The site is grassed with no trees or other major vegetation, with the exception of two (2) large trees on the northern boundary to the rear of the site.

## 2.4 Known Existing Flooding

Douglas Shire Council (DSC) flood mapping indicates that the subject site is not affected by the 1% AEP flood depth. The subject site is outside of any Flood Hazard Overlays. Lekker Urban have reviewed the Douglas Shire Council and JB Pacific Storm Tide Inundation Methodology Study, which indicates that the site is not affected by the 1% AEP. Therefore, no further Flood Impact Study or investigation has been undertaken as part of this application.

## 2.5 Existing Site Stormwater Network

Site stormwater is currently conveyed across the site as sheet flow, progressively concentrating as it traverses the site in a west-to-east direction in accordance with the site's natural topography. This overland flow is ultimately concentrated and collected by the

existing open grass-lined channel located to the west of the existing hall, which then conveys the concentrated flows from the western internal catchment southward to the adjoining Mossman High School property to the south and east of the site.

The existing open channel therefore serves as the primary collection and conveyance mechanism for concentrated overland flows generated within the site, directing runoff toward the lawful point of discharge under pre-development conditions.

Detailed survey has identified an additional existing stormwater drainage line — comprising 2 x 225mm diameter stormwater pipes with an open grass-lined channel — traversing in a north-south direction approximately mid-way through the block, in the location of the proposed OSHC facility. This drainage line services Mossman State School and discharges to Mossman High School to the south, ultimately draining to the creek to the east of the site.

This stormwater drainage line is currently subject to a relocation process as part of associated external works. The relocation alignment is being coordinated to ensure compatibility with the proposed internal site layout. The post-development drainage design has been prepared on the basis that this relocation will be completed prior to construction. The final alignment of the relocated drainage line shall be confirmed and reflected in the construction drawings prior to the commencement of works.

## 2.6 Existing External Stormwater Network

A Before You Dig (BYDA) search indicates that there is a stormwater pipe to the north of the subject site servicing William Street. There is no council infrastructure along the frontage of the subject site for stormwater outside of the existing kerb and channel.

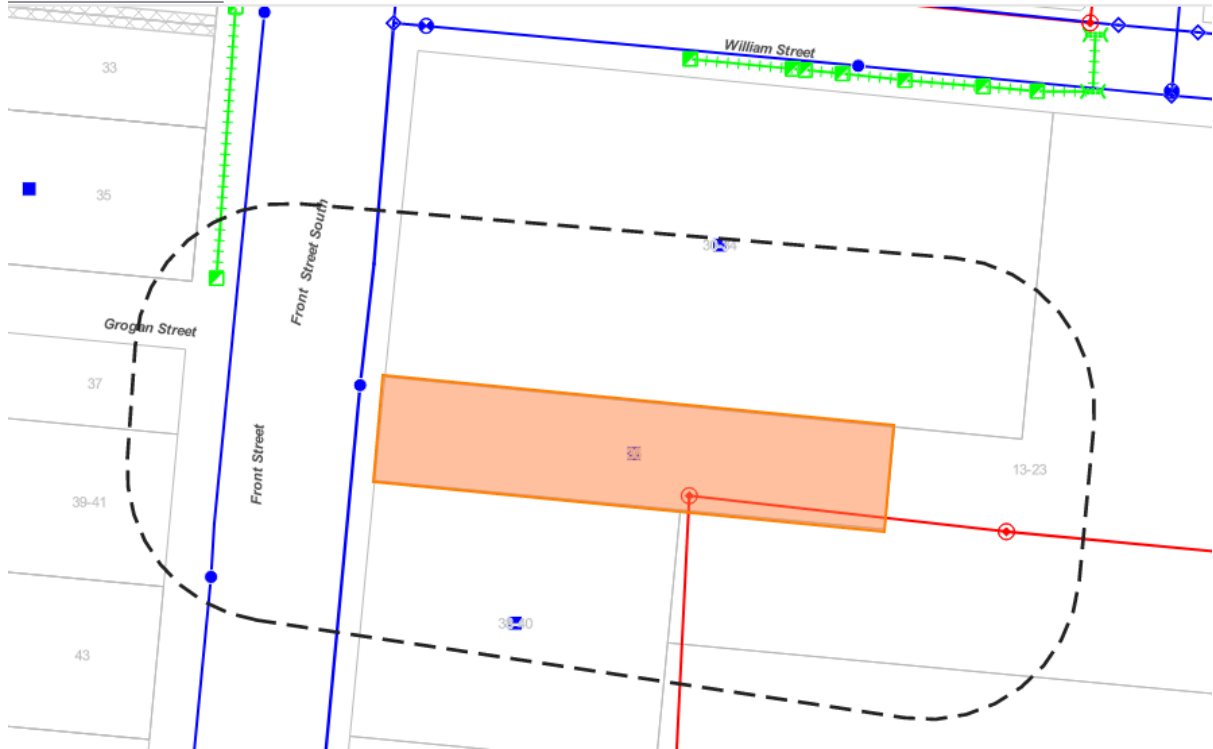


Figure 2 – Council BYDA Infrastructure Mapping

# 3 Council Planning Requirements

## 3.1 Major and Minor System Design

The design of the major and minor system design shall be undertaken in accordance with Douglas Shire Council (DSC) Part 9, 9.4.5 Infrastructure Works Code and QUDM requirements as part of the detailed design, including the major and minor system design is to the 100-year and 10-year ARI events respectively in accordance with Table 9.4.5.3.b and Table 9.4.5.3.c.

## 3.2 Stormwater Quality and Waterway Protection

Queensland State Planning Policy 2017 – Appendix 2 – Assessment Benchmarks – Water Quality have been reviewed in accordance with the proposed development.

The criteria and associated responses from Lekker Urban outlined in Table 2 below.

SPP Assessment Benchmarks – Water Quality	Lekker Urban Response to Criteria
<p>For receiving waters, a development application for:</p> <p>(1) a material change of use for an urban purpose that involves premises 2500 m<sup>2</sup> or greater in size and;</p> <p>(i) (a) will result in six or more dwellings; or</p> <p>(ii) (b) will result in an impervious area greater than 25 per cent of the net developable area; or</p> <p>(2) reconfiguring a lot for an urban purpose that involves premises 2500 m<sup>2</sup> or greater in size and will result in six or more lots; or</p> <p>(3) operational works for an urban purpose that involves disturbing a land area 2500 metres<sup>2</sup> or greater in size.</p>	<p>This Benchmark does not apply. The subject site is less than 2500m<sup>2</sup>.</p> <p>This Benchmark does not apply. The subject site is less than 2500m<sup>2</sup>.</p> <p>This Benchmark does not apply. The subject site is less than 2500m<sup>2</sup>.</p>

Table 2 – Response to criteria outlined within the QLD SPP 2017 – Appendix 2 – Assessment Benchmarks – Water Quality.

### 3.2.1 Erosion and Sediment Control (ESC)

A conceptual soil and water management plan will be prepared for the development in accordance with DSC guidelines as part of the detailed design phase.

## 3.3 Legal Point of Discharge

The subject site has been assessed in accordance with the Queensland Urban Drainage Manual, Fourth Edition (2017). In accordance with *Section 3.9.1 – Lawful Point of Discharge Test*, the applicable regulatory and other legal requirements have been reviewed and met to allow stormwater to discharge into the surrounding properties located at the north of the subject site. The criteria and associated responses from Lekker Urban outlined in Table 3 below.

QUDM Lawful Point of Discharge Test Criteria	Lekker Urban Response to Criteria
<p>(i) Will the proposed development alter the site’s stormwater discharge characteristics in a manner that may substantially damage a third-party property <sup>ii</sup> (see Section 3.6)</p> <ul style="list-style-type: none"> <li>o If not, then no further steps are required to obtain tenure for a lawful point of discharge (assuming any previous circumstances and changes were lawful).</li> <li>o If there is a reasonable risk of such damage, then consider issue (ii) or (iii).</li> </ul> <p><i><sup>ii</sup>The issue of whether or not there is an actionable nuisance does not depend on what is demonstrated at the time the works are proposed. The issue is what in fact occurs. This is consistent with it being the developer’s responsibility to not cause nuisance, rather than the regulator’s responsibility to assess and condition works to prevent a nuisance.</i></p>	<p>The proposed development does not alter the pre-development stormwater regime through diversion, concentration, or changes in flow characteristics. Pre-development discharge is via the existing grass-lined channel to the Mossman High School property to the south and east. Post-development conditions maintain this same arrangement. As demonstrated in Section 4.2.3, post-development peak flows to the lawful point of discharge are equal to or less than pre-development flows across all design storm events, with OSD in place. No substantial damage to third-party property is anticipated.</p>
<p>(ii) Is the location of the discharge from the development site under the lawful control of</p>	<p>The lawful point of discharge is controlled by the Queensland Department of Education</p>

<p>the local government or other statutory authority from whom permission to discharge has been received? This will include a park, watercourse, drainage or road reserve, stormwater registered drainage easement, or land held by local government (including freehold land).</p> <p>Note: The regulatory authority (in its capacity as land holder) is likely to require information about the potential impact of the site’s stormwater discharge characteristics on third party properties (particularly those downstream of the proposed discharge point) before it will consent to the discharge entering its land.</p> <ul style="list-style-type: none"> <li>o If so, then no further steps are required to obtain tenure for a lawful point of discharge.</li> <li>o If not, then consider issue (iii). A landowner or regulator may require that the developer obtain an authority to discharge as described (ii).</li> </ul>	<p>(Mossman High School). As post-development flows are demonstrated to be non-worsening, and the existing discharge arrangement is already established under pre-development conditions, no formal approval from the Department of Education is considered necessary. It is assumed that the existing arrangement is lawful given the formal nature of the existing channel infrastructure in place.</p>
<p>(iii) An authority to discharge over affected properties will be necessary. In descending order of certainty, an authority may be in the form of:</p> <ul style="list-style-type: none"> <li>o Dedication of a drainage reserve or park</li> <li>o A registered easement for stormwater discharge/works</li> <li>o Written discharge approval</li> </ul>	<p>Criteria (ii) is satisfied. The post-development flows are non-worsening and the existing discharge arrangement is maintained. Criteria (iii) is not applicable.</p>

Table 3 – Response to criteria outlined within the Lawful Point of Discharge Test from Section 3.9.1 of QUDM.

# 4 Stormwater Strategy

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## 4.1 Stormwater Management Strategy Overview

The proposed land use is for community services, comprising a new OSHC facility and community hall. The primary stormwater management impacts associated with the development include increased runoff volumes and peak flow rates resulting from the increase in impervious area (roofs, carpark, and internal pathways).

The proposed stormwater management strategy manages runoff across the entire developed site through the following measures:

- A new internal stormwater drainage network to convey runoff from all new impervious areas (roofs, carpark, and paths) to the lawful point of discharge; and
- On-Site Detention (OSD) in the form of above-ground rainwater tanks connected to the OSHC facility and new hall, sized to ensure post-development peak flows do not exceed pre-development peak flows across all design storm events.

Appendix A provides the stormwater catchment plans demonstrating the pre- and post-development catchment areas.

## 4.2 Stormwater Quantity

### 4.2.1 Introduction

Post-development peak flow is to be reduced to pre-development levels through the incorporation of stormwater detention in the form of a 5,000L above-ground rainwater tank to both the OSHC facility and the new hall.

Both pre and post-development hydrologic and hydraulic models were developed to establish peak flow targets (pre-development) and determine performance of proposed stormwater system (post-development) for a range of storm events.

Tables 4 and 5 provide a breakdown summary of pre and post-development imperviousness and ultimate discharge points

	Draining direct to Captain Cook Highway (Front Street) via overland flow	Draining to adjoining lot (Mossman High School) to the south of site	Draining to adjoining lot (Mossman High School) to the east of site (Lot 93 on SR284)	Total
Pervious area (m <sup>2</sup> )	110	736	720	1566
Impervious area (m <sup>2</sup> )	25	432	0	457
Total area (m <sup>2</sup> )	135	1166	720	2021
% of Site area	7%	58%	36%	
% Pervious	81%	63%	100%	77%
% Impervious	19%	37%	0%	23%

Table 4 – Pre development catchment breakdown.

	Draining direct to Captain Cook Highway (Front Street) via overland flow	Draining to adjoining lot (Mossman High School) to the south of site	Draining to adjoining lot (Mossman High School) to the east of site (Lot 93 on SR284)	Roof catchment to OSD then discharging to adjoining lot (Mossman High School) to the south of site (Lot 93 on SR284)	Total
Pervious area (m <sup>2</sup> )	107	114	340	0	563
Impervious area (m <sup>2</sup> )	172	710	0	578	1460
Total area (m <sup>2</sup> )	279	824	340	578	2021
% of Site area	14%	41%	17%	29%	
% Pervious	38%	14%	100%	0%	28%
% Impervious	62%	86%	0%	100%	72%

Table 5 – Post development catchment breakdown.

Key observations from Tables 4 and 5:

- o The total impervious area increases by 1,003 m<sup>2</sup> under the post-development scenario.
- o Site-wide imperviousness increases from 23% (pre-development) to 72% (post-development).
- o Without detention measures, this increase in imperviousness would result in elevated peak flows. The OSD system has been sized to offset this increase and ensure post-development flows at the lawful point of discharge do not exceed pre-development flows.

With respect to flows to Front Street, the post-development scenario results in a minor increase in overland flow to the road reserve. This is considered acceptable given that Front Street is a State-controlled road with kerb and channel infrastructure designed to accommodate overland flows, and the volume of flow directed to this catchment represents only 14% of the total site area under post-development conditions. The increase does not represent a concentrated or diverted discharge and is consistent with the pre-development overland flow regime to the road frontage.

## 4.2.2 Hydrologic and Hydraulic Modelling

Pre- and post-development stormwater systems were assessed using DRAINS Hydrologic and Hydraulic Urban Catchment modelling software. Relevant Australian Rainfall and Runoff (ARR 2019) procedures were used to establish the hydrological model. Site IFD data was obtained from the Bureau of Meteorology (BOM) website, with storm patterns, pre-burst rainfall, and loss values sourced from the ARR Data Hub. Impervious percentages were assigned based on sub-catchment land use (roofs, hardstand, open space, etc.).

## 4.2.3 Modelling Results

The modelling results for pre- and post-development peak flows are summarised in Tables 6, 7 and 8 for the 5-year, 10-year, and 100-year ARI events. Results are presented for each discharge point: Front Street, and the lawful point of discharge to Mossman High School (southern and eastern catchments).

The results from the proposed design are summarised in Tables 5, 6 and 7 for both the pre and post development flows up to the 100 year ARI event to the frontage and rear of the site. Due to the increase in fraction impervious and reduction in time of concentration, the site experiences an increase in peak flow rates without the inclusion of onsite detention systems. The increase in peak flows can be mitigated through the use of detention systems, such as a 5,000L rainwater tank (above ground) to the new building structures (OSHC and Hall) which would throttle flow rates to pre development conditions. The 5,000L above ground tanks will be fitted with both 40mm dia. low-flow and high-flow outlets at the base and at the top of the tanks.

ARI Event	% AEP Event	Pre-Development to Front Street (m3/s)	Post-Development to Front Street (m3/s)	Difference (m3/s)
5-year	20%	0.005	0.010	0.005
10-year	10%	0.005	0.011	0.006
100-year	1%	0.007	0.015	0.008

Table 6 – Pre and Post Development Peak Flows to Front Street.

ARI Event	% AEP Event	Pre-Development to Mossman High School to the south of site (m3/s)	Post-Development to Mossman High School to the south of site (m3/s)	Difference (m3/s)
5-year	20%	0.039	0.036	- 0.003
10-year	10%	0.042	0.040	- 0.002
100-year	1%	0.063	0.054	- 0.009

Table 7 – Pre and Post Development Peak Flows to Mossman High School (Southern Catchment).

Note: The minor increase in flows to Front Street reflects the increase in impervious area within the Front Street catchment under post-development conditions. This discharge is to a State-controlled road reserve with kerb and channel infrastructure and does not constitute discharge to a third-party property. This increase is considered acceptable and does not affect the lawful point of discharge assessment.

ARI Event	% AEP Event	Pre-Development to Mossman High School to the east of site (m3/s)	Post-Development to Mossman High School to the east of site (m3/s)	Difference (m3/s)
5-year	20%	0.024	0.019	- 0.005
10-year	10%	0.026	0.020	- 0.006
100-year	1%	0.038	0.031	- 0.007

Table 8 – Pre and Post Development Peak Flows to Mossman High School (Eastern Catchment).

Tables 7 and 8 confirm that post-development peak flows to the lawful point of discharge – Mossman High School to the south and east – are less than pre-development flows across all design storm events, including the 100-year ARI event. This is achieved through the inclusion of the OSD rainwater tanks, which throttle roof runoff to pre-development equivalent rates. The proposed development therefore satisfies the non-worsening requirement at the lawful point of discharge.

## 4.3 Stormwater Management Strategy

The proposed stormwater management strategy incorporates the following measures:

- A new internal stormwater drainage network to convey runoff from all new roof areas to the lawful point of discharge at the rear of the property;
- Roof structures connected to OSD rainwater tanks to ensure post-development flows to the lawful point of discharge do not exceed pre-development flows; and
- A reinstated access driveway with a new high-point at the front building interface, directing overland flows back towards Front Street during major storm events to provide flood immunity to the site.

Appendix A contains development design drawings which outline all the stormwater management features to be implemented at the site.

## 5 Conclusion:

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This Stormwater Management Plan has been prepared by Lekker Urban in support of the proposed Material Change of Use at 36 Front Street, Mossman, and demonstrates that the development can be managed to a non-worsening standard at the lawful point of discharge.

DRAINS hydrologic and hydraulic modelling confirms that post-development peak flows to the lawful point of discharge — the existing open channel discharging to Mossman High School to the south and east of the site (Lot 93 on SR284) — are less than pre-development flows across all design storm events (5-year, 10-year, and 100-year ARI), inclusive of the proposed OSD measures. This satisfies the non-worsening requirement in accordance with QUDM Section 3.9.1.

The proposed stormwater management measures include:

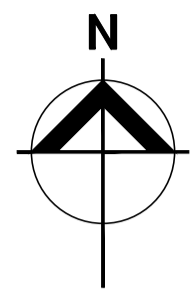
- A new internal stormwater drainage network conveying runoff from all new impervious areas to the lawful point of discharge;
- On-Site Detention in the form of 5,000L above-ground rainwater tanks connected to the OSHC facility and new hall, fitted with 40mm diameter low-flow and high-flow outlets, to throttle post-development peak flows to pre-development levels; and
- A reinstated access driveway with a front-of-site high-point to direct major overland flows to Front Street, providing flood immunity to the site.

A minor increase in overland flow to Front Street is noted under the post-development scenario. This is considered acceptable as Front Street is a State-controlled road with kerb and channel infrastructure capable of accommodating these flows, and the increase does not represent a concentrated discharge to a third-party property.

This report has been prepared and certified by Joshua Affleck, RPEQ No. 24039, Lekker Urban.

## Attachment A – Stormwater Catchments

**Lekker  
Urban.**



FRONT STREET

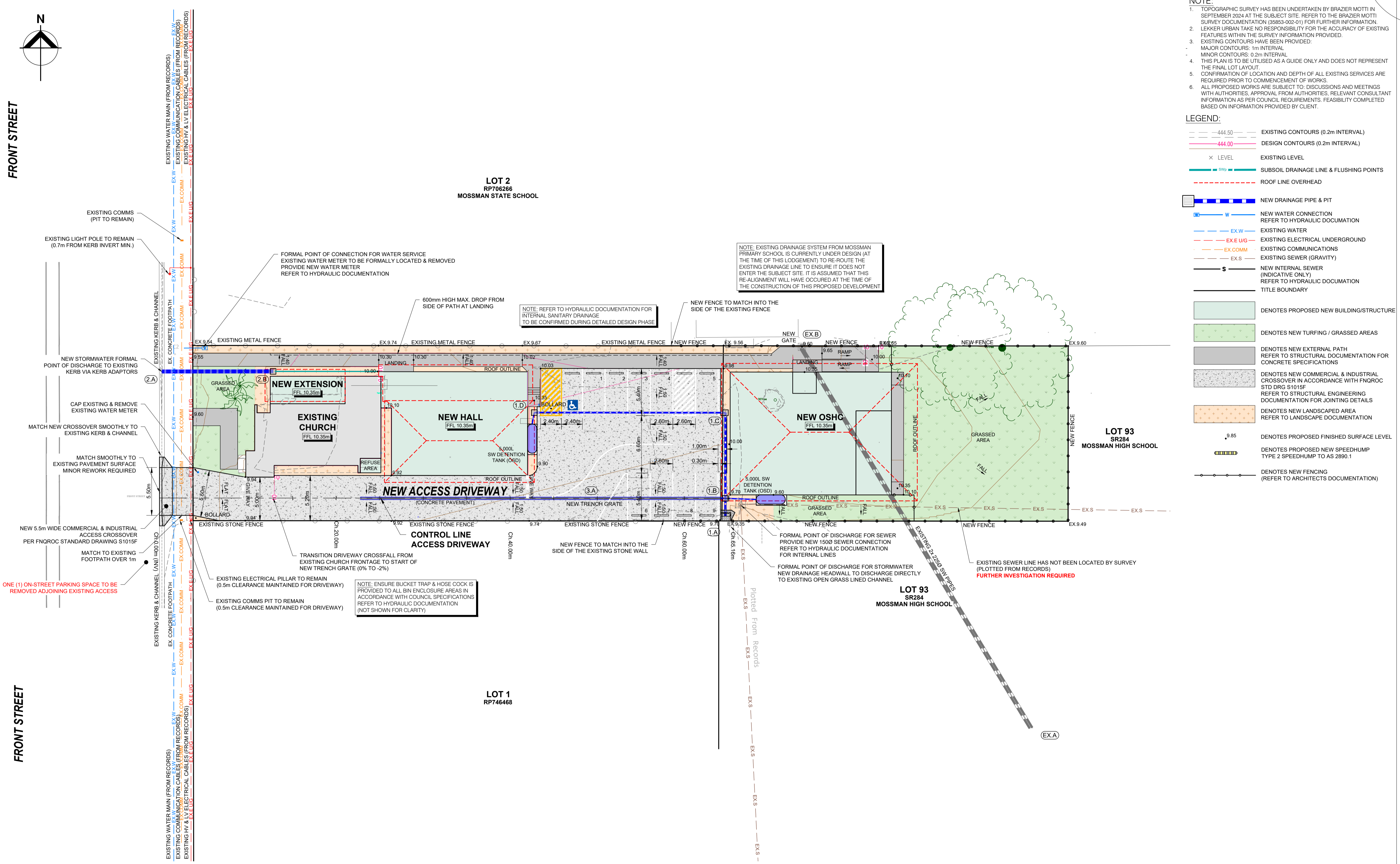
FRONT STREET

LOT 2  
RP706266  
MOSSMAN STATE SCHOOL

LOT 1  
RP746468

LOT 93  
SR284  
MOSSMAN HIGH SCHOOL

LOT 93  
SR284  
MOSSMAN HIGH SCHOOL



- NOTE:**
1. TOPOGRAPHIC SURVEY HAS BEEN UNDERTAKEN BY BRAZIER MOTTI IN SEPTEMBER 2024 AT THE SUBJECT SITE. REFER TO THE BRAZIER MOTTI SURVEY DOCUMENTATION (35853-002-01) FOR FURTHER INFORMATION.
  2. LEKKER URBAN TAKE NO RESPONSIBILITY FOR THE ACCURACY OF EXISTING FEATURES WITHIN THE SURVEY INFORMATION PROVIDED.
  3. EXISTING CONTOURS HAVE BEEN PROVIDED:  
MAJOR CONTOURS: 1m INTERVAL  
MINOR CONTOURS: 0.2m INTERVAL  
THIS PLAN IS TO BE UTILISED AS A GUIDE ONLY AND DOES NOT REPRESENT THE FINAL LOT LAYOUT.
  4. CONFIRMATION OF LOCATION AND DEPTH OF ALL EXISTING SERVICES ARE REQUIRED PRIOR TO COMMENCEMENT OF WORKS.
  5. ALL PROPOSED WORKS ARE SUBJECT TO DISCUSSIONS AND MEETINGS WITH AUTHORITIES, APPROVAL FROM AUTHORITIES, RELEVANT CONSULTANT INFORMATION AS PER COUNCIL REQUIREMENTS. FEASIBILITY COMPLETED BASED ON INFORMATION PROVIDED BY CLIENT.

- LEGEND:**
- 444.50 --- EXISTING CONTOURS (0.2m INTERVAL)
  - 444.00 --- DESIGN CONTOURS (0.2m INTERVAL)
  - x LEVEL EXISTING LEVEL
  - SWP --- SUBSOIL DRAINAGE LINE & FLUSHING POINTS
  - --- ROOF LINE OVERHEAD
  - NEW DRAINAGE PIPE & PIT
  - W --- NEW WATER CONNECTION REFER TO HYDRAULIC DOCUMENTATION
  - EX.W --- EXISTING WATER
  - EX.E U/G --- EXISTING ELECTRICAL UNDERGROUND
  - EX.COMM --- EXISTING COMMUNICATIONS
  - EX.S --- EXISTING SEWER (GRAVITY)
  - S --- NEW INTERNAL SEWER (INDICATIVE ONLY) REFER TO HYDRAULIC DOCUMENTATION
  - --- TITLE BOUNDARY
  - DENOTES PROPOSED NEW BUILDING/STRUCTURE
  - DENOTES NEW TURFING / GRASSED AREAS
  - DENOTES NEW EXTERNAL PATH REFER TO STRUCTURAL DOCUMENTATION FOR CONCRETE SPECIFICATIONS
  - DENOTES NEW COMMERCIAL & INDUSTRIAL CROSSOVER IN ACCORDANCE WITH FNQROC STD DRG S1015F REFER TO STRUCTURAL ENGINEERING DOCUMENTATION FOR JOINTING DETAILS
  - DENOTES NEW LANDSCAPED AREA REFER TO LANDSCAPE DOCUMENTATION
  - 9.85 DENOTES PROPOSED FINISHED SURFACE LEVEL
  - DENOTES PROPOSED NEW SPEEDHUMP TYPE 2 SPEEDHUMP TO AS 2890.1
  - DENOTES NEW FENCING (REFER TO ARCHITECTS DOCUMENTATION)

Revision	Amendments	Approved	Date
B	UPDATED STORMWATER NETWORK	J.L.A.	01/06/2026
A	ISSUED FOR APPROVAL - BUILDING APPROVAL	J.L.A.	23/01/2026

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SCALE 1:200@A1

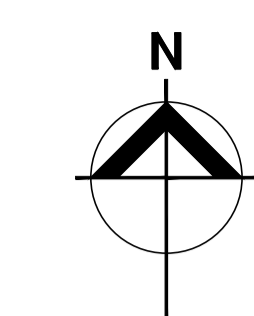
0 4 8 12 16 20 m

Designed: J.L.A. Checked: T.S.  
Authorised: J.L.A. RPEQ 24039 Date: 23/01/2026

**MOSSMAN UNITING CHURCH  
PROPOSED HALL & OSHC  
PROPOSED CIVIL ENGINEERING WORKS  
CIVIL WORKS LAYOUT PLAN**

36 FRONT STREET, MOSSMAN QLD  
THE UNITING CHURCH IN AUSTRALIA

**FOR APPROVAL** DRAWING NUMBER: **LU23281-CD-200** REV: **B**

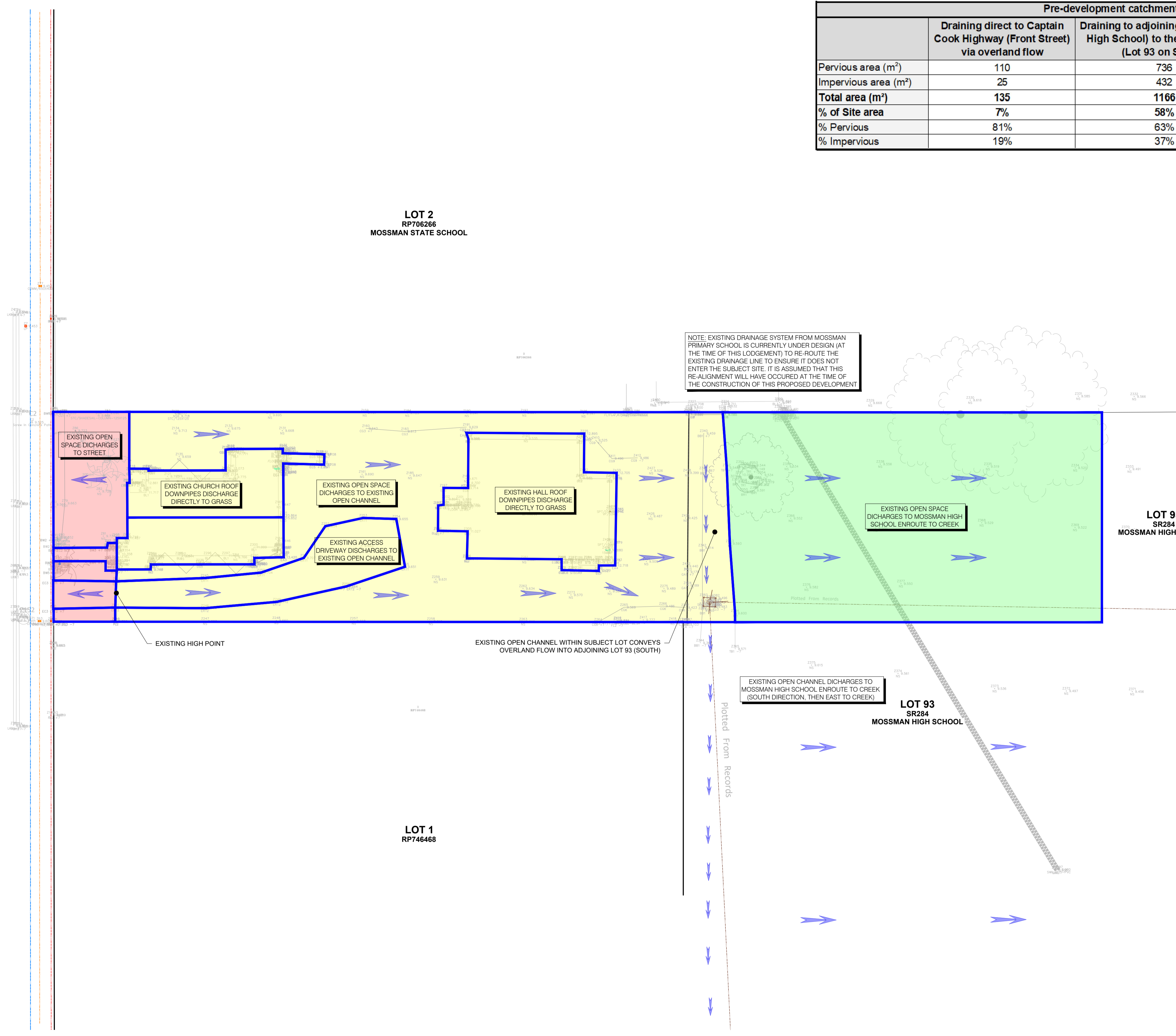


FRONT STREET

FRONT STREET

Pre-development catchment breakdown (m <sup>2</sup> )				
	Draining direct to Captain Cook Highway (Front Street) via overland flow	Draining to adjoining lot (Mossman High School) to the south of site (Lot 93 on SR284)	Draining to adjoining lot (Mossman High School) to the east of site (Lot 93 on SR284)	Total
Pervious area (m <sup>2</sup> )	110	736	720	1566
Impervious area (m <sup>2</sup> )	25	432	0	457
<b>Total area (m<sup>2</sup>)</b>	<b>135</b>	<b>1166</b>	<b>720</b>	<b>2021</b>
% of Site area	7%	58%	36%	
% Pervious	81%	63%	100%	77%
% Impervious	19%	37%	0%	23%

- LEGEND:**
- 444.50 - EXISTING CONTOURS (0.5m INTERVAL)
  - LEVEL EXISTING LEVEL
  - DENOTES CATCHMENT AREA DRAINING DIRECT TO CAPTAIN COOK HIGHWAY (FRONT STREET) VIA OVERLAND FLOW
  - DENOTES CATCHMENT AREA DRAINING TO ADJOINING LOT (MOSSMAN HIGH SCHOOL) SOUTH OF SITE (LOT 93 ON SR284) VIA EASTERN OPEN CHANNEL
  - DENOTES PERVIOUS CATCHMENT DRAINING TO ADJOINING LOT (MOSSMAN HIGH SCHOOL) EAST OF SITE (LOT 93 ON SR284) VIA OVERLAND FLOW
  - DRAINAGE CATCHMENT EXTENT
  - OVERLAND FLOW PATH



Revision	Amendments	Approved	Date
B	UPDATED STORMWATER LAYOUT	J.L.A.	01/06/2026
A	ISSUED FOR APPROVAL - BUILDING APPROVAL	J.L.A.	23/01/2026

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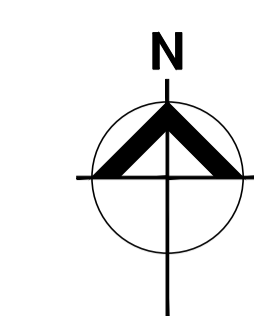
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Designed: J.L.A. Checked: T.S.  
Authorised: J.L.A. RPEQ 24039 Date: 23/01/2026

**MOSSMAN UNITING CHURCH**  
**PROPOSED HALL & OSHC**  
**PROPOSED CIVIL ENGINEERING WORKS**  
**STORMWATER CATCHMENT PLAN: PRE-DEVELOPMENT**  
36 FRONT STREET, MOSSMAN QLD  
THE UNITING CHURCH IN AUSTRALIA

DRAWING NUMBER: **FOR APPROVAL LU23281-CD-600** REV: **B**



FRONT STREET

FRONT STREET

**LOT 2**  
RP706266  
MOSSMAN STATE SCHOOL

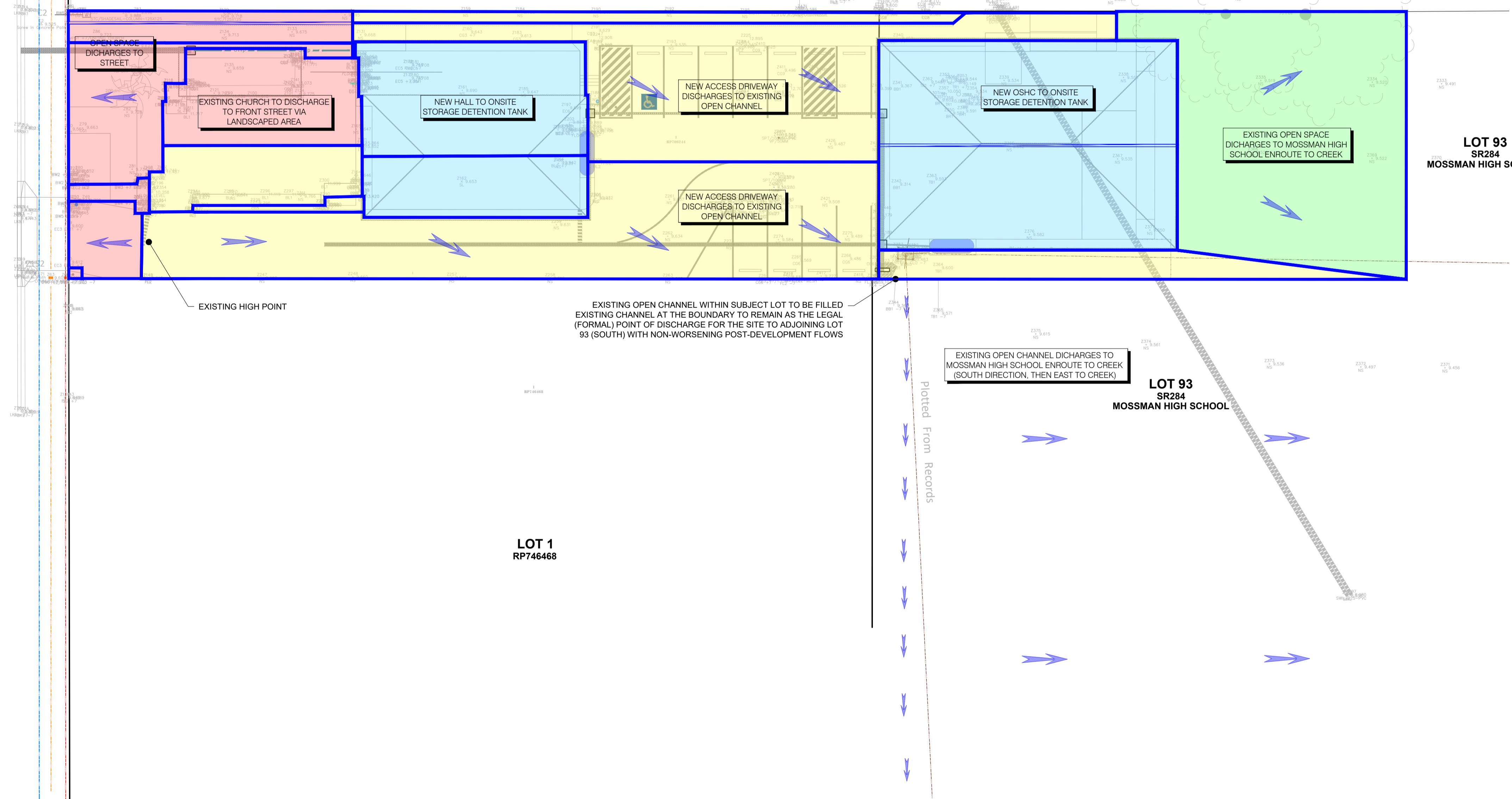
**LOT 1**  
RP746468

**LOT 93**  
SR284  
MOSSMAN HIGH SCHOOL

Post-development catchment breakdown (m <sup>2</sup> )					
	Draining direct to Captain Cook Highway (Front Street) via overland flow	Draining to adjoining lot (Mossman High School) to the south of site (Lot 93 on SR284)	Draining to adjoining lot (Mossman High School) to the east of site (Lot 93 on SR284)	Roof catchment to OSD then discharging to adjoining lot (Mossman High School) to the south of site	Total
Pervious area (m <sup>2</sup> )	107	114	340	0	561
Impervious area (m <sup>2</sup> )	172	710	0	578	1460
<b>Total area (m<sup>2</sup>)</b>	<b>279</b>	<b>824</b>	<b>340</b>	<b>578</b>	<b>2021</b>
% of Site area	14%	41%	17%	29%	
% Pervious	38%	14%	100%	0%	28%
% Impervious	62%	86%	0%	100%	72%

- LEGEND:**
- 444.50 EXISTING CONTOURS (0.5m INTERVAL)
  - 444.00 DESIGN CONTOURS (0.2m INTERVAL)
  - LEVEL EXISTING LEVEL
  - DENOTES CATCHMENT AREA DRAINING DIRECT TO CAPTAIN COOK HIGHWAY (FRONT STREET) VIA OVERLAND FLOW
  - DENOTES CATCHMENT AREA DRAINING TO ADJOINING LOT (MOSSMAN HIGH SCHOOL) SOUTH OF SITE (LOT 93 ON SR284) VIA EASTERN OPEN CHANNEL
  - DENOTES PERVIOUS CATCHMENT DRAINING TO ADJOINING LOT (MOSSMAN HIGH SCHOOL) EAST OF SITE (LOT 93 ON SR284) VIA OVERLAND FLOW
  - DENOTES CATCHMENT AREA FROM ROOF STRUCTURES TO BE CAPTURED BY ONSITE STORAGE DETENTION (OSD) & RELEASED TO ADJOINING LOT (MOSSMAN HIGH SCHOOL) SOUTH OF SITE (LOT 93 ON SR284) VIA EASTERN OPEN CHANNEL
  - DRAINAGE CATCHMENT EXTENT
  - OVERLAND FLOW PATH

NOTE: EXISTING DRAINAGE SYSTEM FROM MOSSMAN PRIMARY SCHOOL IS CURRENTLY UNDER DESIGN (AT THE TIME OF THIS LODGEMENT) TO RE-ROUTE THE EXISTING DRAINAGE LINE TO ENSURE IT DOES NOT ENTER THE SUBJECT SITE. IT IS ASSUMED THAT THIS RE-ALIGNMENT WILL HAVE OCCURRED AT THE TIME OF THE CONSTRUCTION OF THIS PROPOSED DEVELOPMENT



Revision	Amendments	Approved	Date
B	UPDATED STORMWATER LAYOUT	J.L.A.	01/06/2026
A	ISSUED FOR APPROVAL - BUILDING APPROVAL	J.L.A.	23/01/2026

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Designed: J.L.A. Checked: T.S.  
Authorised: J.L.A. RPEQ 24039 Date: 23/01/2026

**MOSSMAN UNITING CHURCH**  
**PROPOSED HALL & OSHC**  
**PROPOSED CIVIL ENGINEERING WORKS**  
**STORMWATER CATCHMENT PLAN: POST-DEVELOPMENT**  
36 FRONT STREET, MOSSMAN QLD  
THE UNITING CHURCH IN AUSTRALIA

DRAWING NUMBER: **FOR APPROVAL LU23281-CD-601** REV: **B**

# Attachment B

Third-Party RPEQ Review



**Lekker  
Urban.**



**Prepared by:**

Moreton Synergy Civil PTY LTD

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**Address:** PO Box 1098 North Lakes QLD 4509

**Website:** [moreton synergycivil.com.au](http://moreton synergycivil.com.au)

**Our Reference:** MSC7040626

**Client:** Lekker Urban

**E:** [joshua@lekkerurban.com.au](mailto:joshua@lekkerurban.com.au)

**Project:** 36 Front Street, Mossman QLD 4873

**Property Description:** Lot 1 on RP706244

**Date:** Thursday, 4 June 2026

## Reviewer Certification

### *Stormwater Management Plan*

This letter provides MSC's reviewer certification in relation to the Stormwater Management Plan and Servicing Report prepared for the above project.

### Documents Reviewed

The following documents have been reviewed for the purpose of this certification:

- Stormwater Management Plan & Servicing Report, LU23281-SWMP-01 Rev A, dated 15 December 2025, prepared by Lekker Urban;
- Associated concept stormwater drawings (LU23281-CD Binder RevA – 23/01/2026)
- Existing Survey plans (A-WD-01.01-06-Existing Survey)
- Final revised Stormwater Management Plan & Servicing Report, LU23281-SWMP-01 Rev B, dated 1 June 2026, prepared by Lekker Urban;

### Certification

I, Nathan TAGHIZADEH, being a Registered Professional Engineer of Queensland, certify that the Stormwater Management Plan & Servicing Report identified above has been reviewed for Development Application purposes.

To the best of the knowledge, information and belief, and subject to the qualifications and limitations stated in this certification, the reviewed report and the associated concept stormwater information are considered sufficient to support a Development Application for the subject site. The assessment methodology, level of stormwater investigation, and design basis adopted within the reviewed report are considered generally consistent with the design references and authority framework nominated in the report, including:

- Queensland Urban Drainage Manual (QUDM), Fourth Edition (2017);
- Australian Rainfall and Runoff (ARR 2019);
- FNQROC Development Manual D4: Stormwater Drainage;
- FNQROC Development Manual D5: Stormwater Quality Management; and
- Queensland State Planning Policy 2017 – Water Quality assessment benchmarks.

Based on the review undertaken, the report provides an adequate stormwater management basis for the Development Application assessment, including the adopted lawful point of discharge approach, the concept stormwater quantity management strategy, and the use of on-site detention to demonstrate a non-worsening outcome at the nominated discharge location.

## Reviewer Opinion

The review has considered the designer's report, the nominated design criteria, and the level of stormwater detail appropriate to the Development Application stage. On that basis, the reviewer is satisfied that the stormwater report and supporting concept documentation are sufficient for Development Application purposes.

This certification is a review-only certification. It confirms that the submitted stormwater report is, in the reviewer's opinion, suitable to support the Development Application at the present stage of the project.

## Qualifications and Limitations

This certification is subject to the following qualifications and limitations:

- This certification applies to the Development Application stage only and does not constitute certification of operational works, detailed design, construction documentation, or as-constructed works.
- This certification is limited to the report and supporting concept information made available for review at the time of certification.
- This certification relies on the accuracy and completeness of information, surveys, drawings, architectural layouts, and other consultant inputs supplied by others.
- This certification does not relieve the original designer of the responsibility to ensure detailed compliance with all relevant statutory requirements, approval conditions, authority standards, and good engineering practice.
- This certification does not constitute landowner consent, easement creation, lawful discharge approval from third parties, or approval from any referral or assessment authority.
- Any matters requiring further hydraulic verification, detailed drainage design, erosion and sediment control design, tank detailing, road drainage interface design, or construction-stage certification are to be addressed at the appropriate later stage of the project.

## Basis of Review


The review has been undertaken on the basis that:

- The reviewed report is intended to support a Development Application, rather than a detailed operational works approval;
- The report assesses pre-development and post-development stormwater conditions for the 20% AEP, 10% AEP and 1% AEP storm events;
- The report identifies the nominated lawful point of discharge to land associated with Mossman High School and concludes that post-development peak flows are non-worsening at that location with the proposed on-site detention measures; and
- The report proposes two 5,000 L above-ground rainwater tanks as the on-site detention measure for the development.

## Certification Statement for Signing

Under the *Professional Engineers Act 2002 (Qld)* and to the best of the knowledge and belief, the undersigned certifies that this review certification accurately reflects the scope of review undertaken and the reviewer's professional opinion as to the adequacy of the Stormwater Management Plan for Development Application purposes.

### RPEQ Details

Full Name: ..... **NATHAN TAGHIZADEH** .....  
Position: ..... **DIRECTOR** .....  
Company / Organisation: **MORETON SYNERGY CIVIL Pty Ltd**  
Contact Number: **0411187747** .....  
RPEQ No.: **24470** .....  
Signature: .....  .....  
Date: **04/06/26** .....