



SARA reference: 2110-25359 SRA
 Council reference: D/131-2021

18 November 2021

Chief Executive Officer
 Rockhampton Regional Council
 PO Box 1860
 Rockhampton Qld 4700
 enquiries@rrc.qld.gov.au

Attention: Aidan Murray

Dear Sir/Madam

SARA response—16-18 Lawrie Street, Gracemere

(Referral agency response given under section 56 of the *Planning Act 2016*)

The development application described below was confirmed as properly referred by the State Assessment and Referral Agency (SARA) on 18 October 2021.

Response

Outcome:	Referral agency response – with conditions.
Date of response:	18 November 2021
Conditions:	The conditions in Attachment 1 must be attached to any development approval.
Advice:	Advice to the applicant is in Attachment 2 .
Reasons:	The reasons for the referral agency response are in Attachment 3 .

Development details

Description:	Development permit	Material change of use for a Service Station Operational work for an Advertising Device.
SARA role:	Referral Agency	
SARA trigger:	Schedule 10, Part 9, div 4, sub 2, table 4 (Planning Regulation 2017)	Development application for a material change of use near a State transport corridor

SARA reference: 2110-25359 SRA

Assessment Manager: Rockhampton Regional Council

Street address: 16 Lawrie Street, Gracemere; 18 Lawrie Street, Gracemere

Real property description: 10RP611674; 9RP611674

Applicant name: Gracemere Centre Pty ltd (As trustee) Gracemere Centre Trust c/- Gideon Town Planning

Applicant contact details: PO Box 450
Rockhampton QLD 4700
gg@gideontownplanning.com.au

State-controlled road access permit: This referral included an application for a road access location, under section 62A(2) of *Transport Infrastructure Act 1994*. Below are the details of the decision:

- Approved
- Reference: TMR21-034491
- Date: 17 November 2021

If you are seeking further information on the road access permit, please contact the Department of Transport and Main Roads at CorridorManagement@tmr.qld.gov.au or on (07) 4931 1500.

Representations

An applicant may make representations to a concurrence agency, at any time before the application is decided, about changing a matter in the referral agency response (s.30 Development Assessment Rules) Copies of the relevant provisions are in **Attachment 4**.

A copy of this response has been sent to the applicant for their information.

For further information please contact Carl Porter, Principal Planning Officer, on 07 4924 2918 or via email RockhamptonSARA@dasilgp.qld.gov.au who will be pleased to assist.

Yours sincerely



Anthony Walsh
Manager Planning

cc Gracemere Centre Pty ltd (As trustee) Gracemere Centre Trust c/- Gideon Town Planning,
gg@gideontownplanning.com.au

enc Attachment 1 - Referral agency conditions
Attachment 2 - Advice to the applicant
Attachment 3 - Reasons for referral agency response
Attachment 4 - Representations provisions
Attachment 5 - Approved plans and specifications

Attachment 1—Referral agency conditions

(Under section 56(1)(b)(i) of the *Planning Act 2016* the following conditions must be attached to any development approval relating to this application) (Copies of the plans and specifications referenced below are found at Attachment 5)

No.	Conditions	Condition timing
Material change of use		
Schedule 10, Part 9, div 4, sub 2, table 4 (Planning Regulation 2017)—The chief executive administering the <i>Planning Act 2016</i> nominates the Director-General of Department of Transport and Main Roads to be the enforcement authority for the development to which this development approval relates for the administration and enforcement of any matter relating to the following condition(s):		
1.	A 2.0m wide pedestrian footpath along the full road frontage of the development site (parallel with Lawrie Street), must be provided.	Prior to the commencement of use.
2.	The road access works and the sign must be provided generally in accordance with the following plan: <ul style="list-style-type: none"> • PROPOSED SITE PLAN prepared by InTOTUM, dated 28/09/21, reference 2021046-DA-A100 and revision C. 	Prior to the commencement of use and to be maintained at all times.
3.	(a) The permitted road access locations are to be located generally in accordance with PROPOSED SITE PLAN prepared by InTOTUM, dated 28/09/21, reference 2021046-DA-A100 and revision C. (b) The road access works comprising of Commercial Driveways, (at the permitted road access locations) must be provided generally in accordance with TYPE A – TWO WAY ACCESS COMMERCIAL DRIVEWAY SLAB prepared by Capricorn Municipal Development Guideline dated 12/2016, reference CMDG-R-042 and revision F. (c) The road access works must be designed and constructed in generally in accordance with the Capricorn Municipal Development Guidelines, Manual of Uniform Traffic Control Devices (MUTCD) and Road Planning and Design Manual (including TMR specifications), to suit design vehicle not exceeding a 19 metre semi-trailer.	Prior to the commencement of use.
4.	The development must be in accordance with sections 3, 4, 5 and Appendix A of the STORMWATER MANAGEMENT PLAN report prepared by McMurtrie Consulting Engineers dated 27.09.2021, reference 027-21-22 and revision A, in particular: <ul style="list-style-type: none"> • STORMWATER MANAGEMENT PLAN POST DEVELOPMENT LAYOUT prepared by McMurtrie Consulting Engineers, dated 27.09.21, reference 027-21-21-SMP-02 and revision A. 	At all times
5.	Signage (R5-35 (L & R), indicating "No Stopping" (supplemented with a painted yellow pavement line marking) is to be installed between the ingress and the egress driveway in accordance with the Department of Transport and Main Roads' <i>Manual of Uniform Traffic Control Devices</i> .	Prior to the commencement of use and to be maintained at all times.
6.	Direct access is not permitted between Lawrie Street (the state-controlled road) and the subject site at any location other than the permitted road access location(s) as per Condition 3.	At all times

Attachment 2—Advice to the applicant

General advice	
1.	Terms and phrases used in this document are defined in the <i>Planning Act 2016</i> its regulation or the State Development Assessment Provisions (SDAP) [v2.6]. If a word remains undefined it has its ordinary meaning.
2.	Under section 33 of the <i>Transport Infrastructure Act 1994</i> , written approval is required from the Department of Transport and Main Roads to carry out road works on a state-controlled road. Please contact the Department of Transport and Main Roads' on CorridorManagement@tmr.qld.gov.au to make an application for road works approval. This approval must be obtained prior to commencing any works on the state-controlled road reserve. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). Please contact the Department of Transport and Main Roads' as soon as possible to ensure that gaining approval does not delay construction.

Attachment 3—Reasons for referral agency response

(Given under section 56(7) of the *Planning Act 2016*)

The reasons for the SARA's decision are:

- the proposed development is for a service station
- the proposed development is adjacent to and accessed from Lawrie Street (the state-controlled road)
- the site access can be conditioned to provide safe ingress from and egress to the state-controlled road
- the development complies with relevant provisions of State code 1 of the State Development Assessment Provisions, version 2.6, subject to the implementation of conditions.

Material used in the assessment of the application:

- The development application material and submitted plans
- *Planning Act 2016*
- Planning Regulation 2017
- The *State Development Assessment Provisions* (version [2.6]), as published by the SARA
- The Development Assessment Rules
- SARA DA Mapping system

Attachment 4—Change representation provisions

(page left intentionally blank)

Attachment 5—Approved plans and specifications

(page left intentionally blank)

Development Assessment Rules—Representations about a referral agency response

The following provisions are those set out in sections 28 and 30 of the Development Assessment Rules¹ regarding **representations about a referral agency response**

Part 6: Changes to the application and referral agency responses

28 Concurrence agency changes its response or gives a late response

- 28.1. Despite part 2, a concurrence agency may, after its referral agency assessment period and any further period agreed ends, change its referral agency response or give a late referral agency response before the application is decided, subject to section 28.2 and 28.3.
- 28.2. A concurrence agency may change its referral agency response at any time before the application is decided if—
- (a) the change is in response to a change which the assessment manager is satisfied is a change under section 26.1; or
 - (b) the Minister has given the concurrence agency a direction under section 99 of the Act; or
 - (c) the applicant has given written agreement to the change to the referral agency response.²
- 28.3. A concurrence agency may give a late referral agency response before the application is decided, if the applicant has given written agreement to the late referral agency response.
- 28.4. If a concurrence agency proposes to change its referral agency response under section 28.2(a), the concurrence agency must—
- (a) give notice of its intention to change its referral agency response to the assessment manager and a copy to the applicant within 5 days of receiving notice of the change under section 25.1; and
 - (b) the concurrence agency has 10 days from the day of giving notice under paragraph (a), or a further period agreed between the applicant and the concurrence agency, to give an amended referral agency response to the assessment manager and a copy to the applicant.

¹ Pursuant to Section 68 of the *Planning Act 2016*

² In the instance an applicant has made representations to the concurrence agency under section 30, and the concurrence agency agrees to make the change included in the representations, section 28.2(c) is taken to have been satisfied.

Part 7: Miscellaneous

30 Representations about a referral agency response

30.1. An applicant may make representations to a concurrence agency at any time before the application is decided, about changing a matter in the referral agency response.³

³ An applicant may elect, under section 32, to stop the assessment manager's decision period in which to take this action. If a concurrence agency wishes to amend their response in relation to representations made under this section, they must do so in accordance with section 28.

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

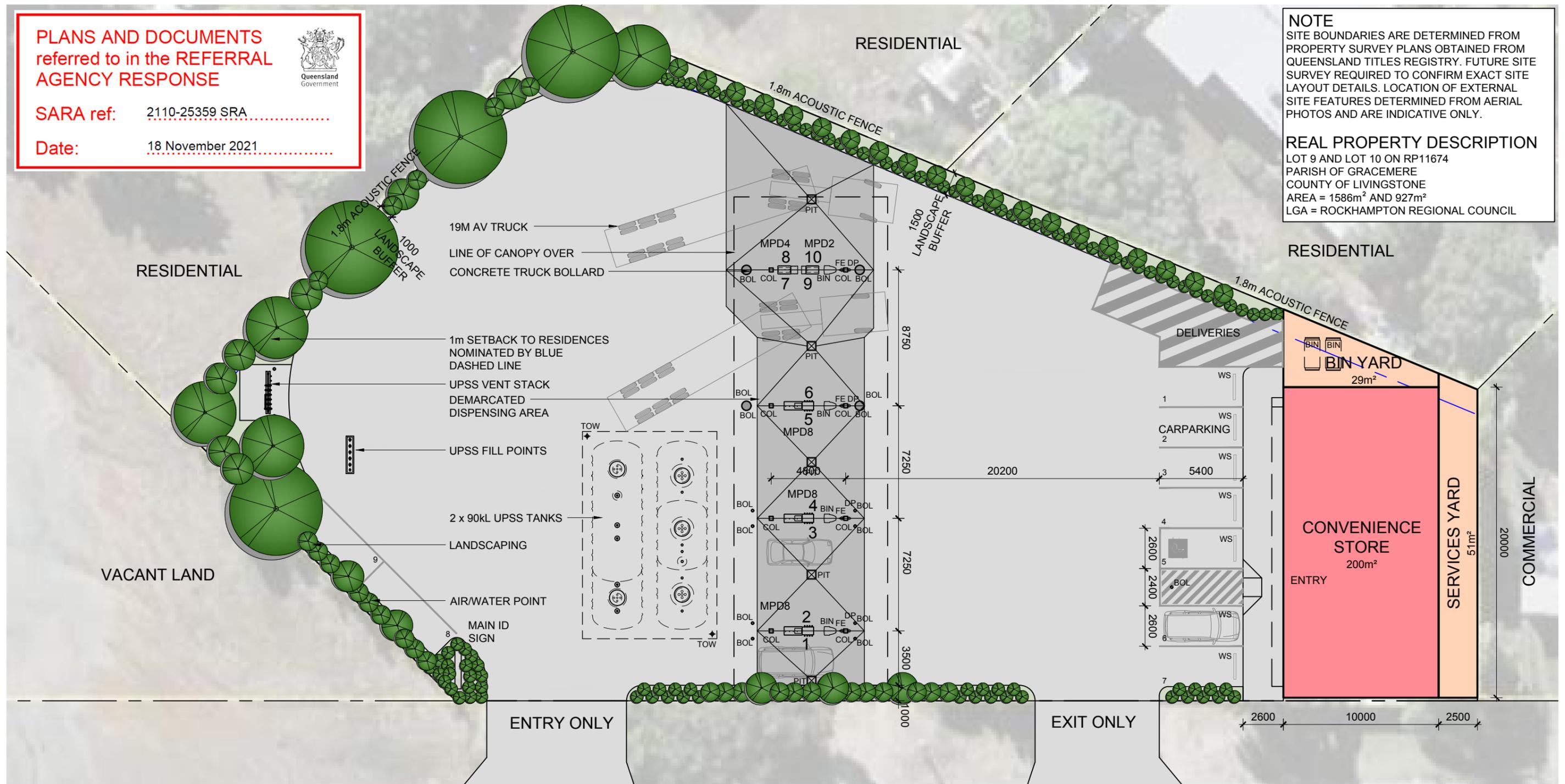
SARA ref: 2110-25359 SRA

Date: 18 November 2021



NOTE
SITE BOUNDARIES ARE DETERMINED FROM PROPERTY SURVEY PLANS OBTAINED FROM QUEENSLAND TITLES REGISTRY. FUTURE SITE SURVEY REQUIRED TO CONFIRM EXACT SITE LAYOUT DETAILS. LOCATION OF EXTERNAL SITE FEATURES DETERMINED FROM AERIAL PHOTOS AND ARE INDICATIVE ONLY.

REAL PROPERTY DESCRIPTION
LOT 9 AND LOT 10 ON RP11674
PARISH OF GRACEMERE
COUNTY OF LIVINGSTONE
AREA = 1586m² AND 927m²
LGA = ROCKHAMPTON REGIONAL COUNCIL



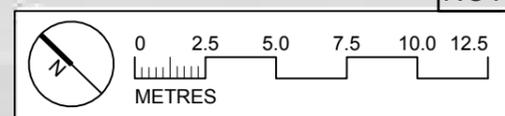
SITE INFORMATION

AREAS	
BUILDING =	200m ²
SERVICE YARD =	80m ²
CANOPY AREA =	331m ²
LANDSCAPE AREA =	235m ²
UNCOVERED PAVEMENT AREA =	1667m ²
TOTAL AREA =	2513m²

CARPARKING = 9 SPACES INCLUDING 1 ACCESSIBLE SPACE

LAWRIE STREET

NOT FOR CONSTRUCTION



DEVELOPMENT APPROVAL



COPYRIGHT AND NOTES
THE COPYRIGHT FOR THIS DOCUMENT IS VESTED IN inTOTUM PTY LTD. THIS DRAWING MAY NOT BE COPIED, REPRODUCED, RETAINED, OR DISCLOSED TO ANY UNAUTHORIZED PARTY, EITHER WHOLLY OR IN PART, WITHOUT PRIOR WRITTEN CONSENT FROM inTOTUM PTY LTD.
VERIFY ALL DIMENSIONS AND LEVELS ON SITE PRIOR TO COMMENCEMENT OF CONSTRUCTION.
ANY DISCREPANCIES ARE TO BE REPORTED IMMEDIATELY TO inTOTUM PTY LTD.
DO NOT SCALE OFF DRAWINGS.

REV	DATE	DESCRIPTION	BY
A	13/09/21	PRELIMINARY ISSUE - FOR REVIEW	MAE
B	21/09/21	PRELIMINARY ISSUE - FOR REVIEW	MAE
C	28/09/21	DEVELOPMENT APPROVAL ISSUE	MAE

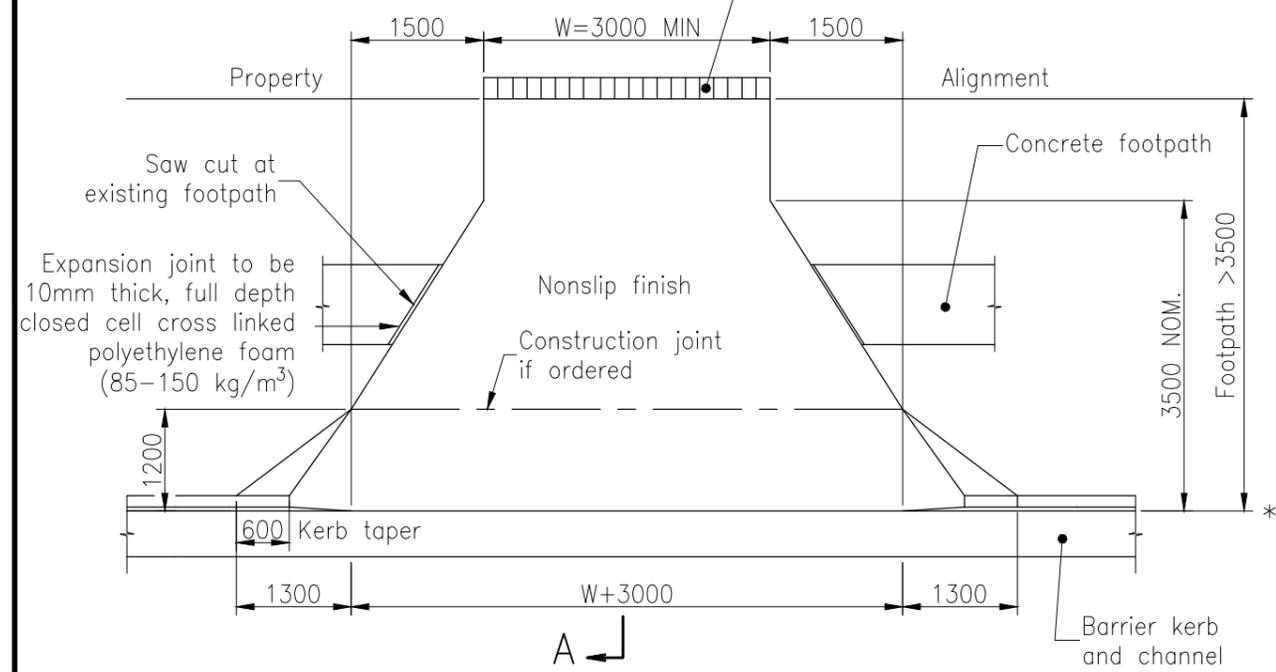
CLIENT
GRACEMERE CENTRE PTY LTD (AS TRUSTEE)
GRACEMERE CENTRE TRUST

PROJECT
GRACEMERE SERVICE STATION DEVELOPMENT
16-18 LAWRIE STREET
GRACEMERE, QUEENSLAND 4702

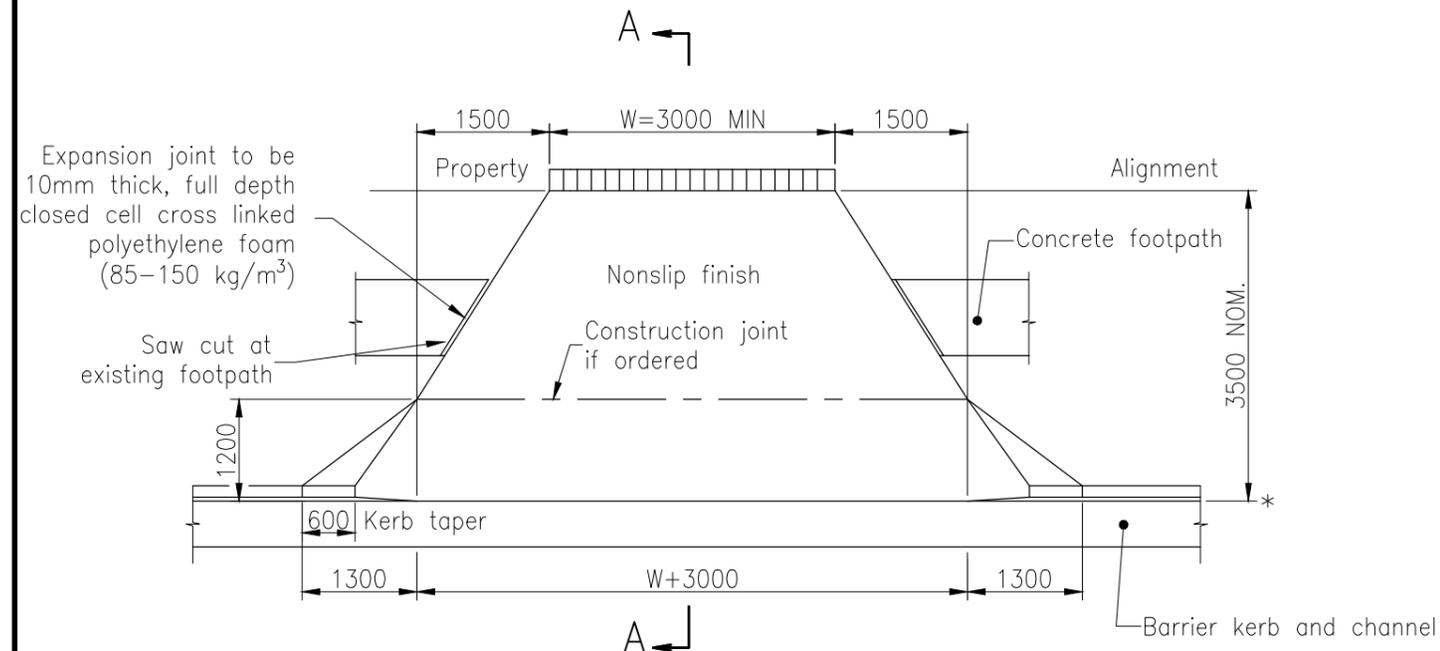
TITLE
PROPOSED SITE PLAN

SCALE	1:250	DRAWN	MAE	DATE	06/09/21
SIZE	A3	CHECKED		DATE	
DRAWING NUMBER	2021046-DA-A100		REVISION	C	

A grated drain may be provided on the inside of the R.P. alignment on ascending entrances and piped to kerb and channel or stormwater drainage system. Grate area to be sufficient to reduce overland flow velocity to meet QUDM standards

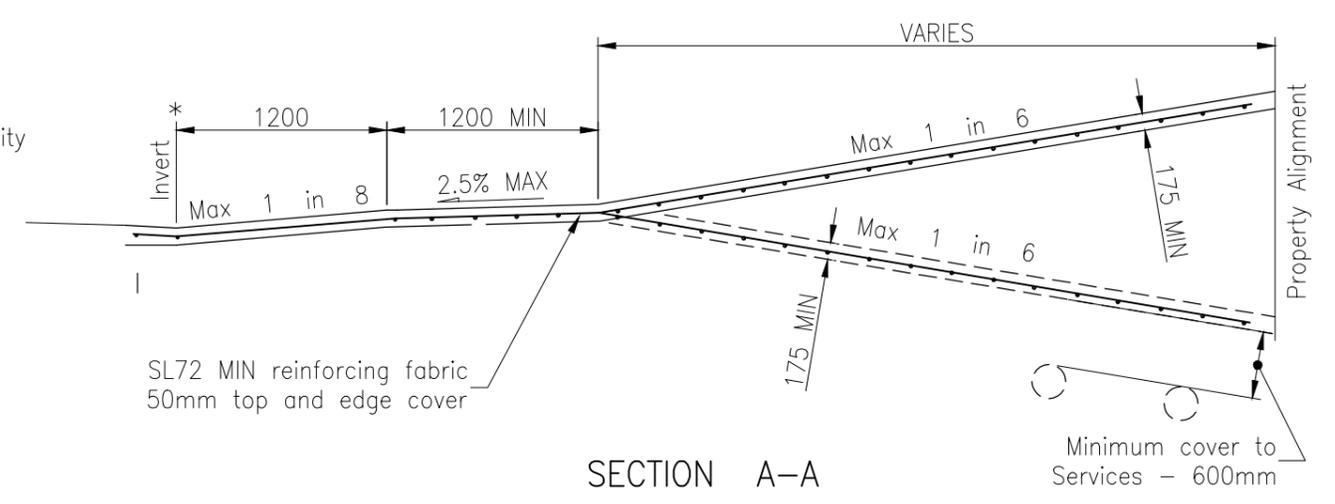


PLAN - WIDE FOOTPATHS
SCALE 1 : 40



PLAN - 3.5m FOOTPATH
SCALE 1 : 40

ADDED REGARDING
GRATED DRAIN GRATE
AREA



SECTION A-A

LEGEND:

* NOM. kerb line.

NOTES:

1. The owner of the property served by the driveway shall be responsible for all maintenance associated with the driveway.
2. Concrete N32 in accordance with AS 1379 and AS 3600.
3. Reinforcing fabric to AS 4671. Lap fabric 250mm.
4. Depths of concrete and reinforcing steel shown are the minimum requirements for good foundation conditions, and average traffic loading. Where this does not apply, depths of concrete and reinforcing shall be increased to suit specific conditions. Council accepts no responsibility for the structural adequacy of the design and it is recommended that engineering advice be sought where higher commercial vehicle loadings are expected.
5. Reprofile adjacent footpath to match driveway. Footpath earthworks adjoining concrete must be well compacted.
6. Existing footpath profile to be maintained where possible.
7. Compaction for subgrade 95% Standard to AS 1289.5.1.1.
8. Where subgrade is less than CBR 5 excavate and provide imported material to satisfaction of independent Engineering authority.
9. Driveways to be constructed from concrete only.
10. Approval of location, feature finishes and levels must be obtained from Local Authority prior to excavation.
11. Engineering advice should be sought where it is proposed to modify the footpath profile by excavation or filling to ensure drainage problems do not result and existing services are not affected.
12. Where new concrete work abuts existing concrete work, 12dia dowels (500mm length) at 300mm centres (500mm allowable at invert of kerb and channel) to be installed to prevent differential movement.
13. All dimensions in millimetres.

PLANS AND DOCUMENTS referred to in the REFERRAL AGENCY RESPONSE

SARA ref: 2110-25359 SRA

Date: 18 November 2021



APPLICABILITY TABLE							
	BSC	CHRC	GRC	IRC	LSC	MRC	RRC
Applicable	Yes	Yes	No	Yes	Yes	Yes	Yes
Applicable DWG	CMDG-R-042A						

REVISIONS	DATE
F IRC ADDED	12/2016
E APPLICABLE DRAWING ADDED	04/2016
D GRC AND LSC ADDED	09/2014
C MRC ADDED/AMENDMENT TO DRIVEWAY GRADE	07/2011
B NOTE ADDED REGARDING GRATED DRAIN GRATE AREA	12/2010
A POST AMALGAMATION REVISION	01/2010

DISCLAIMER.
The authors and sponsoring organisations shall have no liability or responsibility to the user or any other person or entity with respect to any liability, loss or damage caused or alleged to be caused, directly or indirectly, by the adoption and use of these Standard Drawings including, but not limited to, any interruption of service, loss of business or anticipatory profits, of consequential damages resulting from the use of these Standard Drawings. Persons must not rely on these Standard Drawings as the equivalent of, or a substitute for, project-specific design and assessment by an appropriately qualified professional.

Capricorn Municipal Development Guidelines

Incorporating:
Banana Shire Council (BSC) Livingstone Shire Council (LSC)
Central Highlands Regional Council (CHRC) Maranoa Regional Council (MRC)
Gladstone Regional Council (GRC) Rockhampton Regional Council (RRC)
Isaac Regional Council (IRC)

TYPE A - TWO WAY ACCESS
COMMERCIAL DRIVEWAY SLAB

ROADS	
STANDARD DRAWING	CMDG-R-042
REV.	A B C D E F

REPORT TYPE

STORMWATER MANAGEMENT PLAN

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Lot 9 and 10 RP611674, Gracemere Queensland

CLIENT

Gracemere Centre Pty Ltd

PLANS AND DOCUMENTS
referred to in the REFERRAL
AGENCY RESPONSE



SARA ref: 2110-25359 SRA

Date: 18 November 2021

PROJECTService Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional CouncilDATE
27.09.2021OUR REF.
027-21-22

DOCUMENT CONTROL

Rev.	Description	Signature	RPEQ No.	Date
A	Issued for Approval		15243	27.09.2021

The information contained within this report is provided in good faith in the belief that no information, opinions or recommendations made are misleading. All comments and opinions given in this report are based on information supplied by the client, their agent and third parties.

© Copyright of McMurtrie Consulting Engineers Pty Ltd. No part of this document can be reproduced without the prior permission in writing of McMurtrie Consulting Engineers.



Contents

1.	INTRODUCTION AND APPROACH.....	1
1.1.	Project OVERVIEW	1
1.2.	Methodology.....	1
1.3.	DATA SOURCES	1
2.	SITE CHARACTERISTICS.....	2
2.1.	SITE LOCATION.....	2
2.2.	TOPOGRAPHY.....	2
3.	HYDROLOGY ASSESSMENT.....	4
3.1.	LAWFUL POINT OF DISCHARGE	4
3.2.	HYDROLOGIC MODELLING.....	4
3.2.1	CATCHMENT HYDOLOGY PARAMETERS.....	4
3.2.2	HYDOLOGY results.....	5
4.	HYDRAULIC ASSESSMENT.....	9
4.1.	BACKGROUND.....	9
4.2.	INTERNAL STORMWATER CONVEYANCE.....	9
5.	QUALITY ASSESSMENT	12
5.1.	BACKGROUND.....	12
5.2.	CONSTRUCTION PHASE.....	12
5.2.1	KEY POLLUTANTS.....	12
5.2.2	EROSION AND SEDIMENT CONTROLS	12
5.3.	OPERATIONAL PHASE	13
6.	CONCLUSION	14
7.	APPENDIX	15



1. INTRODUCTION AND APPROACH

1.1. PROJECT OVERVIEW

McMurtrie Consulting Engineers (MCE) have been commissioned by Gracemere Centre Pty Ltd to undertake a site-based Stormwater Management Plan (SMP) for a proposed service station which is to be located on Lot 9 & 10 on RP611674. The aim of this SMP is to demonstrate that the proposed development will comply with Capricorn Municipal Development Guidelines (CMDG), Queensland Urban Drainage Manual (QUDM 2016), Australian Rainfall and Runoff 2016 (ARR'16) and State Planning Policy (SPP 2017).

1.2. METHODOLOGY

The assessment methodology adopted for this SMP is summarised below.

- Broadly identify the contributing catchments to the project.
- Identify Lawful Point of Discharge (LPOD) for the site stormwater runoff
- Identify the critical storm events and duration for this project
- Estimate peak discharge runoff for pre-development and post-development scenarios.
- Identify potential mitigation and management strategies to ensure no worsening to downstream catchments and infrastructure.
- Assess the stormwater quality treatment requirements for the project.

1.3. DATA SOURCES

The background data used to undertake this assessment were collected from the following sources:

- ARR'16 data hub
 - Rainfall data
 - Design storm ensemble temporal patterns
- Rockhampton Regional Council GIS data
- Survey and preliminary site layout from Rockhampton Regional Council
- Pluviograph rainfall data for the 'Rockhampton Aero' station.

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional Council

DATE
27.09.2021

OUR REF.
027-21-22



2. SITE CHARACTERISTICS

2.1. SITE LOCATION

The proposed site is located on Lot 9 & 10 on RP611674. Site details have been summarised within Table 1 and a QLD Globe extract is presented as Figure 1.

Developer	Property and Location	
	Lot and Property Description	Address
Gracemere Centre Pty Ltd	Lot 9 & 10 RP611674	16 & 18 Lawrie Street, Gracemere, 4702

Table 1: Site Description



Figure 1: Site Location

The proposed site abuts Lawrie Street on the Southwestern side and shares a common boundary with the adjacent lots on all other sides.

2.2. TOPOGRAPHY

The existing site consists of 2 residential structures, slight impervious area, and grassed lawns. The existing site levels

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional Council

DATE
27.09.2021

OUR REF.
027-21-22



range from approximately 30.1m AHD in the Northern corner to 27.9m ADH in the Southern corner.



3. HYDROLOGY ASSESSMENT

3.1. LAWFUL POINT OF DISCHARGE

The existing site surface grades the southwestern boundary, The Lawrie Street Road reserve. The existing drainage pit in Lawrie street is the Lawful Point of Discharge (LPOD) for the site.

Post development discharge will be assessed to ensure that there will be no adverse impacts on downstream properties and infrastructure.

3.2. HYDROLOGIC MODELLING

Hydrologic calculations have been undertaken using XPSTORM 2020.1 for pre and post development scenarios. The modelling within XPSTORM environment has been undertaken to estimate the peak discharge for storms up to 1% AEP. Hydrologic modelling has been undertaken using the Laurenson Runoff Routing Method. Laurenson’s Method is an industry leading hydrologic routing method that can be used for catchments ranging between 10m² up to 20,000km². The information required to apply Laurenson’s Method include:

- Rainfall Intensity Data (obtained from the Bureau of Meteorology 2016 IFD utility)
- Rainfall Temporal Patterns (obtained from the ARR’16 Data Hub)
- Catchment Area (ha)
- Catchment Slope
- Initial and Continuing Infiltration Data
- Catchment Roughness (Manning’s ‘n’)

Given the relatively limited scope of this hydraulic impact assessment a lumped catchment approach, as defined by ARR’16 and shown in Figure 2 below, was applied to the hydrologic review of the site. The lumped approach is suitable for this site given the relative consistency in land use and the ultimate purpose of the model.

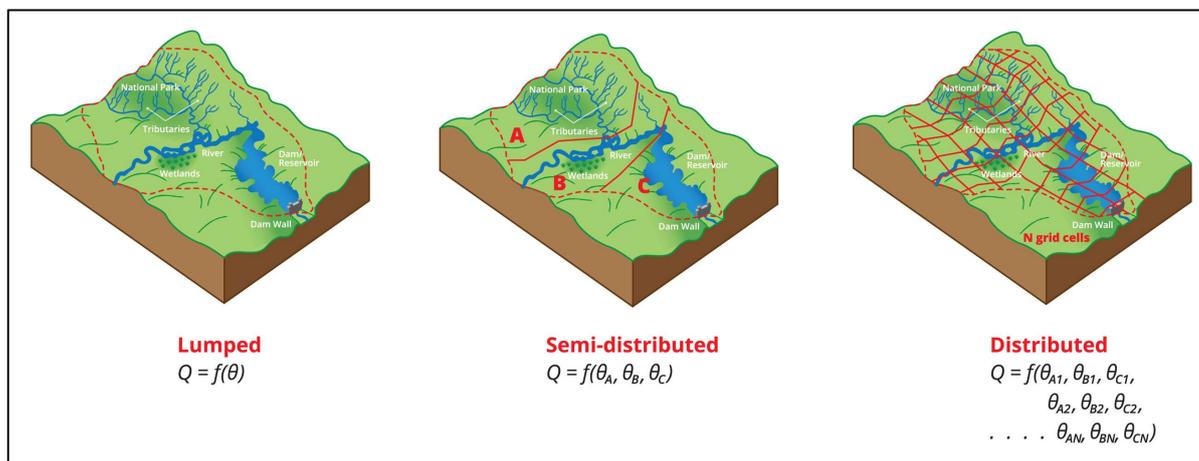


Figure 2: Catchment Analysis Options

Refer Appendix A for Site Layout.

3.2.1 CATCHMENT HYDOLOGY PARAMETERS

Table 2 and 3 summarise the input data for the development site in pre-development and post-development conditions. Table 4 summarises the input data for the external catchment.



Parameter		Existing Site		
		Grass	Impervious pavement	Roof
Area (ha)		0.198	0.018	0.035
Impervious (%)		0.0	100	100
Slope (%)		4	4	27
Laurenson 'n' (storage non-linearity exponent)		-0.285	-0.285	-0.285
Infiltration	Initial Loss (mm/hr)	0.0	0.0	0.0
	Continuing Loss (mm/hr)	2.5	0.0	0
Manning's Roughness (n)		0.025	0.016	0.022

Table 2: Pre-Development Model Parameters (XP Storm)

Parameter		Post-Development		
		Grass	Impervious pavement	Roof
Area (ha)		0.023	0.169	0.059
Impervious (%)		0.0	100	100
Slope (%)		4	4	27
Laurenson 'n' (storage non-linearity exponent)		-0.285	-0.285	-0.285
Infiltration	Initial Loss (mm/hr)	0.0	0.0	0.0
	Continuing Loss (mm/hr)	2.5	0.0	0.0
Manning's Roughness (n)		0.025	0.016	0.022

Table 3: Post-Development Model Parameters – Conveyed by Swale (XP Storm)

Applying no initial losses within the model is consistent with the requirements of both ARR'87 and ARR'16. ARR'16 states that there is no evidence that infiltration losses change with respect to the recurrence interval being modelled and that continuing losses can be applied equally to frequent and rare events.

3.2.2 HYDOLOGY RESULTS

Applying the ARR'16 ensemble temporal patterns to the catchments allowed the identification of the critical duration for the mean minor (0.5EY) and major storm (1% AEP) events. The below figures are screen shots of Box and Whisker plot taken from XPSTORM software. These plots show the comparison of storm ensembles for different durations for minor and major storm events.

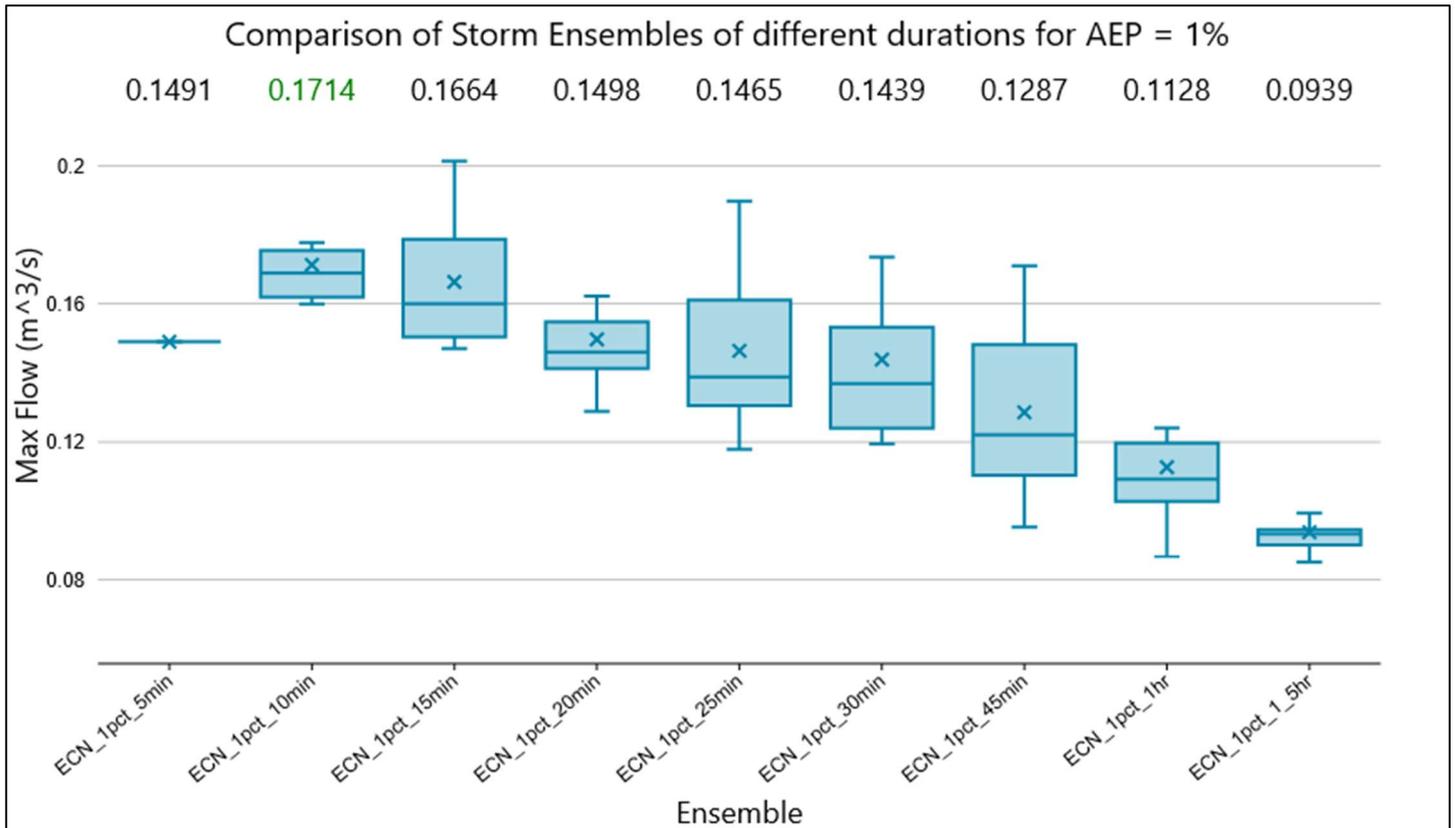


Figure 3: Comparison of Storm Ensembles of different durations for pre-development 1% AEP (XPSTORM Model)

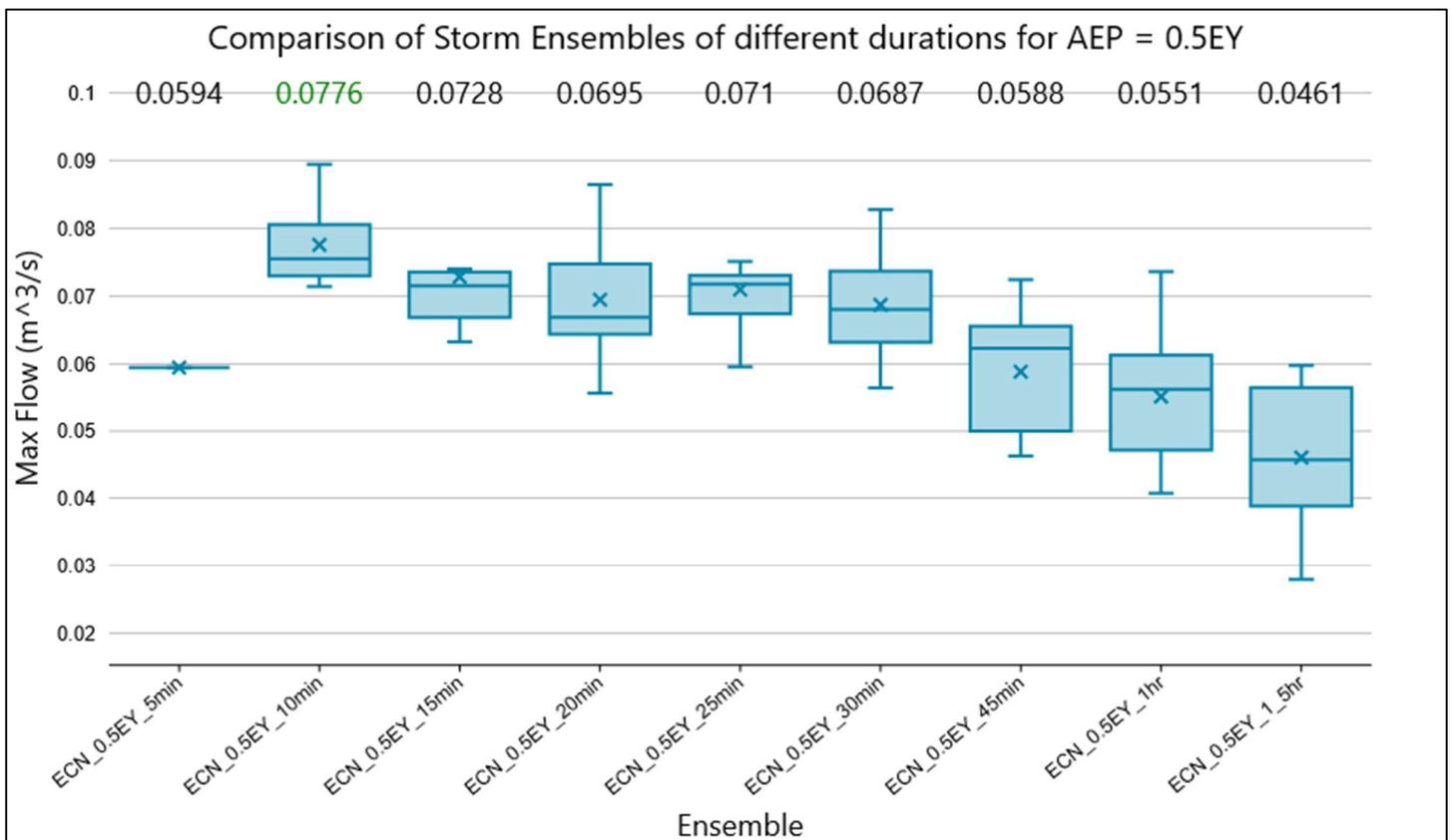


Figure 4: Comparison of Storm Ensembles of different durations for pre-development 0.5EY (XPSTORM Model)

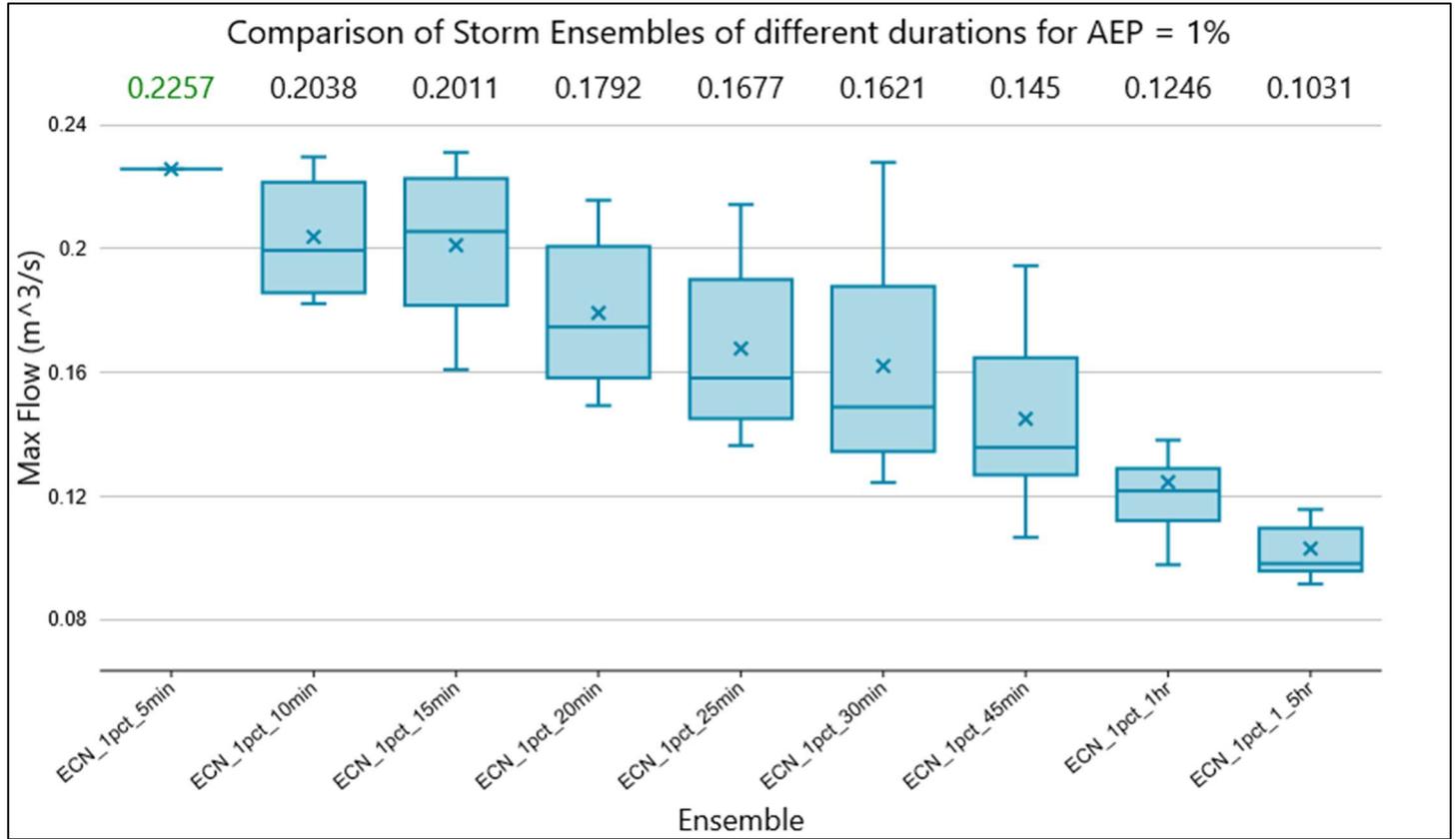


Figure 5: Comparison of Storm Ensembles of different durations for post-development 1% AEP (XPSTORM Model)

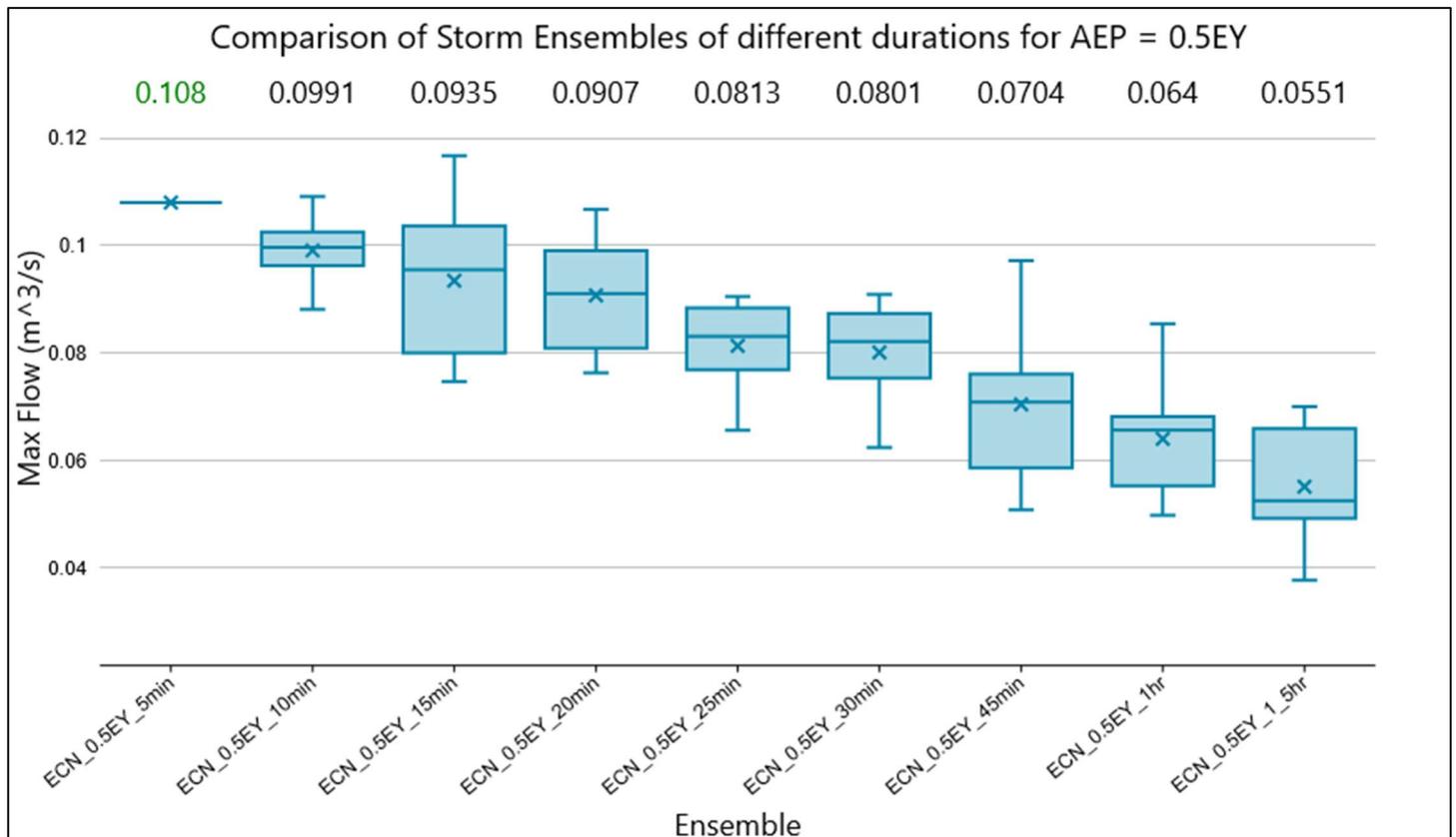


Figure 6: Comparison of Storm Ensembles of different durations for post-development 0.5EY (XPSTORM Model)



The results of each of the ensembles are summarised in Table 4. The same storm events are applied to the hydraulic analysis. There are multiple 'potential' critical post development storms presented, this is because all of these storms have a higher peak discharge than that of the predevelopment case and as such need to be addressed by the proposed the mitigation strategy.

Recurrence interval	Critical Predevelopment storm	Potential critical post development storms
1% AEP (major storm)	1pct_10min_5	1pct_5min_1
		1pct_10min_8
		1pct_15min_2
		1pct_20min_4
0.5EY (minor storm)	0.5EY_10min_5	0.5EY_5min_1
		0.5EY_10min_7
		0.5EY_15min_9
		0.5EY_20min_6
		0.5EY_25min_4
		0.5EY_30min_3

Table 4: Critical Storm Events



4. HYDRAULIC ASSESSMENT

4.1. BACKGROUND

The hydraulic assessment for the site has been carried out using XPSTORM 2020.1. The aim of the hydraulic modelling is to demonstrate that the post-development minor and major storm peak discharge at the LPOD is equal or less than the peak pre-development discharge. This will be achieved by utilizing sag pits to store water within the lot, driveways will act as a weir outlet when water has ponded to a depth of 125mm.

4.2. INTERNAL STORMWATER CONVEYANCE

The site stormwater network consists of one continuous stormwater link, 3 internal stormwater pits to convey site stormwater to the legal point of discharge. The site peak discharge for each site condition is presented below, with critical cases highlighted in yellow. Table 5 demonstrates that the peak discharge for the major and minor events will be lesser in the post development mitigated case than the existing site predevelopment condition.

Storm Event (AEP % and duration)	Pre-Development Peak Flow (m ³ /s)	Post-Development Unmitigated Peak Flow (m ³ /s)	Post-Development Mitigated Peak Flow(m ³ /s)		
			Pipe outlet (200 dia Upvc)	Weir outlet	Total
1pct_5min	0.149	0.226	0.071	0.030	0.101
1pct_10min	0.171	0.204	0.071	0.068	0.139
1pct_15min	0.1664	0.201	0.071	0.064	0.135
1pct_20min	0.1498	0.179	0.071	0.044	0.115
0.5EY_5min	0.0594	0.108	0.069	0.000	0.069
0.5EY_10min	0.0776	0.099	0.069	0.000	0.069
0.5EY_15min	0.0728	0.094	0.069	0.000	0.069
0.5EY_20min	0.0695	0.091	0.068	0.000	0.068
0.5EY_25min	0.071	0.081	0.068	0.000	0.068
0.5EY_30min	0.0687	0.080	0.068	0.000	0.068

Table 5: Peak Discharge Rate at LPOD

The first 2 flow columns presented in data presented in table 5 (Pre-development Peak flow and Post-Development Unmitigated Peak flow) summarise the hydrology data for the earlier presented Box and Whisker charts, The Post-Development Mitigated Peak flow data is derived from the following hydraulic model outputs:



Conduit C2 from post development to outlet

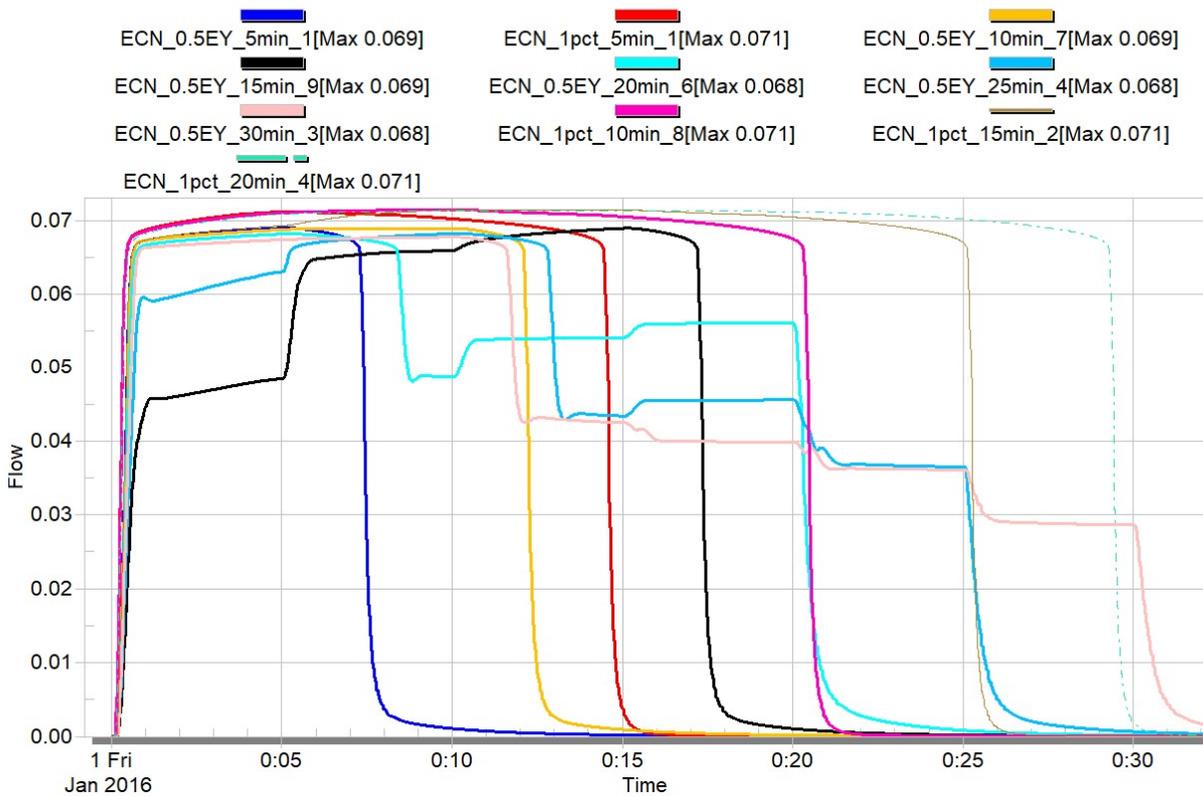


Figure 7: Flow graph of all Potential Critical Post-Development Storms – Outlet through 200 dia Upvc pipe (XPSTORM Model)

Diversion W1 from post development to outlet

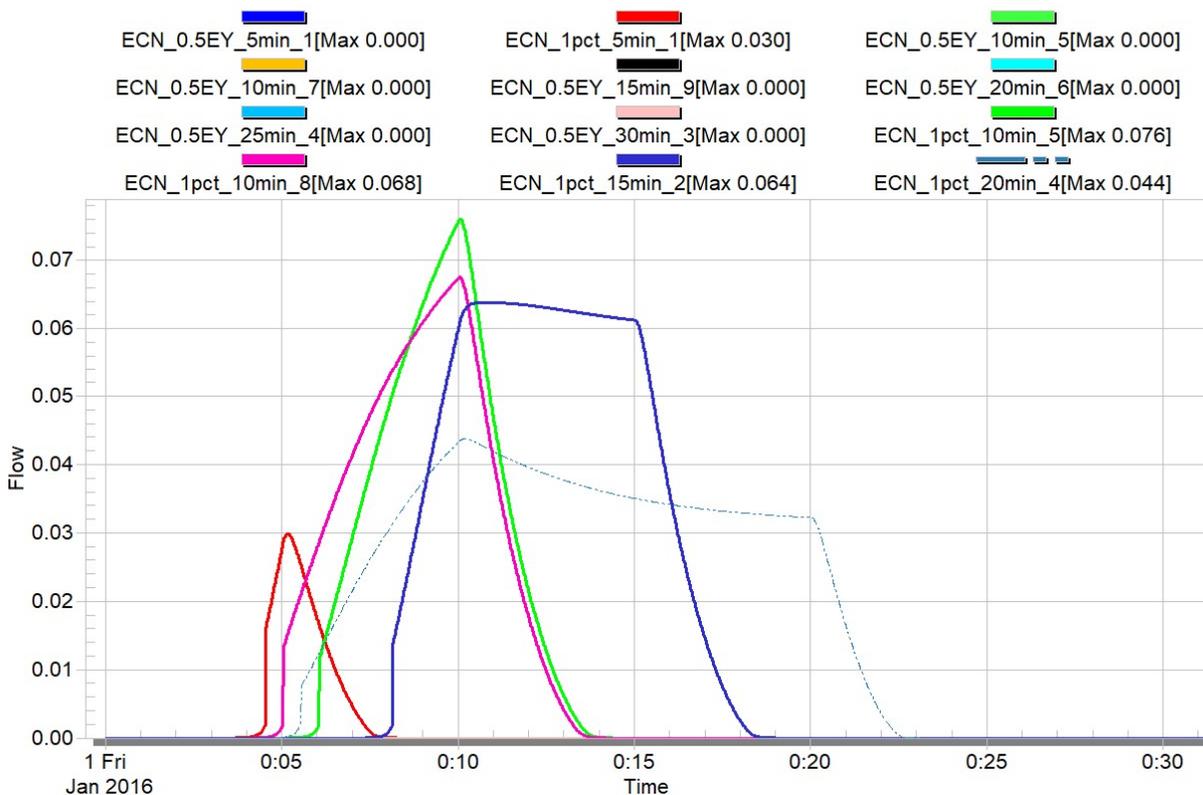


Figure 8: Flow graph of all Potential Critical Post-Development Storms – Outlet over Driveway Weir (XPSTORM Model)



These outcomes have been achieved by modelling the mitigation strategy as a simplified storage area varying linearly from 0.36m² (for a 600x600 pit) to 613m² (the combined storage area of the 2 stormwater pit catchments before overtopping the driveway). The Additional details have been presented below in table 6:

Pit invert level (RL)	27.24m
Pit Surface level (RL)	28.000m
Weir height (driveways)	28.125m
Detention Volume	38.6m ³
Outlet Structure	Low flow pipe 200 dia UPVC @ RL 27.24 18m Wide weir @ RL 28.125

Table 6: Storage area model parameters

The heights summarised in table 6 give context to the stage graph for the water levels in the detention model below:

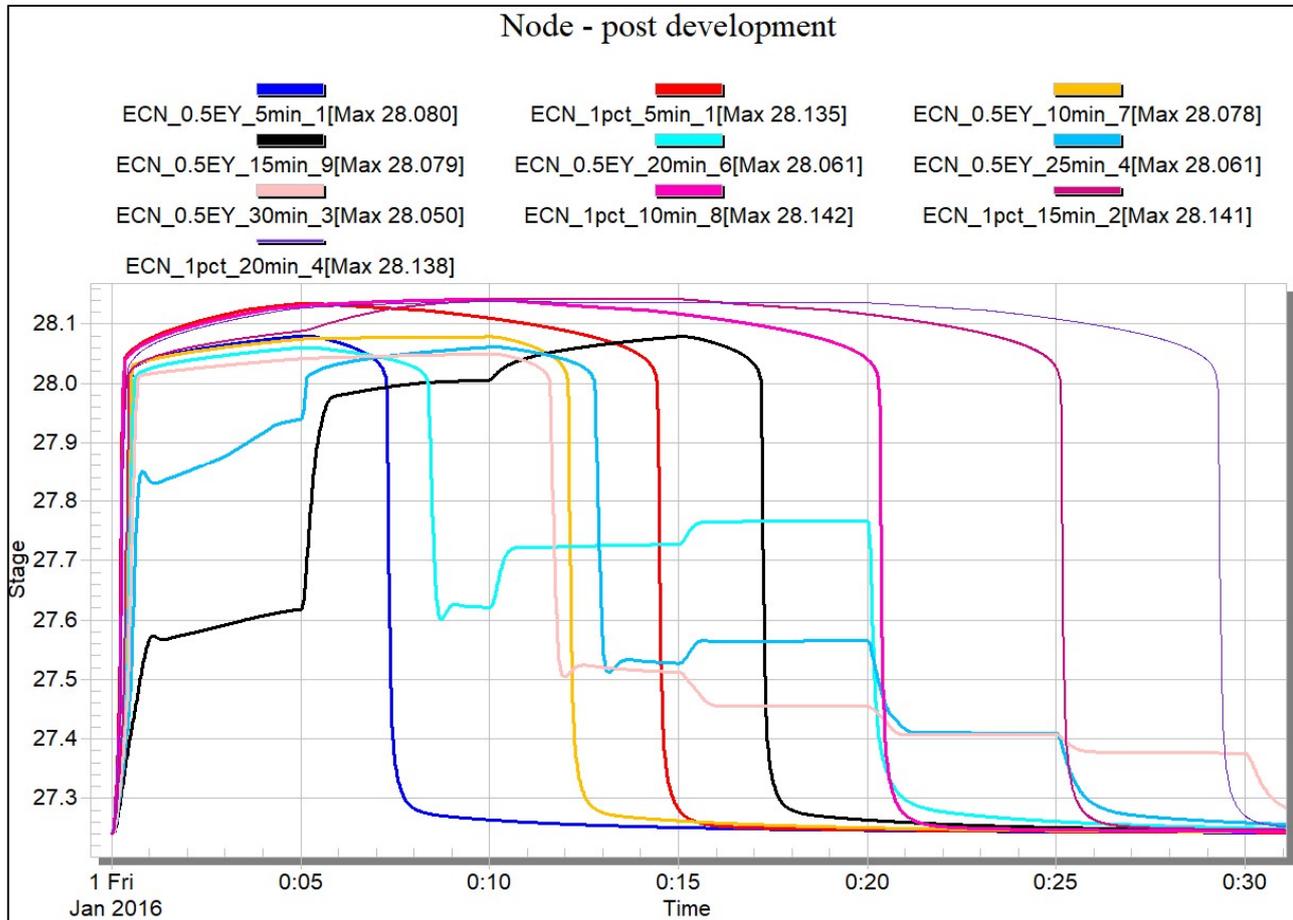


Figure 9: Stage graph for mitigated detention system (XPSTORM Model)



5. QUALITY ASSESSMENT

5.1. BACKGROUND

The development of the land has the potential to increase the pollutant loads within stormwater runoff and downstream watercourses. During construction phase of the development, disturbances to the existing ground have the potential to significantly increase sediment loads entering downstream drainage systems and watercourses. The operational phase of the development will potentially increase the amount of sedimentation and nutrients washing from the site (refer section 5.2 for demonstration of compliance).

The proposed development is the construction of a service station, the premises net size is 2,513m² resulting in an impervious area of approximately 90% of the net developable area. The State Planning Policy (July 2017) states that a premises greater than 2500m² resulting in an area greater than 25% of the net developable area requires assessment against water quality benchmarks, therefore the development must address water quality benchmarks (refer section 5.3 for demonstration of compliance)

The following sections describe construction and operational phase controls and water quality modelling of the proposed treatment train in compliance with Council guidelines.

5.2. CONSTRUCTION PHASE

5.2.1 KEY POLLUTANTS

During the construction phase a number of key pollutants have been identified for this development. Table 5 illustrates the key pollutants that have been identified.

Pollutant	Sources
Litter	Paper, construction packaging, food packaging, cement bags, material off cuts.
Sediment	Exposed soils and stockpiles during earthworks and building works.
Hydrocarbons	Fuel and oil spills, leaks from construction equipment and temporary car park areas.

Table 7: Key Pollutants – Construction Phase

5.2.2 EROSION AND SEDIMENT CONTROLS

Erosion and Sediment Control (ESC) devices employed on the site shall be designed and constructed in accordance with CMDG.

Details of the proposed controls are shown on McMurtrie Consulting Engineers, Sediment and Erosion Control Device Details included as Appendix A.

PRE-CONSTRUCTION

- Stabilised site access/exit on Lawrie Street.
- Sediment fences to be located along the contour lines downstream of disturbed areas.
- Diversion drains to divert clean runoff around the construction site.
- Educate site personnel to the requirements of the Sediment and Erosion Control Plan.

CONSTRUCTION

- Maintain construction access/exit, sediment fencing, catch drains and all other existing controls as required.
- Progressively surface and revegetate finished areas as appropriate.

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional Council

DATE

27.09.2021

OUR REF.

027-21-22



During construction, all areas of exposed soils allowing dust generation are to be suitably treated. Treatments will include mulching the soil and watering. Road access is to be regularly cleaned to prevent the transmission of soil on vehicle wheels and eliminate any build-up of typical road dirt and tyre dusts from delivery vehicles.

Adequate waste disposal facilities are to be provided and maintained on the site to cater for all waste materials such as litter hydrocarbons, toxic materials, acids or alkaline substances.

5.3. OPERATIONAL PHASE

Refer Appendix B for SMP for Operational phase water quality objectives for performance of proprietary EO45 for subject site.

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional Council

DATE

27.09.2021

OUR REF.

027-21-22



6. CONCLUSION

The following conclusions are drawn based on the above study of the site;

- Post-development runoff flow will be restricted by a 200 dia outlet to cause ponding up to 125mm above 2 proposed pits before discharging over the driveway accesses.
- Outflow from the site will be discharged into an existing stormwater pit in Lawrie Street, the legal point of discharge.
- A stormwater treatment train has been specified to address the State Planning Policy 2016 water quality objectives by utilising an Enviro OE45.

PROJECT

Service Station, 16 and 18 Lawrie Street, Gracemere
Rockhampton Regional Council

DATE
27.09.2021

OUR REF.
027-21-22



7. APPENDIX

- Appendix A – Stormwater Management Plan.
- Appendix B – Enviro Australia SMP for operational phase water quality
- Appendix C – Enviro Australia OE45 standard drawings.

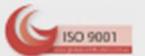


Values

McMurtrie Consulting Engineers is built on traditional values.

While we are the largest independent engineering consultancy locally, our ultimate mission is to satisfy our clients' expectations through professional accountability and a job well done.

Our Affiliations:



Project Management Services
2604 Suburban Road, QLD 4870
Planning, Surveying, Design & Architectural Services
805/205
Engineering & Environmental Consultancy 805/202

APPENDIX A

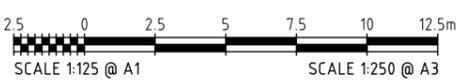
Stormwater Management Plan



LEGEND

	GRASSED AREA
	IMPERVIOUS PAVEMENT AREA
	ROOF AREA

CATCHMENT PROPERTIES				
CATCHMENT	SLOPE (m/m)	MANNINGS ROUGHNESS	PERCENT IMPERVIOUS	AREA (ha)
GRASS	0.04	0.025	0	0.198
IMPERVIOUS PAVEMENT	0.04	0.016	100	0.018
ROOF	0.27	0.022	100	0.035



EXISTING SITE LAYOUT PLAN
SCALE: 1:125(A1) 1:250(A3)

SURVEYOR		BY		DATE		CLIENT							
ADDRESS:		REVIEWED											
CO-ORDINATE DATUM		RPEQ ENG				PREPARED BY 							
HEIGHT DATUM		RPEQ No:		SCALE: NTS		CLIENT GRACEMERE CENTRE PTY LTD PROJECT SERVICE STATION, LAWRIE STREET, GRACEMERE TITLE STORMWATER MANAGEMENT PLAN PRE DEVELOPMENT LAYOUT							
DRAWING No.	REFERENCE DRAWING TITLE	REV	DATE	ISSUED FOR APPROVAL	REVISION DESCRIPTION	IBB DFT	LNM DFT CHK	IBB DES	LNM DES CHK	Address: 63 Charles Street NORTH ROCKHAMPTON QLD 4701 PO BOX 2149, WANDAL QLD 4700 Email: mail@mcmengineers.com	Phone: (07) 4921 1780 Mobile: 0407 631 066 Fax: (07) 4921 1790	DRAWING NUMBER A1 027-21-21-SMP-01	REVISION A

DRAWING LOCATION: S:\PROJECT RECORDS\12027-21-21 SERVICE STATION LAWRIE STREET\DESIGN\SKETCH\3\SMP.DWG
PLOT DATE: 27/09/21 4:17:33 PM

APPENDIX B

Enviro Australia SMP for operational phase water quality

Stormwater Quality

The stormwater quality assessment for the development has been based on the requirements listed in the state planning policy – July 2017 under the water quality section.

It is expected that the proposed development will increase the stormwater pollutants that are exported from the subject site. The Enviro OE45 has been proposed to intercept and capture pollutants associated with the proposed development so that potential impacts external to the subject site will be adequately mitigated to achieve the required Water Quality Objectives (WQO's)

The Enviro OE45 is an in-line multi chamber stormwater utility designed to remove the broad spectrum of pollutants transported by run-off water, separate oil from water and provide 10,000L of bulk oil spill containment. The system has been tested to comply with EN858-1 oil/water separation tests.

This section discusses:

- The Water Quality Objectives identified for the catchment.
- The proposed measures to mitigate the increase in pollutant export.
- Modelling of the proposed measures and comparison to the identified WQO's.

Water quality modelling was undertaken with the Model for Urban Stormwater Improvement Conceptualisation (MUSIC), generally in accordance with the Water by Design MUSIC Modelling Guidelines (2010)

Water Quality Objectives

The load reduction WQO's presented in the table below have been extracted from Table B of the Queensland State Planning Policy (SPP) (July 2017).

Pollutant	Total Suspended Solids (kg/yr)	Total Phosphorus (kg/yr)	Total Nitrogen (kg/yr)	Gross Pollutants (kg/yr)
Load Reduction Target	85%	60%	45%	90%

MUSIC Modelling Methodology

Water Quality modelling of the proposed development has been undertaken using MUSIC Version 6, developed by eWater CRC. MUSIC enables the user to conceptualise the transfer of pollutants through a stormwater drainage system and it provides an aid in quantifying the effectiveness of the proposed stormwater quality treatment system.

Meteorological data

Six-minute pluviographic data was sourced from the Bureau of Meteorology (BOM) for Rockhampton Aero (Station No. 039083).

Source Nodes

Source Node	Area (ha)	Fraction Impervious	Land Use
Grass/Garden	0.023	20	Commercial
Road	0.169	100	Commercial
Roof	0.059	100	Commercial

Treatment Nodes

To represent the treatment measures proposed, the Enviro OE45 treatment node was adopted within the MUSIC model.

Properties of Enviro OE45

Location: Enviro OE45

Inlet Properties

Low Flow By-pass (cubic metres per sec): 0.00000

High Flow By-pass (cubic metres per sec): 0.10000

Target Element

Gross Pollutants (kg/ML) Total Phosphorus (mg/L)

Total Suspended Solids (mg/L) Total Nitrogen (mg/L)

Gross Pollutants (kg/ML)

Transfer Functions

Concentration Based Capture Efficiency Flow Based Capture Efficiency

Both

Concentration Based Capture Efficiency

Input	Output
0.0000	0.0000
15.0000	0.0000

Flow Based Capture Efficiency

Inflow (m ³ /s)	% Capture
0.0000	100.0000
1.0000	100.0000

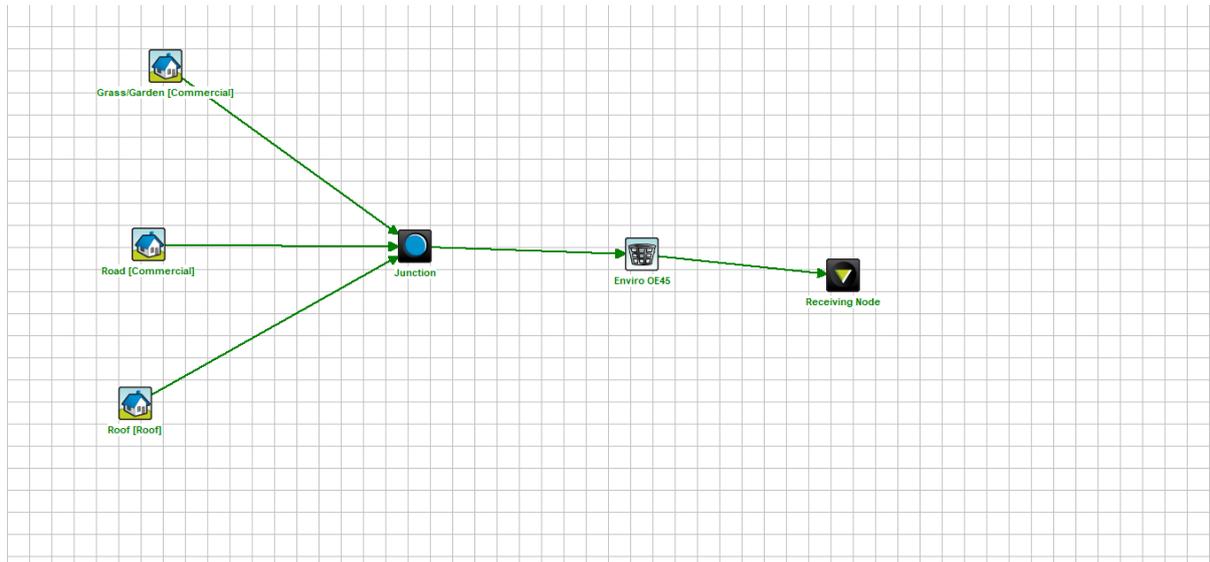
Fluxes... Notes...

Cancel Back Finish

...y information
...stralis, Manly
...Consultants
...ates. Pollutant
...Enviro Australis.
...w rate (up to high
...ation.

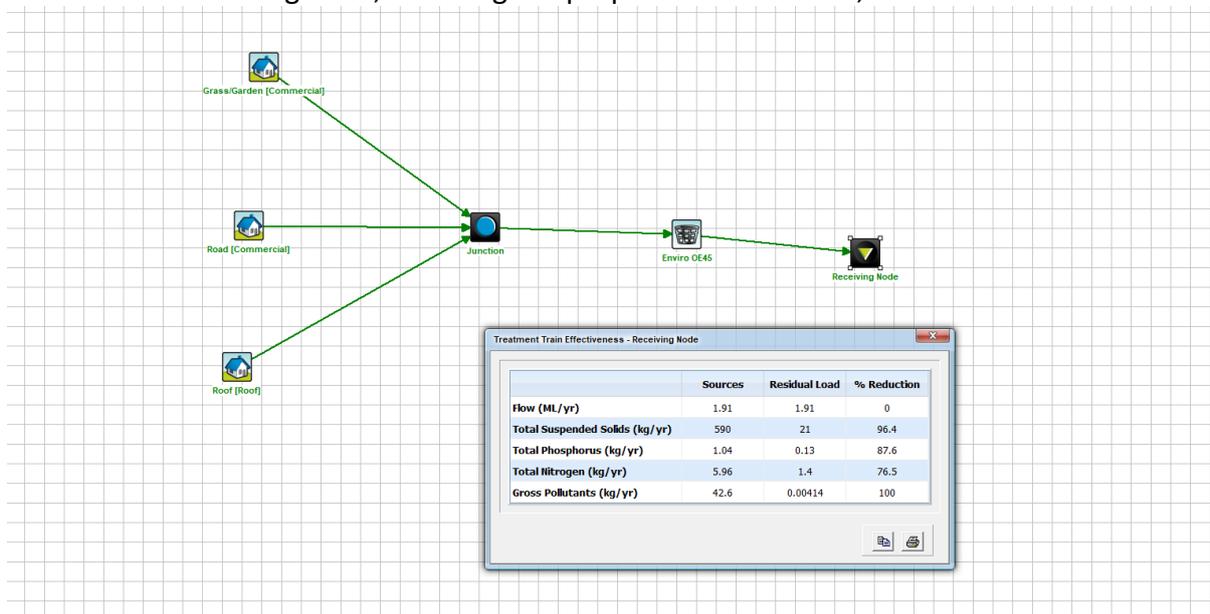
MUSIC Model

The site has been modelled as a commercial use, and the following schematic shows the treatment solution adopted for the site.



MUSIC Model Results

The development has been considered holistically for water quality analysis to ensure the development meets the required water quality objectives. The results from the MUSIC model at the receiving node, including the proposed Enviro OE45, are shown below.



The following table compares the MUSIC modelling analysis to the required load reduction targets.

	Totally suspended Solids	Total Phosphorus	Total Nitrogen	Gross Pollutants
Minimum Percentage Reductions (SPP)	85	60	45	90
Achieved Percentage Reductions	96.4	87.6	76.5	100
WQO's Achieved?	Yes	Yes	Yes	Yes

Conclusion

The proposed stormwater treatment model complies with Council's policy of promoting the management of stormwater to mitigate the impacts of urban developments. The WSUD measures and detention system as discussed in this report are to be incorporated in the stormwater design of this development to ensure the council's set objectives are achieved.

APPENDIX C

Enviro Australia OE45 standard drawings



Enviro 'OE45' is a full retention oily water separator compliant with EN 858-1 and includes emergency spill protection to 10,000 litres

Flow rates based at 1% pipe gradient:-
Treated Flow.....66 L/sec

MASS:
(Based on "D" Class Covers)

Total mass for delivery based on minimum invert is 10 tonnes

REV.	DESCRIPTION	DATE	APPROVED
0	Technical Specification Created	08-July-21	LC
REVISIONS			

For further assistance: -
 Technical Support Ph:+61 8 8564 2347
 Email: info@enviroaustralis.com.au
 The design and details shown in this drawing remain the property of Enviro Aus Pty Ltd ACN 616 059 806 and must not be copied, used, disclosed or communicated to any party unless with the express permission of Enviro Aus Pty Ltd with whom copyright resides.

Enviro OE45

General Notes

The Enviro 'OE45' is an Australia Designed and Manufactured Device for the removal of pollutants including oils from run-off water. The Enviro 'OE45' is normally installed in-line within new or existing drainage pipes and can be adapted to be installed in an open channel if required. The device does not require any power, utilising the energy in the water flow to separate and contain pollutants for periodical removal by evacuation equipment. Internal surface can be inspected and washed as required, whilst screens can be removed and also cleaned if and as required.

The Enviro 'OE45' are a unique oil/water Separator as well as a Stormwater Quality Improvement Devices (SQID's) which has undergone extensive performance stress testing by independent authorities. These tests indicate compliance with Environmental Protection Authority (EPA) Legislation and Guidelines which prohibit the discharge of pollutants into stormwater. The aim of the Enviro 'OE45' is to restore water quality to a safe and environmentally sustainable state, which pre-existed urbanisation. The application is aimed at any catchment, where an oil spill risk may exist.

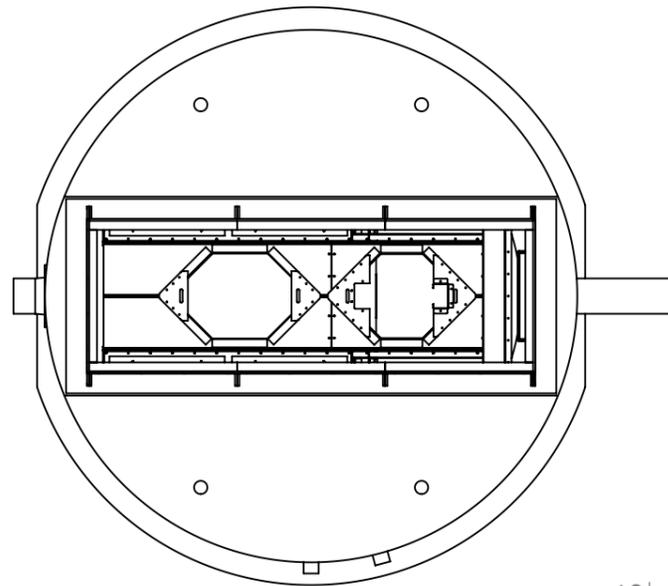
Recommendations made in the Australian Run-Off Quality Guideline 2007 (ARQ) are adhered to. The 'OE' models also comply with EN-858-1, Class 1 oil/water separators.

Specifications: -

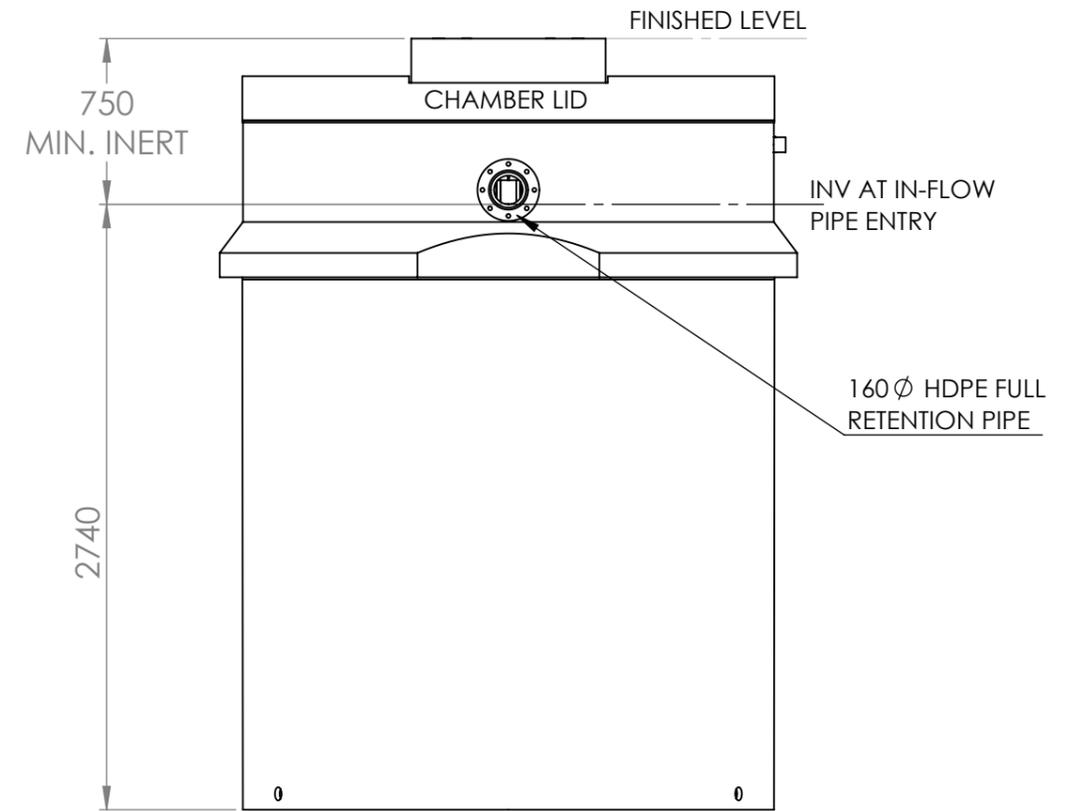
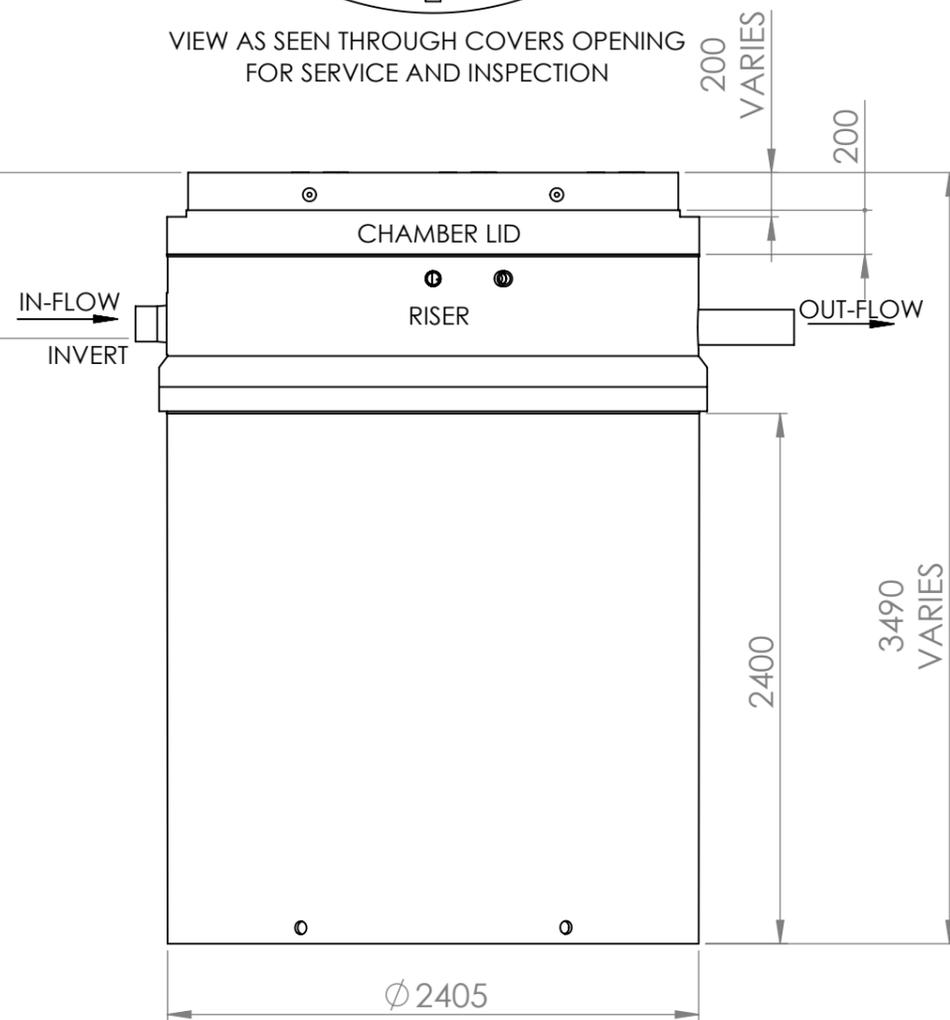
- Design service life 100 years for fixed parts and 25 years for replacement parts
- Hydraulic Resistance k factor = 0.425
- Inlet to outlet differential = 25mm
- Concrete chamber, risers and cover slabs are designed and manufactured in accordance with AS3600-2009 and under Quality Assurance 9001.
- Covers are designed and tested in accordance with AS3996 – 2006 Access Covers and Grates
- Internal components are manufactured from high grade, stainless steel to comply with International Corrosion Standards. There is no welding used. This complies with advice from both the American and Australian Institute of Engineers warning that welded stainless steel exposed to bacterial charged water can result in early corrosion and failure
- 'OE45' performance testing verifies the following pollutant removal rates. The testing was performed across a range of concentrations and flow rates which replicated various run-off water conditions and confirmed: -

7.1. gross pollutants, reduction exceeds	95%
7.2. suspended solids, reduction exceeds	90%
7.3. total phosphorous, (TP) retention	97%
7.4. total nitrogen, (TN) retention	85%
7.5. total hydrocarbons.....	99.95%
7.6. Oil Containment.....	10,000 litres
- The lower storage chamber has the capacity to hold the annual load discharged from a catchment based on the ARQ Section 3.7 recommended allowance of 1m³/ha/ann.
- An important feature of the Enviro 'OE45' is that all in flow is treated in accordance with EPA requirements that fuel-dispensing zones cannot discharge oil contaminants particularly as a result of emergency oil spills into environmental flows. Provision has been allowed for the installation of alarms and automatic evacuation systems.
- Particle size capture is set to retain all particles greater than 500µ and to then retain a majority of particles to less than 100µ.
- Hydrocarbon retention occurs in a separate chamber which operates as a best practice oil and grease arrestor
- Re-suspension of hydrocarbons and all retained materials is prevented by including separate chambers for separation from flow and retention.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		<h1>ENVIRO</h1>
BENDING RADIUS	K - FACTOR	
PREPARED BY Logesh S		TITLE: ENVIRO OE45 SPECIFICATIONS AND TECHNICAL DATA
APPROVED BY L Crastl		
DATE 08-Jul-21		
MATERIAL: CONCRETE & S/STEEL		ASSEMBLY: SPECIFICATIONS
WEIGHT:		A3
SCALE: NTS		REV:
SHEET 1 OF 5		



750
MIN. DEPTH
TO INVERT
VARIES



General Table		
CLASS	OVERALL HEIGHT	DEPTH TO INVERT
'D' CLASS	3490 mm	750 mm

The design and details shown in this drawing remain the property of Enviro Aus Pty Ltd ACN 616 059 806 and must not be copied, used, disclosed or communicated to any party unless with the express permission of Enviro Aus Pty Ltd with whom copyright resides.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	
BENDING RADIUS	K - FACTOR
PREPARED BY	Logesh S
APPROVED BY	L Crasti
DATE	08-Jul-21
MATERIAL:	
CONCRETE & STEEL	

ENVIRO

TITLE:
**ENVIRO OE45
GENERAL ARRANGEMENT**

ASSEMBLY:
SPECIFICATIONS

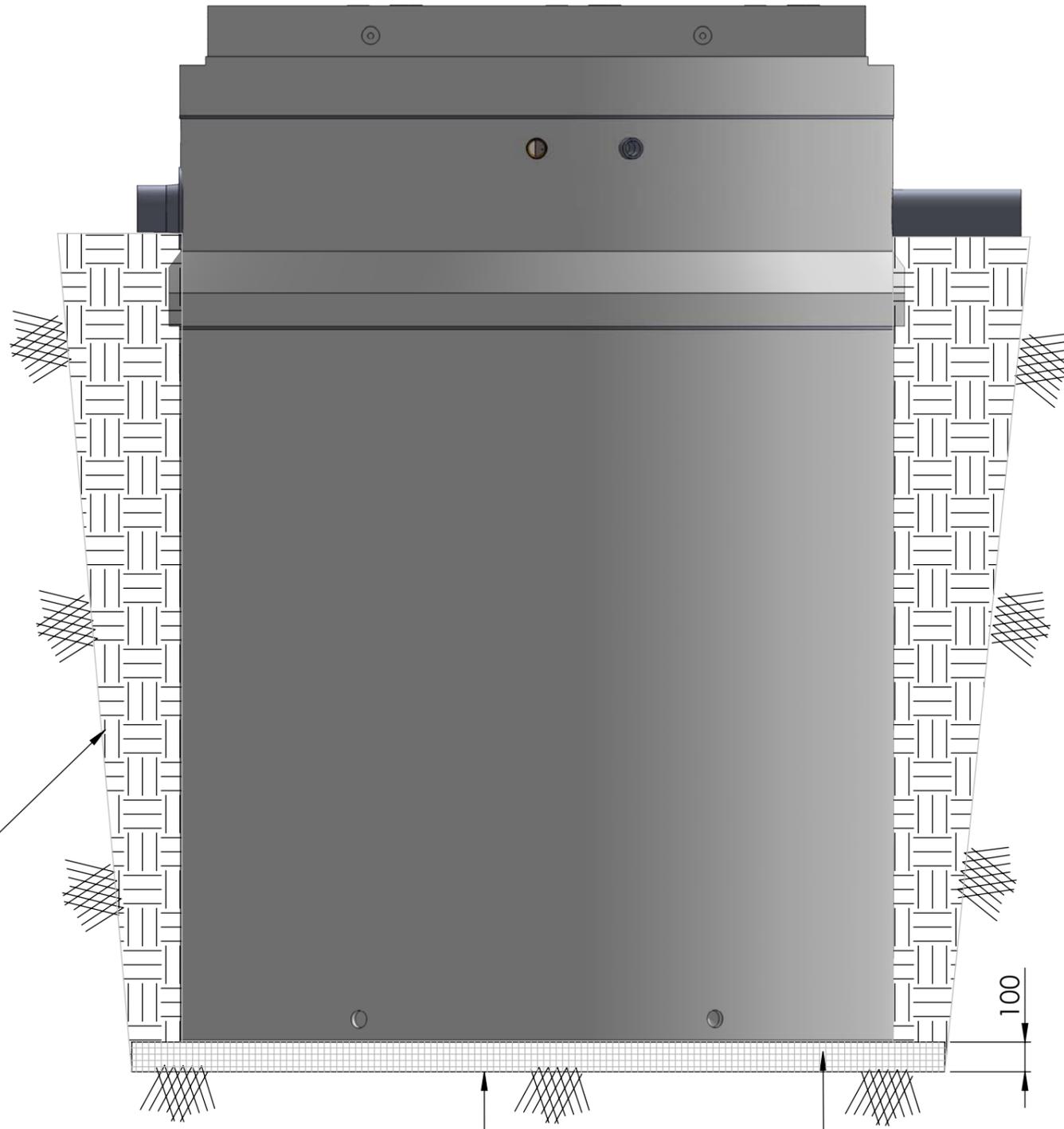
A3

REV:

SCALE: NTS

SHEET 2 OF 5

FINISHED SURFACE LEVEL



BACKFILL WITH RUBBLE
PREFERED OR NATURAL
SOIL FREE OF CLAY
LUMPS, VEGETATION
AND OTHER
DELETERIOUS MATERIALS

SOIL BELOW EXCAVATION
COMPACTED TO AT LEAST
95% COMPACTION

100mm QUALITY RUBBLE
COMPACTED TO NOT LESS
THAN 98% STANDARD
COMPACTION

100

EXCAVATION VOLUME (WITH MINIMUM INVERT):

EXCAVATION VOLUME FROM CHAMBER BASE
TO PIPE INVERT - 33.2 m³

TOTAL EXCAVATION VOLUME - 53 m³

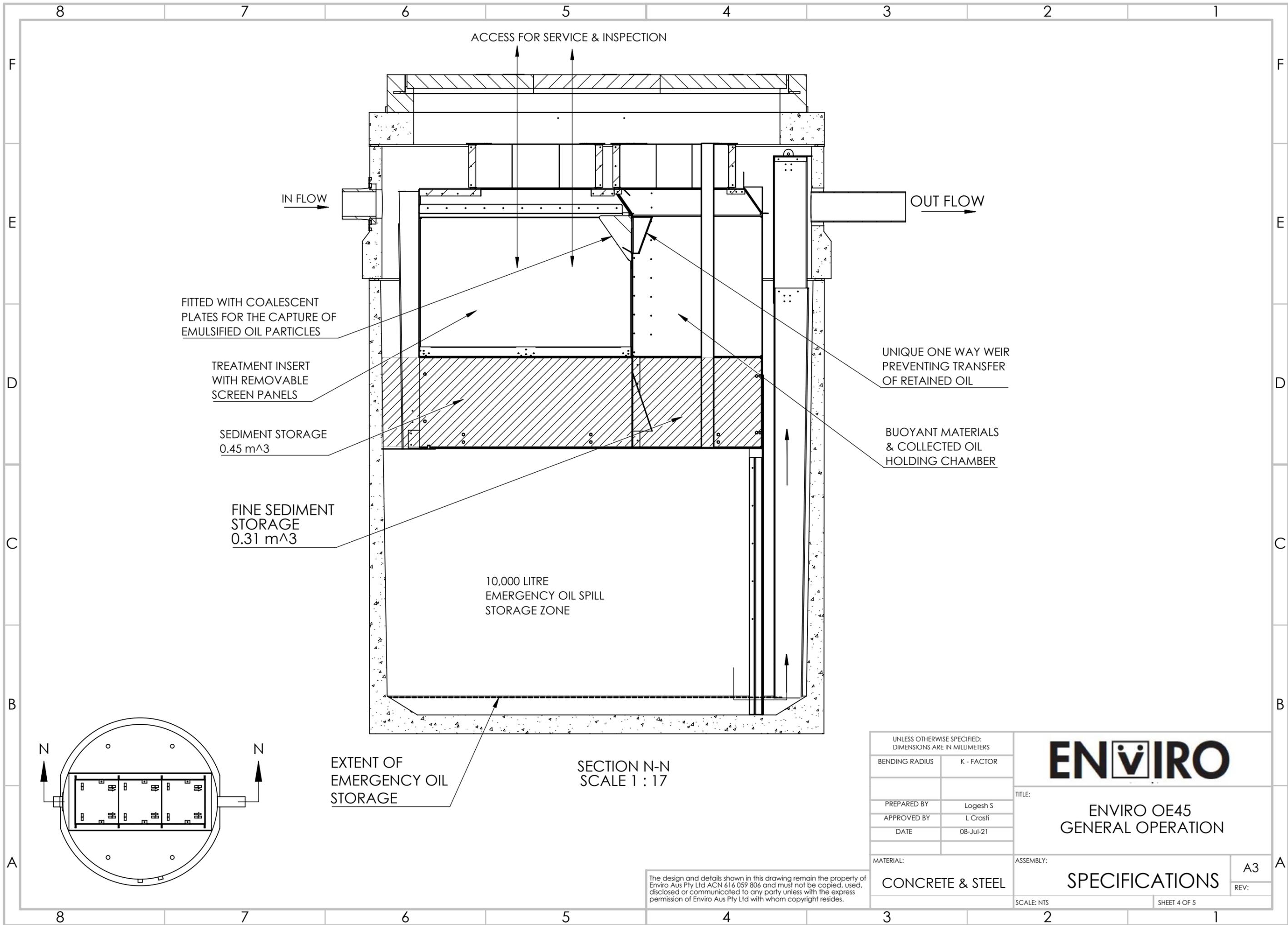
TOTAL BACKFILL VOULME = 37.5 m³

*TOTAL EXCAVATION & BACKFILL VOLUME ABOVE INVERT LEVEL CHANGES WITH INVERT HEIGHT.

The design and details shown in this drawing remain the property of Enviro Aus Pty Ltd ACN 616 059 806 and must not be copied, used, disclosed or communicated to any party unless with the express permission of Enviro Aus Pty Ltd with whom copyright resides.

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	
BENDING RADIUS	K - FACTOR
PREPARED BY	Logesh S
APPROVED BY	L Crasti
DATE	08-Jul-21
MATERIAL:	CONCRETE & STEEL

ENVIRO	
TITLE: ENVIRO OE45 SITE INSTALLATION	
ASSEMBLY: SPECIFICATIONS	A3
SCALE: NTS	SHEET 3 OF 5



ACCESS FOR SERVICE & INSPECTION

IN FLOW

OUT FLOW

FITTED WITH COALESCENT PLATES FOR THE CAPTURE OF EMULSIFIED OIL PARTICLES

TREATMENT INSERT WITH REMOVABLE SCREEN PANELS

SEDIMENT STORAGE
0.45 m³

FINE SEDIMENT STORAGE
0.31 m³

10,000 LITRE
EMERGENCY OIL SPILL
STORAGE ZONE

UNIQUE ONE WAY WEIR
PREVENTING TRANSFER
OF RETAINED OIL

BUOYANT MATERIALS
& COLLECTED OIL
HOLDING CHAMBER

EXTENT OF
EMERGENCY OIL
STORAGE

SECTION N-N
SCALE 1 : 17

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS	
BENDING RADIUS	K - FACTOR
PREPARED BY	Logesh S
APPROVED BY	L Crasti
DATE	08-Jul-21
MATERIAL:	
CONCRETE & STEEL	

ENVIRO

TITLE:
ENVIRO OE45
GENERAL OPERATION

ASSEMBLY:
SPECIFICATIONS

A3

REV:

SCALE: NTS

SHEET 4 OF 5

The design and details shown in this drawing remain the property of Enviro Aus Pty Ltd ACN 616 059 806 and must not be copied, used, disclosed or communicated to any party unless with the express permission of Enviro Aus Pty Ltd with whom copyright resides.

Mass Properties

oil volume.SLDPRT

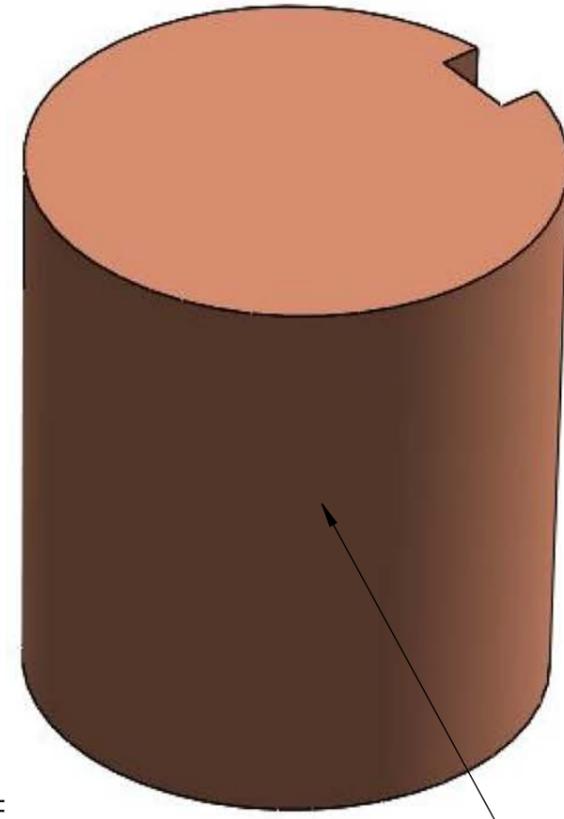
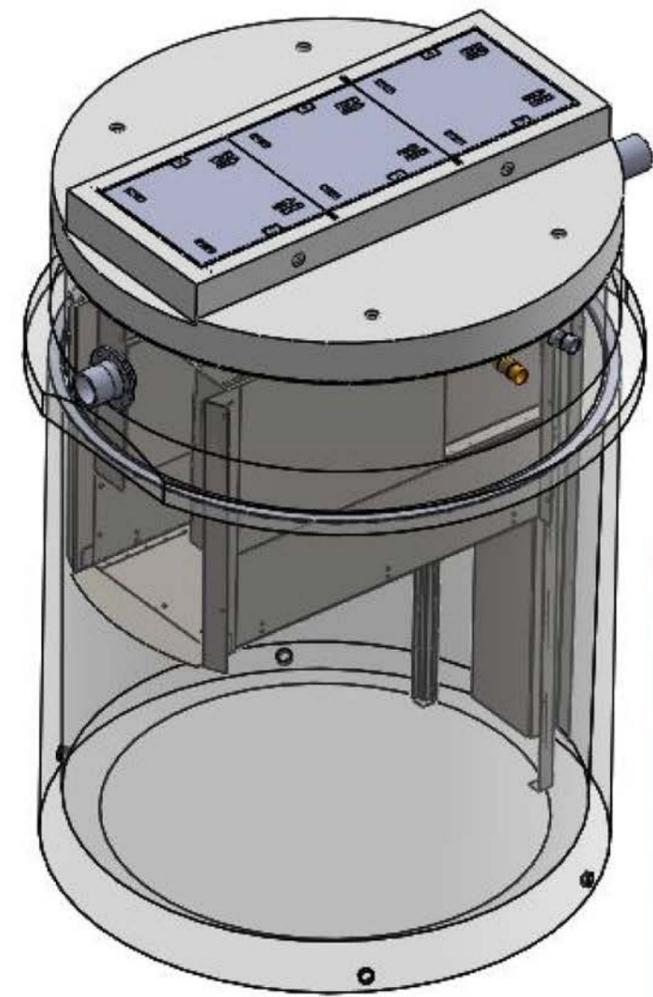
Override Mass Properties...

Recalculate

- Include hidden bodies/components
- Create Center of Mass feature
- Show weld bead mass

Report coordinate values relative to: -- default --

Mass properties of oil volume
 Configuration: Default
 Coordinate system: -- default --
 Density = 1000000.00 grams per cubic meter
 Mass = 10033322.67 grams
 Volume = 10.03 cubic meters



Emergency Spill Oil Storage Volume

NOTE:
 SHAPE OF 10,000 LITRE EMERGENCY SPILL VOLUME
 REMOVED FROM THE CHAMBER FOR CLARITY

UNLESS OTHERWISE SPECIFIED: DIMENSIONS ARE IN MILLIMETERS		ENVIRO	
BENDING RADIUS	K - FACTOR		
PREPARED BY	Logesh S	TITLE: ENVIRO OE45 STORAGE VOLUME	
APPROVED BY	L Crasti		
DATE	08-Jul-21		
MATERIAL:	CONCRETE & STEEL	ASSEMBLY:	SPECIFICATIONS
The design and details shown in this drawing remain the property of Enviro Aus Pty Ltd ACN 616 059 806 and must not be copied, used, disclosed or communicated to any party unless with the express permission of Enviro Aus Pty Ltd with whom copyright resides.		SCALE: NTS	A3 REV: SHEET 5 OF 5

Our ref TMR21-034491
Your ref
Enquiries Anton DeKlerk



Department of
Transport and Main Roads

17 November 2021

Gracemere Centre Pty Ltd (as trustee) Gracemere Centre Trust
c/- Gideon Town Planning
PO Box 450
Rockhampton City QLD 4700

Decision Notice – Permitted Road Access Location **(s62(1) Transport Infrastructure Act 1994)**

This is not an authorisation to commence work on a state-controlled road¹

Development application reference number D/131-2021, lodged with Rockhampton Regional Council involves constructing or changing a vehicular access between Lot 10RP611674, 9RP611674, the land the subject of the application, and Road 450 Gavial – Gracemere Road (also known as Lawrie Street) (a state-controlled road) at approximate Chainage 9.892km (RHS) and Chainage 9.931km (RHS).

In accordance with section 62A(2) of the *Transport Infrastructure Act 1994* (TIA), this development application is also taken to be an application for a decision under section 62(1) of TIA.

Decision (given under section 67 of TIA)

It has been decided to approve the application, subject to the following conditions:

No.	Conditions of Approval	Condition Timing
Road Access Location		
1	The permitted road accesses are to be located generally in accordance with Proposed Site Plan prepared by Intotum, dated 28 September 2021, reference 2021046-DA-A100 and revision C, at: <ul style="list-style-type: none">Egress – at approximate Chainage 9.892km (RHS) (Lat: -23.438713; Long:150.457657)Ingress – at approximate Chainage 9.931km (RHS) (Lat: -23.438417; Long: 150.457417)	At all times.
2	Road access works comprising ingress (at the permitted road access location), must be provided generally in accordance with Type A Two Way Access Commercial Driveway Slab prepared by Capricorn Municipal Development Guidelines dated December 2016, reference CMDG-R-042 and revision F. (i) The ingress must be modified to be angled towards the north, preventing egress from the site to the state-controlled road (Lawrie Street).	Prior to the commencement of use.

¹ Please refer to the further approvals required under the heading 'Further approvals'

No.	Conditions of Approval	Condition Timing
	<ul style="list-style-type: none"> (ii) The ingress from the state-controlled road (Lawrie Street) to the site must be limited to left-in movements only. (iii) "No Entry" (R2-4) signs must be provided within the site on both sides of the ingress (facing towards the site), in accordance the Manual of Uniform Traffic Control Devices (MUTCD). (iv) "Directional arrows" via line marking must be provided on the access to reinforce ingress direction. 	
3	<p>Road access works comprising egress (at the permitted road access location), must be provided generally in accordance with Type A Two Way Access Commercial Driveway Slab consistent with Capricorn Municipal Development Guidelines dated December 2016, reference CMDG-R-042 and revision F.</p> <ul style="list-style-type: none"> (i) The egress must be modified to be angled towards the south, preventing ingress to the site from the state-controlled road (Lawrie Street). (ii) The egress to the state-controlled road must be limited to left-out movements only. (iii) "All traffic turn left" (R2-14(L)) signs must be provided within the site on both sides of the egress (facing towards the site) in accordance the MUTCD. (iv) "Directional arrows" via line marking must be provided in on the access to reinforce egress direction. 	Prior to the commencement of use.
4	<p>"No Stopping" (R5-35 (L & R)) signs, supplemented with a painted yellow pavement line marking between the ingress and the egress driveways must be provided in accordance with the requirements of the MUTCD.</p>	Prior to the commencement of use.
5	<p>The use of the accesses is for a service station and limited to 19m semi-trailers.</p>	At all times.
6	<p>Direct access is prohibited between Lawrie Street (the state-controlled road) and Lot 9 RP611674 and Lot 10 RP611674 at any other location other than the permitted road access locations described in Condition 1.</p>	At all times.
7	<p>Any other existing vehicular property access (other than described in condition 1) located between Lot 9 RP611674 and Lot 10 RP611674 and Lawrie Street (the state-controlled road) must be permanently closed and removed and the verge areas and table drains reinstated to a condition similar to the adjacent verge areas.</p>	Prior to the commencement of use.
8	<p>The road accesses are to be constructed and maintained at no cost to the department in accordance with section 64(a) & (b) of the <i>Transport Infrastructure Act 1994</i>.</p>	At all times.

No.	Conditions of Approval	Condition Timing
9	The applicant shall be responsible for all maintenance works for the accesses in accordance with Module 9 of the Local Government Association of Queensland document 'TMR/Local Government Cost Sharing Arrangement', dated October 2017.	At all times
10	All vehicles entering and/or exiting the property via the Permitted Road Access locations must travel in a forward direction only.	At all times.
11	Reasonable steps are taken to ensure that the permitted road accesses are used by others in accordance with these conditions.	At all times.

Reasons for the decision

The reasons for this decision are as follows:

- a) To maintain the safety and efficiency of the state-controlled road.
- b) To ensure the vehicular accesses are consistent with the functional requirements of the state-controlled road.
- c) To ensure the vehicular accesses do not compromise safety of the users of the state-controlled road network or any other transport infrastructure.
- d) To ensure vehicle movements and use of the accesses will not create any significant impacts to the pavement of the state-controlled road.
- e) To ensure the vehicle accesses are built to the relevant standard required to suit a 19m semi-trailer.
- f) To ensure the turning movements of vehicles entering and exiting the premises via the road accesses maintains the safety and efficiency of the state-controlled road.
- g) To ensure the road works on, or associated with, the state-controlled road network is undertaken in accordance with applicable standards.

Please refer to **Attachment A** for the findings on material questions of fact and the evidence or other material on which those findings were based.

Information about the Decision required to be given under section 67(2) of TIA

1. There is no guarantee of the continuation of road access arrangements, as this depends on future traffic safety and efficiency circumstances.
2. In accordance with section 70 of the TIA, you are bound by this decision. A copy of section 70 is attached as **Attachment B**, as required, for your information.

Further information about the decision

1. In accordance with section 67(7) of TIA, this decision notice:
 - a) starts to have effect when the development approval has effect; and
 - b) stops having effect if the development approval lapses or is cancelled; and
 - c) replaces any earlier decision made under section 62(1) in relation to the land.
2. In accordance with section 485 of the TIA and section 31 of the *Transport Planning and Coordination Act 1994* (TPCA), a person whose interests are affected by this decision may apply for a review of this decision only within 28 days after notice of the decision was given under the

TIA. A copy of the review provisions under TIA and TPCA is attached in **Attachment C** for your information.

3. In accordance with section 485B of the TIA and section 35 of TPCA you may appeal against a reviewed decision. You must have applied to have the decision reviewed before an appeal about the decision can be lodged in the Planning and Environment Court. A copy of the Appeal Provisions under TIA and TPCA is attached in **Attachment C** for your information.

Further approvals

The department also provides the following information in relation to this approval:

1. Road Works approval required – Written approval is required from the department to carry out road works that are road access works (including driveways) on a state-controlled road in accordance with section 33(1) of the TIA. This approval must be obtained prior to commencing any works on the state-controlled road. The approval process may require the approval of engineering designs of the proposed works, certified by a Registered Professional Engineer of Queensland (RPEQ). Please contact the department to make an application for road works approval.

If you require further information about this approval or any other related query, I encourage you to contact Mr Anton DeKlerk, Principal Town Planner by email at CorridorManagement@tmr.qld.gov.au or on (07) 4931 1500.

Yours sincerely



Anton DeKlerk
Principal Town Planner

Attachments: Attachment A – Decision evidence and findings
Attachment B - Section 70 of TIA
Attachment C - Appeal Provisions
Attachment D - Proposed Site Plan prepared by Intotum, dated 28 September 2021, reference 2021046-DA-A100 and revision C
Attachment E - Module 9 of the Local Government Association of Queensland document 'TMR/Local Government Cost Sharing Arrangement', dated October 2017

Attachment A

Decision Evidence and Findings

Findings on material questions of fact:

- Access to the site is proposed via a left-in (Entry Only) and left-out (Exit Only) from Lawrie Street, Gracemere, which is a State-controlled Road (SCR).
- A Traffic Impact Assessment (TIA) report was provided in support of the application.
- The proposed development sets out provisions for two-vehicle access driveways to be located along the state-controlled road (Lawrie Street). One access will be an ingress (left-turn in only) and the other will be an egress (left-turn out only).
- Swept path drawings have also been provided for a 19m semi-trailer, being the largest vehicle to enter the site, via the permissible access points from Lawrie Street. It was demonstrated that a 19m semi-trailer can enter and exit the subject site.
- The subject site does not contain any pedestrian footpath fronting the subject site. However, TMR is in the process of upgrading a portion of Lawrie Street which will include pedestrian and/or cycle paths. Therefore, to ensure pedestrian connectivity from the Gracemere town centre to the subject site, TMR will condition a 2m wide pedestrian footpath for the full frontage of the subject site, parallel with Lawrie Street.
- The nearest TransLink Bus Stop on Lawrie Street is located on the opposite side of the road at approximate Chainage 9.93km. The proposed development will only provide a left-in and a left-out access from Lawrie Street and therefore will not interfere with existing public transport infrastructure.
- A Stormwater Management Plan was provided in support of the application. The proposed development proposes to install two detention basins within the service station area to hold excess stormwater caused by post development impact. The stormwater will be discharged into the lawful discharge point at Lawrie Street before overtopping the driveway.

Evidence or other material on which findings were based:

Title of Evidence / Material	Prepared by	Date	Reference no.	Version / Issue
Confirmation Notice	Rockhampton Regional Council	15 October 2021	D/131-2021	-
Planning Report	Gideon Town Planning	30 September 2021	GTP 2138	Final
Traffic Impact Assessment	McMurtrie Consulting Engineers	24 September 2021	0272122	B
Stormwater Management Plan	McMurtrie Consulting Engineers	27 September 2021	0272122	A
Stormwater Management Plan	McMurtrie Consulting Engineers	27 September 2021	027-21-21-SMP-02	A
Proposed Plans	Intotum	28 September 2021	2021046-DA-A100 2021046-DA-A120 2021046-DA-F151 2021046-DA-S100 2021046-DA-S400	C A A A A

Attachment B

Section 70 of TIA

Transport Infrastructure Act 1994

Chapter 6 Road transport infrastructure

Part 5 Management of State-controlled roads

70 Offences about road access locations and road access works, relating to decisions under s 62(1)

- (1) This section applies to a person who has been given notice under section 67 or 68 of a decision under section 62(1) about access between a State-controlled road and adjacent land.
- (2) A person to whom this section applies must not—
 - (a) obtain access between the land and the State-controlled road other than at a location at which access is permitted under the decision; or
 - (b) obtain access using road access works to which the decision applies, if the works do not comply with the decision and the noncompliance was within the person's control; or
 - (c) obtain any other access between the land and the road contrary to the decision; or
 - (d) use a road access location or road access works contrary to the decision; or
 - (e) contravene a condition stated in the decision; or
 - (f) permit another person to do a thing mentioned in paragraphs (a) to (e); or
 - (g) fail to remove road access works in accordance with the decision.

Maximum penalty—200 penalty units.

- (3) However, subsection (2)(g) does not apply to a person who is bound by the decision because of section 68.

Attachment C
Appeal Provisions

Transport Infrastructure Act 1994
Chapter 16 General provisions

485 Internal review of decisions

- (1) A person whose interests are affected by a decision described in schedule 3 (the *original decision*) may ask the chief executive to review the decision.
- (2) The person is entitled to receive a statement of reasons for the original decision whether or not the provision under which the decision is made requires that the person be given a statement of reasons for the decision.
- (3) The *Transport Planning and Coordination Act 1994*, part 5, division 2—
 - (a) applies to the review; and
 - (b) provides—
 - (i) for the procedure for applying for the review and the way it is to be carried out; and
 - (ii) that the person may apply to QCAT to have the original decision stayed.

485B Appeals against decisions

- (1) This section applies in relation to an original decision if a court (the appeal court) is stated in schedule 3 for the decision.
- (2) If the reviewed decision is not the decision sought by the applicant for the review, the applicant may appeal against the reviewed decision to the appeal court.
- (3) The *Transport Planning and Coordination Act 1994*, part 5, division 3—
 - (a) applies to the appeal; and
 - (b) provides—
 - (i) for the procedure for the appeal and the way it is to be disposed of; and
 - (ii) that the person may apply to the appeal court to have the original decision stayed.
- (4) Subsection (5) applies if—
 - (a) a person appeals to the Planning and Environment Court against a decision under section 62(1) on a planning application that is taken, under section 62A(2), to also be an application for a decision under section 62(1); and

(b) a person appeals to the Planning and Environment Court against a decision under the Planning Act on the planning application.

(5) The court may order—

(a) the appeals to be heard together or 1 immediately after the other; or

(b) 1 appeal to be stayed until the other is decided.

(6) Subsection (5) applies even if all or any of the parties to the appeals are not the same.

(7) In this section—

original decision means a decision described in schedule 3.

reviewed decision means the chief executive's decision on a review under section 485.

31 Applying for review

- (1) A person may apply for a review of an original decision only within 28 days after notice of the original decision was given to the person under the transport Act.
- (2) However, if—
 - (a) the notice did not state the reasons for the original decision; and
 - (b) the person asked for a statement of the reasons within the 28 days mentioned in subsection (1)the person may apply within 28 days after the person is given the statement of the reasons.
- (3) In addition, the chief executive may extend the period for applying.
- (4) An application must be written and state in detail the grounds on which the person wants the original decision to be reviewed.

32 Stay of operation of original decision

- (1) If a person applies for review of an original decision, the person may immediately apply for a stay of the decision to the relevant entity.
- (2) The relevant entity may stay the original decision to secure the effectiveness of the review and any later appeal to or review by the relevant entity.
- (3) In setting the time for hearing the application, the relevant entity must allow at least 3 business days between the day the application is filed with it and the hearing day.
- (4) The chief executive is a party to the application.
- (5) The person must serve a copy of the application showing the time and place of the hearing and any document filed in the relevant entity with it on the chief executive at least 2 business days before the hearing.
- (6) The stay—
 - (a) may be given on conditions the relevant entity considers appropriate; and
 - (b) operates for the period specified by the relevant entity; and
 - (c) may be revoked or amended by the relevant entity.
- (7) The period of a stay under this section must not extend past the time when the chief executive reviews the original decision and any later period the relevant entity allows the applicant to enable the applicant to appeal against the decision or apply for a review of the decision as provided under the QCAT Act.

(8) The making of an application does not affect the original decision, or the carrying out of the original decision, unless it is stayed.

(9) In this section—

relevant entity means—

(a) if the reviewed decision may be reviewed by QCAT—QCAT; or

(b) if the reviewed decision may be appealed to the appeal court—the appeal court.

35 Time for making appeals

(1) A person may appeal against a reviewed decision only within—

(a) if a decision notice is given to the person—28 days after the notice was given to the person; or

(b) if the chief executive is taken to have confirmed the decision under section 34(5)—56 days after the application was made.

(2) However, if—

(a) the decision notice did not state the reasons for the decision; and

(b) the person asked for a statement of the reasons within the 28 days mentioned in subsection (1)(a);

the person may apply within 28 days after the person is given a statement of the reasons.

(3) Also, the appeal court may extend the period for appealing.